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PeopleSoft Query Reporting Rel 8.50

Volume I - Student Guide

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Lesson 1

Course Overview

Note. The appearance of the page shots in the guide may not always match the training environment. This is due to updates that have been applied to the training environment after the course guide was released. The functionality of the software has not changed.

Objectives

By the end of this course, you will be able to:

- Describe query reporting.
- Use Query Manager.
- Create simple queries.
- Filter outputs.
- Work with multiple tables.
- Use summary calculations.
- Perform administrative tasks.
- Create expressions, and use drilling URLs in PeopleSoft Query.
- Implement the Any-joins and Outer-join features.
- Use subqueries and unions.
- Use Connected Query.

Slide 3

Agenda

Day One

Today, we will provide an overview of PeopleSoft Query and discuss these topics:

- Using Query Manager.
- Creating a simple query.
- Filtering output with criteria.
- Filtering output with runtime prompts.
- Working with multiple tables.
- Using summary calculations.
- Performing administrative tasks.

Slide 4

Agenda (continued)

Day Two

This class will provide an overview of advanced PeopleSoft Query functionality and discuss the following topics:

- Creating expressions.
- Using drilling URLs in PeopleSoft Query.
- Implementing the Any-join feature.
- Using subqueries.
- Working with unions.
- Performing outer joins.
- Using Connected Query.
- Performing a final activity.

Slide 5

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Lesson 2

Technology Overview

Objectives

By the end of this lesson, you will be able to:

- Describe PeopleSoft Query.
- Describe the benefits of using PeopleSoft Query Manager.
- Describe query expressions.
- Describe drilling URLs in PeopleSoft Query.
- Describe the Any-join feature.
- Describe subqueries.
- Describe unions.
- Describe outer joins.
- Describe Connected Query.
- Find information about PeopleSoft Query Manager in PeopleBooks.

Slide 7

Describing PeopleSoft Query

PeopleSoft Query

This diagram illustrates the tables (records), columns (fields), and rows (field data) that you find in database:

Select From PS_PSU_CRS_SESSN				
	Course	Session_NBR	Business_Unit	Start_Date
1	1001	1	NAM04	2000-01-12 00:00:00.0000
2	1001	2	NAM04	2000-01-19 00:00:00.0000
3	1001	3	NAM04	2000-02-02 00:00:00.0000
4	1001	4	NAM04	2000-02-09 00:00:00.0000
5	1001	5	NAM04	2000-03-09 00:00:00.0000
6	1001	21	NAM02	2001-07-12 00:00:00.0000
7	1001	22	CORPS	2001-07-26 00:00:00.0000
8	1001	23	CORPS	2001-08-09 00:00:00.0000

Select From PS_PSU_COURSE_TBL				
	Course	EFFDT	EFF_STATUS	DESCR
1	1001	1997-01-01 00:00:00.0000	A	PeopleTools I
2	1001	1998-01-01 00:00:00.0000	A	PeopleTools I
3	1001	1999-01-01 00:00:00.0000	A	PeopleTools I
4	1001	2000-06-01 00:00:00.0000	A	PeopleTools I
5	1001	2001-04-01 00:00:00.0000	A	PeopleTools I
6	1002	1997-01-01 00:00:00.0000	A	PeopleTools II
7	1002	1999-04-01 00:00:00.0000	A	PeopleTools II
8	1003	1997-01-01 00:00:00.0000	A	Intro to Human Resource
9	1003	1998-01-01 00:00:00.0000	A	Intro to Human Resource

Slide 8

Student Notes

PeopleSoft Query

PeopleSoft Query is an end-user reporting tool. You use queries to retrieve information from the database to the users' interfaces.

With PeopleSoft Query, you can extract the precise information that you're looking for using visual representations of the PeopleSoft database without writing SQL statements.

Database Elements

Databases comprise:

- Tables (records)

Tables are composed of columns and rows. In PeopleSoft databases, tables are built from record definitions (or records for short). Record definitions are used by PeopleSoft Query to represent the tables.

The Course Session table (PSU_CRS_SESSN) and the Course table (PSU_COURSE_TBL) are records in the PeopleSoft database.

- Columns (fields)

Columns store single pieces of information for each row.

Start Date (START_DATE) is a column in the Course Session table (PSU_CRSS_SESSN).

- Rows (field data)

A row contains all the information for a unique combination of key values on the table.

For example, in the Course table (PSU_COURSE_TBL), a row includes the data for fields: COURSE, EFFDT, EFF_STATUS, and DESCR.

- Keys

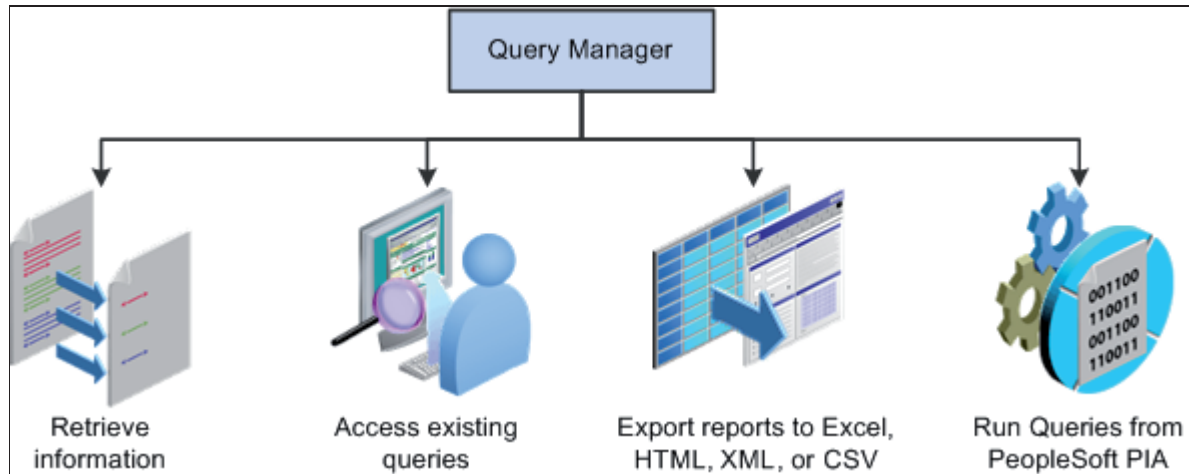
Keys are one or more columns on a table that make each row unique from the others.

The key fields for the Course table (PSU_COURSE_TBL) are Course (COURSE) and Effective Date (EFF_DATE.)

Describing the Benefits of Using PeopleSoft Query Manager

Query Manager

This diagram lists the features that Query Manager provides for obtaining database information:



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Student Notes

Query Manager

Query Manager provides users with various methods to obtain information from the database including:

- The ability to easily retrieve user-requested information.
- The ability to easily access and modify existing queries.
- The option to export to various report types.
- The ability to run queries from PeopleSoft Pure Internet Architecture.

Obtaining Information Using Query Manager

Query Manager uses these methods to obtain information from the database:

- Filtering data by using the criteria feature.
- Creating expressions.
- Using multiple record joins to obtain detailed information that is not found in a single record.
- Using runtime prompts, which enables users to enter values at runtime to obtain specific results.

Common Terms Used in Query Manager

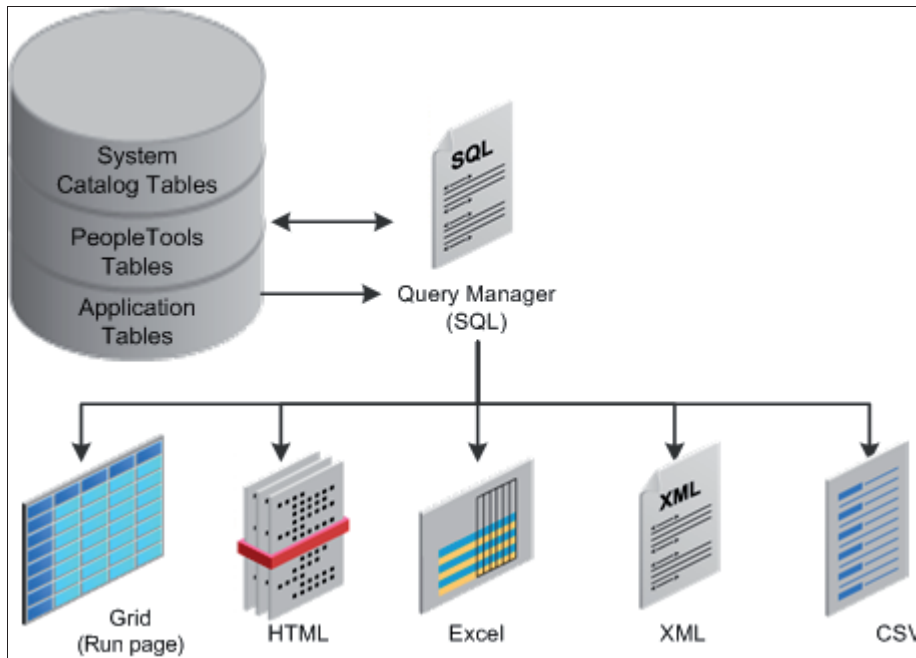
This table contains terms that help you understand Query Manager:

Term	Definition
Edit	Click this link to modify or view results of existing queries.
Aggregate	Performs a computation on a set of values rather than on a single value.
Criteria	Refines the query by specifying conditions that the retrieved data must meet.
Data Row	Contains the values for each field in a table. To identify each data row uniquely, the system uses a key consisting of one or more fields in the table.
Distinct	Removes duplicate rows of data.
Effective Date	Dates information in the system. You can predate information to add historical data to the system, or postdate information in order to enter it before it actually goes into effect. Effective date criteria are usually compared to the system's current date.
Expression	Calculates a formula that PeopleSoft Query returns as part of a query.
Field	Contains the smallest unit of information that you access.
Metadata	Information about data. Metadata is the information that a database or application stores to describe its own business data. Metadata can also describe more complex data relationships.
Primary Key Fields	One or more columns on a table that make each row unique from the others.
Record Hierarchy Join	A record hierarchy join is a virtual connection between a parent table and a child table. A <i>child table</i> is a table that uses all the same key fields as its parent, plus one or more additional keys. You can specify the parent/child relationship by using the Parent Record Name option in PeopleSoft Application Designer.
Related Record Join	A related record join is a virtual connection between two records with common fields.
Feed	Hover over to view the feeds of this query.
Manage Feed	Click to access the PSQuery Data Type - Publish as Feed page where you can define feed properties such as the feed title, security, and other options.

Describing the Benefits of Using PeopleSoft Query Manager (continued)

PeopleSoft Query Data Retrieval from Database to Report

This diagram illustrates how PeopleSoft Query accesses PeopleSoft databases and how queries are exported to other file types:



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Student Notes

PeopleSoft Query Data Retrieval From Database to Report

Use PeopleSoft Query Manager to extract information using Query's visual representations of the PeopleSoft database, without having to write SQL statements.

After retrieving the data, you have the option of exporting the data to various report formatting applications.

Both the browser-based Query Manager and windows-based Query Designer use the same method to retrieve data from the database.

Using the PeopleSoft Database

In a PeopleSoft database:

- Query definitions (metadata) are stored in the PeopleTools tables.
- The data values of the selected fields are stored in the application tables.

Describing Query Expressions

Expressions in Queries

Query expressions are a form of field manipulation that PeopleSoft Query performs as part of a query:

Query Expression	Example
Create calculations	A.PRICE + A.FREIGHT B.TRAINING_UNITS * 125
Modify field output	A.INSTRUCTOR '-' C.FIRST_NAME ' ' C.LAST_NAME

Slide 11

Student Notes

Expressions in Query

Use expressions to manipulate and view data differently than the way it is stored. Use expressions in two ways:

- In criteria.
- As columns in the query output.

The examples on the slide include three expressions:

- Addition (A.PRICE + A.FREIGHT).

The result displays the sum of the values in the PRICE and FREIGHT fields when you run the query.

- Multiplication (A.TRAINING_UNITS * 125).

The result displays the product of the value of the TRAINING_UNITS field multiplied by 125 when you run the query.

- Concatenation (A.INSTRUCTOR || '-' || C.FIRST_NAME || ' ' || C.LAST_NAME).

The result displays the instructor ID, a hyphen, the instructor's first name, a space, and the instructor's last name as one field when you run the query, for example, DXL-Dianne Long.

Describing Query Expressions (continued)

Query Methods

This diagram lists some methods and expressions that are applied to queries:

Method	Expression
Expressions Page User-defined calculations	B.TRAINING_UNITS * 125
Expressions Page Calculations using aggregates	Average B.TRAINING_UNITS * 125
Expressions Page Expressions are used to filter data in criteria	Expression 1: Average B.TRAINING_UNITS * 125 Condition Type: Greater Than Expression 2: 60000
Expressions Page Expressions to create external links	'MAILTO:' RTRIM(EMPLID) '@ORACLE.COM'

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Student Notes

Purposes of Expressions

Use expressions to:

- Perform calculations other than the predefined aggregates.
- Perform calculations against aggregated values.
- Filter data by using expressions as selection criteria.
- Access information from external sources using links as expressions.

Example: Expressions with Calculations

Use the Edit Expression Properties page in Query Manager to create expressions:

Edit Expression Properties

*Expression Type: Number Length:

Aggregate Function Decimals:

Expression Text:

[Add Prompt](#) [Add Field](#)

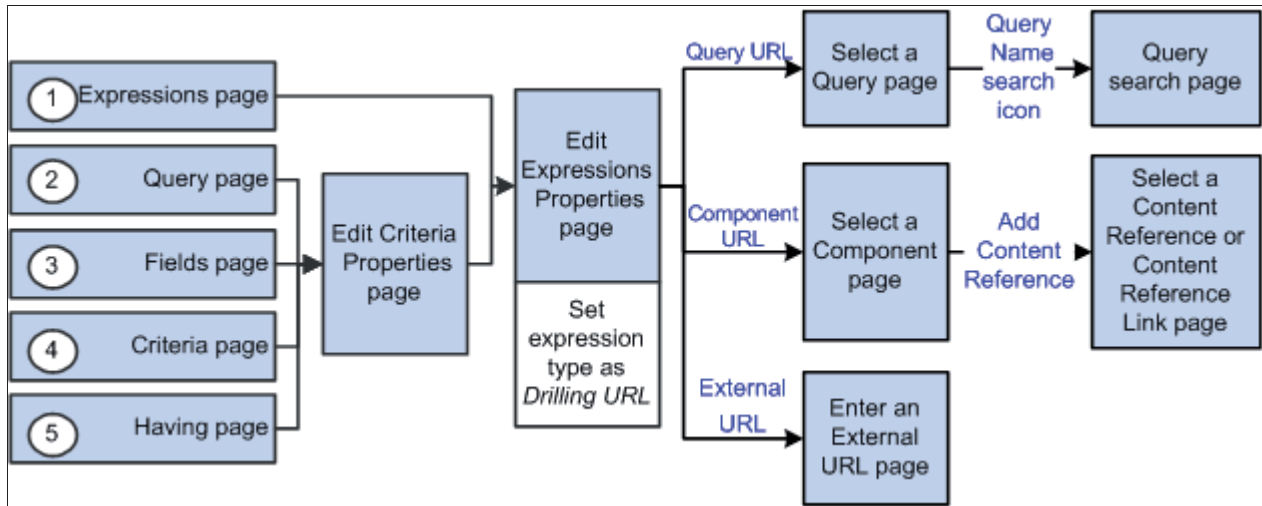
The previous expression calculates the values that you see in the Training Unit Cost column in this query:

Course Number	Descr	Session	Length	Instructor	Trn Loc	Room	Type	Training Unit Cost	
1	1033	Introduction to CRM	332	3.0	GXI - Gina Ireland	STH	X	CRM	225.00
2	1034	Call Desk Essentials	353	2.0	AGH - Anita G Huntingford	BOS	X	CRM	150.00
3	1005	General Ledger I	107	5.0	MEB - Mary Beilstein	TEA	C	Financials	375.00
4	1005	General Ledger I	111	5.0	SAS - Scott M. Sanchez	CORP	E	Financials	375.00
5	1005	General Ledger I	284	5.0	DHS - Doug Sharan	ATL	A	Financials	375.00
6	1005	General Ledger I	292	5.0	JCO - John Colaizzi	TEA	A	Financials	375.00
7	1005	General Ledger I	305	5.0	TEP - Tracy Pierce	TEA	A	Financials	375.00
8	1009	Payables	145	5.0	TEP - Tracy Pierce	ONSTE	O	Financials	375.00
9	1009	Payables	146	5.0	EAL - Elizabeth A Langley	WC	D	Financials	375.00
10	1009	Payables	147	5.0	TEP - Tracy Pierce	ONSTE	O	Financials	375.00

Describing Drilling URLs in PeopleSoft Query

Drilling URLs are the URLs that you define by selecting the menu, component, page, portal object, or URL of choice.

This diagram shows a high-level overview of how to build drilling URLs:



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Student Notes

Example of Drilling URLs in PeopleSoft Query

This is an example of the Run page with query results as links:

	Course Number	Descr	Session	Length	Instructor	Trn Loc	Room	Type
1	1033	Introduction to CRM	332	3.0	GXI - Gina Ireland	STH	X	CRM
2	1034	Call Desk Essentials	353	2.0	AGH - Anita G Huntingford	BOS	X	CRM
3	1005	General Ledger I	107	5.0	MEB - Mary Beilstein	TEA	C	Financials
4	1005	General Ledger I	111	5.0	SAS - Scott M. Sanchez	CORP	E	Financials
5	1005	General Ledger I	284	5.0	DHS - Doug Sharan	ATL	A	Financials
6	1005	General Ledger I	292	5.0	JCO - John Colaizzi	TEA	A	Financials
7	1005	General Ledger I	305	5.0	TEP - Tracy Pierce	TEA	A	Financials
8	1009	Payables	145	5.0	TEP - Tracy Pierce	ONSTE	O	Financials
9	1009	Payables	146	5.0	EAL - Elizabeth A Langley	WC	D	Financials
10	1009	Payables	147	5.0	TEP - Tracy Pierce	ONSTE	O	Financials
11	1009	Payables	148	5.0	TEP - Tracy Pierce	ONSTE	O	Financials
12	1009	Payables	149	5.0	TEP - Tracy Pierce	ONSTE	O	Financials

This is an example of query results in Microsoft Excel when you click the Excel link in Query Manager or Query Viewer. Note that the URL appears when you hover the mouse over a cell:

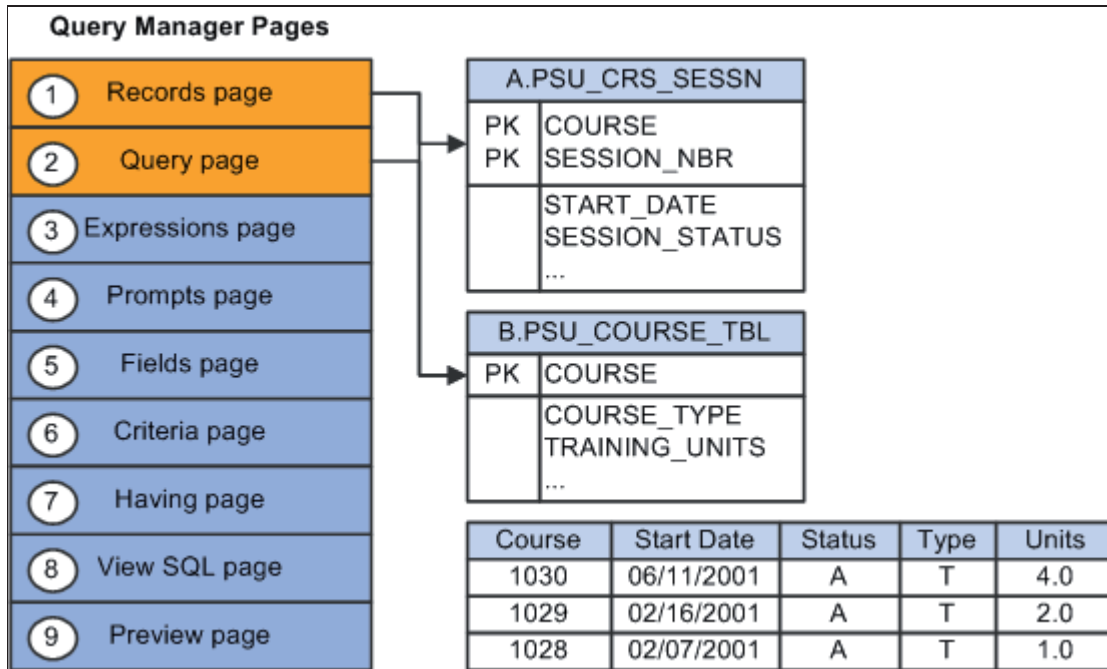
	Course Number	Descr	Session	Length	Instructor	Trn Loc	Room	Type
1	1033	Introduction to CRM	332	3.0	GXI - Gina Ireland	STH	X	CRM
2	1034	Call Desk Essentials	353	2.0	AGH - Anita G Huntingford	BOS	X	CRM
3	1005	General Ledger I	107	5.0	MEB - Mary Beilstein	TEA	C	Financials
4	1005	General Ledger I	111	5.0	SAS - Scott M. Sanchez	CORP	E	Financials
5	1005	General Ledger I	284	5.0	DHS - Doug Sharan	ATL	A	Financials
6	1005	General Ledger I	292	5.0	JCO - John Colaizzi	TEA	A	Financials
7	1005	General Ledger I	305	5.0	TEP - Tracy Pierce	TEA	A	Financials
8	1009	Payables	145	5.0	TEP - Tracy Pierce	ONSTE	O	Financials
9	1009	Payables	146	5.0	EAL - Elizabeth A Langley	WC	D	Financials
10	1009	Payables	147	5.0	TEP - Tracy Pierce	ONSTE	O	Financials
11	1009	Payables	148	5.0	TEP - Tracy Pierce	ONSTE	O	Financials
12	1009	Payables	149	5.0	TEP - Tracy Pierce	ONSTE	O	Financials
13	1009	Payables	145	5.0	TEP - Tracy Pierce	ONSTE	O	Financials
14	1009	Payables	146	5.0	TEP - Tracy Pierce	ONSTE	O	Financials
15	1009	Payables	147	5.0	TEP - Tracy Pierce	ONSTE	O	Financials
16	1009	Payables	148	5.0	SAS - Scott M. Sanchez	CORP	A	Financials
17	1009	Payables	149	5.0	TEP - Tracy Pierce	TEA	B	Financials
18	1010	nVision Reporting	151	3.0	MEB - Mary Beilstein	WSTCH	B	Financials

http://ple-infodev-14.us.oracle.com:8080/psc/T1B85001/EMPLOYEE/PSFT_TRN/q/?ICAction=ICQryNameURL=PUBLIC.CRSESESSIONS - Click once to follow. Click and hold to select this cell.

Describing the Any-Join Feature

Any-Join Characteristics

This example shows a high-level overview of an any-join:



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Student Notes

Any-Join Characteristics

Use Any joins to create queries based on multiple tables when the tables that you join are not in a parent-child hierarchy or related-record hierarchy.

You manually link the tables to retrieve the correct output.

The predefined joins are all equivalent joins. This means that rows are retrieved only when a match occurs between the field keys.

Example: Modifying a Query

Key fields uniquely identify a row of data. You identify key fields on Query page. They appear with a key symbol as in this example:

Records Query Expressions Prompts Fields Criteria Having View SQL Run

Query Name: CLS001 **Description:** Course Session List Feed

Click folder next to record to show fields. Check fields to add to query. Uncheck fields to remove from query. Add additional records by clicking the records tab. When finished click the fields tab.

Chosen Records

Alias Record

- A PSU_CRS_SESSN - PSU Course Session Table [Hierarchy Join](#)
- B PSU_COURSE_TBL [Hierarchy Join](#)

Fields Find | View All First 1-11 of 11 Last

<input type="checkbox"/>		COURSE - Course Code	
<input type="checkbox"/>		EFFDT - Effective Date	
<input type="checkbox"/>		EFF_STATUS - Status as of Effective Date	
<input checked="" type="checkbox"/>		DESCR - Description	
<input checked="" type="checkbox"/>		COURSE_TYPE - Course Type	
<input checked="" type="checkbox"/>		LENGTH_DAYS - Length (Days)	
<input type="checkbox"/>		TRAINING_UNITS - Training Units	
<input type="checkbox"/>		ONSITE - Available at Customer Site	
<input type="checkbox"/>		INSTRUCTOR - Instructor	
<input type="checkbox"/>		APP_REL - Application Release	
<input type="checkbox"/>		TOOLS_REL - PeopleTools Release	

[Join PSU_INSTR_TBL - PSU Instructor Table](#)

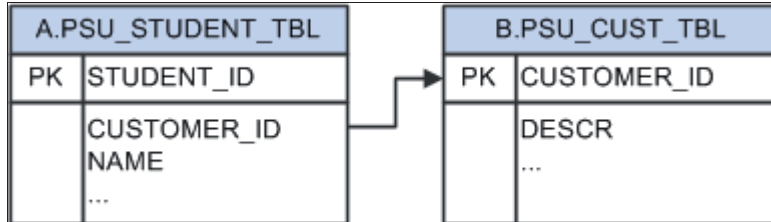
- C PSU_INSTR_TBL - PSU Instructor Table joined with A.INSTRUCTOR - Instructor [Hierarchy Join](#)

Describing the Any-Join Feature (continued)

Key Fields

Suppose that you want to retrieve student data and corresponding customer information. Use data from both the Student Data table (PSU_STUDENT_TBL) and the Customer table (PSU_CUST_TBL.)

This diagram illustrates the fields that are used to retrieve the data from both tables.



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Student Notes

Table Joins and Key Fields

When you join two tables, a message indicates that a key field match (join) exists between the two tables.

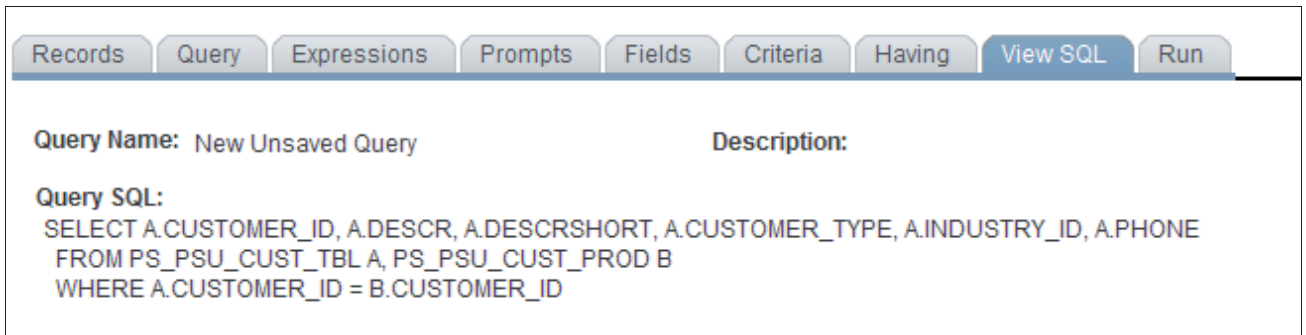
In the following example, A.CUSTOMER_ID is matched with B.CUSTOMER_ID. The letters *A* and *B* are aliases (nicknames) for the Customer (PSU_CUST_TBL) and Customer Product (PSU_CUST_PROD) tables, respectively:

Auto Join Criteria

Query has detected the join conditions shown below.
Use the checkboxes to unselect the criteria that you do not want to add to the query and click add criteria when done. The criteria added can always be modified later using the criteria tab.

<input checked="" type="checkbox"/>	A.CUSTOMER_ID - Customer = B.CUSTOMER_ID - Customer
-------------------------------------	---

The SQL statement used to create the query is shown here:



Records Query Expressions Prompts Fields Criteria Having View SQL Run

Query Name: New Unsaved Query **Description:**

Query SQL:
SELECT A.CUSTOMER_ID, A.DESCR, A.DESCRSHORT, A.CUSTOMER_TYPE, A.INDUSTRY_ID, A.PHONE
FROM PS_PSU_CUST_TBL A, PS_PSU_CUST_PROD B
WHERE A.CUSTOMER_ID = B.CUSTOMER_ID

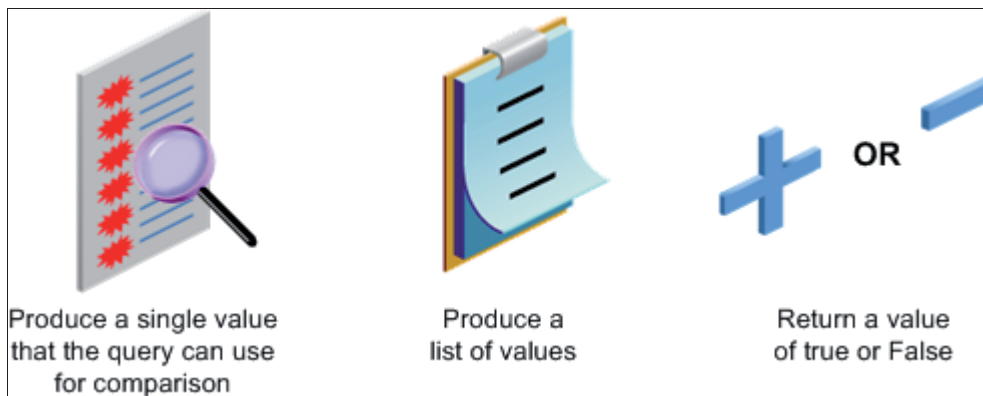
Describing Subqueries

Subqueries and WHERE Clauses

A subquery is a query within a query. You use subqueries to compare a value of a field in one query with a value that is retrieved by another query.

You insert the second query in the WHERE clause on the Criteria page.

Subqueries can:



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Student Notes

Example: When and How to Use Subqueries

Suppose that a retailer uses a database that lists information on all items in the store. You might create a subquery to list only those items and prices that are greater than the average price of all the items.

Creating Subqueries from the Criteria Page

You create subqueries from the Edit Criteria Properties page.

In this example, the Expression 2 group boxes display subquery options:

Edit Criteria Properties

Choose Expression 1 Type

Field

Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:

A. TRAINING_UNITS - Training Un

*Condition Type: greater than

Choose Expression 2 Type

Field

Expression

Constant

Prompt

Subquery

Expression 2

Define Subquery

[Define/Edit Subquery](#)

Subquery SQL and Results

You click the Subquery/Union Navigation link to toggle between the top-level query and the subquery.

This is an example of the Subquery/Union Navigation link in the View SQL page:

Records	Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run
<p>Query Name: GREATER_THAN_AVERAGE</p>		<p>Description: Greater Than Average</p>		<p> Feed</p>		<p>Working on selection: Top Level of Query</p>		
<p>Subquery/Union Navigation</p>								
<p>Query SQL:</p> <pre>SELECT A.DESCR, A.TRAINING_UNITS FROM PS_PSU_CUST_TBL A WHERE A.TRAINING_UNITS > (SELECT AVG(B.TRAINING_UNITS) FROM PS_PSU_CUST_TBL B)</pre>								

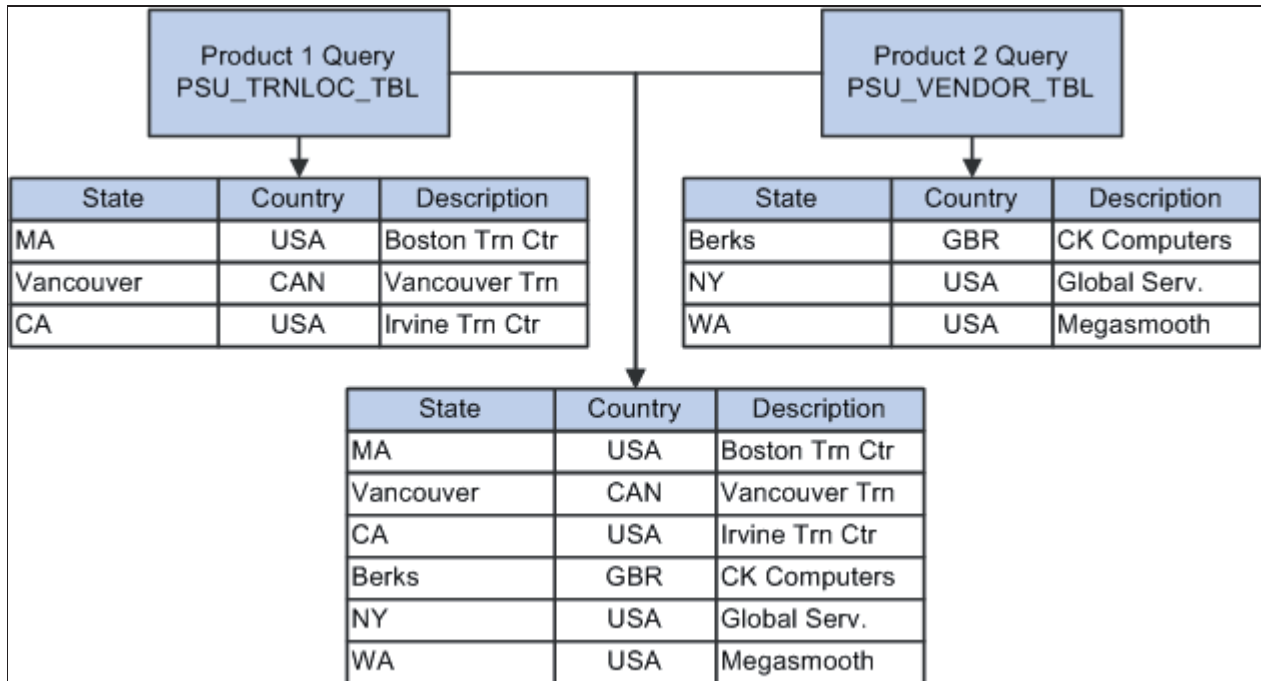
The results display all rows with a price that is greater than the average price of USD 763.69:

Records			Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run		
View All Rerun Query Download to Excel Download to XML										First	1-11 of 11	Last
	Customer Name	Training Units										
1	ABN AMRO Bank	400.0										
2	Atofina	320.0										
3	Banco del Progreso	375.0										
4	Carrefour	287.0										
5	France Telecom	870.0										
6	GlaxoSmithKlein	1235.0										
7	HSBC Holdings PLC	1537.0										
8	Lavadoras del Valle de Mexico	270.0										
9	Louis Vuitton	345.0										
10	Banco Santander	250.0										
11	Tesco	450.0										

Describing Unions

Definition of Union

This diagram shows an example of using Union:



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Student Notes

Definition of Union

A union is two SELECT statements that are brought together in the same query.

Unions combine the results of multiple queries so that you can display the results in one list of output.

Example: Union Consisting of Two SELECT Statements

Assume that the Training department wants one query that lists all training locations and all vendors from which it buys products.

To obtain a consolidated listing of all locations and vendors, you need to combine the names of the training locations from the Training Locations table (PSU_TRNLOC_TBL) with the names of the vendors from the Vendor table (PSU_VENDOR_TBL.)

To obtain the correct output, you must write two separate SELECT statements and then create a union of the two statements in one query.

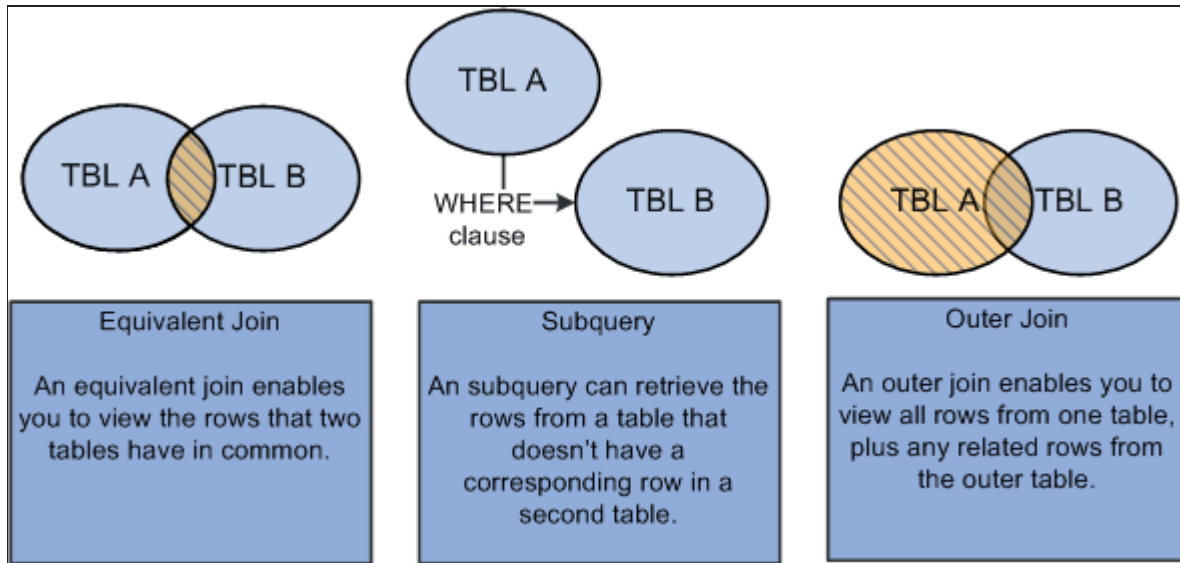
This is the generated SQL for the union:

```
SELECT A.DESCR      CHAR30
       A.STATE      CHAR6
       A.COUNTRY    CHAR3
FROM   PS_PSU_TRNLOC_TBL A
UNION
SELECT B.DESCR      CHAR30
       B.STATE      CHAR6
       B.COUNTRY    CHAR3
FROM   PS_PSU_VENDOR_TBL B
```


Describing Outer Joins

Join Types

This illustration shows the comparison of various join types:



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Student Notes

Example: Using Outer Joins

Use outer joins in queries that need to include rows from one table that do not have corresponding rows in the second table. For instance, as training coordinator, you need to check courses that have currently scheduled sessions, but you also want to view those courses that have no currently scheduled sessions yet. You use an outer join for that situation.

The query in this example uses an outer join. Notice that some of the rows have no value in the Session column:

	Course Code	Description	Type	Session Number
1	1034	Call Desk Essentials	CRM	353
2	1035	Case Management	CRM	
3	1033	Introduction to CRM	CRM	332
4	1010	nVision Reporting	F	152
5	1013	General Ledger II	F	183
6	1005	General Ledger I	F	284
7	1005	General Ledger I	F	111
8	1009	Payables	F	150
9	1010	nVision Reporting	F	153
10	1010	nVision Reporting	F	154

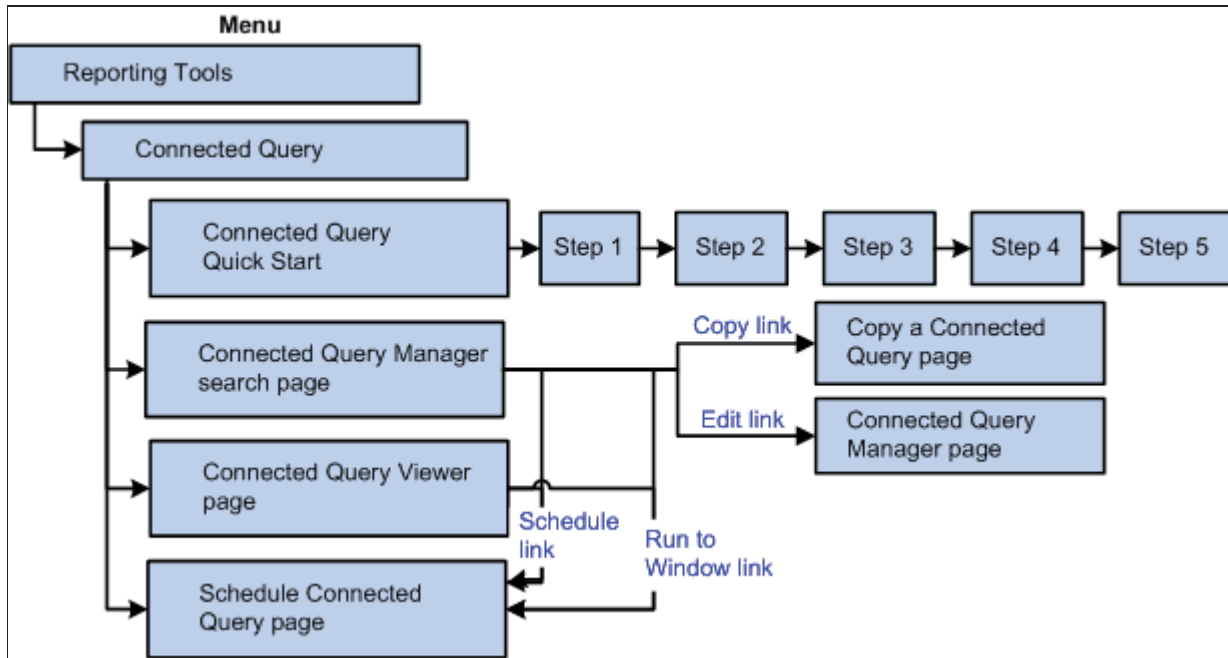
The SQL that is in this query is:

Records	Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run
Query Name: LEFT_OUTER_JOIN		Description: LEFT OUTER JOIN						
Query SQL:								
SELECT A.COURSE, A.DESCR, A.COURSE_TYPE, B.SESSION_NBR								
FROM (PS_PSU_COURSE_TBL A LEFT OUTER JOIN PS_PSU_CRS_SESSN B ON A.COURSE = B.COURSE)								
WHERE A.EFFDT =								
(SELECT MAX(A_ED.EFFDT) FROM PS_PSU_COURSE_TBL A_ED								
WHERE A.COURSE = A_ED.COURSE								
AND A_ED.EFFDT <= SYSDATE)								
ORDER BY 3								

Describing Connected Queries

Connected Query

This diagram shows the navigation paths to access the pages used to create and maintain connected queries:



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Student Notes

Connected Query

Connected Query enables you to create a single XML file based on a set of queries with parent-child relationships. Connected queries are significantly useful:

- To simplify task for a business user.
- When two or more records (SQL tables) are linked with left outer join to the same parent record.
- As a tool in the process of replacing Crystal reports (that use subreports) with XML Publisher reports.
- When outputs need to be in structured XML.
- As a substitution tool (for SQR or Application Engine) to collect hierarchical data for XMLP reporting.

Connected Query Example

This example shows the structure that Connected Query uses to collect data of course session and student enrollment data for each business unit:

Connected Query Manager

Connected Query: ENROLLMENT_BY_BU

Public *Status: Active

Description

Description: Student Enrollment by Bus Unit

Comments:

Parent Query Selection

Parent Query: CRS_SESSION_BY_BU View Query

Connected Query Structure	Fields	Fields
CRS_SESSION_BY_BU	A.COURSE	A.SESSION_NBR
STU_ENROLLMENT	A.COURSE	A.SESSION_NBR

Preview XML Max Rows Fetched for Query: 6 Save Cancel

Finding Information About PeopleSoft Query Manager in PeopleBooks

Development Information

Use the *PeopleSoft Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query* to find development information including:

- Creating and running queries.
- Defining criteria.
- Accessing query administrative tasks using Schedule Queries, Query Viewer, and Query Administration.
- Using advanced features of PeopleSoft Query.
- Managing query security.

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Student Notes

Location of Information About PeopleSoft Query

This table lists the locations of additional information in the *PeopleSoft Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query*:

Location	Type of Information
Introduction to PeopleSoft Query Manager	This chapter provides general usage information.
Development chapters	<p>These chapters discuss development concepts and tasks:</p> <ul style="list-style-type: none"> • "Creating and Running Simple Queries" • "Defining Selection Criteria" • "Modifying and Scheduling Queries" • "Query Administration" • "Advanced Query Options" • "PeopleSoft Query Security" • "Using Connected Query"

You can access related material by clicking the Help link in the top-right corner of the application page. This automatically takes you to the relevant information in the appropriate PeopleBook.

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Note. Context-sensitive help is constrained to non-application specific pages in the technical database.

Finding Information About PeopleSoft Query Manager in PeopleBooks (continued)

Development Information (continued)

The following PeopleBooks contain information that applies to PeopleSoft Query 8.50:

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query.

Enterprise PeopleTools 8.50 PeopleBook: PeopleCode API Reference.

Enterprise PeopleTools 8.50 PeopleBook: Data Administration Tools.

Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Tree Manager.

Enterprise PeopleTools 8.50 PeopleBook: Security Administration.

Enterprise PeopleTools 8.50 PeopleBook: Feed Publishing Framework.

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Student Notes

Additional PeopleBooks

This table describes the additional PeopleBooks that contain information about PeopleSoft Query Manager:

PeopleBook	Description
<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query</i>	This PeopleBook describes the fundamental elements of creating and running queries in PeopleSoft Pure Internet Architecture.
<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleCode API Reference</i>	This PeopleBook describes how application programming interfaces (APIs) are used in queries.
<i>Enterprise PeopleTools 8.50 PeopleBook Data Administration Tools</i>	This PeopleBook describes how you can use PeopleSoft Query to define selection criteria to archive data from transactional tables to history tables.
<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Tree Manager</i>	This PeopleBook describes how to use Query Access Group Trees.
<i>Enterprise PeopleTools 8.50 PeopleBook: Security Administration</i>	This PeopleBook describes how to set up access to PeopleSoft Query and other related components.
<i>Enterprise PeopleTools 8.50 PeopleBook: Feed Publishing Framework, "Creating and Using Query Feeds"</i>	This chapter discusses how to define and publish feeds, publish feeds list feeds, access feeds, and view feeds.

Review

In this lesson, you learned that:

- Query expressions are calculations that PeopleSoft Query performs as part of a query.
- Drilling URLs are the URLs that you define by selecting the menu, component, page, portal object, or URL of choice.
- Any joins enable you to access records that do not have the parent hierarchy or related-record hierarchy links.
- Subqueries retrieve values that are used as selection criteria in the subsuming query.

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Review (continued)

In this lesson, you learned that:

- Unions combine the result sets of multiple SELECT statements into one result set.
- Outer joins enable you to view all rows from one table and the corresponding rows in another table, even if no related rows exist in the second table.
- Connected Query enables you to create a single XML file based on a set of queries with parent-child relationships.
- A number of PeopleBooks contain information about using PeopleSoft Query.

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Student Notes

Additional Resources

This table lists additional resources that provide more details about the topics that we discussed in this lesson:

Topic	Cross-Reference
Outer joins Unions	<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query, "Advanced Query Options"</i>
Query expressions	<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query, "Defining Selection Criteria"</i>
Connected Query	<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query, "Using Connected Query"</i>

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Lesson 3

Using Query Manager

Objectives

By the end of this lesson, you will be able to:

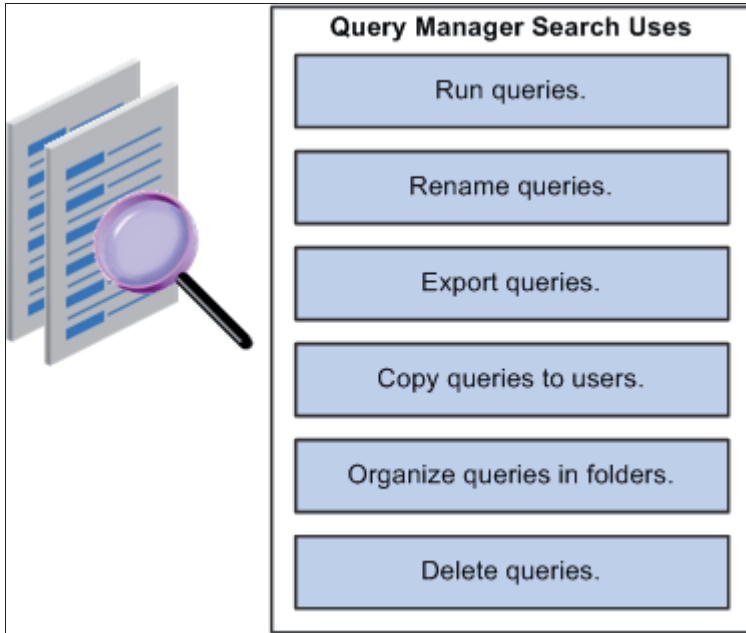
- Search for existing queries.
- Edit existing queries.

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Searching for Existing Queries

Query Manager Search

Use the Query Manager search page to locate and manage queries. This illustration shows the usages of this page:



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Student Notes

Page Used to Search and Manage Queries

Use this page to search for, organize, and access queries:

Page Name	Navigation
Query Manager search	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Click the Search button.

Query Manager

Enter any information you have and click Search. Leave fields blank for a list of all values.

Find an Existing Query | [Create New Query](#)

*Search By: begins with

[Advanced Search](#)

Search Results

*Folder View:

*Action:

Query	Owner	Folder	Actions
<input type="checkbox"/> CLS001	Public	COURSE SESSIONS	Edit HTML Excel XML Schedule
<input type="checkbox"/> CM_ATTRIBUTES	Public		Edit HTML Excel XML Schedule
<input type="checkbox"/> CM_DIM_CTRL_TBL	Public		Edit HTML Excel XML Schedule
<input type="checkbox"/> CM_FACT_CTRL_TBL	Public		Edit HTML Excel XML Schedule
<input type="checkbox"/> CM_FACT_MAP_TBL	Public		Edit HTML Excel XML Schedule
<input type="checkbox"/> CM_FIELD_PROPERTIES	Public		Edit HTML Excel XML Schedule

Elements of the Query Manager Search Page

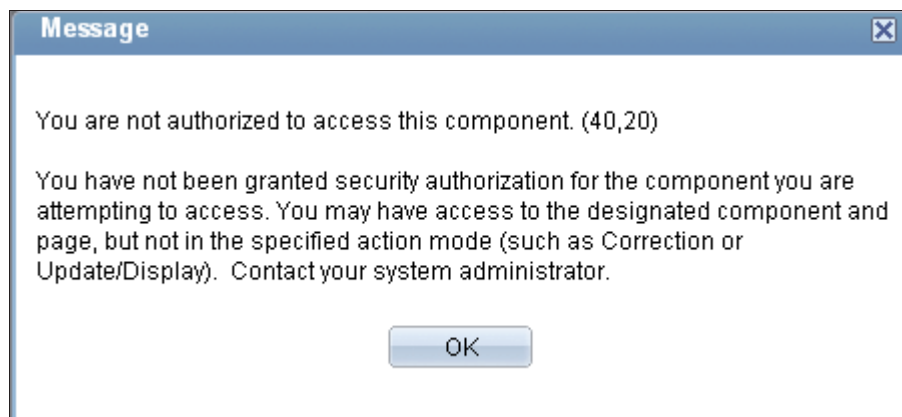
The following table describes the elements of the Query Manager search page:

Search by	Perform a quick search using any field in the drop-down list box.
Advanced Search	Click this link to narrow a query search using eight search categories and other conditional criteria.
Folder View	Displays queries by folder name.
Action	Organize, copy, delete, and rename queries.
Select	Select this check box to flag a query for an action.
Check All and Uncheck All	Click these buttons to select or deselect all queries that are in the search list.
HTML	Click this link to run a query to HTML format.
Excel	Click this link to run to Excel (for earlier releases of Query Manager only). You must save the exported file as an .XLS spreadsheet. From PeopleTools 8.44 and beyond, you can export the query to native Excel.
XML	Click this link to download query results to browser as XMLP format. There are options that enable you to open, save, or cancel the downloaded file. If you click the Open button, XML formatted query result is downloaded to browser.
<hr/>	
	Note. You can also select the <i>XML</i> option as the format of your query results in the Schedule Query page when schedule to run a query.
<hr/>	
Schedule	Click this link to access the Process Scheduler Request page and set the particular date and time to run the query.

Security Permissions

If the Query Manager link does not appear under the Query folder, the security administrator must grant access to the Query Manager component (QUERY_MANAGER) and pages.

If you attempt to access Query Manager without the proper security permissions, the following message appears:



Searching for Existing Queries (continued)

Query Manager Advanced Search

You can narrow the focus of a search by using the Query Manager advanced search. This page enables you to search using:

- Eight different search fields.
- Ten conditional logic operators.

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Student Notes

Page Used to Narrow Searches

Use this page to narrow searches using different search fields and conditional logic operators:

Page Name	Navigation
Query Manager advanced search	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Click the Advanced Search link.

Query Manager

Enter any information you have and click Search. Leave fields blank for a list of all values.

[Find an Existing Query](#) | [Create New Query](#)

Query Name:
Description:
Uses Record Name:
Uses Field Name:
Access Group Name:
Folder Name:
***Query Type:** =
Owner: =

When using the IN or BETWEEN operators, enter comma separated values without quotes. i.e. JOB,EMPLOYEE,JRNL_LN.

[Basic Search](#)

Search Results

*Folder View:

*Action:

Select	Query Name	Descr	Owner	Folder	Edit	Run to HTML	Run to Excel	Run to XML	Schedule
<input type="checkbox"/>	CLS001	Course Session List	Public	COURSE SESSIONS	Edit	HTML	Excel	XML	Schedule
<input type="checkbox"/>	CM_ATTRIBUTES	Attribute mappings	Public		Edit	HTML	Excel	XML	Schedule
<input type="checkbox"/>	CM_DIM_CTRL_TBL	Dimension Control Table	Public		Edit	HTML	Excel	XML	Schedule
<input type="checkbox"/>	CM_FACT_CTRL_TBL	Fact Control Table	Public		Edit	HTML	Excel	XML	Schedule

Query Manager Advanced Search Page Fields

The searchable fields on the Query Manager advanced search page are:

Query Name	Enter the name of the query.
Description	Enter a description or partial description of the query.
Uses Record Name	Enter the record with which the query is associated. <hr/> Note. The record may be used by multiple queries, so you may get more results than you plan. <hr/>
Uses Field Name	Enter a field that the query uses. <hr/> Note. The field may be used by multiple queries, so you may get more results than you plan. <hr/>
Access Group Name	Enter the access group with which the query is associated.
Folder Name	Enter the name of the folder that stores the query.
Query Type	Enter the query types: <i>role, user, or process</i> .
Owner	Enter whether the query is public or private.

Ten Conditional Logic Operators

You can set conditions on any field in an advanced search. Drop-down list boxes enable you to select conditional logic operators on the specified value for that field. Here are the conditional settings:

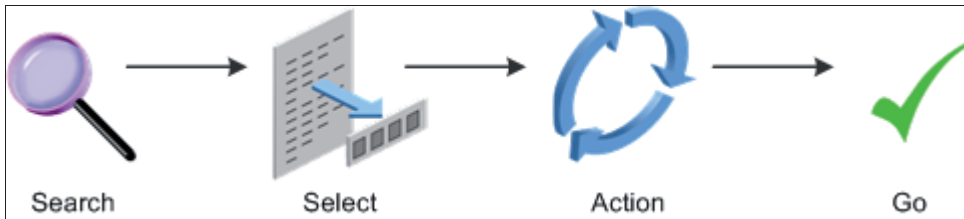
- < (less than)
- = (equal to)
- >= (more than or equal to)
- between
- in
- <= (less than or equal to)
- > (more than)
- begins with
- contains
- not = (not equal to)

Searching for Existing Queries (continued)

Organizing Queries

After you located the desired queries, you use the action options to help you organize the selected queries.

The process to perform any action on queries is shown in this diagram:



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Student Notes

Page Used to Organize Queries

Use this page to organize queries:

Page Name	Navigation
Query Manager search	Reporting Tools, Query, Query Manager

Search Results

*Folder View:

*Action:

Select	Query Name	Descr	Owner	Folder	Run to	Schedule
<input checked="" type="checkbox"/>	CLS001	Course Session List	Public	COURSE SESSIONS	XML	Schedule
<input type="checkbox"/>	CM_ATTRIBUTES	Attribute mappings	Public		Edit HTML Excel XML	Schedule
<input type="checkbox"/>	CM_DIM_CTRL_TBL	Dimension Control Table	Public		Edit HTML Excel XML	Schedule

Options in the Action Drop-down List Box

This table explains the options in the Action drop-down list box:

Action Field Value	Purpose
<i>Add to Favorites</i>	Adds queries to the My Favorite Queries list.
<i>Copy to User</i>	Copies private queries to other users. Note. The user who is being copied to must have access to the records with which the query is associated. If that user does not have access, the query does not appear in that user's search list.
<i>Delete Selected</i>	Deletes the selected queries from the database.
<i>Move to Folder</i>	Moves queries to folders.
<i>Rename Selected</i>	Changes the name of the selected queries.

My Favorite Queries

You can access a frequently used query from the Query Manager search page by designating the query as a favorite. After you create a favorite, the My Favorite Queries list appears on the Query Manager search page. A search isn't necessary because the favorites appear on the search page.

Click the triangular arrow next to the My Favorite Queries label to expand and collapse the list.

Note. Queries in the My Favorite Queries list are linked to the user ID.

This is an example of the My Favorite Queries section:

My Favorite Queries									
Query Name	Descr	Owner	Folder	Edit	Run to HTML	Run to Excel	Run to XML	Schedule	Remove
CLS001	Course Session List	Public	COURSE SESSIONS	Edit	HTML	Excel	XML	Schedule	[-]
CUSTOMER	Customer Data	Public		Edit	HTML	Excel	XML	Schedule	[-]

Clear Favorites List

Adding Queries to the My Favorite Queries List

To add queries to the My Favorite Queries list:

1. In the Query Manager search page, search for queries to add to the My Favorite Queries list.
2. Select the query by selecting the Select check box.
3. Select the *Add to Favorites* option from the Action drop-down list box.
4. Click the Go button.

Removing Queries From the My Favorite Queries List

To remove queries from the My Favorite Queries list:

1. In the Query Manager search page, click the Remove button (the minus button) to remove one query from the list.
2. Click the Clear Favorites List button to remove all queries from the list.

Creating and Using Folders

Use folders to organize queries. You can create a folder structure that suits your needs.

Keep this information in mind when you use folders:

- All folders are visible to all users.
- Only public queries and the user's private queries appear in a folder.
- A query can be stored in only one folder other than the All Folders view.

Moving Queries to Folders

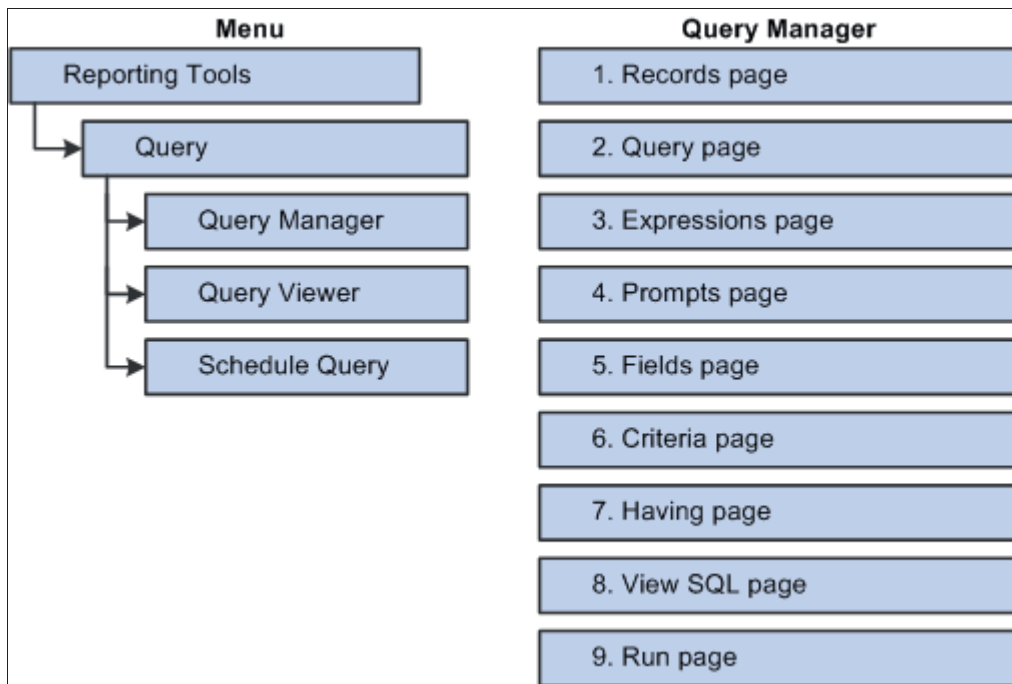
To move queries to folders:

1. In Query Manager search page, select the queries.
2. Select the *Move to Folder* option from the Action drop-down list box.
3. Click the Go button.
4. Select an option to use an existing folder or create a new one.
5. Click the OK button.

Editing Existing Queries

Query Manager

You create, edit, and organize using Query Manager. This diagram illustrates the navigation menu and pages of Query Manager:



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Student Notes

Query Manager

Query Manager:

- Is browser-based.
- Is organized to facilitate ease of use.
- Enables you to create queries that retrieve data without having to know SQL.

Query Manager Pages

The pages of Query Manager enable you to tailor queries to retrieve data that is specific to the business needs of users.

The pages are organized intuitively to facilitate the query creation process:

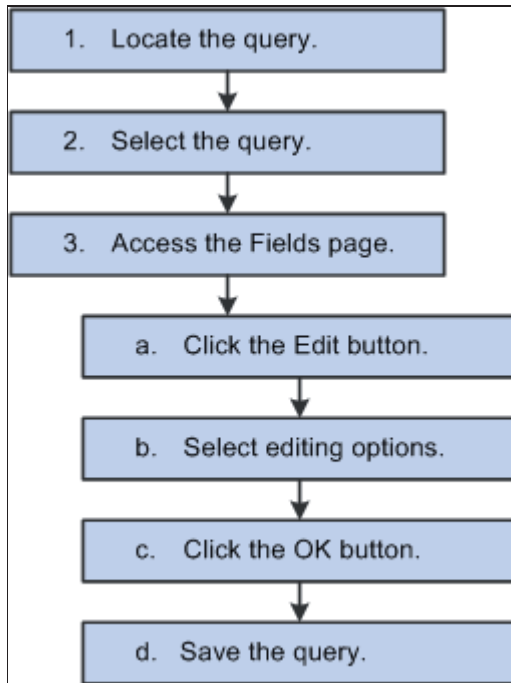
This table lists the name and purpose of each of the Query Manager pages:

Query Manager Page	Purpose	Required/Optional
Records	Select the records to use in the query. You must select at least one record before you can create and save a query.	Required
Query	Select the fields that you need for the query. You must select at least one record before you can create and save a query.	Required
Expressions	Create formulas to use with the query.	Optional
Prompts	Create runtime prompts.	Optional
Fields	View, edit, sort, and reorder fields that appear in a query.	Optional
Criteria	Filter data to retrieve only those rows that you need to see.	Optional
Having	Create criteria for fields that use aggregate functions.	Optional
View SQL	View the SQL that is generated when the query is created.	Optional
Run	View the results of the query.	Optional

Editing Existing Queries (continued)

Steps Used to Edit Fields in an Existing Query

Use the following steps to edit fields in an existing query:



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Student Notes

Pages Used to Edit Fields in an Existing Query

Use these pages to edit fields in existing queries:

- Use this page to access the Edit Field Properties page:

Page Name	Navigation
Fields	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Search and open an existing query. 3. Select the Fields tab.

Records
Query
Expressions
Prompts
Fields
Criteria
Having
View SQL
Run

Query Name: CLS001 Description: Course Session List Feed

View field properties, or use field as criteria in query statement Reorder / Sort

Col	Record.FieldName	Format	Ord	XLAT	Agg	Heading Text	Add Criteria	Edit	Delete
1	A.COURSE - Course Code	Char6	2			Course Number		Edit	
2	B.DESCR - Description	Char30				Descr		Edit	
3	A.SESSION_NBR - Session Number	Num6.0	3			Session		Edit	
4	A.START_DATE - Start Date	Date				Start		Edit	
5	B.LENGTH_DAYS - Length (Days)	Num3.1				Length		Edit	
6	A.INSTRUCTOR %CONCAT ' - ' %CONCAT C.FIRST_NAME %CONCAT ' ' %CONCAT C.LAST_NAME	Char50				Instructor		Edit	
7	A.TRAINING_LOC - Training Location	Char6				Trn Loc		Edit	
8	A.CLASSROOM - Classroom	Char1		N		Room		Edit	
9	B.COURSE_TYPE - Course Type	Char4	1	S		Type		Edit	

Save
Save As
New Query
Preferences
Properties
Manage Feeds
New Union
Return To Search

Note. The records that you select on the Records page determine the fields that appear on this Fields page.

- Use this page to edit field properties:

<i>Page Name</i>	<i>Navigation</i>
Edit Field Properties	Click the desired Edit button on the Fields page.

Edit Field Properties

Field Name: A.COURSE - Course Code

<div style="border: 1px solid gray; padding: 5px;"> <p>Heading</p> <p> <input type="radio"/> No Heading <input type="radio"/> RFT Short <input checked="" type="radio"/> Text <input type="radio"/> RFT Long </p> <p>Heading Text: <input type="text" value="Course Number"/> </p> <p>*Unique Field Name: <input type="text" value="A.COURSE"/> </p> </div>	<div style="border: 1px solid gray; padding: 5px;"> <p>Aggregate</p> <p> <input checked="" type="radio"/> None <input type="radio"/> Sum <input type="radio"/> Count <input type="radio"/> Min <input type="radio"/> Max <input type="radio"/> Average </p> </div>
---	--

Using the Fields Page

Reorder/Sort

Click this button to access the Edit Field Ordering page where you can determine:

- Field-by-field the sort order and direction of the query results.
- The order that the columns will appear in the query results.



Click the Add Criteria icon to access the Edit Criteria Properties page where you can determine any conditional criteria for the selected field.

Edit

Click this button to access the Edit Field Properties page where you can edit a field's properties.



Click the Delete icon to delete the associated field from the query.

Using MetaSQL in Expressions

MetaSQL enables you to enter an expression that can be used across any supported database. For example, to concatenate strings, use the MetaSQL %CONCAT, and Enterprise PeopleTools will convert it to the appropriate database string concatenation function. To create a substring, use %SUBSTRING.

Note. You need to make sure that the expression type and length are set correctly for the data that is going to be returned. Only the MetaSQL functions that are valid for dynamic views will work with PeopleSoft Query.

Group Boxes in the Edit Field Properties Page

This table lists the usages of group boxes in the Edit Field Properties page:

Group Box	Usage
Aggregate	Apply aggregate functions to a field.
Heading	Edit the label heading in a query.

See Also

Lesson 4, "Creating a Simple Query," Selecting Query Output and Editing Query Properties.

Editing a Field in an Existing Query

To edit a field in an existing query:

1. Select Reporting Tools, Query, Query Manager.
2. Search and select the query from the Query Manager search page.
3. Access the Fields page, and click the Edit button for the field to be edited.
4. Select headings and aggregates.
5. Click the OK button.
6. Click the Reorder/Sort button.
7. Determine the order of the query column headings, and sort order and direction of the data the query retrieves.
8. Click the OK button.
9. Save the query.

Activity 1: Using Query Manager

In this activity, you will review the activity overview and:

- Sign in to the training database.
- Search for an existing query.
- Create a folder.
- Test the query folder assignment.
- Add a query to the My Favorite Queries list.
- Edit a query.

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Activity Overview

Perform an advanced search to find a query that contains the `SESSION_NBR` field.

When you finish the search, select the `CLS001` query.

Create a folder and label it *Course Sessions*, and then move the `CLS001` query to that *Course Sessions* folder.

Next, add the `CLS001` query to the My Favorite Queries list. Open and view the query results from Query Manager.

Finally, delete the `START_DATE` field from the `CLS001` query and view the query results again.

Note. Use *PTRPTG* for the user name and password in this activity.

Activity Detailed Steps

Perform the detailed steps to complete the activity.

Signing In to the Training Database

To sign in to the training database:

1. Click the Oracle PeopleSoft Enterprise link on the desktop.
2. Enter *PTRPTG* for the user ID and password.
3. Click the Sign in button.

Searching for an Existing Query

To search for an existing query:

1. Select Reporting Tools, Query, Query Manager.
2. Click the Advanced Search link.
3. Enter *SESSION_NBR* in the Uses Field Name field.
4. Click the Search button.
5. Select the *CLS001* query check box in the search results.

Creating a Folder

To create a folder:

1. Select the *Move to Folder* option from the Action drop-down list box.
2. Click the Go button.
3. On the Move to Folder page, select the second option (enter a folder name to move to), and enter *Course Sessions* in the blank field.
4. Click the OK button.

This example shows the Move to Folder page:

Move to Folder

Select an existing folder to move to:

-- All Folders --

OR enter a folder name to move to:

Course Sessions

OK Cancel

Testing the Query Folder Assignment

To test the query folder assignment:

1. Click the Clear button to clear all text from the fields of the Query Manager advanced search page.
2. Click the Search button to display all queries.
3. Select the *COURSE SESSIONS* option from the Folder View drop-down list box.

Results

These are the results of testing the Query folder assignment:

Search Results

*Folder View: COURSE SESSIONS

Check All Uncheck All *Action: Move to Folder Go

Select	Query Name	Descr	Owner	Folder	Edit	Run to HTML	Run to Excel	Run to XML	Schedule
<input type="checkbox"/>	CLS001	Course Session List	Public	COURSE SESSIONS	Edit	HTML	Excel	XML	Schedule

Adding a Query to the My Favorite Queries List

To add a query to the My Favorite Queries list:

1. Select the Select check box of the CLS001 query in the query search results list.
2. Select the *Add to Favorites* option from the Action drop-down list box,
3. Click the Go button and examine the search page.

Results

These are the results of adding queries to the My Favorite Queries list:

Search Results

*Folder View: COURSE SESSIONS

Check All Uncheck All *Action: Add to Favorites Go

Select	Query Name	Descr	Owner	Folder	Edit	Run to HTML	Run to Excel	Run to XML	Schedule
<input checked="" type="checkbox"/>	CLS001	Course Session List	Public	COURSE SESSIONS	Edit	HTML	Excel	XML	Schedule

Find an Existing Query | [Create New Query](#)

My Favorite Queries

Query Name	Descr	Owner	Folder	Edit	Run to HTML	Run to Excel	Run to XML	Schedule	Remove
CLS001	Course Session List	Public	COURSE SESSIONS	Edit	HTML	Excel	XML	Schedule	<input type="button" value="-"/>

Clear Favorites List

Editing a Query

To edit a query:

1. Click the Edit link of the CLS001 query in the My Favorite Queries list.
2. Select the Run tab from Query Manager to view the query results.
3. Select the Fields tab to edit the column headings.
4. Click the Edit button of the COURSE field.
5. Select the Text option from the Edit Field Properties page.
6. Enter *Course Number* for the heading text, and click the OK button.
7. Click the Delete button for the START_DATE field.
8. Save the query.
9. Select the Run tab to view the results of the CLS001 query.
10. Compare the report with these results.

Results

This is the modified CLS001 query:

	Course Number	Descr	Session	Length	Instructor	Trn Loc	Room	Type
1	1033	Introduction to CRM	332	3.0	GXI - Gina Ireland	STH	X	CRM
2	1034	Call Desk Essentials	353	2.0	AGH - Anita G Huntingford	BOS	X	CRM
3	1005	General Ledger I	107	5.0	MEB - Mary Beilstein	TEA	C	Financials
4	1005	General Ledger I	111	5.0	SAS - Scott M. Sanchez	CORP	E	Financials
5	1005	General Ledger I	284	5.0	DHS - Doug Sharan	ATL	A	Financials
6	1005	General Ledger I	292	5.0	JCO - John Colaizzi	TEA	A	Financials
7	1005	General Ledger I	305	5.0	TEP - Tracy Pierce	TEA	A	Financials
8	1009	Payables	145	5.0	TEP - Tracy Pierce	ONSTE	O	Financials

This concludes the activity. Please do not continue.

Review

In this lesson, you learned that:

- Features of the Query Manager search page enable you to find, edit, and organize queries.
- Pages of Query Manager are organized to make editing queries more intuitive and efficient.

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Student Notes

Additional Resources

This table lists the additional resources that provide more details about the topics that we discussed in this lesson:

Topic	Cross-Reference
Editing existing queries, finding queries	<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query, "Creating and Running Simple Queries"</i>
Security permissions	<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query, "Creating Permission Lists"</i>

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Lesson 4

Creating a Simple Query

Objectives

By the end of this lesson, you will be able to:

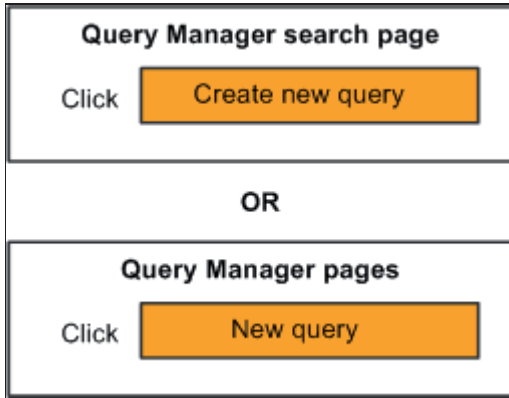
- Select query output and edit query properties.
- Edit field properties.
- Remove duplicate data.
- Create and use query feeds.

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Selecting Query Output and Editing Query Properties

Methods to Create a Query

This diagram displays the methods used to create a query:



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Student Notes

Methods to Create a Query

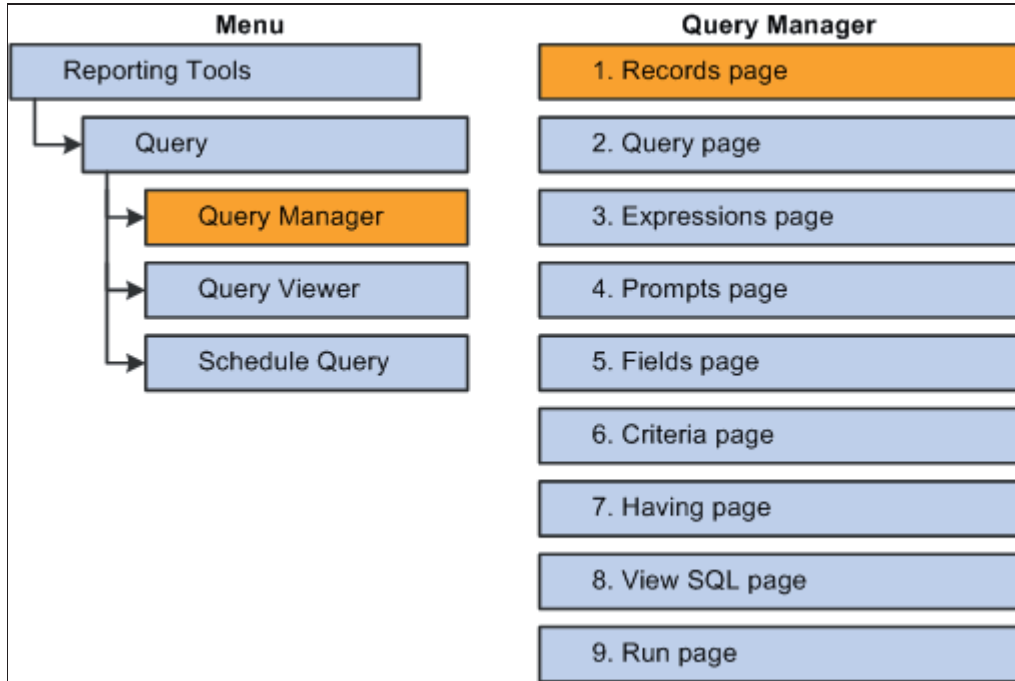
You can use either of these two methods to create a query:

- Click the Create New Query link on the Query Manager search page.
- Click the New Query link at the bottom of the pages that are within the Query Manager component.

Selecting Query Output and Editing Query Properties (continued)

Records Page

This diagram shows how to access the Records page of the Query Manager component:



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Student Notes

Records Page

The first step in creating a query is selecting a record on the Records page. The record that you select establishes the primary focus of the query.

Page Used to Search and Select Records for Queries

Use this page to search for and select records:

Page Name	Navigation
Records	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Click the Create New Query link. 3. Click the Advanced Search link.

Notes for Using the Records Page

Using the Records page, you should note that:

- The Records page appears after you click the Create New Query or the New Query links.
- The Records search page provides basic and advanced search options.
- You have to click the Search button to display a list of records based on the search criteria that is entered.
- You must select at least one record to create a query.

Links and Buttons on the Records Search Pages

These links and buttons are on the Records basic and advanced search page:

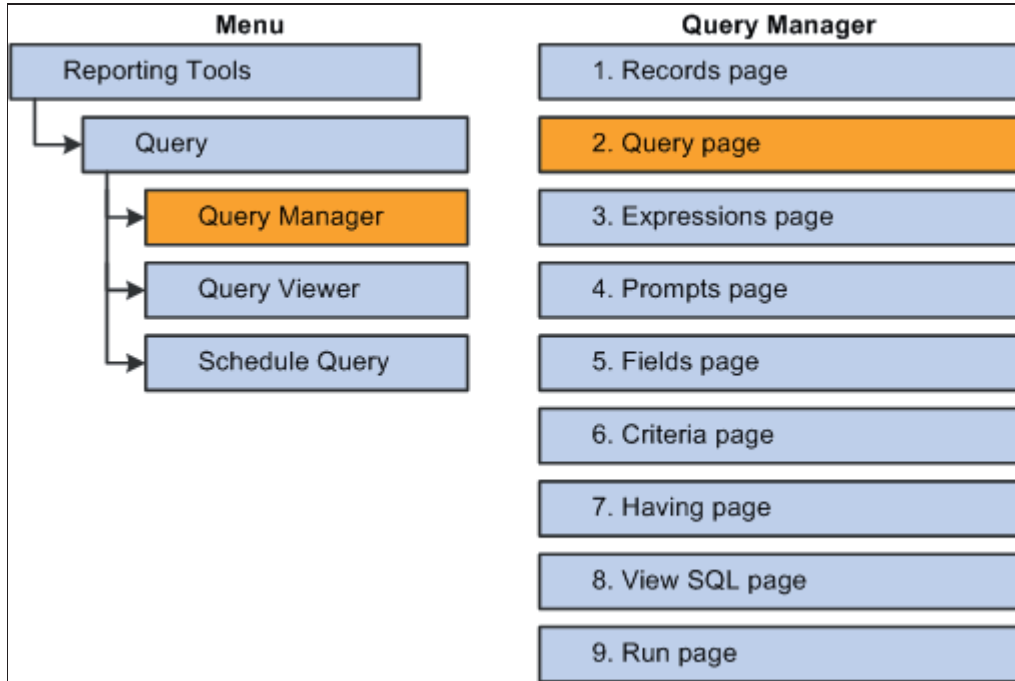
Basic Search Click this link to access the Records basic search page.

Advanced Search	Click this link to access the Records advanced search page that offers more fields to use when filtering the search results. The search page looks like the one that is used when searching for existing queries.
Search	Click this button to retrieve results from the entered search criteria.
Clear	Click this button to clear any entered criteria from the search fields.
Add Record	Click this link to add the record to the new query.
Show Fields	Click this link to view the fields prior to selecting a record for the query.

Selecting Query Output and Editing Query Properties (continued)

Query Page

This diagram shows how to access the Query page of the Query Manager component:



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Student Notes

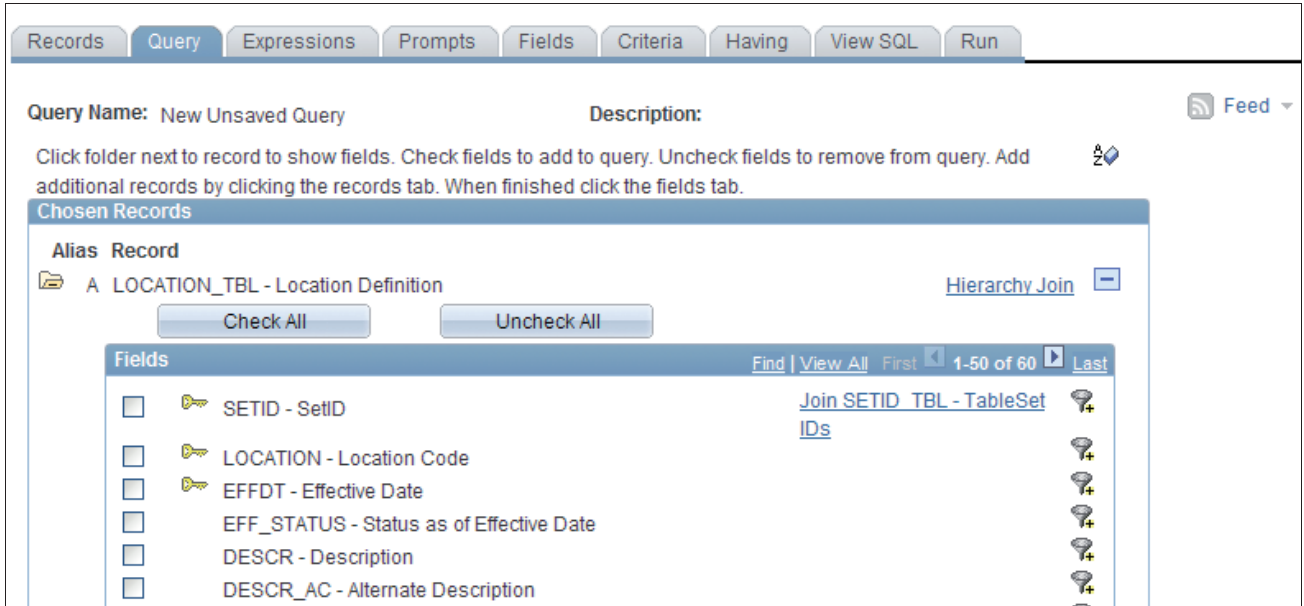
Query Page

After you select a record, the Query page appears and enables you to select the fields used in the query.

Page Used to Add Fields to Query

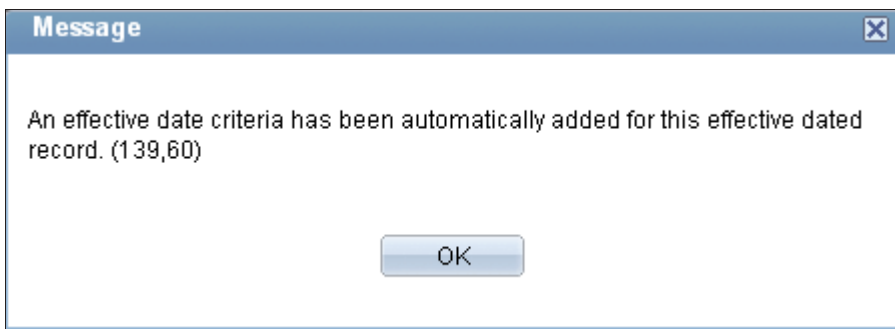
Use this page to add fields to the query by selecting check boxes in the Fields column:

Page Name	Navigation
Query	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Click the Create New Query link. 3. Click the Search button. 4. Click the appropriate Add Record link.



Effective-Dated Tables

If you select the record for an effective-dated table when you first access the Query page, PeopleSoft Query automatically adds an effective-date criteria for the record and displays a message as shown in this example:



Elements on the Query Page

These elements are on the Query page:



Click the Sort Fields Alphabetically button to sort fields.

Hierarchy Join

Click this link to join parent-child records.



Click the Delete Record icon to delete the displayed record.

Check All Fields

Click this button to select all of the fields in the record.

Uncheck All Fields

Click this button to clear all selected fields.



The Key icon identifies the key fields in a record.

Join link

Identifies related-record joins by using record prompts.



Click the Add Criteria icon to filter data from the query.

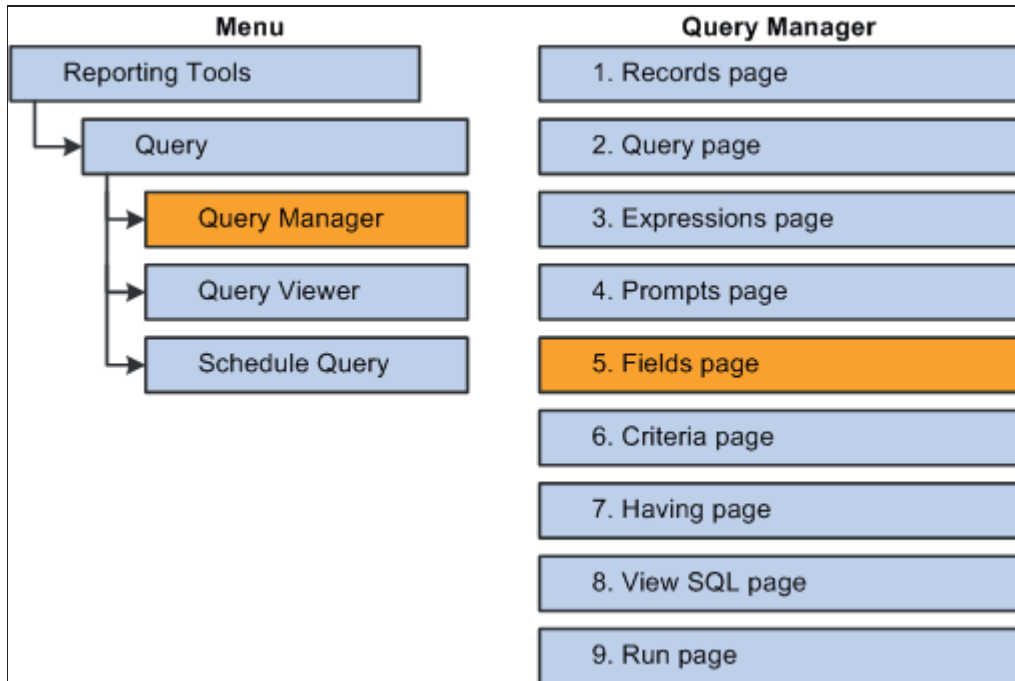
Fields

Select these check boxes to select fields.

Selecting Query Output and Editing Query Properties (continued)

Fields Page

This diagram shows how to access the Fields page of the Query Manager component:



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Student Notes

Page Used to View Fields and Edit Fields

Use this page to edit fields and to determine column and sort order:

Page Name	Navigation
Fields	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Click the Create New Query link. 3. Click the Search button, and click the appropriate Add Record link. 4. Select the Fields tab.

Records Query Expressions Prompts Fields Criteria Having View SQL Run



Query Name: New Unsaved Query **Description:** Feed ▾

View field properties, or use field as criteria in query statement. Reorder / Sort

Fields									
Col	Record.FieldName	Format	Ord	XLAT	Aqq	Heading Text	Add Criteria	Edit	Delete
1	A.LOCATION - Location Code	Char10				Location		Edit	[-]
2	A.DESCR - Description	Char30				Descr		Edit	[-]
3	A.BUILDING - Building #	Char10				Building		Edit	[-]
4	A.ADDRESS1 - Address Line 1	Char55				Address 1		Edit	[-]
5	A.ADDRESS2 - Address Line 2	Char55				Address 2		Edit	[-]
6	A.CITY - City	Char30				City		Edit	[-]
7	A.STATE - State	Char6				St		Edit	[-]
8	A.POSTAL - Postal Code	Char12				Postal		Edit	[-]
9	A.COUNTRY_CODE - Int'l Prefix	Char3				Prefix		Edit	[-]
10	A.PHONE - Telephone	Char24				Phone		Edit	[-]

Fields and Buttons on the Fields Page

The Fields page enables you to edit the selected fields using the following tools:

Reorder/Sort	Click to display the Edit Field Ordering page, which enables you to change the column order and sort properties of the query.
Col (column)	Indicates the order in which the field appears in the query results.
Record Fieldname	Displays the field name as it is stored in the database.
Format	Indicates the format of the field as it is defined in the database.
Ord (order)	Indicates if the field is selected for sorting.
XLAT	Indicates if the field is a code from the Translate table.
Agg (aggregate)	Indicates if an aggregate function is assigned to this field.
Heading Text	Displays the default text as defined in the database.
	Click the Add Criteria icon to add a row of criteria to the query. <hr/> Note. Criteria are used to filter data in a query. <hr/>
Edit	Click to access the Edit Field Properties page and format the query output.
	Click the Delete icon to delete the associated field from the query.

Order By Feature

The Order By feature places a number next to the field indicating which field is:

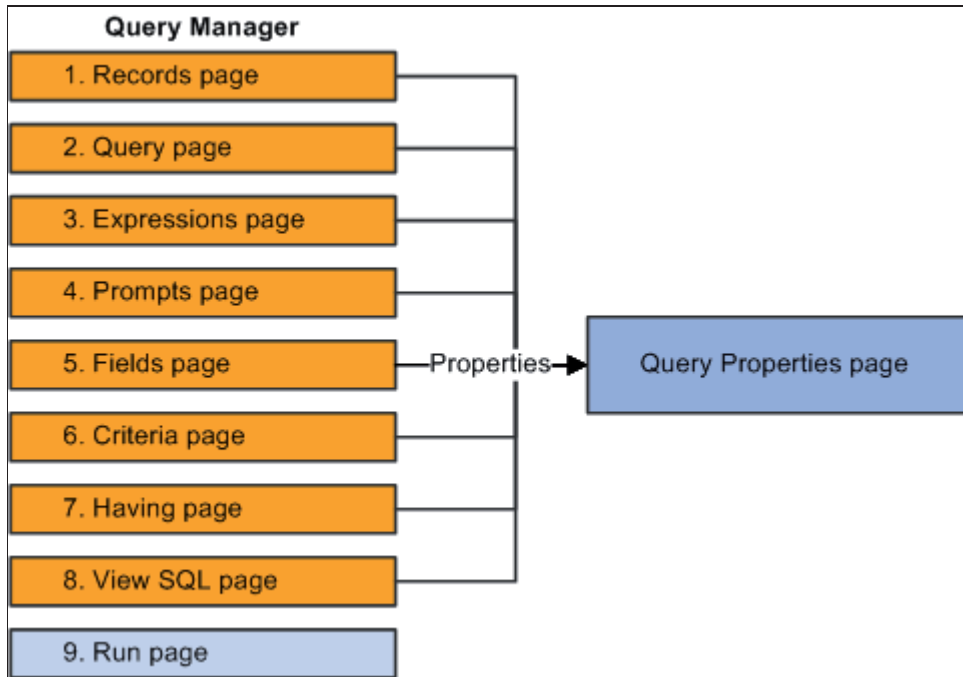
- A primary sort (1).
- A secondary sort (2).
- A descending primary sort (1D).

Note. Ascending sort means sorting from A to Z. Descending sort means sorting from Z to A.

Selecting Query Output and Editing Query Properties (continued)

Query Properties Page

This diagram shows how to access the Query Properties page:



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Student Notes

Query Properties Page

The Query Properties page enables you to enter or view additional information regarding the query, such as:

- Query name.
- Query description.
- Query user type.
- Folder with which the query is associated.
- Whether the query is public or private.
- Query definition.

Note. When you first save a new query, the Query Properties page appears. But remember that the Query Properties page is not used to save queries.

Use the Folder field to assign the query to a folder. Query creates a new folder if you enter a folder name that doesn't already exist.

Page Used to Document Information for Query

Use this page to document additional information regarding the query:

Page Name	Navigation
Query Properties	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Create a new query or open an existing query. 3. Click the Save button in Query Manager pages to save a new query. <p>Alternatively, click the Properties link in Query Manager pages.</p>

Query Properties

*Query:

Description:

Folder:

*Query Type: ▼

*Owner: ▼

Distinct Security Join Optimizer

Query Definition:

Last Updated Date/Time: 10/07/2009 4:59:37PM

Last Update User ID: PTRN

Fields on the Query Properties Page

These fields are on the Query Properties page:

Query	Enter a query name. Query names are uppercase and can be up to 30 characters. You cannot have spaces or any special characters except an underscore.
Description	Enter a description up to 30 characters. Descriptions can be mixed case and can include special characters.
Folder	Assign or create folders to store the queries.
Query Type	Assign one of four query types to a query: <i>Archive</i> , <i>Process</i> , <i>Role</i> , or <i>User</i> .
Owner	<p>Indicates who has access to the query.</p> <p>Only the user who creates the query can open, run, modify, or delete private queries, or change security access. Any user with access to all records in the query can perform any operation on a public query if that user has rights to create a public query.</p> <ul style="list-style-type: none"> • <i>Private</i>: The default value that appears in the Owner field. <p>Only the operator ID that creates the query can open, run, modify, delete the query, or change the owner to <i>Public</i>.</p> • <i>Public</i>: <p>Any user with access to all records used for the query can run the query. Public security access is needed to open, modify, or delete the query.</p>
Distinct	Select to remove duplicate rows of data in a query.
Security Join Optimizer	<p>If this query contains multiple joins to the same query security record, define whether it should be run optimized:</p> <ul style="list-style-type: none"> • Select this check box to enable this query to join once to the first security record. • Clear this check box to enable this query to join multiple times to the security record.
Query Definition	Enter text to further describe the query definition.

Activity 2: Creating and Saving a New Query

In this activity, you will review the activity overview and:

- Create a new query.
- Save a new query.

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Activity Overview

The Training department has asked you to create a query that displays all course codes, course names, course lengths, and number of training units required for each course. The query is based on the Courses record (PSU_COURSE_TBL).

Save the query as COURSE_LIST.

Note. Use *PTRPTG* for the user name and password in this activity.

Activity Detailed Steps

Perform the detailed steps to complete the activity.

Creating a New Query

To create a new query:

1. If necessary, sign in to the Oracle PeopleSoft Enterprise.
2. Select Reporting Tools, Query, Query Manager.
3. Click the Create New Query link on the Query Manager search page.
4. Enter *PSU_COURSE* in the *begins with* field, and click the Search button.
5. Click the Add Record link of the PSU_COURSE_TBL record.
6. Click the OK button for the effective-dated message dialog box, and select the following fields:

Page Element	Value or Status
COURSE	Selected
DESCR	Selected
LENGTH_DAYS	Selected
TRAINING_UNITS	Selected

7. Select the Fields tab and observe the selected fields.

Saving a New Query

To save a new query:

1. Click the Save button, and enter the following information:

Page Element	Value or Status
Query	<i>COURSE_LIST</i>
Description	<i>List of Courses</i>
Owner	<i>Public</i>

2. Click the OK button, and then select the Run tab.
3. Compare the query with the following results.

Results

These are the results of creating the COURSE_LIST query:

Records Query Expressions Prompts Fields Criteria Having View SQL Run					
View All Rerun Query Download to Excel Download to XML				First	Last
	Course	Descr	Length	Units	
1	1008	Position Management	2.0	2.0	
2	1001	PeopleTools I	5.0	5.0	
3	1037	Service Operations	3.0	3.0	
4	2001	XMLP 8.50 Delta	1.0	1.0	
5	2002	Integration Broker 8.50 Delta	1.0	1.0	
6	1002	PeopleTools II	5.0	5.0	
7	1003	Introduction to Human Resource	2.0	2.0	
8	1004	Introduction to Benefits	2.0	2.0	
9	1005	General Ledger I	5.0	5.0	

This concludes the activity. Please do not continue.

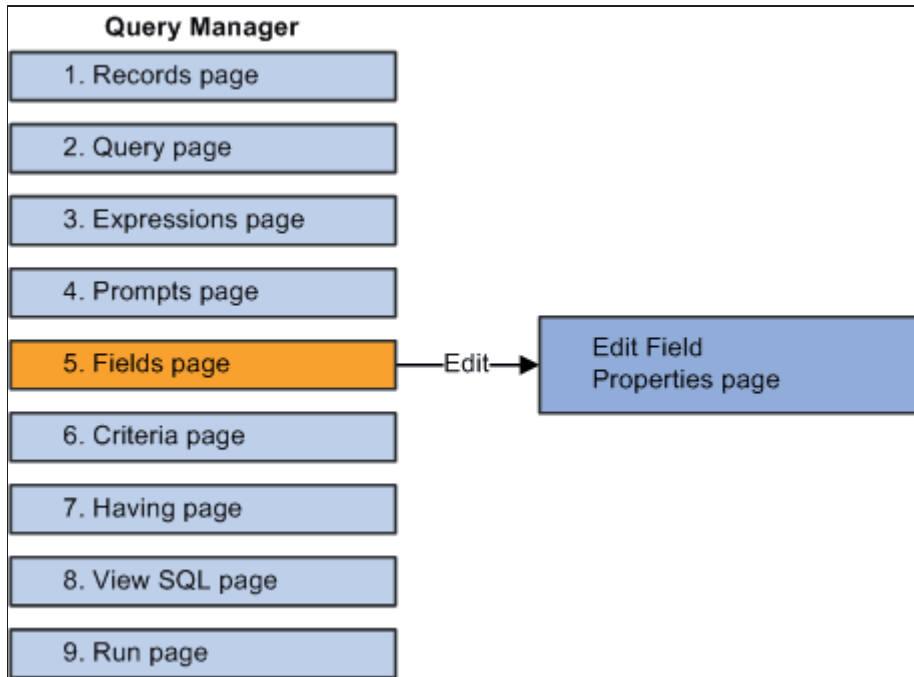
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Editing Field Properties

Edit Field Properties Page

This diagram shows the navigation path to access the Edit Field Properties page:



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Student Notes

Page Used to Enter or Change Field Properties

Use this page to change column headings of fields and to assign an aggregate function to these fields:

Page Name	Navigation
Edit Field Properties	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Click the Create New Query link. 3. Click the Search button, and click the appropriate Add Record link. 4. Select the Fields tab, and click the appropriate Edit button. <p>Alternatively:</p> <ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Search for an existing query, and click its Edit link. 3. On the Fields tab, click the appropriate Edit button.

Steps Used to Change Field Heading

To change a field heading from the Fields page:

1. Click the Edit button associated with the field.
2. Select any one of the options from the Headings section, or enter text to change the field heading.

Translate Values

Translate tables are effective-dated, so you must select which effective date to use for them. For most tables, PeopleSoft Query defaults to the current date, meaning that it uses the currently active list of translate table values. However, if the table you are querying is also effective-dated, PeopleSoft Query uses the value in the EFFDT field for a row. That is, for each row that the query returns, PeopleSoft Query uses the translate table values that were active as of the effective date of that row.

If neither of these effective date options are what you want, you have two more options:

- If the table that you query includes another date field, use the value in that field as the effective date for Translate table values.

Click the Edit button, select the *Field* option, and then select the field name from the drop-down list box.

- Use an expression to set the effective date for the translate table.

For example, enter a fixed effective date or prompt the user for a fixed effective date.

Steps Used to Set Translate Value Properties

To set translate value properties:

1. In Query Manager, select the Fields page and then click the Edit button for the field.
2. On the Edit Field Properties page, select an option from the Translate Value region.
3. Click the OK button.

Buttons and Fields on the Edit Field Properties Page

The buttons and fields on the Edit Field Properties page are:

No Heading Select to display the data without a column heading.

Text Select the text to appear as the column heading.

For globalization considerations, use the RFT Short or RFT Long heading text.

RFT Short and RFT Long Select the Record Field Text (RFT) short or long descriptions as defined in the database.

Heading Text Displays the text as it appears in the query results.

Unique Field Name Used for translations.

Activity 3: Editing Field Properties

In this activity, you will review the activity overview and:

- Create a query.
- Edit field properties.

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Activity Overview

Create and edit its field properties to display an updated list of student degrees.

Use the Student Education record (PSU_STUDENT_ED), and retrieve the Student ID (STUDENT_ID), degree (DEGREE), major (MAJOR), grade point average (GPA) and graduated (GRADUATED_INDICATOR) fields.

Order the results according to student ID. Display the short translate value for the degree field.

Save the query as STUDENT_ED_QRY.

Note. Use *PTRPTG* for the user name and password in this activity.

Activity Detailed Steps

Perform the detailed steps to complete the activity.

Creating a Query

To create a query:

1. If necessary, sign in to the Oracle PeopleSoft Enterprise.
2. Access the Query Manager and create a new query.
3. Add the PSU_STUDENT_ED record to the query.
4. Select the following fields:

Page Element	Value or Status
STUDENT_ID	Selected
DEGREE	Selected
MAJOR	Selected
GPA	Selected
GRADUATE_INDICATOR	Selected

5. Select the Fields page to view the selected fields.
6. Save the query using the following information:

Page Element	Value or Status
Query	<i>STUDENT_ED_QRY</i>
Description	<i>Student Education</i>
Owner	<i>Public</i>

7. Click the OK button, and select the Run page to view the query results.

Editing Field Properties

To edit field properties:

1. Select the Fields page, and then click the Edit button for the STUDENT_ID field.
2. Select the *RFT Long* option from the Heading group box of the Edit Field Properties page.
3. Click the OK button.

4. In the Fields page, click the Edit button for the DEGREE field.
5. Select the *Short* option from the Translate Value group box of the Edit Field Properties page.
6. Click the OK button.
7. In the Fields page, click the Edit button for the MAJOR field.
8. Select the *Text* option from the Heading group box of the Edit Field Properties page.
9. Enter *Degree Major* in the Heading Text field, and click the OK button.
10. In the Fields page, click the Reorder/Sort button to modify the column order of query results.
11. Enter *1* in the New Order By column of the STUDENT_ID field.
12. Click the OK button.
13. Save the query, and then select the Run tab to view the query results.
14. Compare the query with the following results.

Results

These are the results of editing queries:

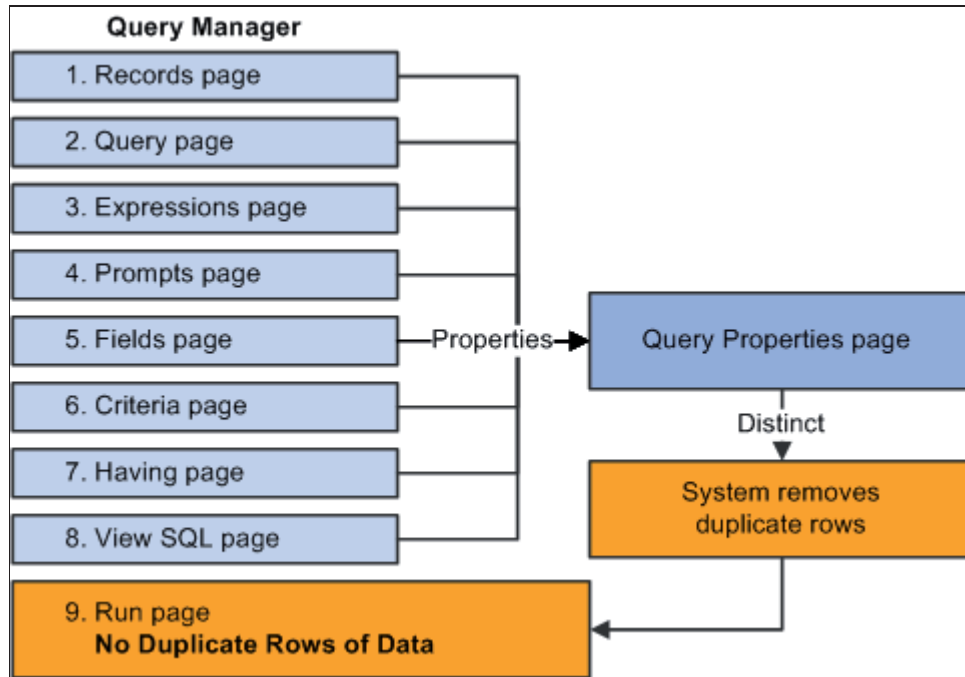
	Student ID	Degree	Degree Major	GPA	Graduated
1	2001	AAS	Business Management	3.40	Y
2	2001	MBA	Business Administration	3.50	Y
3	2003	BS	Political Science	4.00	Y
4	2003	MBA	International Business	3.87	Y
5	2020	BA	Accounting	2.90	Y
6	2020	MBA	Business	3.50	
7	2021	BA	Business Management	3.40	Y
8	2021	MBA	Business Administration	3.50	Y
9	2052	BS	Finance	3.80	Y
10	2052	MBA	General Management	3.20	Y

This concludes the activity. Please do not continue.

Removing Duplicate Data

Removing Duplicate Rows of Data

This diagram shows the steps to remove duplicate rows of data from a query:



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Student Notes

Distinct Feature

Sometimes query results display the same row of data more than once. If the Distinct feature on the Query Properties page is enabled, the system removes duplicate rows of data in a query.

Removing Duplicate Rows of Data from a Query

To remove duplicate rows of data from a query:

1. Create a new query or open an existing query using Query Manager.
2. Click the Properties link at the bottom of any page of Query Manager, except the Run page.
3. Select the Distinct check box.
4. Save the query.

- View the reports in the Run page.

The reports display data without duplicate values.

Example: Using the Distinct Feature

If you query the Customer table to retrieve the countries of existing customers, you retrieve 39 rows of data with duplicate countries—one row appears in the query results for each customer, as shown:

The screenshot shows a query results interface with a toolbar at the top containing buttons for Records, Query, Expressions, Prompts, Fields, Criteria, Having, View SQL, and Run. Below the toolbar, there are links for View All, Rerun Query, Download to Excel, and Download to XML. A pagination control shows 'First', '1-39 of 39', and 'Last'. The table below has a header 'Cntry' and 10 rows of data:

	Cntry
1	NLD
2	BRA
3	FRA
4	AUS
5	COL
6	FRA
7	MEX
8	USA
9	FRA
10	AUS

You want to see a list of countries where the customers are located. You want each country to appear only once, regardless of how many customers are located in that country.

With the Distinct feature enabled, the query results return 10 rows of data instead of 39 rows, as shown:

The screenshot shows the same query results interface as above, but with the Distinct feature enabled. The pagination control now shows 'First', '1-10 of 10', and 'Last'. The table below has a header 'Cntry' and 10 rows of data, each representing a unique country:

	Cntry
1	AUS
2	BRA
3	FRA
4	COL
5	MEX
6	GBR
7	NLD
8	USA
9	VEN
10	CAN

Activity 4: Removing Duplicate Data

In this activity, you will review the activity overview and:

- Create a query.
- Remove duplicate rows of data.

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Activity Overview

The Human Resources department needs a query that lists all the countries where their employees live.

Create a query named DISTINCT that should not contain any duplicate rows using the Personal Data record (PERSONAL_DATA) and the COUNTRY field.

Note. Use *PTRPTG* for the user name and password in this activity.

Activity Detailed Steps

Perform the detailed steps to complete the activity.

Creating a Query

To create a query:

1. If necessary, sign in to the Oracle PeopleSoft Enterprise.
2. Access Query Manager.
3. Create a new query using the PERSONAL_DATA record and the COUNTRY field.

Note. Make sure that you select the COUNTRY field, not the COUNTRY_NM_FORMAT field.

4. Select the Fields tab to view the selected field.
5. Save the query as *DISTINCT*, and view the query results.
6. Answer this question:

Question	Answer
How many rows are returned?	

Removing Duplicate Rows of Data

To remove duplicate rows of data:

1. Select the Fields tab.
2. Click the Properties link to access the Query Properties page.
3. Select the Distinct check box, and click the OK button.
4. Save the query, and view the query results.
5. Compare the query with the following results.

Results

This is the DISTINCT query with 10 rows returned:

The screenshot shows a query execution interface with a menu bar at the top containing: Records, Query, Expressions, Prompts, Fields, Criteria, Having, View SQL, and Run. Below the menu bar, there are links for View All, Rerun Query, Download to Excel, and Download to XML. On the right side, there is a pagination control showing 'First', '1-10 of 10', and 'Last'. The main area displays a table with the following data:

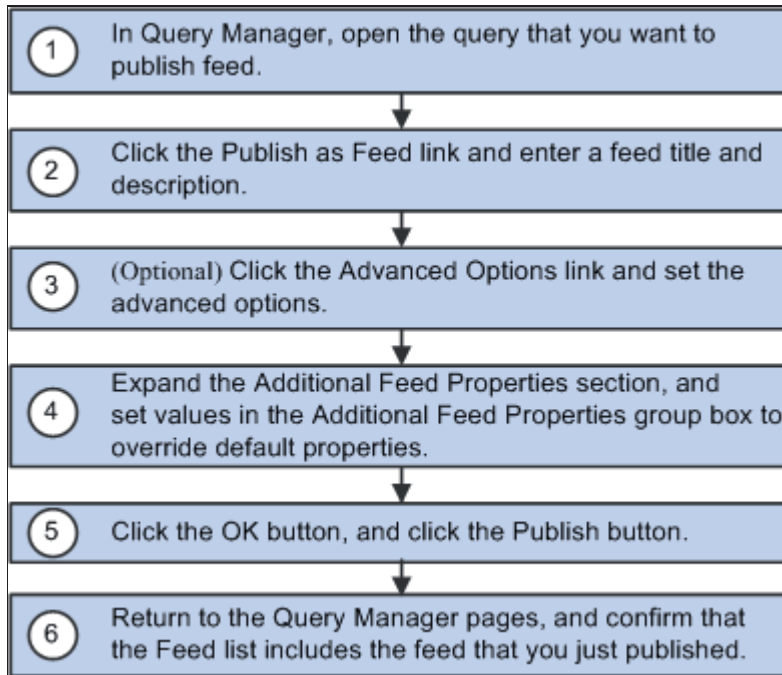
	Cntry
1	ESP
2	AUS
3	JPN
4	FRA
5	GBR
6	USA
7	NLD
8	DEU
9	BEL
10	CAN

This concludes the activity. Please do not continue.

Publishing and Using Query Feeds

Publishing Query Feeds

This diagram shows the steps used to publish query feeds:



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Student Notes

Publishing Query Feeds

A query feed is a data format that makes changing query results available to users through a feed reader. Any user with access to Query Manager will be able to publish query feeds.

Pages Used to Publish Query Feed Definitions

Use these pages to publish query feed definitions:

- Use this page to define query feed security options, enter optional feed properties, and access advanced options:

Page Name	Navigation
PSQuery Data Type - Publish Feed Definition	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Select the query that you want to publish feed, and click its Edit link. 3. In the Query Manager pages, click the Publish as Feed link.

PSQuery Data Type

Publish Feed Definition

Set the values to create or update a feed definition.

Feed Properties

*Feed Title:

Description:

[Advanced Options](#)

Additional Feed Properties

Copyright:

Logo:

Icon:

Author Name:

Author Email:

Contributors Customize | Find | | First 1 of 1 Last

	Contributor Name	Contributor Email		
1	<input type="text" value="Pat Smith"/>	<input type="text" value="pat.smith@mydomain.com"/>	+	-

[Preview Feed](#) [Publish Feed to Other Sites](#)

- Use this page to enter advanced option values that are specific to the query feed:

Page Name	Navigation
PSQuery Data Type - Advanced Feed Options	From the PSQuery Data Type - Publish Feed Definition page, click the Advanced Options link.

PSQuery Data Type

Advanced Feed Options

Specify the advanced options of this feed.

Feed Title: STUDENT_ED

Query Prompts

Parameter ID	Description	Value
GRADUATE_INDICATOR	Graduate Indicator	<input type="text" value="0"/>

Advanced Query Feed Options

Max Number of Entries: (Enter 0 for unlimited number of entries.) [Preview Feed](#)

<p>Entry Occurrence</p> <p><input type="radio"/> All Rows in One Feed Entry</p> <p><input checked="" type="radio"/> One Row Per Feed Entry</p>	<p>Feed Publishing Type</p> <p><input type="radio"/> Scheduled</p> <p><input checked="" type="radio"/> Real Time</p>	<p>Publish Language</p> <p><input type="radio"/> Current Language Only</p> <p><input checked="" type="radio"/> All Available Languages</p>
---	---	---

***Query Feed Security**

Query Fields

Comment	*Feed Entry Element	Entry Template	Edit	
?	Entry Content Url	http://ple-infodev-	<input type="button" value="edit"/>	<input type="button" value="+"/> <input type="button" value="-"/>
?	Entry Full Content	%ROW.HTML%	<input type="button" value="edit"/>	<input type="button" value="+"/> <input type="button" value="-"/>
?	Entry ID	%GUID%	<input type="button" value="edit"/>	<input type="button" value="+"/> <input type="button" value="-"/>
?	Entry Title	%ROW.TEXT%	<input type="button" value="edit"/>	<input type="button" value="+"/> <input type="button" value="-"/>
?	Entry Updated	%DateTime%	<input type="button" value="edit"/>	<input type="button" value="+"/> <input type="button" value="-"/>

Steps Used to Publish Query Feed Definitions

To publish a query feed definition:

1. Select Reporting Tools, Query, Query Manager.
2. Select the query that you want to publish feed, and click its Edit link.
3. In the Query Manager pages, click the Publish as Feed link.

The PSQuery Data Type - Publish Feed Definition page appears.

4. Enter a feed title and description.

5. Click the Advanced Options link.

The PSQuery Data Type - Advanced Feed Options page appears.

6. Set advanced options and change the feed entry content mapping values, if necessary.
7. Click the OK button.
8. Expand the Additional Feed Properties section, and enter values in the Additional Feed Properties group box to override default properties.
9. Click the OK button, and click the Publish button.

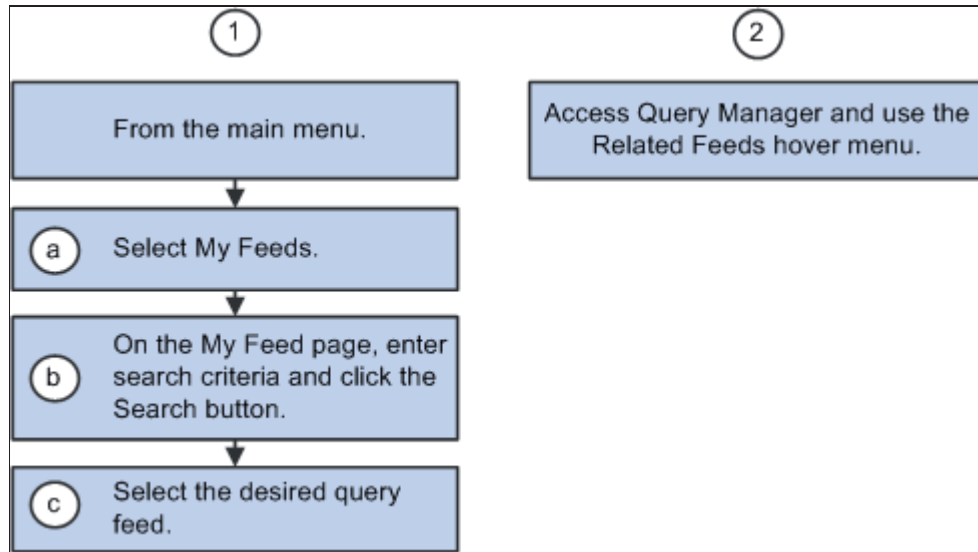
The PSQuery Data Type - Publish as Feed page appears listing the feed definition that you just published.

10. Click the Return button, and confirm that the Feed list includes the feed that you just published.
11. Save the query.

Publishing and Using Query Feeds (continued)

Using Query Feeds

You can view the feeds by selecting either of the following navigation paths:



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Student Notes

Using Query Feeds

Query feeds are secured by user IDs. The query user must have access to the service operation PTFP_FEED. This access is included in permission list PTPT1000, which is in the role PeopleSoft User.

When a query user is signed on to PeopleSoft Pure Internet Architecture, that query user can view the feeds by selecting either of the following navigation paths:

1. From the main menu.
 - a. Select My Feeds.
 - b. On the My Feed page, enter search criteria and click the Search button.
 - c. Select the desired query feed.
2. Access Query Manager and use the Related Feeds hover menu.

Page Used to Manage Query Feeds

Use this page to view all of the published query feed definitions for the selected query; and to edit, delete, or add query feeds:

Page Name	Navigation
PSQuery Data Type - Publish as Feed	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Select the query that you want to edit feeds, and click its Edit link. 3. In the Query Manager pages, click the Manage Feed link.

PSQuery Data Type

Publish as Feed

Review, edit or add feed definitions for this item. Only feed definitions published in the current site are marked as published and can be edited.

Feed Definitions		Published		
1	STUDENT ED	<input checked="" type="checkbox"/>	Edit	Delete

Return Add Feed

Elements of the PSQuery Data Type - Publish as Feed Page

The elements of the PSQuery Data Type - Publish as Feed page are:

- | | |
|-----------------|--|
| Edit | Use this button to open the Publish Feed Definition page, where you can edit the current published definition. |
| Delete | Use this button to delete the query feed. |
| Add Feed | Use this button to define and publish a new query feed. |

Steps Used to Edit Published Query Feed Definitions

To edit the published query feed definitions:

1. Select Reporting Tools, Query, Query Manager.
2. Select the query to publish feed, and click the Manage Feeds link.
The PSQuery Data Type - Publish as Feed page appears.
3. Click the Edit button for the feed definition that you want to edit.
The PSQuery Data Type - Publish Feed Definition page appears.
4. Click the Advanced Options link to edit advanced options.
5. On the Advanced Feed Options page, edit advanced options and change the feed entry content mapping values, if necessary.
6. Click the OK button.

7. Edit values in the Additional Feed Properties section to override properties.
8. Select the appropriate security option, and click the Publish button.
9. Click the Return button, and confirm that the Feed list includes the feed that you just published.
10. Save the query.

Review

In this lesson, you learned that:

- You select records and fields to create a new query for data output, and you edit the Query Properties page to provide additional information to the query.
- You change field headings and apply aggregate functions to fields on the Edit Field Properties page.
- You remove duplicate rows by using the Distinct feature in the Query Properties page.
- Any user with access to Query Manager will be able to publish, view, edit, delete, and add query feeds.

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Student Notes

Additional Resources

This table lists additional resources that provide more details about the topics that we have discussed in this lesson:

Topic	Cross-Reference
Aggregate functions	Lesson 8, "Using Summary Calculations," Using Predefined Aggregate Functions
Editing field properties	<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query</i> , "Editing Field Properties"
Effective date criteria	Lesson 5, "Filtering Output with Criteria," Using the Effective Date Field in Criteria
Selecting query output and editing query properties	<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query</i> , "Creating and Running Simple Queries" <i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query</i> , "Viewing and Editing Query Properties"
Creating and using query feeds	<i>Enterprise PeopleTools 8.50 PeopleBook: Feed Publishing Framework</i> , "Creating and Using Query Feeds"

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Lesson 5

Filtering Output with Criteria

Objectives

By the end of this lesson, you will be able to:

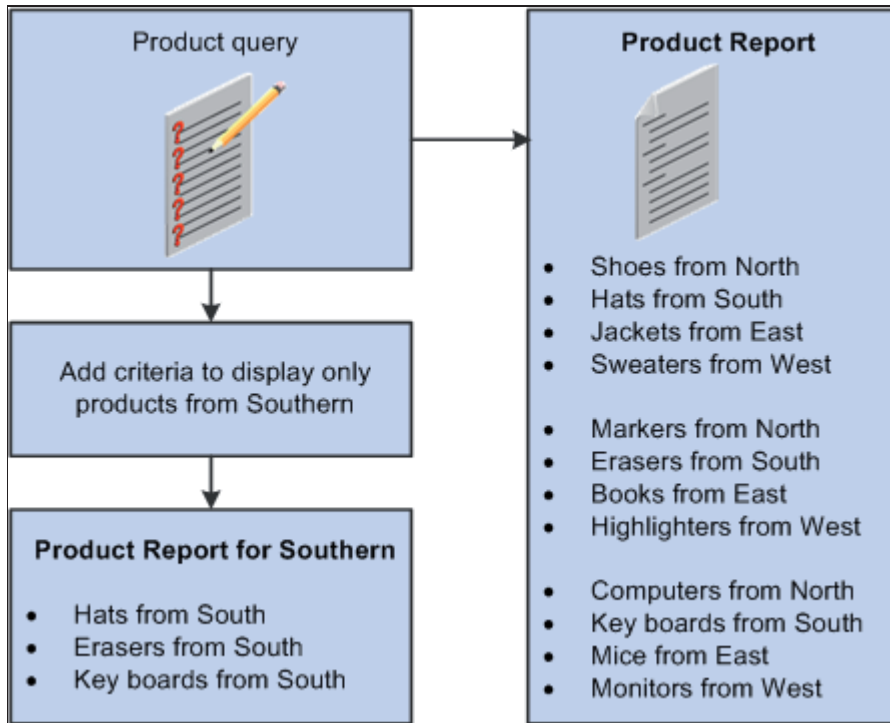
- Add criteria to queries.
- Refine criteria.
- Use multiple criteria statements.
- Use the Effective Date field in criteria.

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Adding Criteria to Queries

Applying Criteria to Queries

This diagram shows an example of applying criteria to query:



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Student Notes

Purpose of Applying Criteria to Queries

Often you do not want to retrieve every row of data from the record that you are accessing. The criteria serve as a test that the system applies to each row of data in the tables that you are querying. If the row passes the test, the system retrieves it; if the row does not pass, the system does not retrieve it. By defining criteria rows in the query, you:

- Reduce the number of rows of data that are returned.
- Retrieve only the information that you need.

Explaining the Example on the Slide

Suppose that you are working for a company that has four regional manufacturing sites: Northern, Southern, Eastern, and Western. Being the manager of the Southern site, you want to view only the products that your company manufacture at this location.

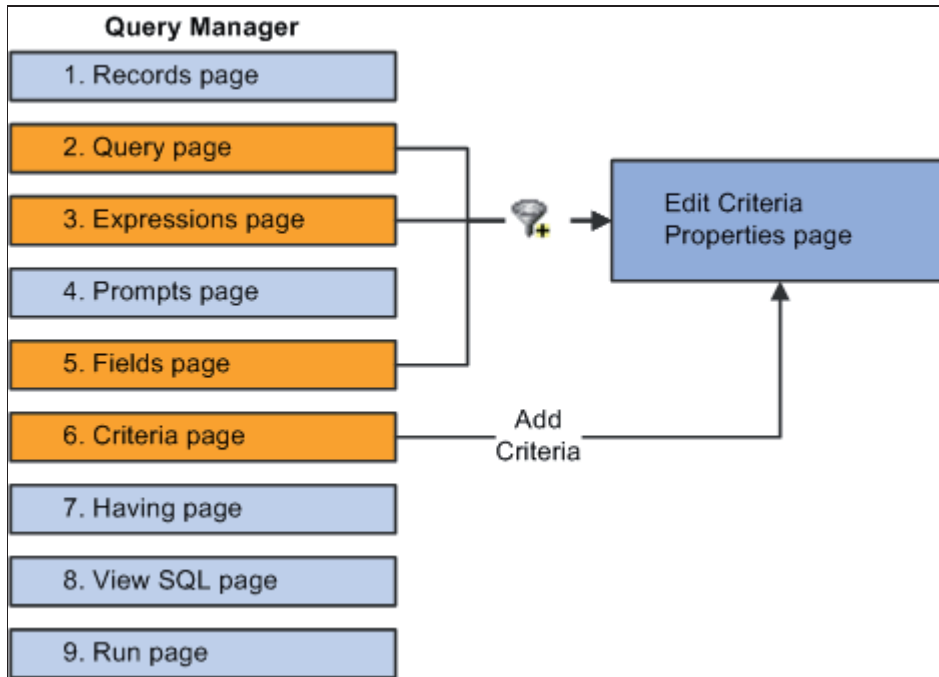
Currently, you use a product query to generate a report that displays all of the products that the company manufactures. This report is much more data than you want or need.

By adding selection criteria to the existing query, you retrieve only rows of data where the manufacturing location field contains the value *s* for the South.

Adding Criteria to Queries (continued)

Edit Criteria Properties Page

This diagram shows the navigation to access the Edit Criteria Properties page:



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Student Notes

Accessing the Edit Criteria Properties Page

Query Manager enables you to add criteria to a query in multiple ways:

- Click the Use as Criteria icon on the Query page.
- Click the Add Criteria icon on the Expressions page.
- Click the Add Criteria icon on the Fields page.
- Click the Add Criteria button on the Criteria page.

Add Criteria Icon

When you click the Add Criteria icon:

- You automatically add the associated field to the Edit Criteria Properties page.
- The Edit Criteria Properties page appears, enabling you to complete the criteria as necessary.

Pages Used to Add or Modify Criteria

Use these page to add or modify criteria:

- Use this page to select fields and add criteria to queries:

Page Name	Navigation
Query	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Click the Create New Query link. 3. Search for records, and click the appropriate Add Record link.

The screenshot shows the 'Query Manager' interface for a query named 'CRSE_SESSIONS' with the description '2008 Course Sessions'. The 'Fields' tab is selected, showing a list of fields with checkboxes and join options. The 'Chosen Records' section shows 'PSU_CRS_SESSN - PSU Course Session Table' with 'Check All' and 'Uncheck All' buttons. The 'Fields' list includes: COURSE - Course Code (checked), SESSION_NBR - Session Number (unchecked), BUSINESS_UNIT - Business Unit (unchecked), START_DATE - Start Date (checked), END_DATE - End Date (checked), MAX_ENROLL - Maximum Enrollment (unchecked), SESSION_STATUS - Session Status (unchecked), INSTRUCTOR - Instructor (checked), TRAINING_LOC - Training Location (checked), and CLASSROOM - Classroom (unchecked). Join options are visible for INSTRUCTOR and TRAINING_LOC.

- Use this page to add or edit expressions to queries, and to add criteria to queries:

Page Name	Navigation
Expressions	<ol style="list-style-type: none"> 1. From the Query page, select fields. 2. Select the Expressions tab.

- Use this page to edit fields and add criteria to queries:

Page Name	Navigation
Fields	From the Expressions page, select the Fields tab.

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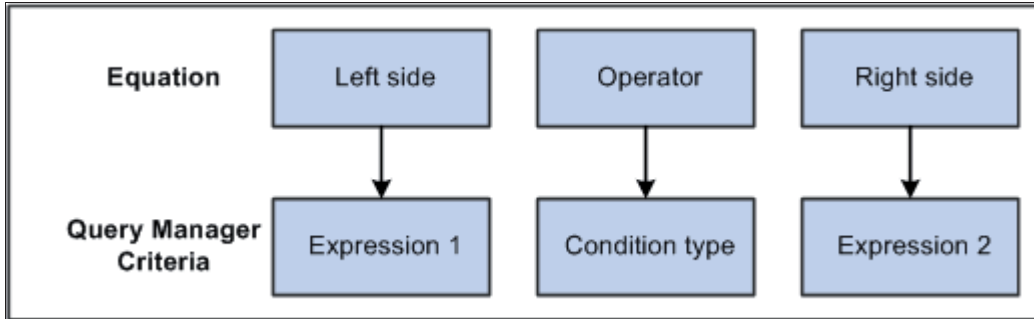
Oracle University and TransAmerica Training Management Inc use only

Adding Criteria to Queries (continued)

Edit Criteria Properties Page (continued)

Query criteria are like an equation. Like an equation, query criteria consist of left side, operator, and right side.

This diagram shows the comparison between equation and query criteria:



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Student Notes

Page Used to Filter Data from a Query

Use this page to define the criteria:

Page Name	Navigation
Edit Criteria Properties	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Select the Query page, and click the appropriate Use as Criteria icon. <p>Alternatively, select the Expressions page, and click the appropriate Add Criteria icon.</p> <p>Alternatively, select the Fields page, and click the appropriate Add Criteria icon.</p>

Edit Criteria Properties

Choose Expression 1 Type

Field
 Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:
A.TRAINING_LOC - Training Loca

*Condition Type: equal to

Choose Expression 2 Type

Field
 Expression
 Constant
 Prompt
 Subquery

Expression 2

Define Constant

Constant:

OK Cancel

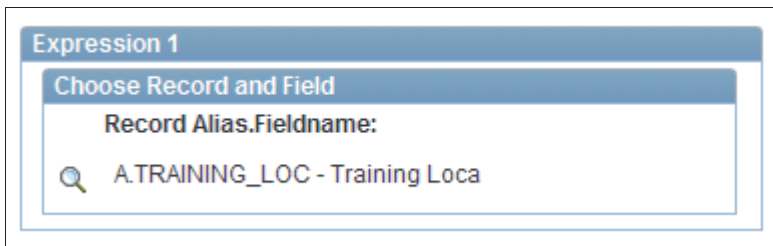
Areas Used to Filter Data

The element of the Edit Criteria Properties page are:

Choose Expression 1 Type	Determines whether the first part of the selection criteria is based on a field or an expression.
Expression 1	Contains the value for the first part of the selection criteria.
Condition Type	Determines how Query Manager compares the values of the first expression to the second expression.
Choose Expression 2 Type	Determines whether the second part of the selection criteria is based on a field, an expression, a constant, a prompt, or a subquery.
Expression 2	Contains the value of the second part of the selection criteria.

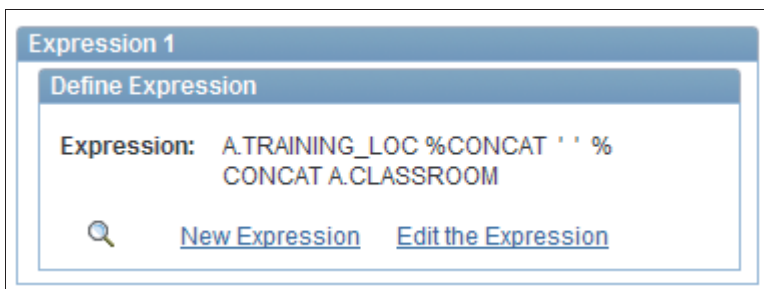
Using Field as Criteria in Expression 1

To use a field as criteria in expression 1, select one field from the list of fields in the record:



Using Expressions as Criteria in Expression 1

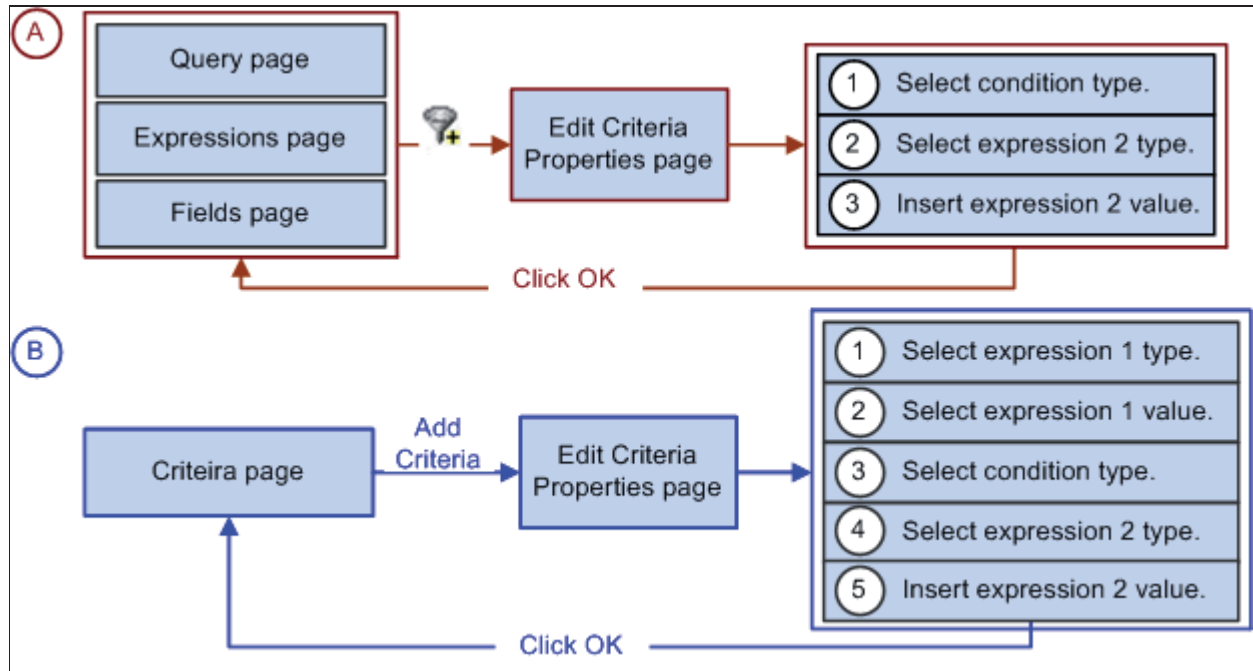
To use an expression as criteria in expression 1, use one of the links or the prompt button to search for an existing expression, create a new expression, or edit an existing expression:



Adding Criteria to Queries (continued)

Methods and Steps Used to Add Criteria

There are two methods to add criteria. This diagram shows the methods and steps used to add criteria:



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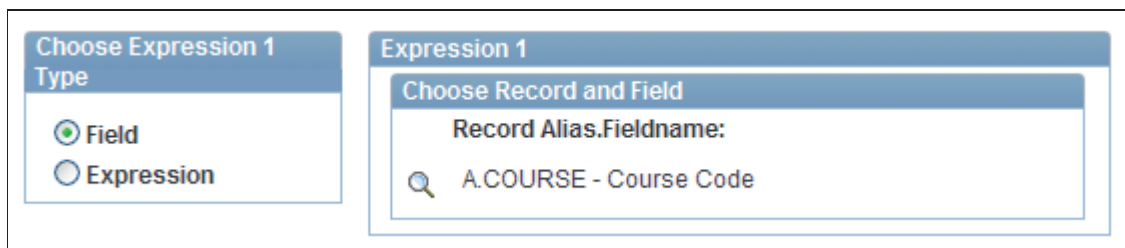
Student Notes

Notes for Using the Edit Criteria Properties Page

When you use the Criteria Properties page, you should note that:

- Clicking any Add Criteria icon—whether from the Query page, the Fields page, or the Expressions page—automatically inserts the associated field or expression in the Expression 1 section of the Edit Criteria Properties page.

For example, after clicking the Add Criteria icon associated with the Course Code field on the Query page, the *A.COURSE - Course Code* appears in the Expression 1 region, as shown:

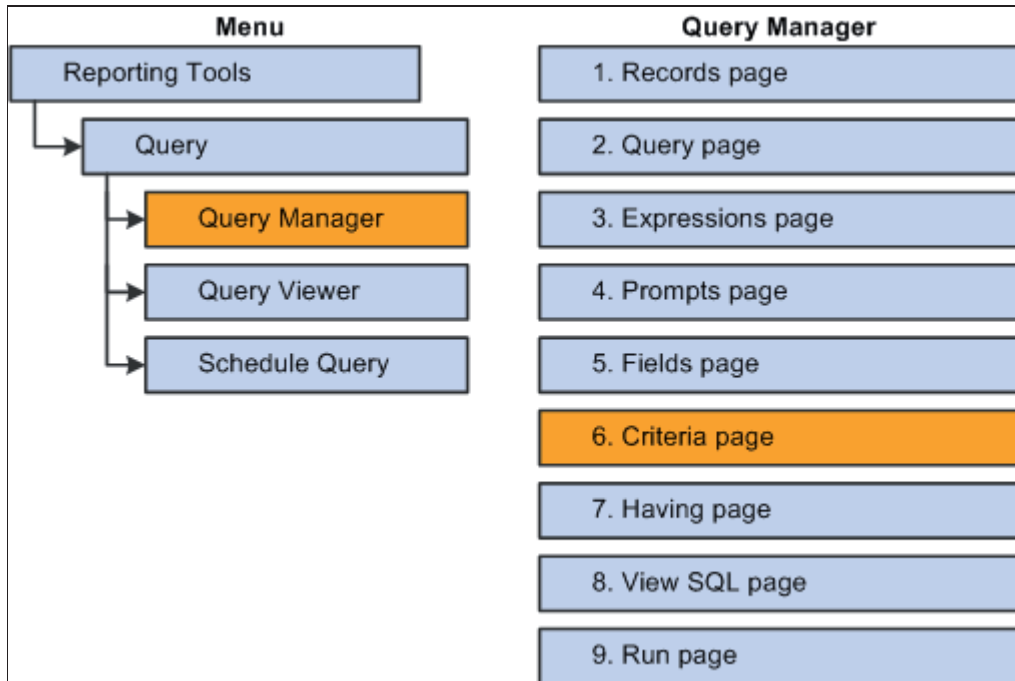


- The Choose Expression 2 Type field varies depending on the option that you select in the Condition Type field.
- The Expression 2 field varies depending on the option that you select in the Choose Expression Type 2 field.

Adding Criteria to Queries (continued)

Criteria Page

This diagram shows the Criteria page of the Query Manager tool:



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Student Notes

Page Used to Enter Selection Criteria for the Query

Use this page to add and edit criteria or to view the new row of criteria after you create it from the Edit Criteria Properties page:

Page Name	Navigation
Criteria	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Click the Create New Query link. 3. Search for records, and click the appropriate Add Record link. 4. Select fields on the Query page. 5. Select the Criteria tab.

Records Query Expressions Prompts Fields **Criteria** Having View SQL Run

Query Name: CRSE_SESSIONS Description: 2008 Course Sessions Feed

Add Criteria Group Criteria Reorder Criteria

Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	A.START_DATE - Start Date	between	2008-01-01 AND 2008-12-31	Edit	
AND	A.SESSION_STATUS - Session Status	equal to	A	Edit	

Functionality of the Criteria Page

You can add criteria directly on the Criteria page, but the user must then take the extra step of selecting the field for Expression 1, which might be a considerable task on larger records.

The functionality of the Criteria page are:

Add Criteria

Inserts a row of criteria into the query.

Note. Query Manager enables you to use one or multiple rows of criteria in a single query.

Group Criteria

Enables you to apply multiple selection criteria as one criterion.

Reorder Criteria

Enables you to reorder criteria rows without deleting the existing criteria.

Logical (operator drop-down list)

Enables you to select the Boolean operators AND, AND NOT, OR, and OR NOT.

Edit

Modifies the existing row of criteria.



The Delete icon deletes the row of selected criteria.

Refining Criteria

Condition Types

The more you use Query Manager, the more you are likely to refine queries with conditions other than the *equal to* condition.

Query Manager provides eighteen (18) conditions that you can apply to the criteria.

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Student Notes

Condition Types

Each condition type correlates to certain expression 2 types.

This table lists the condition types and their correlation to expression 2 types:

Condition Type	Expression 2
equal to not equal to greater than not greater than <= less than not less than >=	Field Expression Constant Prompt Subquery
like not like	Constant Prompt
in list not in list	In List Subquery
between not between	Const - Const Const - Field Const - Expr Field - Const Field - Field Field - Expr Expr - Const Expr - Field Expr - Expr
exists does not exist	Subquery
in tree not in tree	Tree Option Tree Prompt Option
is not null is null	<No Expression 2 Type>

Results from the Commonly Used Conditions

This table shows the results of these commonly used conditions:

Condition Type	Results
<i>equal to</i>	The value that is in the selected record field exactly matches the comparison value.
<i>like</i>	The value that is in the selected field matches a specified string pattern.
<i>is null</i>	The selected record field does not have a value in it. You do not specify a comparison value for this operator. Key fields, required fields, character fields, and numeric fields do not allow null values.
<i>between</i>	The value that is in the selected record field falls between two comparison values. The range is inclusive.
<i>in tree</i>	The value that is in the selected record field appears as a node in a tree that you create with PeopleSoft Tree Manager.

Note. PeopleSoft Query should not use trees that contain a combination of dynamic details and range details. The results that you retrieve from trees with this combination of details may be inaccurate.

Refining Criteria (continued)

Expression 2 Type

After you select a condition, you then select an Expression 2 type.

Use these guidelines to select the appropriate Expression 2 type, and specify the expression to which Expression 1 type compares:

Expression 2 Type	Description
Field	Compares to a field within the records selected for this query.
Expression	Compares to an expression that you create. PeopleSoft Query evaluates each row with this expression.
Constant	Compares to a single fixed value.
Prompt	Compares to a prompt that requires the user to enter values when the query runs.
Subquery	Compares to a field from another query.

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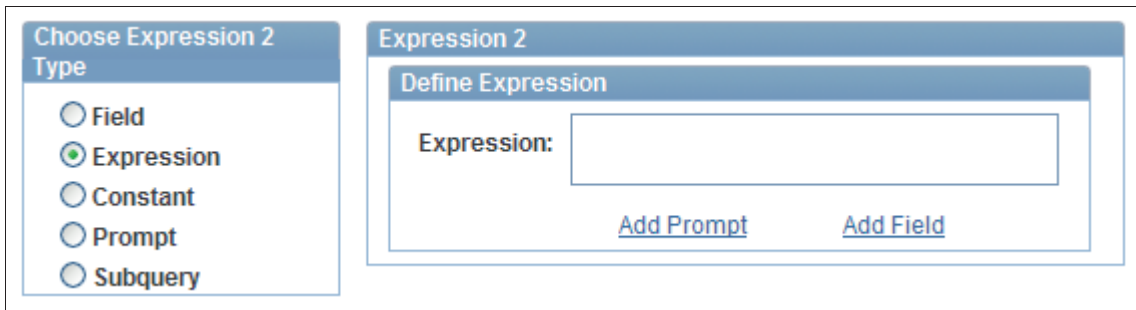
Student Notes

Examples: Using Expression 2 Type

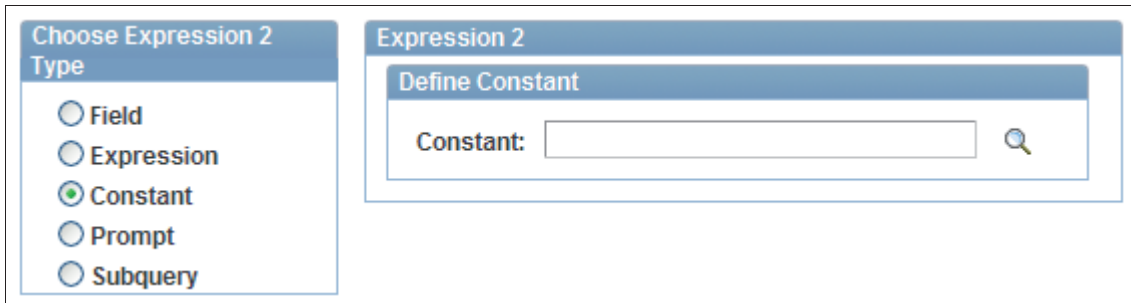
If you select *Field* as the Expression 2 type, the Search Record Field icon appears for you to select a field for expression 2:

The image shows two overlapping dialog boxes. The background dialog is titled 'Choose Expression 2 Type' and has five radio button options: 'Field' (selected), 'Expression', 'Constant', 'Prompt', and 'Subquery'. The foreground dialog is titled 'Expression 2' and contains a sub-dialog titled 'Choose Record and Field'. This sub-dialog has a search field with the text 'Record Alias.Fieldname:' and a magnifying glass icon to its left.

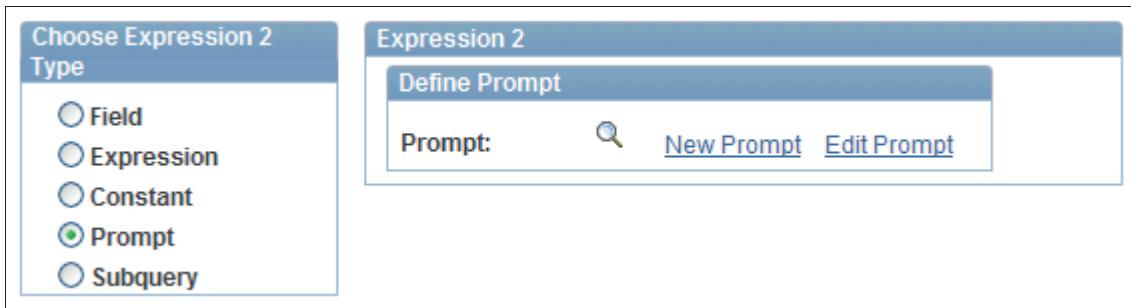
If you select *Expression* as the Expression 2 type, the Add Prompt or Add Field links appear for you to select an expression for expression 2:



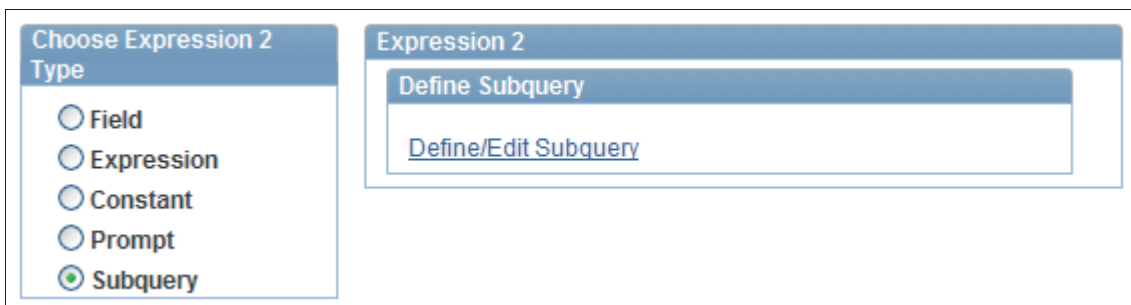
If you select *Constant* as the Expression 2 type, the Constant field appears for you to enter the expression or constant for expression 2:



If you select *Prompt* as the Expression 2 type, the Select Prompt icon, New Prompt, and Edit Prompt links appear for you to define the expression or prompt for expression 2:



If you select *Subquery* as the Expression 2 type, the Define/Edit Subquery link is available for you to enter the expression or subquery for expression 2:

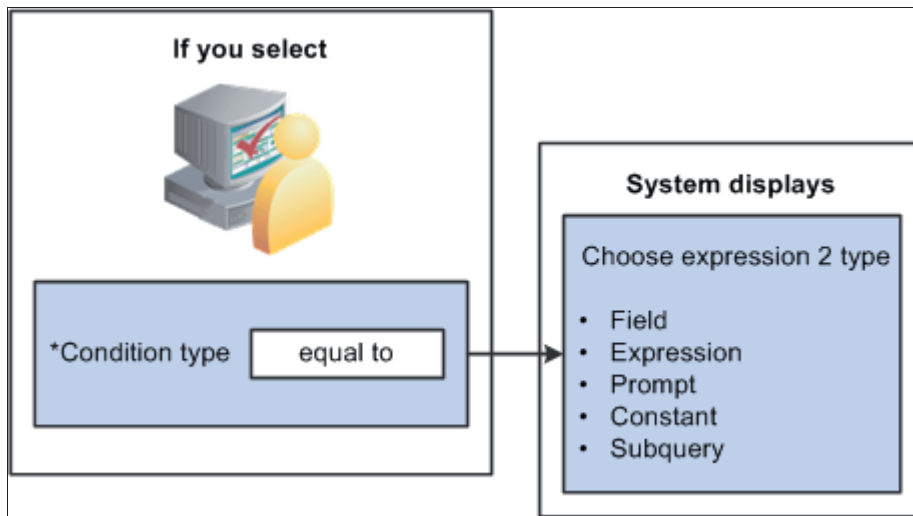


Refining Criteria (continued)

Equal to Condition

The *equal to* condition finds rows of data with values that match the constant that you specify in expression 2.

This diagram shows the expression 2 types available when you select the *equal to* condition type:



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Student Notes

Example: Using the Equal to Condition

You can apply the condition *equal to* for retrieving customers who are in the U.S. and whose customer type is PeopleFriend (FRND).

This page is set to retrieve any customer who have customer type is FRND:

Edit Criteria Properties

Choose Expression 1 Type

Field

Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:

A.CUSTOMER_TYPE - Customer Typ

*Condition Type: equal to

Choose Expression 2 Type

Field

Expression

Constant

Prompt

Subquery

Expression 2

Define Constant

Constant: FRND

OK Cancel

This page is set to retrieve any customer living in the United States:

Edit Criteria Properties

Choose Expression 1 Type

Field

Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:

A.COUNTRY - Country

*Condition Type: equal to

Choose Expression 2 Type

Field

Expression

Constant

Prompt

Subquery

Expression 2

Define Constant

Constant: USA

OK Cancel

Note. You can apply criteria to fields that are not included in the output of the query. You can display the field for verification, and then remove it from the query.

After applying the criteria settings, the Criteria page displays the added rows of criteria:

Records Query Expressions Prompts Fields **Criteria** Having View SQL Run

Query Name: New Unsaved Query Description: Feed

Add Criteria Group Criteria Reorder Criteria

Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	A.CUSTOMER_TYPE - Customer Type	equal to	FRND	Edit	-
AND	A.COUNTRY - Country	equal to	USA	Edit	-

Note. You must know how the data is stored in the database (all capitals, mixed case, and so on) to ensure accurate results when the query runs. This is one reason why you might want to have the field in the results, at least temporarily.

When you run the query, the query returns eleven (11) rows of data showing the customers who are in the United States and have the type of FRND:

Records Query Expressions Prompts Fields Criteria Having View SQL **Run**

View All | Rerun Query | Download to Excel | Download to XML First 1-11 of 11 Last

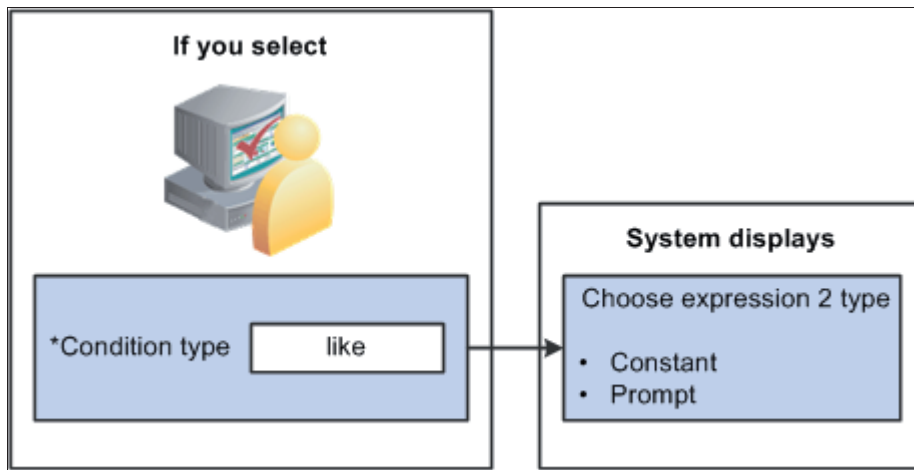
	Customer	Type	Descr	Street	City	St	Zip	Cntry
1	FLE	FRND	Friends-Little Egg Lighthouse	101 Restoration Lane	Teaneck	NJ	07666	USA
2	HLOB	FRND	Have De Grace Lobster Eatery	DEMOCRACY CENTER	Bethesda	MD	20817	USA
3	IBA	FRND	Incline Beach Athletic Coop	33 Lake Shore Blvd	Incline Village	NV	89448	USA
4	LSL	FRND	LoneStar Longhorn Cattle Co.	5420 Alamo Drive	Dallas	TX	75240	USA
5	PRCC	FRND	Paul Revere Cellular Comm.	2300 Commonwealth Avenue	Waltham	MA	02154	USA
6	PTE	FRND	Protect the Earth	2468 Appreciation Drive	Black Hills	MN	55406	USA
7	ROBS	FRND	Rob's Hardware	122 Boogie Ave	Brentwood	AL	23099	USA
8	SMA	FRND	Stone Mountain Academy of Art	3333 Peachtree Road	Atlanta	GA	30305	USA
9	VHOSP	FRND	Valley Hospital	123 State Street	Chicago	IL	60609	USA
10	WCON	FRND	Waukegan Consultants, Inc.	20 Drury Lane	Oakbrook Terrace	IL	60181	USA
11	XYZ	FRND	XYZ Corporation	1776 Mt. Diablo Blvd.	Walnut Creek	CA	94596	USA

Refining Criteria (continued)

Like Condition

The *like* condition retrieves data that matches a portion of a character string.

This diagram shows the Expression 2 type when you select the *like* condition type:



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Student Notes

Constant Expression Used with the Like Condition

A constant expression that you use with the *like* condition is case-sensitive and uses wildcard characters to search for data, as shown in the following table:

Wildcard Character	Definition
%	Any string of zero or more characters. For example, C% finds any string beginning with the letter C.
_	Any single character. For example, _ones finds any string of five characters ending with <i>ones</i> , such as <i>Jones</i> and <i>Cones</i> .

Advantages of Using the Like Condition

Using the *like* condition offers many advantages in retrieving data. This table lists some of those advantages:

Expression 2	Result
%Dakota	Finds anything ending in <i>Dakota</i> . For example, <i>North Dakota</i> and <i>South Dakota</i> .
South%	Finds anything beginning with <i>South</i> . For example, <i>South Carolina</i> and <i>South Dakota</i> .
199_	String beginning with <i>199</i> and one more character. For example, <i>1998</i> and <i>199A</i> .
_an%	Finds anything with one character followed by the characters <i>an</i> . For example, <i>San Francisco</i> and <i>Manila</i> .
%, S%	The PeopleSoft name format. Finds anyone with a first name beginning with the letter <i>S</i> .

Example: Using the Like Condition

Suppose you have to create a row of criteria that retrieves only those customers whose business name contains the letter *S*. To accomplish these results, you need the criteria specifically searching for an uppercase *S* using the *like* condition.

In the previous example, you add criteria to retrieve only those customers who are in the U.S. and have the PeopleFriend customer type.

You want to modify the current criteria to retrieve customers who are in U.S. and whose business name contains an uppercase *S*. This page displays the modified criteria:

Edit Criteria Properties

Choose Expression 1 Type

- Field
- Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:

A.DESCR - Description

***Condition Type:** like

Choose Expression 2 Type

- Constant
- Prompt

Expression 2


Define Constant

Constant: %S%

OK Cancel

The Criteria page now displays two rows of criteria for this query:

Records Query Expressions Prompts Fields Criteria Having View SQL Run

Query Name: New Unsaved Query Description:  Feed ▾

[Add Criteria](#) [Group Criteria](#) [Reorder Criteria](#)

Logical	Expression1	Condition Type	Expression 2	Edit	Delete
▼	A.DESCR - Description	like	%S%	Edit	-
AND ▼	A.COUNTRY - Country	equal to	USA	Edit	-

The following results show all customers who are in the U.S. and whose business name contains an uppercase S:

Records Query Expressions Prompts Fields Criteria Having View SQL Run

View All | [Rerun Query](#) | [Download to Excel](#) | [Download to XML](#) First 1-4 of 4 Last

	Type	Cntry	Customer	Customer Name
1	PART	USA	CONS	Consulting Services
2	FRND	USA	LSL	LoneStar Longhorn Cattle Co.
3	PERS	USA	PSFT	PeopleSoft Inc.
4	FRND	USA	SMA	Stone Mountain Academy of Art

Identifying Simple Mistakes

Minor mistakes with wildcard can return radically different results, especially when using the *like* condition. Some common mistakes are:

- Entering extra spaces.
- Entering two consecutive underscores.
- Using wildcard characters with a condition other than the *like* condition.
- Discounting case-sensitivity.

Other mistakes often cause the query to return zero rows.

Note. Refer to the database management system documentation for information about other wildcard characters that specific database platforms support.

Refining Criteria (continued)

Is Null Condition

You use the *is null* condition to search for fields that have no value.

The fields that Oracle PeopleSoft supports for the *is null* condition type are:

- Long character
- Image
- Date
- Time
- Datetime fields

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Student Notes

Is Null Condition

If you select the *is null* condition, expression 2 disappears because *is null* defines the criteria for the second expression:

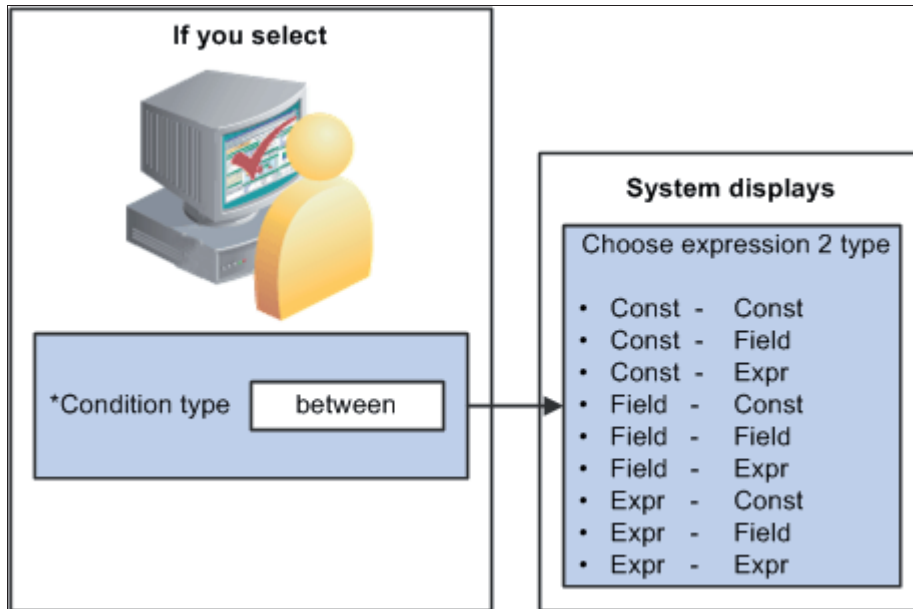
The screenshot shows the 'Edit Criteria Properties' dialog box. On the left, under 'Choose Expression 1 Type', the 'Field' radio button is selected. On the right, the 'Expression 1' section contains a search box with the text 'Record Alias.Fieldname:' and a magnifying glass icon. Below these sections, the '*Condition Type:' dropdown menu is set to 'is null'. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

Note. Null is not the same as zeros or blank spaces. Never select *is null* with character or number fields.

Refining Criteria (continued)

Between Condition

Use the *between* condition to filter data based on a range of two values that you specify in expression 2. This diagram shows the Expression 2 type when you select the *between* condition type:



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Student Notes

Example: Using the Between Condition

Suppose you need to retrieve courses that have enrollment dates from December 1, 2008 through December 31, 2008. You can use the *between* condition to get these results.

This is an example of using date fields with the *between* condition:

Edit Criteria Properties

Choose Expression 1 Type

Field

Expression

Expression 1

Choose Record and Field

Record Alias.FieldName:

*Condition Type: between

Choose Expression 2 Type

Const - Const

Const - Field

Const - Expr

Field - Const

Field - Field

Field - Expr

Expr - Const

Expr - Field

Expr - Expr

Expression 2

Define Constant

*Date:

Define Constant 2

*Date 2:

The row of criteria displays the two dates that you enter on the Edit Criteria Properties page:

Records	Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run
Query Name: New Unsaved Query		Description:		Feed		<input type="button" value="Add Criteria"/> <input type="button" value="Group Criteria"/>		
Criteria								
Logical	Expression1	Condition Type	Expression 2	Edit	Delete	Customize Find First 1 of 1 Last		
<input type="text" value=""/>	A.ENROLL_DT - Enroll Date	between	2008-12-01 AND 2008-12-31	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>			

Note. When there is only one row of criteria, the ReOrder Criteria button on the Criteria page does not appear.

As expected, the results display only those rows of data that have dates between December 1, 2008 and December 31, 2008:

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Records Query Expressions Prompts Fields Criteria Having View SQL Run							
View All Rerun Query Download to Excel Download to XML					First	1-26 of 26	Last
	ID	Course	Session	Enrolled	Status		
1	2425	1001	412	12/10/2008	ENR		
2	2521	1001	412	12/09/2008	ENR		
3	2600	1002	703	12/15/2008	ENR		
4	2605	1002	702	12/15/2008	ENR		
5	2635	1002	703	12/15/2008	ENR		
6	2641	1001	412	12/03/2008	ENR		
7	2667	1001	412	12/08/2008	ENR		
8	2786	1001	412	12/14/2008	ENR		
9	2840	1002	702	12/15/2008	ENR		
10	2913	1002	702	12/01/2008	ENR		
11	2642	1001	403	12/17/2008	ENR		
12	2642	1002	702	12/17/2008	ENR		

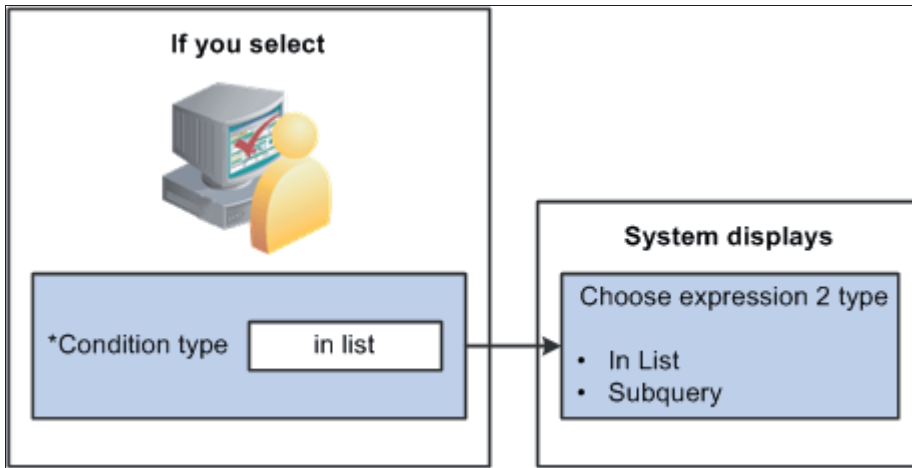
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Refining Criteria (continued)

In List Condition

Use the *in list* condition to limit data retrieval to a predefined set of values.

This diagram shows the Expression 2 type when you select the between condition type:



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Student Notes

Example: Using the In List Condition

Suppose you need to retrieve five specific courses. You can use the *in list* condition to get these results.

This is an example of using a list of facility codes:

Edit Criteria Properties

Choose Expression 1 Type

Field

Expression

Expression 1

Choose Record and Field

Record Alias.FieldName:

*Condition Type:

Choose Expression 2 Type

In List

Subquery

Expression 2

Edit List

List Members: ('BOS','ATL','JPN','BZL','BER')

Use this page to build a list of values for PeopleSoft Query to compare to the value from the first expression:

Edit List

List Members		Customize Find First 1-4 of 4 Last
<input type="checkbox"/>	BOS	
<input type="checkbox"/>	ATL	
<input type="checkbox"/>	JPN	
<input type="checkbox"/>	BZL	

Value:

[Add Prompt](#)

Adding Comparison Values to the List

To add a comparison value to the list:

1. Click the Look Up icon on the Edit Criteria Properties page.
2. Enter data in the Value field.
3. Click the Add Value button.
4. Click the OK button.

Searching for Values

To search for values:

1. Click the Search button.
2. Click the Look Up icon and select a value.
3. Click the OK button.

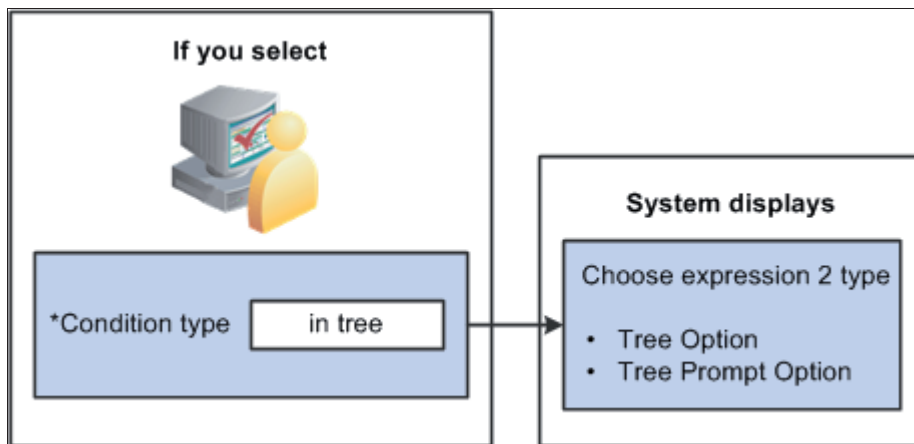
Refining Criteria (continued)

In Tree Condition

Trees depict hierarchical structures that represent a group of summarization rules for a particular database field.

The *in tree* condition provides access to PeopleSoft Tree Manager to retrieve hierarchical data for the query.

This illustration shows the Expression 2 type when you select the *in tree* condition type:



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Student Notes

Using the PeopleSoft Tree Manager Tree Structure

Think of a tree as a visual representation of a set of summarization rules for a database field. The tree specifies how the system groups the values of the field for purposes of reporting or security access.

A tree enables you to group different things in a hierarchy.

Note. When you select the *not in tree* condition type, the system also displays the Tree Option and Tree Prompt Option options in the Choose Expression 2 Type group box.

Tree Option Expression 2 Types

A tree can specify how to summarize or roll up vendor locations for reporting purposes. Using trees, you can access information in ways that match the groupings and hierarchies that already exist in the organization.

When you select the Tree Option as the comparison value, the Select Tree Node List section appears:

*Condition Type:

Choose Expression 2 Type

Tree Option

Tree Prompt Option

Expression 2

Select Tree Node List

Node List:

Display Detail Values [New Node List](#)

Use the Select Tree Node List section to access the Select a Tree and Display and Select TreeNode pages where you can create a list of values for PeopleSoft Query to compare to the value from the first expression.

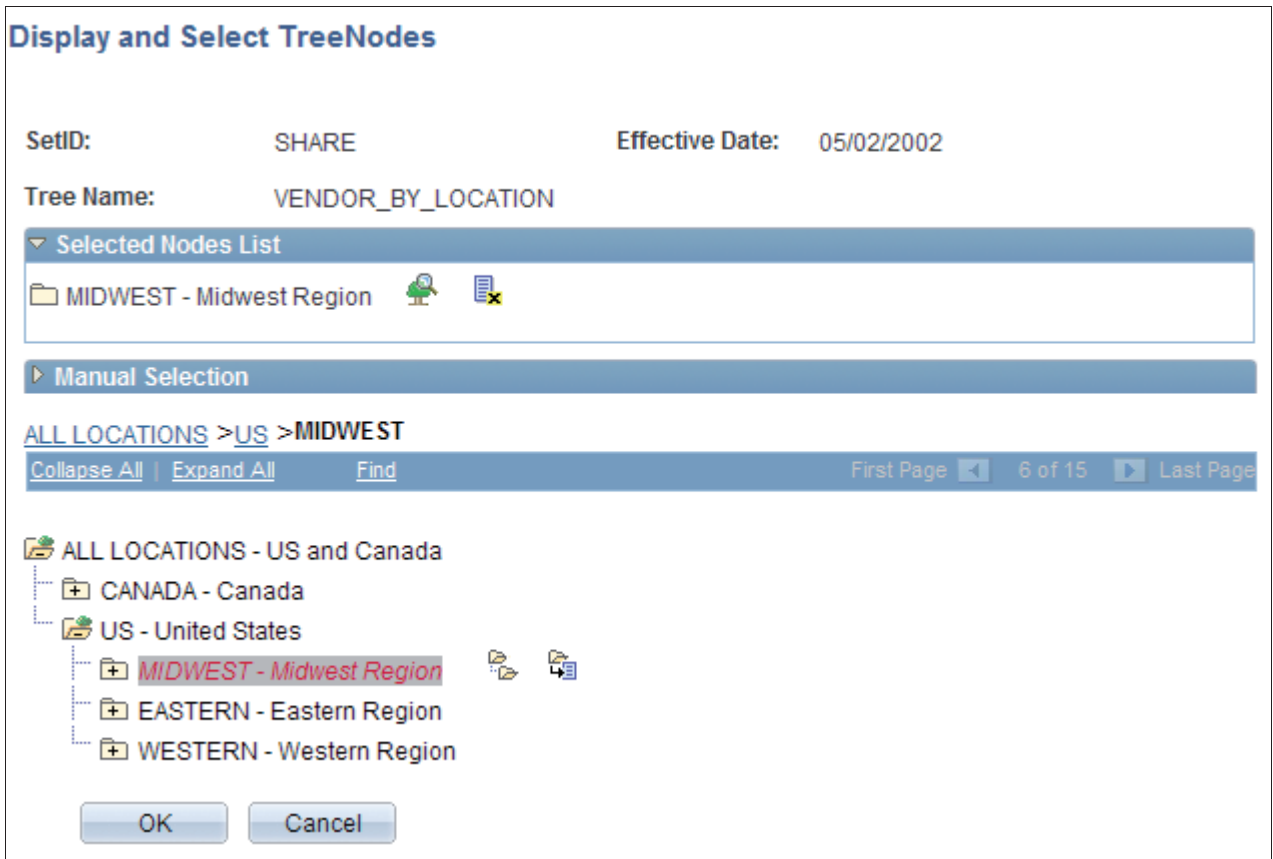
This is an example of the Select a Tree page:

Select a Tree:VENDOR_CD

Tree Name:

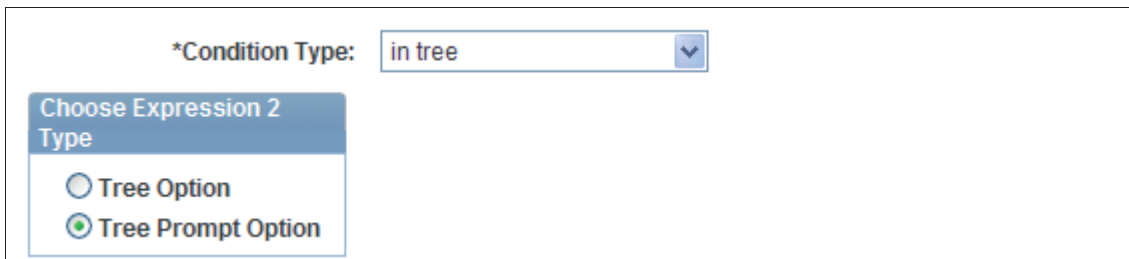
Select a Tree Find View All First 1-5 of 5 Last					
Tree Name	SetID	SetControlValue	Effective Date	Description	Saved As
ORDER_NBRS	SHARE		12/31/1995	Order Numbers by Region	Valid Tree
PRODUCT	SHARE		04/17/1998	Products	Valid Tree
PSU_CLS_ITEMS	SHARE		12/31/1995	Classroom Items	Valid Tree
TRAIN_LOCS	SHARE		12/31/1995	Training Locations by region	Valid Tree
VENDOR_BY_LOCATION	SHARE		05/02/2002	Vendors by Location	Valid Tree

This is an example of the Display and Select TreeNodes page showing the VENDOR_BY_LOCATION tree. This tree is built on the VENDOR_CD field and shows the location (such as IRV for the Irvine location) that rolls up to a particular group (WESTERN-Western Region) that rolls up to a particular division (US - United States division):



Tree Prompt Option Expression 2 Types

When you select the Tree Prompt Option as the comparison value, all options to select tree values at design time are not available, as shown in this example:



However, when you run the query, the Select a Tree and the Display and Select TreeNodes pages appear that enable you to select tree values as tree prompts.

This is an example of the Display and Select TreeNodes page:

Display and Select TreeNodes

SetID: SHARE Effective Date: 04/17/1998

Tree Name: PRODUCT

Selected Nodes List

- FINANCIALS - Financials

Manual Selection

ALL_PRODUCTS >FINANCIALS

Collapse All | Expand All | Find | First Page | 4 of 4 | Last Page

- ALL_PRODUCTS - All Products
 - FINANCIALS - Financials
 - HUMAN_RESOURCES - Human Resources
 - MANUFACTURING - Manufacturing

OK Cancel

Refining Criteria (continued)

PeopleSoft Tree Manager

Query Manager provides the *in tree* condition to access hierarchical summarized data from PeopleSoft Tree Manager.

You can take advantage of the *in tree* criteria when you select nodes; all nodes underneath the selected nodes are automatically brought in.

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Student Notes

Example: Retrieving Data Using the In Tree Condition

To retrieve a list of vendors from the Western region of the U.S.:

1. Use the *VENDOR_CD* field for expression 1 to retrieve the information from the *VENDOR_BY_LOCATION* tree:

Edit Criteria Properties

Choose Expression 1 Type

Field
 Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:
A.VENDOR_CD - Vendor Code

***Condition Type:** in tree

Choose Expression 2 Type

Tree Option
 Tree Prompt Option

Expression 2

Select Tree Node List

Node List:

Display Detail Values [New Node List](#)

OK Cancel

2. To access the *VENDOR_BY_LOCATION* tree, click the *New Node List* link in the Expression 2 group box of the Edit Criteria Properties page.

The Select a Tree page appears.

- Click the Search button to display all trees on the tree list, as shown:

Select a Tree

Tree Name:

Tree Name	SetID	SetControlValue	Effective Date	Description	Saved As
ORDER NBRS	SHARE		12/31/1995	Order Numbers by Region	Valid Tree
PRODUCT	SHARE		04/17/1998	Products	Valid Tree
PSU_CLS_ITEMS	SHARE		12/31/1995	Classroom Items	Valid Tree
TRAIN_LOCS	SHARE		12/31/1995	Training Locations by region	Valid Tree
VENDOR_BY_LOCATION	SHARE		05/02/2002	Vendors by Location	Valid Tree

- Select the appropriate tree for the query.

In this case, use the VENDOR_BY_LOCATION tree.

The Display and Select TreeNodes page appears, as shown:

Display and Select TreeNodes

SetID: SHARE Effective Date: 05/02/2002

Tree Name: VENDOR_BY_LOCATION

▶ Selected Nodes List

▶ Manual Selection

[ALL LOCATIONS](#) > [US](#) > [WESTERN](#)

[Collapse All](#) | [Expand All](#) [Find](#) First Page ◀ | 9 of 15 | ▶ Last Page

- 📁 ALL LOCATIONS - US and Canada
 - 📁 CANADA - Canada
 - 📁 US - United States
 - 📁 MIDWEST - Midwest Region
 - 📁 EASTERN - Eastern Region
 - 📁 **WESTERN - Western Region**
 - 📁 WALNUT CREEK - Walnut Creek Vendor Location
 - 📁 PLEASANTON - Pleasanton
 - 📁 IRVINE - Irvine

- Click the Add to Node Selection List icon, and click the OK button.

The Edit Criteria Properties page displays the tree node *Western* in the Expression 2 criteria, as shown:

- Click the OK button to return to the Criteria page to view the *in tree* condition that you added:

Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	B.EFFDT - Effective Date	Eff Date <=	Current Date	Edit	-
AND	A.VENDOR_CD - Vendor Code	in tree	SHARE,,VENDOR_BY_LOCATION,2002-05-02,WESTERN	Edit	-

7. Select the Run page to view the results with rows of data showing the vendors from the Western region:

Records Query Expressions Prompts Fields Criteria Having View SQL Run										
View All Rerun Query Download to Excel Download to XML								First	1-9 of 9	Last
	Trn Loc	Vendor	Descr	St	Item	Unit Price	Total Quantity	Subtotal Price		
1	WSTCH	ALPH02	Alpha Office Supply	IL	PSU023	199.00	2	398.00		
2	WSTCH	000005	Big Red Computers	TX	PSU036	0.06	40	2.58		
3	WSTCH	000005	Great Wall Offices		PSU036	0.06	20	1.29		
4	CORP	020034	MegaSmooth Software Corp	WA	PSU042	125.00	2	250.00		
5	WSTCH	ALPH02	Alpha Office Supply	IL	PSU048	25.00	4	100.00		
6	CORP	020034	MegaSmooth Software Corp	WA	PSU038	6.25	4	25.00		
7	WSTCH	ALPH02	Alpha Office Supply	IL	PSU014	1.72	2	3.44		
8	CORP	020034	MegaSmooth Software Corp	WA	PSU024	198.00	2	396.00		
9	WSTCH	ALPH02	Alpha Office Supply	IL	PSU005	32.70	6	196.24		

Using the In Tree and In List Conditions

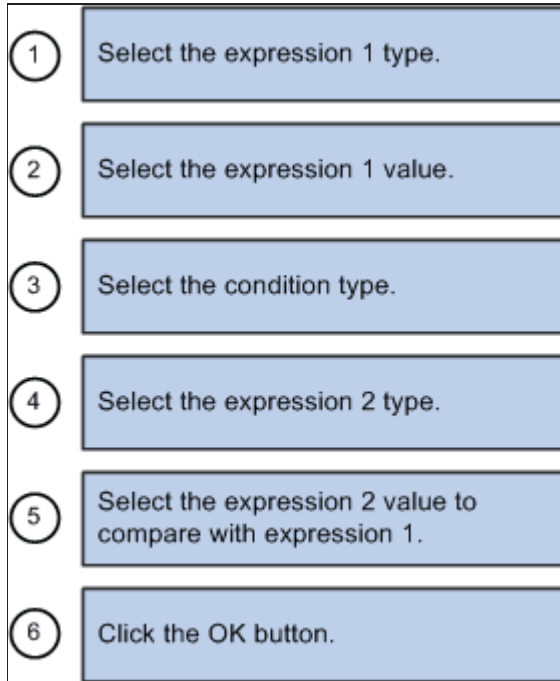
The *in tree* condition works almost like the *in list* condition. The differences between using the *in tree* and *in list* condition are that:

- When using the *in tree* condition, if you decide to add a level, the value is automatically brought in at runtime.
- When using the *in list* condition, if you decide to add a level, you must update all the queries with that value.

Refining Criteria (continued)

Steps Used to Refine Criteria

This diagram shows the steps used to refine criteria and retrieve query results:



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Activity 5: Adding Rows of Criteria

In this activity, you will review the activity overview and:

- Create a query.
- Add two rows of criteria.

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Activity Overview

Create a query named `EMPL_BY_CNTRY` that lists personal data of employees. Use this information to complete the query:

- Display the employee ID, name, and country of the employees in the results.
- Use the EE Personal Data record (`PERSONAL_DATA`).
- View the query results, and note the number of rows returned.
- Filter the query to return only those employees who are from the U.S. and who have the letter *D* in their names.
- View the query results again, and note the number of rows returned.
- Reorder the criteria so that the second row of criteria is now the first row of criteria.
- View the query results again, and note the number of rows returned.

Note. Use `PTRPTG` for the user name and password in this activity.

Activity Detailed Steps

Perform the detailed steps to complete the activity.

Creating a Query

To create a query:

1. If necessary, sign in to the Oracle PeopleSoft Enterprise.
2. Access Query Manager.
3. Create a new query using the PERSONAL_DATA record.
4. Select the following fields:

<i>Page Element</i>	<i>Value or Status</i>
EMPLID	Selected
NAME	Selected
COUNTRY	Selected

5. View the selected fields, and save the query as EMPL_BY_CNTRY.
6. View the query results, and answer this question:

<i>Question</i>	<i>Answer</i>
How many rows of data are returned?	

Adding Two Rows of Criteria

To add two rows of criteria:

1. Access the Fields page, and click the Add Criteria icon associated with the A.COUNTRY field.

2. Enter the following information for the first criteria row:

Page Element	Value or Status
Expression 1 Type	<i>Field</i>
Expression 1	<i>A.COUNTRY</i>
Condition Type	<i>equal to</i>
Expression 2 Type	<i>Constant</i>
Expression 2	<i>USA</i>

3. Click the OK button, and click the Add Criteria icon associated with the A.NAME field.
 4. Enter the following information for the second criteria row:

Page Element	Value or Status
Expression 1 Type	<i>Field</i>
Expression 1	<i>A.NAME</i>
Condition Type	<i>like</i>
Expression 2 Type	<i>Constant</i>
Expression 2	<i>%D%</i>

5. Click the OK button, and save the query.
 6. View the query results, and answer this question:

Question	Answer
How many rows of data are returned?	

7. Compare the query with the following results.

Results

This is the EMPL_BY_CNTRY query with 14 rows returned:

Records Query Expressions Prompts Fields Criteria Having View SQL Run

View All | [Rerun Query](#) | [Download to Excel](#) | [Download to XML](#) First 1-14 of 14 Last

	ID	Name	Cntry
1	00055	Jani,David	USA
2	00072	Maertens,Dominica	USA
3	00073	Martignoni,David	USA
4	00075	Martinez,Douglas	USA
5	00089	O'Connell,Damian	USA
6	00026	Chen,Devon	USA
7	00028	Day,Richard	USA
8	00029	DeJackome,Earnest	USA
9	00030	DeJackome,Isobel	USA
10	00032	Dickenson,Emily	USA
11	00038	Fletcher,Dominic	USA
12	00110	Sherwood,Douglas	USA
13	00132	Waters,Darrin	USA
14	2001	Larson,Mark D.	USA

This concludes the activity. Please do not continue.

Using Multiple Criteria Statements

Boolean Expressions

Four types of Boolean expressions are available from the Criteria page:

- AND
- AND NOT
- OR
- OR NOT

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Student Notes

Boolean Expressions

If you add multiple lines of criteria to a query, the row returned in the results must be true for all of the specified criteria.

If you want to return rows that meet one criterion or another, you use Boolean logic.

Usages and Examples of Boolean Expressions

This is a list of Boolean operators and examples of how each operator is used:

- AND: Returns rows of data if criteria are true.

This example shows criteria that list all employees and nonemployees who are in the U.S. and those employees and nonemployees who have a capital *D* in their names:

Criteria					
Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	A.COUNTRY - Country	equal to	USA	Edit	[-]
AND	A.NAME - Name	like	%D%	Edit	[-]

When you run this query, the results include 14 rows of data:

View All Rerun Query Download to Excel Download to XML			
First 1-14 of 14 Last			
	ID	Name	Cntry
1	00055	Jani,David	USA
2	00072	Maertens,Dominica	USA
3	00073	Martignoni,David	USA
4	00075	Martinez,Douglas	USA
5	00089	O'Connell,Damian	USA

- AND NOT: Does not return rows of data if the criteria are true.

This example shows criteria that list all employees and nonemployees who are in the U.S. except for those employees and nonemployees who have a capital *D* in their names:

Criteria					
Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	A.COUNTRY - Country	equal to	USA	Edit	[-]
AND NOT	A.NAME - Name	like	%D%	Edit	[-]

When you run this query, the results include 120 rows of data. All employees are from the U.S. and none of whom have the letter *D* in their names:

View All Rerun Query Download to Excel Download to XML			
First 1-100 of 120 Last			
	ID	Name	Cntry
1	00056	Jansen,Joanne	USA
2	00057	Jensen,Alec	USA
3	00058	Jones,Catherine	USA
4	00059	Jones,Joseph	USA
5	00060	Jones,Koenraad	USA

- **OR:** Returns rows of data if any of the rows in the criteria are true.

This example shows the use of OR logical in a query to return all employees and nonemployees who are in the U.S. or those having capital *D*s in their names.

Criteria					
Logical	Expression1	Condition Type	Expression 2	Edit	Delete
<input type="button" value="v"/>	A.COUNTRY - Country	equal to	USA	<input type="button" value="Edit"/>	<input type="button" value="-"/>
OR <input type="button" value="v"/>	A.NAME - Name	like	%D%	<input type="button" value="Edit"/>	<input type="button" value="-"/>

When you run this query, the results include 137 rows of data. All employees are from the U.S. or have the letter *D* in their names:

View All Rerun Query Download to Excel Download to XML			
First 1-100 of 137 Last			
	ID	Name	Crtry
1	00055	Jani,David	USA
2	00056	Jansen,Joanne	USA
3	00057	Jensen,Alec	USA
4	00058	Jones,Catherine	USA
5	00059	Jones,Joseph	USA

- **OR NOT:** Does not return rows of data if any of the rows in the criteria are true.

This example shows the use of the OR NOT logical in a query to return all employees and nonemployees who are in the U.S. *and* people whose names that don't start with *D* even if they are not in the U.S.

Criteria					
Logical	Expression1	Condition Type	Expression 2	Edit	Delete
<input type="button" value="v"/>	A.COUNTRY - Country	equal to	USA	<input type="button" value="Edit"/>	<input type="button" value="-"/>
OR NOT <input type="button" value="v"/>	A.NAME - Name	like	D%	<input type="button" value="Edit"/>	<input type="button" value="-"/>

When you run this query, the results include 142 rows of data:

View All Rerun Query Download to Excel Download to XML			
First 1-100 of 142 Last			
	ID	Name	Crtry
1	00055	Jani,David	USA
2	00056	Jansen,Joanne	USA
3	00057	Jensen,Alec	USA
4	00058	Jones,Catherine	USA
5	00059	Jones,Joseph	USA

Note. The AND NOT and OR NOT operators are likely to force table scans instead of index reads to pull data. When needed, you should use NOT IN or <> for better performances.

Example: Using Boolean Logic in Criteria

Suppose you want to view all courses that have all of the following conditions:

- The start-date is in 2008.
- The training location is not TEA, ATL, or WC.
- The session status is Cancelled (C).

Set the Criteria page as shown:

Criteria					
Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	A.START_DATE - Start Date	between	2008-01-01 AND 2008-12-31	Edit	-
AND	A.TRAINING_LOC - Training Location	not in list	('ATL','TEA','WC')	Edit	-
AND	A.SESSION_STATUS - Session Status	equal to	C	Edit	-

After running the query, four (4) courses match the expected criteria:

Records Query Expressions Prompts Fields Criteria Having View SQL Run						
View All Rerun Query Download to Excel Download to XML						First 1-4 of 4 Last
	Course	Session	Start	Status	Trn Loc	
1	1012	180	09/29/2008	C	CORP	
2	1011	163	07/08/2008	C	WSTCH	
3	1011	166	10/13/2008	C	WSTCH	
4	1011	172	11/17/2008	C	CORP	

Using the same query, change the Boolean logic in criteria to make the query display courses that the session status is cancelled (C) or:

- The start-date is in 2008.
- The training location not in TEA, ATL, or WC.

Set the Criteria page as shown:

Criteria					
Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	A.START_DATE - Start Date	between	2008-01-01 AND 2008-12-31	Edit	-
AND	A.TRAINING_LOC - Training Location	not in list	('ATL','TEA','WC')	Edit	-
OR	A.SESSION_STATUS - Session Status	equal to	C	Edit	-

The results include 60 rows of data:

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	Course	Session	Start	Status	Trn Loc
1	1012	180	09/29/2008	C	CORP
2	1015	192	10/13/2008	A	CORP
3	1017	202	07/26/2007	C	ATL
4	1027	305	04/05/2008	A	PSW
5	1027	308	05/03/2008	A	C-REA
6	1030	312	04/12/2008	A	TOR
7	1002	43	07/28/2008	A	CORP
8	1002	44	08/18/2008	A	NETH
9	1002	304	03/01/2008	A	AMS
10	1002	305	04/05/2008	A	CHI

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Using Multiple Criteria Statements (continued)

Reorder Button

As you become proficient in adding multiple rows of criteria, you may need to reorder the rows of criteria to achieve the wanted results.

The Reorder Criteria button on the Criteria page provides the ability to reorder rows of criteria without deleting and reentering existing criteria.

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Student Notes

Page Used to Change Row Position of Criteria

Use this page to change the row position of criteria:

Page Name	Navigation
Edit Criteria Ordering	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Create a new query, or search for an existing one. 3. Select the Criteria tab, and click the Reorder Criteria button.

Edit Criteria Ordering

Reorder criteria by entering position numbers on the left. Rows left blank or assigned a 0 will be automatically assigned a position.

Edit Criteria Ordering				
New Position	Position	Expression1	Condition Type	Expression 2
<input type="text"/>	1	A.START_DATE - Start Date	between	2008-01-01 AND 2008-12-31
<input type="text"/>	2	A.TRAINING_LOC - Training Location	not in list	('ATL','TEA','WC')
<input type="text"/>	3	A.SESSION_STATUS - Session Status	equal to	C

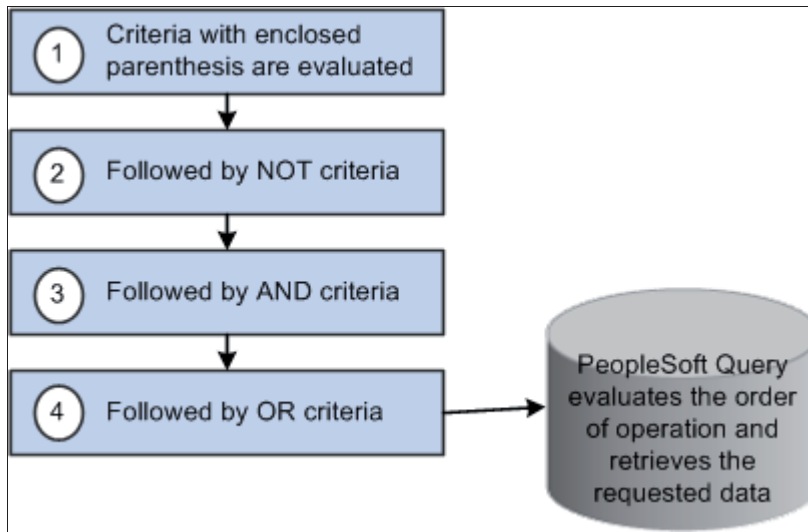
Note. The Reorder Criteria button does not appear on the Criteria page if there is only one row of criteria.

Using Multiple Criteria Statements (continued)

Order of Processing Criteria

Understanding how Query Manager processes criteria—in a certain order based on the way in which the system applies Boolean expressions—enables you to retrieve the results that you need.

Query Manager uses the following rules when processing criteria:



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Student Notes

Grouping Criteria

Grouping Criteria is another feature that you can use when adding criteria.

When you have more than one criteria row, you can use the Group Criteria feature to control the order in which Query Manager runs the criteria row.

Page Used to Apply the Grouping Criteria Feature

Use this page to apply the group criteria:

Page Name	Navigation
Edit Criteria Grouping	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Create a new query, or search for an existing one. 3. Select the Criteria tab, and click the Group Criteria button.

Edit Criteria Grouping

Use the edit boxes to enter parenthesis for each criteria. Use only the '(' and ')' characters.

Logical	Left Paren	Expression1	Condition Type	Expression 2	Right Paren
	<input type="text"/>	A.START_DATE - Start Date	between	2008-01-01 AND 2008-12-31	<input type="text"/>
OR	(<input type="text"/>	A.TRAINING_LOC - Training Location	not in list	('ATL','TEA','WC')	<input type="text"/>
AND	<input type="text"/>	A.SESSION_STATUS - Session Status	equal to	C) <input type="text"/>

OK Cancel

Steps Used to Group Criteria

To group criteria:

1. In Query Manager, click the Group Criteria button on the Criteria page.
2. Insert open and close parentheses in the appropriate text boxes on the Edit Criteria Grouping page.
3. Click the OK button.

Deleting Grouped Criteria

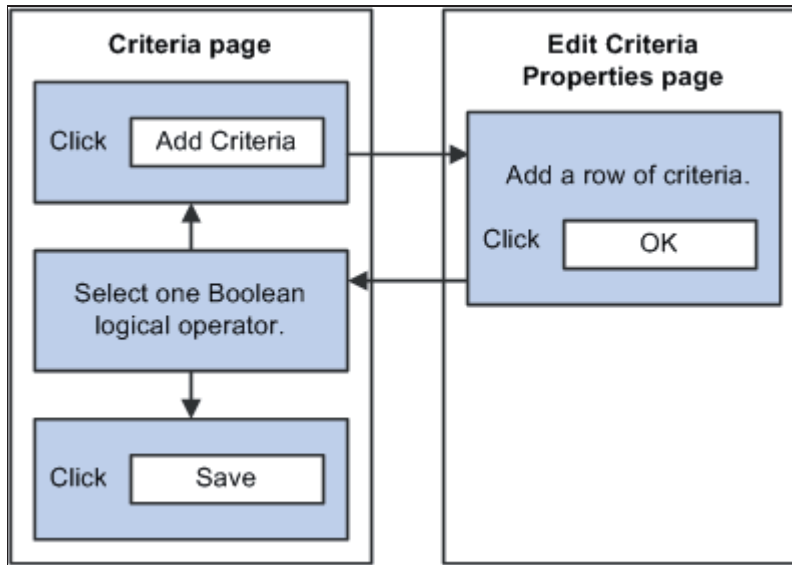
To delete grouped criteria:

1. In Query Manager, click the Group Criteria button on the Criteria page.
2. Select the parenthesis, and then press the Delete key.

Using Multiple Criteria Statements (continued)

Steps Used to Create Multiple Rows of Criteria

This diagram shows the steps used to create multiple rows of criteria:



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Student Notes

Steps Used to Create Multiple Rows of Criteria

To create multiple rows of criteria:

1. In Query Manager, click the Add Criteria button on the Criteria page.
2. Add the row of criteria by using the Edit Criteria Properties page, and then click the OK button.
3. Select a Boolean logical operator from the Logical drop-down list box that is on the Criteria page.
4. Repeat steps 1 to 3 to add additional rows of criteria.
5. Save the query.

Activity 6: Creating Queries with Multiple Criteria

In this activity, you will review the activity overview and:

- Create a query.
- Add three rows of criteria.
- Group criteria.
- Apply Boolean logic.

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Activity Overview

Using the Order Number tree (ORDER_NBRS), create a query that returns closed orders (order status of C) either from the Eastern and Western regions or whose order dates are between January 1, 2008, and June 30, 2008.

Display the order number, order date, training location, vendor and status fields from the Order Header Information record (ORD_HDR).

Save the query as ORDER_BY_LOC.

Note. Use *PTRPTG* for the user name and password in this activity.

Activity Detailed Steps

Perform the detailed steps to complete the activity.

Creating a Query

To create a query:

1. If necessary, sign in to the Oracle PeopleSoft Enterprise.
2. Access Query Manager, and create a new query using the ORD_HDR record.
3. Select the following fields:

<i>Page Element</i>	<i>Value or Status</i>
ORDER_NBR	Selected
ORDER_DT	Selected
TRAINING_LOC	Selected
VENDOR_CD	Selected
ORDER_STATUS	Selected

4. Save the query as ORDER_BY_LOC.
5. View the query results, and answer this question:

<i>Question</i>	<i>Answer</i>
How many rows of data are returned?	

Adding Three Rows of Criteria

To add three rows of criteria:

1. Access the Fields page, and click the Add Criteria icon associated with the A.ORDER_NBR field.

- Enter the following information for the first row of criteria:

Page Element	Value or Status
Expression 1 Type	<i>Field</i>
Expression 1	<i>A.ORDER_NBR</i>
Condition type	<i>in tree</i>
Expression 2 Type	<i>Tree Option</i>

- Click the New Node List link.
- Select the ORDER_NBRS tree.
- Open the Western region node from the ORDER_NBRS tree.
- Click the Add to Node Selection List button.
- Open the Eastern region node from the ORDER_NBRS tree.
- Click the Add to Node Selection List icon.
- Click the OK button to return to the Edit Criteria Properties page.
- Click the OK button again to return to the Fields page.
- Add a second criteria by clicking the Add Criteria icon associated with the A.ORDER_DT field.
- Enter the following information:

Page Element	Value or Status
Expression 1 Type	<i>Field</i>
Expression 1	<i>A.ORDER_DT</i>
Condition Type	<i>between</i>
Expression 2 Type	<i>Const - Const</i>
Expression 2: Date 1	<i>01/01/2008</i>
Expression 2: Date 2	<i>06/30/2008</i>

- Click the OK button.
- Add a third criteria by clicking the Add Criteria icon associated with the A.ORDER_STATUS field.

15. Enter the following information:

Page Element	Value or Status
Expression 1 Type	<i>Field</i>
Expression 1	<i>A.ORDER_STATUS</i>
Condition Type	<i>equal to</i>
Expression 2 Type	<i>Constant</i>
Expression 2	<i>C</i>

16. Click the OK button, and access the Criteria page to verify the values of all criteria.

17. Save the query.

Grouping Criteria

To group criteria:

1. Click the Group Criteria button on the Criteria page.
2. Enter an open parenthesis in the left text box of row 1, to which the *in tree* condition is applied.
3. Enter a close parenthesis in the right text box of row 2, to which the *between* condition is applied.
4. Click the OK button.

Applying Boolean Logic

To apply Boolean logic:

1. Select the *OR* option in the Logical drop-down list box in the second row of criteria on the Criteria page.
2. Save the query, and view the query results.
3. Compare the output with the following results.

Results

This is the ORDER_BY_LOC query with five rows of data returned:

Records Query Expressions Prompts Fields Criteria Having View SQL Run							
View All Rerun Query Download to Excel Download to XML					First	1-5 of 5	Last
	Order Num	Order Date	Trn Loc	Vendor	Status		
1	00000001	06/27/1992	CORP	ALPH03	C		
2	00000002	02/15/1991	WC	000014	C		
3	00000004	06/27/1994	TEA	KAP01	C		
4	00000007	12/03/1993	ATL	ALPH01	C		
5	00000008	01/05/1994	ONSTE	ALPH04	C		

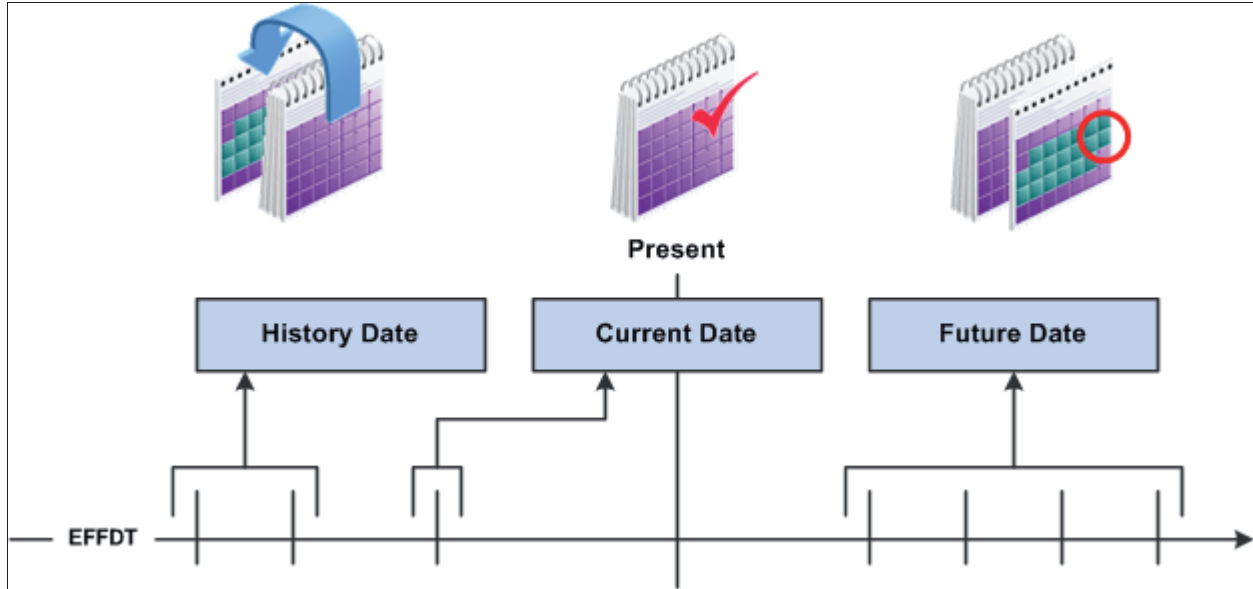
This concludes the activity. Please do not continue.

Using the Effective Date Field in Criteria

Effective Date

PeopleSoft applications use the effective date (EFFDT) field to enable you to view data that changes over time. PeopleSoft Query criteria use the effective date field.

This diagram shows how the system classifies the effective date into categories:



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Effective Date Categories

With effective-dated queries, rows of data are classified in one of three categories:

Categories	Usage
Current	The highest effective date (and possibly sequence number, if used) is less than or equal to today's date (system date on the server). There can be only one current row per high-level key.
History	The effective date is less than the effective date of the current row.
Future	The effective date is greater than today's date (system date on the server).

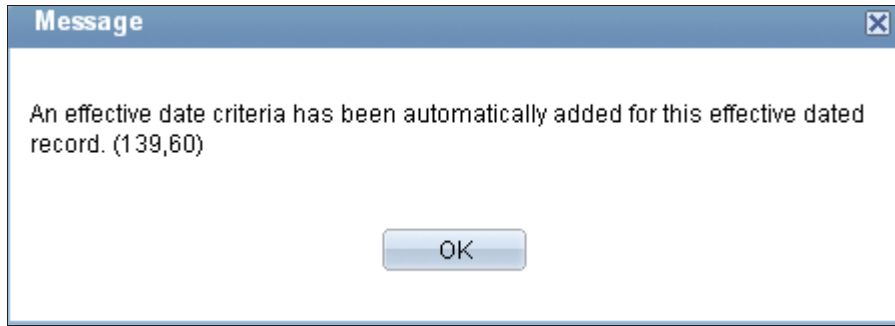
Using Effective-Dated Fields in Criteria

Use effective dates in criteria to:

- View all rows, regardless of their effective dates.
- View rows that aren't currently in effect.
- View the rows that were effective as of a particular date.

Effective-Dated Record

When you start a new query and select an effective-dated record, a new effective-dated criteria row is created, and an information message appears on the screen:



Condition Types of the Effective Date Fields

If you choose an effective-date condition (visible on the Criteria page in the Conditions Type column), you return one effective-dated row of information per item. You can vary what you want the effective date compared against.

This table describes the effective-date conditions on the Edit Criteria Properties page:

Effective-Date Condition	Description
Effective Date <= Effective Date <	Maximum EFFDT {<=,<} {current date, constant, field}.
Effective Date >= Effective Date >	Minimum EFFDT {>=,>} {current date, constant, field}.
First Effective Date	Return the row with the oldest effective date, the first row that is entered for an item.
Last Effective Date	Return the row with the latest effective date, even if that date is still in the future.

Often effective-dated tables have an Effective Status field. The effective status (EFF_STATUS) field has two values: *Active* and *Inactive*. If you are working with effective-dated tables and looking for the current row of information, you may also want to add criteria in the EFF_STATUS field to specify only active rows. The table may also include the effective sequence (EFF_SEQ) field when multiple transactions occur on the same effective date.

Note. Effective Sequence options are used on some effective-dated records, the effective sequence is a sequencing number that is provided to further refine the effective date.
 Removing the Effective Date criterion is equivalent to selecting *No Effective Date*. The query returns all rows, regardless of their effective dates.
 The *less than or equal to* condition is different from the <= that is part of the calculation that the system uses to determine the current effective date.

This example shows the Edit Criteria Properties page with *Eff Date* <= condition type:

Edit Criteria Properties

Choose Expression 1 Type

Field

Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:

***Condition Type:** Eff Date <=

Choose Expression 2 Type

Field

Expression

Constant

Current Date

Expression 2

Effective Sequence Options

First

Last

All

This example shows the Criteria page with criteria using *Eff Date* <= condition type:

Records	Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run	
Query Name: CLS001		Description: Course Session List							
<input type="button" value="Add Criteria"/>		<input type="button" value="Group Criteria"/>		<input type="button" value="Reorder Criteria"/>					
Criteria									
Customize Find			First		1 of 1		Last		
Logical	Expression1	Condition Type	Expression 2	Edit	Delete				
▼	A.EFFDT - Effective Date	Eff Date <=	Current Date (EffSeq = Last)	<input type="button" value="Edit"/>	<input type="button" value="-"/>				

Activity 7: Creating Queries with Effective-Dated Criteria

In this activity, you will review the activity overview and:

- Create a query.
- Modify effective-date criteria.
- Add two more rows of criteria.

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Activity Overview

Create a query named `INSTRUCTOR_STATUS`, which lists those instructors whose home facilities are in Pleasanton and Plaza and whose status is *Active* after September 1, 2000.

Use the Instructor record (`PSU_INSTR_TBL`) to create the query. Include the instructor, effective date, effective status, facility, and internal-external fields. Order the query by the instructor code.

Note. Use `PTRPTG` for the user name and password in this activity.

Activity Detailed Steps

Perform the detailed steps to complete the activity.

Creating a Query

To create a query:

1. If necessary, sign in to the Oracle PeopleSoft Enterprise.
2. Access Query Manager, and create a new query using the PSU_INSTR_TBL record.
3. Accept the effective date criteria, and enter the following information:

Field	Value or Status
INSTRUCTOR	Selected <i>Order by 1</i>
EFFDT	Selected
EFF_STATUS	Selected <i>XLAT Short</i>
FACILITY	Selected
INTERNAL_EXTERNAL	Selected <i>XLAT Long</i>

4. Save the query as INSTRUCTOR_STATUS.

Modifying Effective Date Criteria

To modify effective date criteria:

1. Select the Criteria tab, and then click the Edit button for the EFFDT field.
2. Enter the following information:

Page Element	Value or Status
Condition Type	<i>Eff Date ></i>
Expression 2 Type	<i>Constant</i>
Expression 2	<i>09/01/2000</i>

3. Click the OK button to return to the Criteria page.

Adding Two More Rows of Criteria

To add two more rows of criteria:

1. Click the Add Criteria button for the second row of criteria.
2. Enter the following information:

Page Element	Value or Status
Expression 1 Type	<i>Field</i>
Expression 1	<i>FACILITY</i>
Condition Type	<i>in list</i>
Expression 2 Type	<i>In List</i>
Expression 2	<i>PLAZA</i> <i>PLE</i> Note. You need to add <i>PLAZA</i> and <i>PLE</i> as two separate values on the List Members section.

3. Click the OK button.
4. Click the Add Criteria button to insert the third row of criteria, and enter the following information:

Page Element	Value or Status
Expression 1 Type	<i>Field</i>
Expression 1	<i>EFF_STATUS</i>
Condition Type	<i>equal to</i>
Expression 2 Type	<i>Constant</i>
Expression 2	<i>A</i>

5. Click the OK button.
6. Save the query, and view the query results.
7. Compare your criteria settings and query results with the following results.

Results

These are the criteria settings on the Criteria page:

Records Query Expressions Prompts Fields **Criteria** Having View SQL Run

Query Name: INSTRUCTOR_STATUS **Description:** Instructor Status

Add Criteria Group Criteria Reorder Criteria

Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	A.EFFDT - Effective Date	Eff Date >	2000-09-01	Edit	-
AND	A.FACILITY - Home Facility	in list	('PLAZA','PLE')	Edit	-
AND	A.EFF_STATUS - Status as of Effective Date	equal to	A	Edit	-

This is the INSTRUCTOR_STATUS query with 46 rows of data returned:

Records Query Expressions Prompts Fields Criteria Having View SQL **Run**

View All | [Rerun Query](#) | [Download to Excel](#) | [Download to XML](#) First 1-46 of 46 Last

	Instructor	Eff Date	Status	Base	Internal/Extern
1	AMO	05/01/2008	Active	PLAZA	Internal
2	ATE	11/01/2001	Active	PLAZA	Internal
3	AXB	11/01/2001	Active	PLAZA	Internal
4	AXJ	11/01/2001	Active	PLE	Internal
5	BSK	11/01/2001	Active	PLAZA	Internal
6	BWH	11/01/2001	Active	PLE	Internal
7	CDF	11/01/2001	Active	PLAZA	Internal
8	CTJ	11/01/2001	Active	PLE	Internal
9	CWC	11/01/2001	Active	PLE	Internal
10	CXE	11/01/2001	Active	PLE	Internal

This concludes the activity. Please do not continue.

Review

In this lesson, you learned that:

- You apply criteria to queries to filter unwanted data.
- You refine criteria by adding, deleting, editing, and reordering criteria rows.
- You use Boolean logic to create multiple criteria rows.
- You use the Effective Date field as criteria to filter data for current, future, or historical information.

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Additional Resources

This table lists the additional resources that provide more details about the topics that we discussed in this lesson:

Topic	Cross-Reference
Adding criteria to queries, Using the Effective Date field in criteria, Using multiple criteria statements	<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query, "Defining Selection Criteria"</i>
Refining criteria	<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query, "Introduction to Tree Manager"</i>

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Lesson 6

Filtering Output with Runtime Prompts

Objectives

By the end of this lesson, you will be able to:

- Describe runtime prompts.
- Create runtime prompts.
- Create multiple runtime prompts.

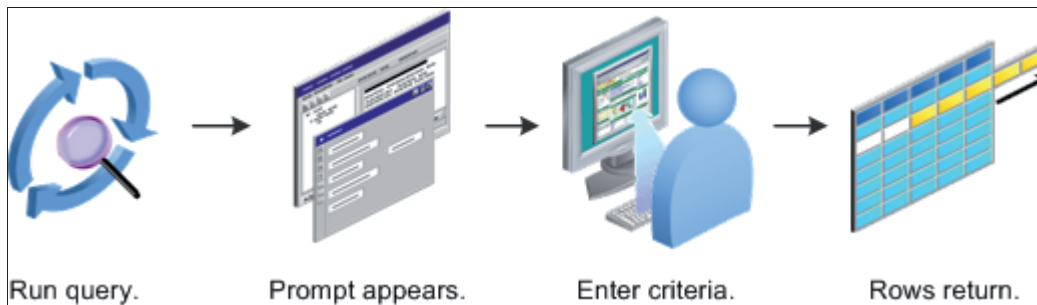
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Describing Runtime Prompts

Purpose of Prompts

Prompts extend the life of a query and make the query more flexible for future requests.

This diagram shows the process flow for using runtime prompts:



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Example of Using Prompts

Instead of hard-coding a course ID value in the criteria, you can prompt the user to enter a course ID.

The query becomes more flexible, and you do not have to create multiple queries with hard-coded constant values for each course ID. You run the query, and the query prompts you for the course ID.

Describing Runtime Prompts (continued)

Runtime Prompt Edits

This diagram lists the four types of edits available for runtime prompts:

Prompt Type	Source of Value
① Prompt Table	User selects from a list of values defined in another application data table.
② Translate Table	User selects from a list of values defined in a translate table.
③ Yes/No Table	User selects either yes or no.
④ No Table Edit	User enters a value that does not require an edit.

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Student Notes

Restricting User Input

You can restrict user input by using table edits. There are four types of edits:

- Prompt table.
- Translate table.
- Yes/No table.
- No Table Edit.

Prompt Table Edit

This type of edit restricts selection to only data that is in the prompt table.

A lookup icon (magnifying glass) indicates a prompt table runtime prompt.

You click the lookup icon and then search and select a value from the prompt table.

For instance, the PRODUCT field on the Customer Product table (PSU_CUST_PROD) prompts against the Product table (PSU_PRODUCT_TBL).

You can select from only the products that are in the product table.

This is an example of a prompt table runtime prompt:

Translate Table Edit

This type of edit restricts selection to only data that is in the Translate table (PSXLATITEM). The Translate table is a PeopleTools table with predefined values that are associated with a particular field.

A drop-down list box indicates a Translate Table runtime prompt.

You click the drop-down list box and then select a value from the list. You cannot search a Translate Table prompt.

For instance, the PRODUCTION_STATUS field from the Customer Product table (PSU_CUST_PROD) has a list of values from which to select such as *Development*, *Not Applicable*, *Planning*, and so on.

This is an example of the Translate Table runtime prompt:

The Yes/No Table Edit

This type of edit restricts you to selecting only yes (Y) or no (N) values.

A check box indicates a Yes/No Table runtime prompt.

For instance, the GRADUATED field in the Student Education table (PSU_STUDENT_ED) contains either a Y or N value. Students are graduated or they are not.

This is an example of the Yes/No Table runtime prompt:

No Edit

Some fields are unrestricted and have no edits. A likely field that uses no table edit is a date field.

A text box indicates that there is no table edit.

This is an example of a runtime prompt with no table edit:

CLS001

Effective Date:

Example of a Page That Has Prompt Types

The Professional Details page (select Instructors, Professional Details) has the different types of prompts which appear frequently in Oracle PeopleSoft applications:

Professional Details
Photo

Instructor: KXN

Find | View All | First 1 of 1 Last

Instructor Information

*Effective Date: Status:

*Last Name: *First Name:

*Business Unit: N. America - West Trn Rgn

Home Facility:

Curriculum Focus: Technical

*Internal/External:

Instructor Manager:

Curriculum Developer:

Customize | Find | | First 1-2 of 2 Last

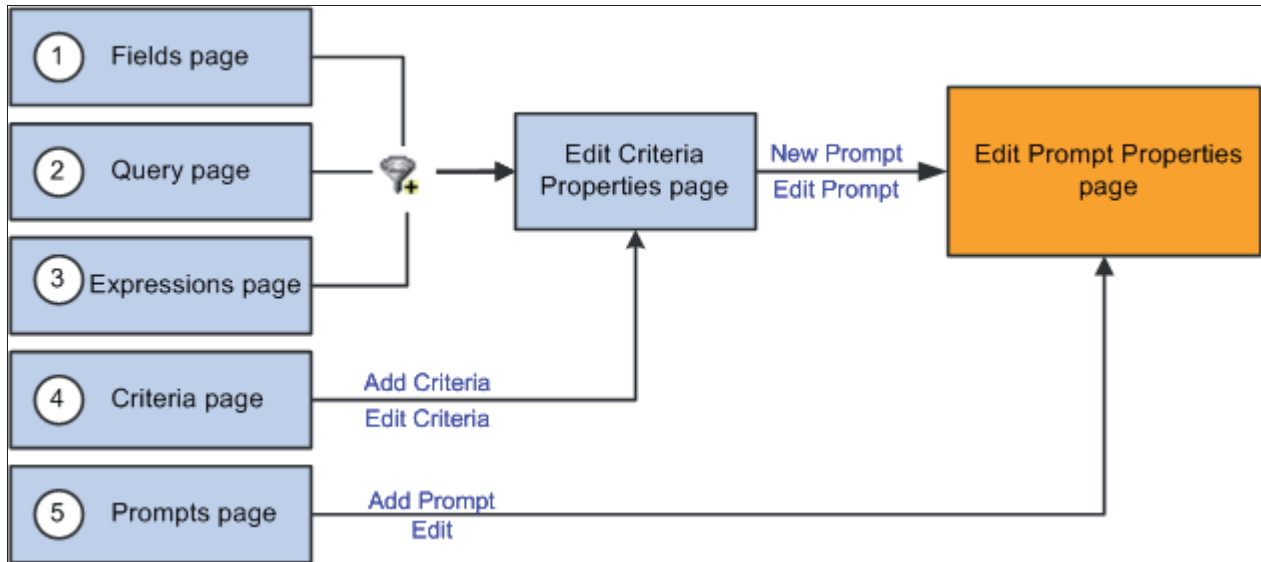
Course Certifications

	*Course Code	Descr	PeopleTools Release	*Certification Status	Certification Date
1	<input type="text" value="1022"/>	Query/Crystal Made Easy	812	<input type="text" value="Certified"/>	<input type="text" value="05/01/2007"/>
2	<input type="text" value="1023"/>	Query/Crystal Power Reporting	812	<input type="text" value="Certified"/>	<input type="text" value="05/01/2002"/>

Creating Runtime Prompts

Runtime Prompt Pages

This diagram shows the pages that you can use to access the Edit Prompt Properties page and to add runtime prompts:



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Student Notes

Pages Used to Add Runtime Prompts

Use the Edit Prompt Properties page to add runtime prompts.

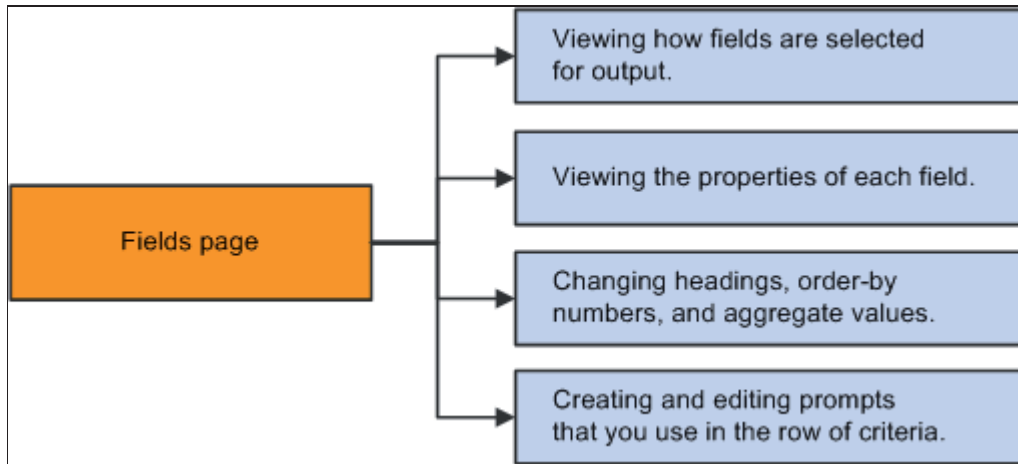
You can access the Edit Prompt Properties page from two locations:

- Fields page
 - The Fields page is the most commonly used to access the Edit Prompt Properties page.
- Query page
- Criteria page
- Prompts page

Creating Runtime Prompts (continued)

Creating Runtime Prompts from the Fields Page

This diagram shows the usages of the Fields page:



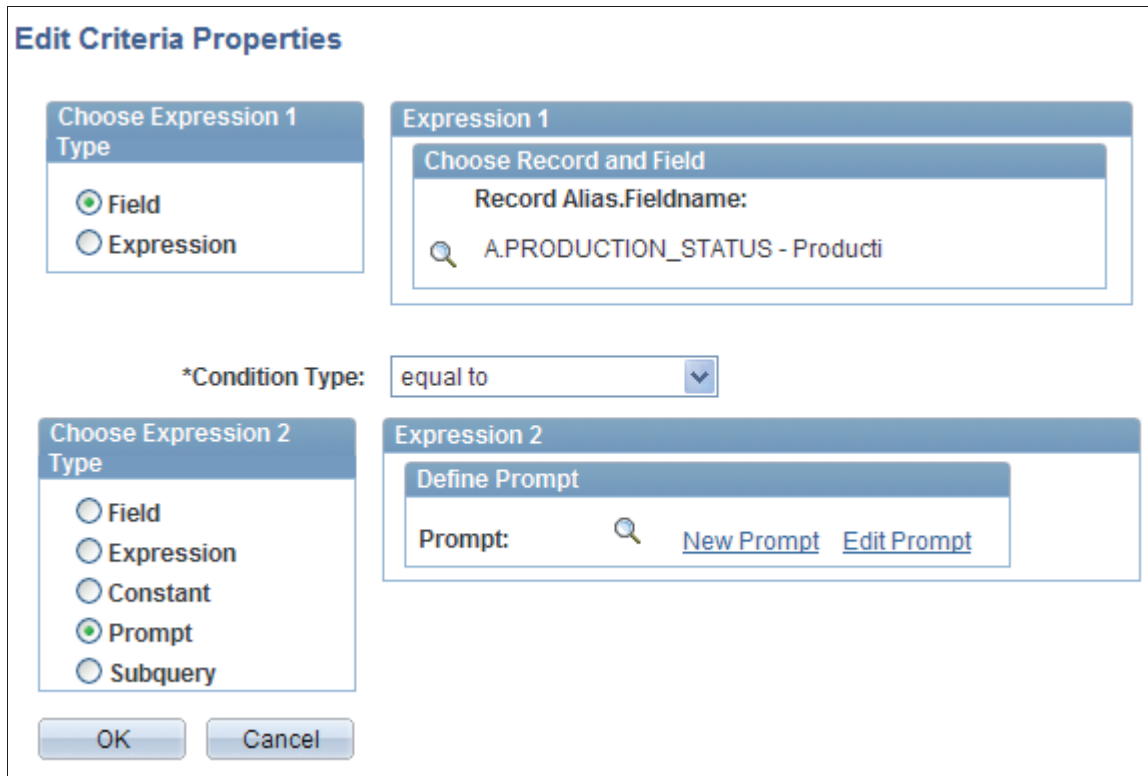
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Page Used to Create Runtime Prompts


Use this page to create prompts that you add to the Prompts page:

Page Name	Navigation
Edit Criteria Properties	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Create a new query or open an existing one. 3. Select the Fields tab, and click the Add Criteria icon.



Expression 2 - Define Prompt Group Box

The elements of the Expression 2 - Define Prompt group box on the Edit Criteria Properties page are:

- Prompt** View the bind variable or prompt name used for this row of criteria.
This is read-only field.
-  Click the Select Prompt icon to display all prompts that you create for this query. Prompts might exist but might not appear in any rows of criteria.
- New Prompt** Click to create a new prompt for this row of criteria.
- Edit Prompt** Click to edit the existing prompt for this row of criteria.

Steps Used to Create or Edit Prompts from the Fields Page

To create prompts from the Criteria page:

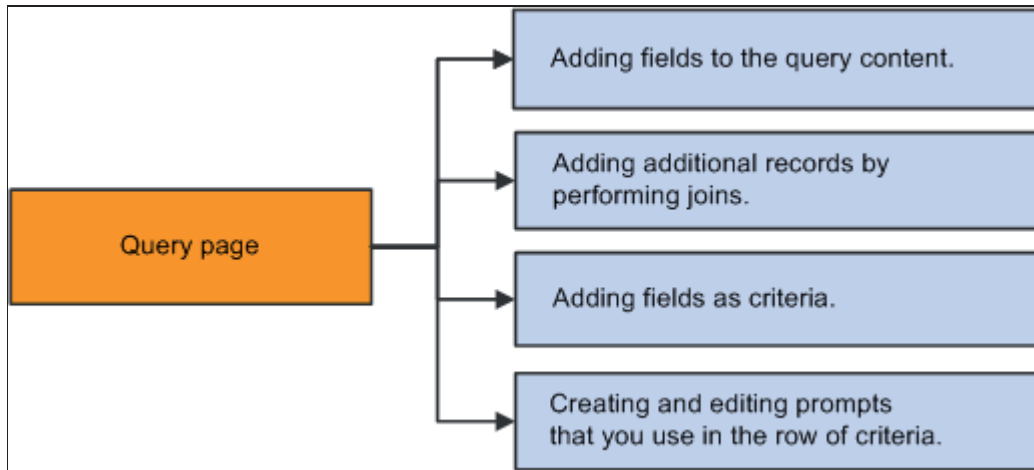
1. Select Reporting Tools, Query, Query Manager.

2. Create a new query or open an existing one.
3. Access the Fields page, and click the Add Criteria icon to access the Edit Criteria Properties page.
4. On the Edit Criteria Properties page:
 - a. Select the *Prompt* option in the Expression 2 Type group box.
 - b. Click the New Prompt link in the Expression 2 group box.
5. Enter or edit the Field, Type, Format, Length, Heading Type, and Edit Type fields on the Edit Prompt Properties page.
6. Click the OK button to return to the Query page.

Creating Runtime Prompts (continued)

Creating Runtime Prompts from the Query Page

This diagram shows the usages of the Query page:



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Steps Used to Create or Edit Prompts from the Query Page

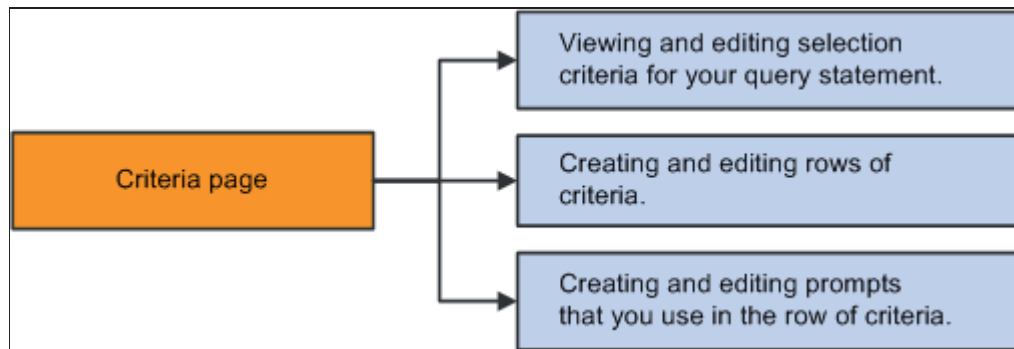
To create prompts from the Query page:

1. Select Reporting Tools, Query, Query Manager.
2. Create a new query or open an existing one.
3. Access the Query page, and click the Use as Criteria icon to access the Edit Criteria Properties page.
4. On the Edit Criteria Properties page:
 - a. Select the *Prompt* option in the Expression 2 Type group box.
 - b. Click the New Prompt link in the Expression 2 group box.
5. Enter or edit the Field, Type, Format, Length, Heading Type, and Edit Type fields on the Edit Prompt Properties page.
6. Click the OK button to return to the Query page.

Creating Runtime Prompts (continued)

Creating Runtime Prompts from the Criteria Page

This diagram shows the usages of the Criteria page:



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Steps Used to Create or Edit Runtime Prompts from the Criteria Page

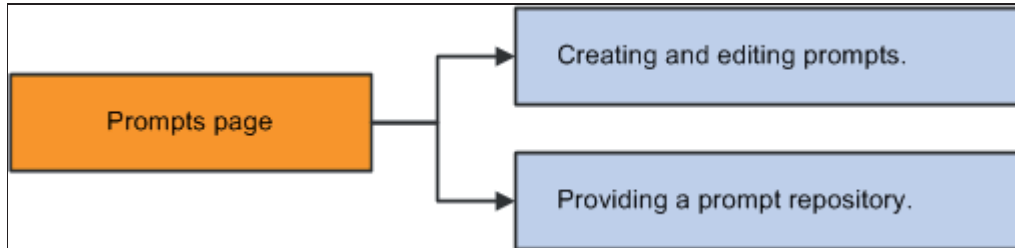
To create prompts from the Criteria page:

1. Select Reporting Tools, Query, Query Manager.
2. Create a new query or open an existing one.
3. Access the Criteria page.
4. Click the Add Criteria button or the appropriate Edit button.
5. On the Edit Criteria Properties page:
 - a. Select the *Prompt* option in the Expression 2 Type group box.
 - b. Click the New Prompt link in the Expression 2 group box.
6. Enter or edit the Field, Type, Format, Length, Heading Type, and Edit Type fields on the Edit Prompt Properties page.
7. Click the OK button to return to the Criteria page.

Creating Runtime Prompts (continued)

Creating Runtime Prompts from the Prompts Page

This diagram shows the usages of the Prompts page:



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Creating Runtime Prompts from the Prompts Page

The Prompts page serves two functions:

- Enables you to create new prompts.
- Provides a prompt repository in which you can store prompts that this query uses in criteria.

Page Used to Create Runtime Prompts

Use this page to create and save multiple prompts that you can use later as selection criteria:

Page Name	Navigation
Prompts	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Create a new query or open an existing one. 3. Select the Prompts tab.

Records Query Expressions **Prompts** Fields Criteria Having View SQL Run

Query Name: VERSION_QRY **Description:** Version Query

Add Prompt

Prompts List		Customize	Find	First	1-2 of 2	Last
Prompt	Edit	Delete				
:1 = COURSE - Course Code	Edit	-				
:2 = AE_VERSION - Version	Edit	-				

Steps Used to Create or Edit Runtime Prompts from the Prompts Page

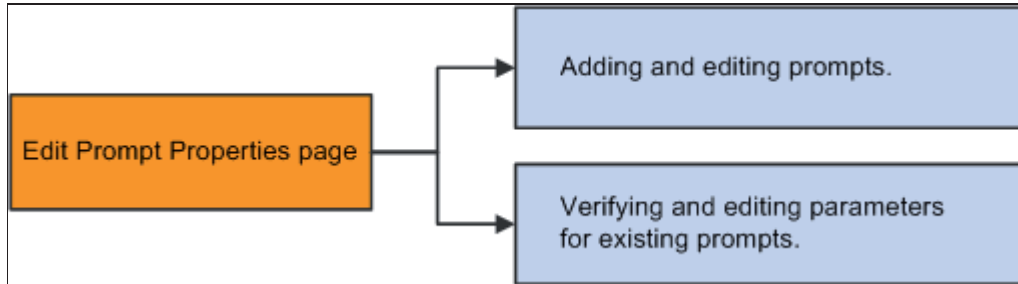
To create a runtime prompt from the Prompts page:

1. Select Reporting Tools, Query, Query Manager.
2. Create a new query or open an existing one.
3. Access the Prompts page, and click the Add Prompt button or the appropriate Edit button.
4. Enter or edit values the Field, Type, Format, Length, Heading Type, and Edit Type fields on the Edit Prompt Properties page.
5. Click the OK button to return to the Prompts page.

Creating Runtime Prompts (continued)

Edit Prompt Properties Page

This diagram shows the usages of the Edit Prompt Properties page:



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Student Notes

Page Used to Verify and Edit Parameters for the Runtime Prompts

Use this page to add prompts, edit prompts, verify parameters for existing prompts, and edit parameters for existing prompts:

Page Name	Navigation
Edit Prompt Properties	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Create a new query or open an existing one. 3. Select the Prompts tab, and click the Add Prompt button. <p>Alternatively:</p> <ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Create a new query or open an existing one. 3. Select the Criteria tab, and click the Add Criteria button. 4. Select the <i>Prompt</i> option for expression 2 type, and click the New Prompt link.

Edit Prompt Properties

Field Name:

***Type:**

***Format:**

Length:
Decimals:

***Edit Type:**

***Heading Type:**

Heading Text:

***Unique Prompt Name:**

Prompt Table:

Fields on the Edit Prompt Properties Page

The fields that are on the Edit Prompt Properties page are:

Field Name Select the field for the prompt.

Heading Type

Select the title that you see when the prompt appears.

- *RFT Long*: The long name from the record field definition.
- *RFT Short*: The short name from the record field definition.
- *Text*: Any label that you enter.

Note. For consistency and globalization, manually entering text is discouraged.

Type, Format, and Length

View the field attributes that default from the field definition that developers create in PeopleSoft Application Designer.

Edit Type

Select the appropriate type for the selected field:

- *Prompt Table*: You search and select only values that exist in a prompt table.
- *Translate Table*: You select from a list of values specific to this field that exist in the Translate table.
- *Yes/No Table*: You select or clear check boxes.
- *No Table Edit*: You enter any value. No validation exists on this edit type.

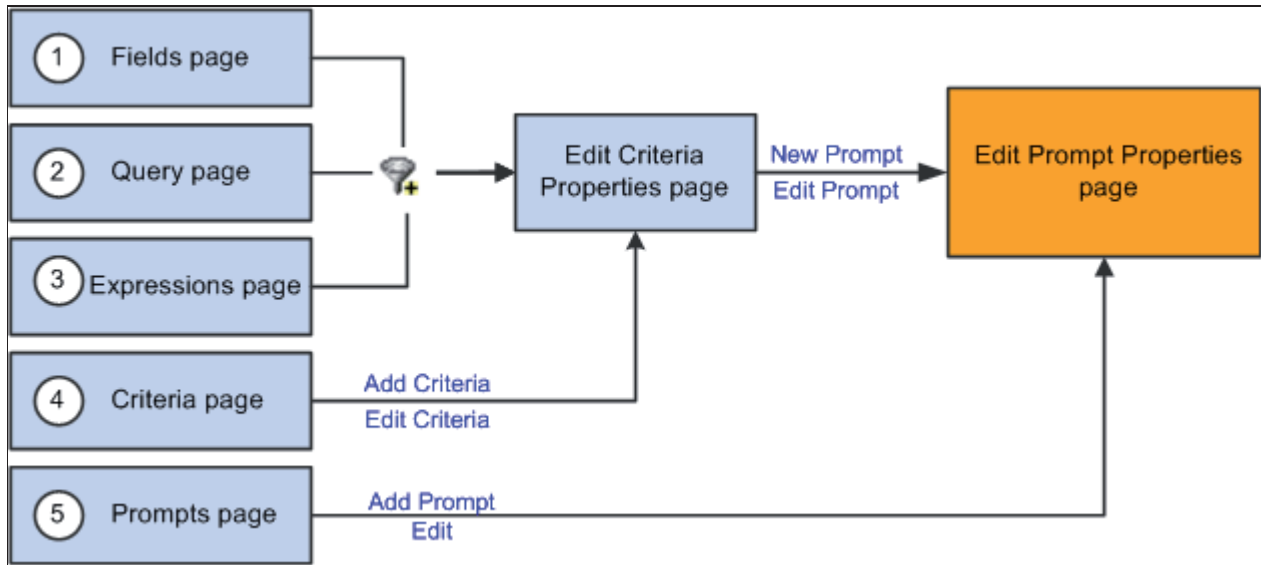
Note. If you select *Prompt Table* as the edit type, the correct record should appear by default. However, you should verify that the Prompt Table field displays the record that stores the values that you want users to see. The values in the Type, Format, and Length fields in the Edit Prompt Properties page default from the field definition in the database.

The unique prompt name is used in translations. You don't need to change this name.

Creating Runtime Prompts (continued)

Steps Used to Create a Runtime Prompt

This diagram shows the methods used to create or edit a runtime prompt:



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Possible Actions When Working with Prompts

The actions you might use when working with prompts are:

- Creating Prompts.

Use the Fields page, Query page, Criteria page to add one prompt for a specific field to a query.

Use the Prompts page to add multiple prompts to one query.

- Editing Prompts.

Use the Fields page, Query page, Criteria page to edit the criteria where the prompt is applied, and then click the Edit Prompt link.

Use the Prompts page and click the Edit button for the prompt that you want.

- Deleting Prompts.

Use the Prompts page and click the Delete button of the prompt that you want to remove.

Activity 8: Creating Runtime Prompts

In this activity, you will review the activity overview and:

- Create a query.
- Add criteria.
- Add a runtime prompt.

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Activity Overview

Create a query to report student enrollment by course. Display the student ID, course ID, session number, enroll date, status, and confirmation letter fields from the Student Enrollment record (PSU_STU_ENROLL).

Create a prompt that enables users to specify the course. Then, add criteria so that only students who are enrolled in the specified course appear in the output.

Sort the query by student ID. Save the query as ENROLLED_QRY.

Note. Use *PTRPTG* for the user name and password in this activity.

Activity Detailed Steps

Perform the detailed steps to complete the activity.

Creating a Query

To create a query:

1. If necessary, sign in to the Oracle PeopleSoft Enterprise.
2. Access the Query Manager, and create a new query using the PSU_STU_ENROLL record.
3. Enter the following information:

<i>Field</i>	<i>Value or Status</i>
STUDENT_ID	Selected <i>Text</i> <i>Student</i> <i>Order by 1</i>
COURSE	Selected
SESSION_NBR	Selected
ENROLL_DT	Selected
ENROLL_STATUS	Selected <i>XLAT long</i>
CONFIRM_LETTER	Selected <i>RFT long</i>

4. Save the query as *ENROLLED_QRY*.

Adding Criteria

To add criteria:

1. In the Fields page, click the Add Criteria icon associated with the A.ENROLL_STATUS field.

2. Enter the following information:

Page Element	Value or Status
Expression 1 Type	<i>Field</i>
Expression 1	<i>A.ENROLL_STATUS</i>
Condition Type	<i>equal to</i>
Expression 2 Type	<i>Constant</i>
Expression 2	<i>ENR</i>

3. Click the OK button.
 4. View the query output, and answer this question:

Question	Answer
How many rows of data are returned?	

Adding a Runtime Prompt

To add a runtime prompt:

1. Select the Fields tab, and click the Add Criteria icon associated with the A.COURSE field.
2. Enter the following information:

Page Element	Value or Status
Expression 1 Type	<i>Field</i>
Expression 1	<i>A.COURSE</i>
Condition Type	<i>equal to</i>
Expression 2 Type	<i>Prompt</i>

3. Click the New Prompt link in the Expression 2 group box, and enter the following information:

Page Element	Value or Status
Heading Type	<i>RFT Long</i>
Edit Type	<i>Prompt Table</i>
Prompt Table	<i>PSU_COURSE_TBL</i>

4. Click the OK button twice to return to the Fields page.
5. Save the query, and view the results using course 1001.
6. Compare the output with the following results.

Results

This is the ENROLLED_QRY query with 141 rows of data returned:

Course Code = 1001						
Student	Course	Session	Enrolled	Status	Confirmation Letter	
1	2001	1001	27	07/23/2007	Enrolled	Y
2	2002	1001	404	12/16/2006	Enrolled	
3	2003	1001	317	05/18/2009	Enrolled	
4	2004	1001	303	01/05/2009	Enrolled	
5	2004	1001	405	11/05/2008	Enrolled	
6	2005	1001	313	05/18/2009	Enrolled	
7	2006	1001	300	12/05/2008	Enrolled	
8	2008	1001	312	05/05/2009	Enrolled	
9	2008	1001	405	11/05/2008	Enrolled	
10	2008	1001	404	01/15/2009	Enrolled	N
11	2009	1001	316	01/18/2009	Enrolled	Y
12	2010	1001	315	12/18/2008	Enrolled	Y
13	2020	1001	27	07/13/2007	Enrolled	Y
14	2030	1001	312	05/05/2009	Enrolled	
15	2031	1001	404	01/15/2009	Enrolled	N
16	2032	1001	316	01/18/2009	Enrolled	Y

This concludes the activity. Please do not continue.

Creating Multiple Runtime Prompts

Multiple Runtime Prompts

Using multiple runtime prompts in a query provides users with even more flexibility at runtime.

The steps to add multiple prompts are the same steps that you use to add a single prompt; you need only to add additional rows of criteria, and then select an Expression 2 type of prompt each time.

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Multiple Runtime Prompts

Each time that you create a runtime prompt, the prompt is assigned a number, such as ":1," ":2," and ":3." These numbers correspond to variables in the SQL that the query generates. At runtime, the tool replaces each variable with a user-supplied value.

This example shows the prompts with the assigned number:

The screenshot shows a software interface with a tabbed menu at the top: Records, Query, Expressions, Prompts (selected), Fields, Criteria, Having, View SQL, Run. Below the menu, the 'Query Name' is 'ENROLLMENTS' and the 'Description' is blank. There is an 'Add Prompt' button. Below that is a 'Prompts List' table with columns for 'Prompt', 'Edit', and 'Delete'. The table contains three rows of prompts.

Prompt	Edit	Delete
:1 = COURSE - Course Code	Edit	-
:2 = ENROLL_STATUS - Enrollment Status	Edit	-
:3 = CONFIRM_LETTER - Confirmation Letter	Edit	-

This example shows a query with three types of prompts:

- Prompt Table prompt: Course Code search field.
- Translate Table prompt: Enrollment Status drop-down list box.

- Yes/No Table prompt: Confirmation Letter check box.

Creating a Query Using Prompts for Date Ranges

To create a query using prompts for date ranges (*between*):

1. Select Reporting Tools, Query, Query Manager.
2. Create a new query, or search for an existing one.

For example, create the DATE_RANGES query using the PERSONAL_DATA record and the ORIG_HIRE_DT field.

3. Access the Fields page, and click the Add Criteria icon next to the field on which you want to setup the *between* prompt.

For example, ORIG_HIRE_DT field.

4. Verify that the value of the Condition Type field is *equal_to*.
5. Under the Choose Expression 2 Type section, select the Prompt option.
6. Under the Expression 2 section, click the New Prompt link.
7. In the Edit Criteria Properties page, define the properties for the first prompt.

For example:

Page Element	Value or Status
Heading Type	<i>Text</i>
Heading Text	<i>Input Beginning Date</i>
Edit Type	<i>No Table Edit</i>

8. Click the OK button to return to the Edit Criteria Properties page.
9. Verify that the value of the Condition Type field is *equal_to*.
10. Under the Expression 2 section, click the New Prompt link to add the second prompt.

- In the Edit Criteria Properties page, define the properties for the second prompt.

For example:

Page Element	Value or Status
Heading Type	<i>Text</i>
Heading Text	<i>Input Ending Date</i>
Edit Type	<i>No Table Edit</i>

- Click the OK button to return to the Edit Criteria Properties page.

- Select or enter the following information:

Page Element	Value or Status
Condition Type	<i>between</i>
Choose Expression 2 Type	<i>Expr - Expr</i>

- In the first Define Expression group box, click the Add Prompt link.

- Select the first prompt that you just set up.

For example, *Input Beginning Date*.

- In the second Define Expression group box, click the Add Prompt link.

- Select the second prompt that you just set up.

For example, *Input Ending Date*.

- Click the OK button.

- Save and run your query.

This example shows prompts for the date ranges when the DATE_RANGES query is run:

Creating a Query With an In-List Prompt

To create a query with an in-list prompt:

- Select Reporting Tools, Query, Query Manager.

2. Create a new query, or search for an existing one.

For example, create the In_List_Prompt query using the PSU_COURSE_TBL record and the *COURSE - Course Code* field.

3. Access the Fields page, and click the Add Criteria icon next to the field on which you want to setup the in-list prompt.

For example, COURSE field.

4. Under the Choose Expression 2 Type section, select the Prompt option.
5. Under the Expression 2 section, click the New Prompt link.
6. In the Edit Prompt Properties page, define the properties for the first prompt.

For example:

Page Element	Value or Status
Heading Type	<i>Text</i>
Heading Text	<i>Input First Course</i>

7. Click the Select a Prompt Table icon under the Prompt Table field.
8. Search for and select an existing prompt table.
9. Click the OK button.
10. Under the Expression 2 section, click the New Prompt link.
11. In the Edit Prompt Properties page, define the properties for the second prompt.

For example:

Page Element	Value or Status
Heading Type	<i>Text</i>
Heading Text	<i>Input Second Course</i>

12. Click the Select a Prompt Table icon under the Prompt Table field.
13. Search for and select an existing prompt table.
14. Click the OK button.
15. Repeat steps 10 through step 14 until you have created the number of prompts you want in your list.
16. Change the Condition Type to *in-list*.
17. In the Edit List group box, click on the *Select List Members* icon.
18. On the Edit list page, click the Add Prompt link.

19. On the Select a Prompt page, select the first prompt that you just set up.

For example, *Input First Course*.

20. On the Edit List page, click the Add Prompt link again.

21. On the Select a Prompt page, select the second prompt that you just set up.

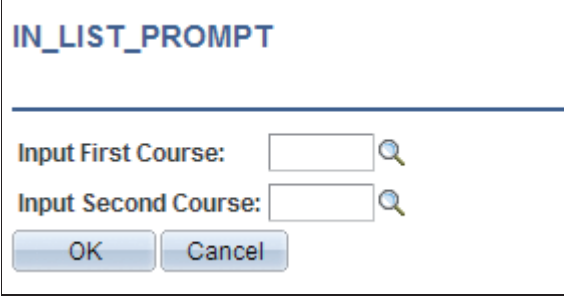
For example, *Input Second Course*.

22. Repeat steps 20 and 21 until all of your prompts have been added to the list.


23. Click the OK twice to return to the Fields page.


24. Save and run your query.

This example shows prompts when the IN_LIST_PROMPT query is run:



IN_LIST_PROMPT

Input First Course: 

Input Second Course: 

OK Cancel

Activity 9: Enhancing Queries with Multiple Prompts

In this activity, you will review the activity overview and:

- Add a runtime prompt to existing criteria.
- Add another runtime prompt.

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Activity Overview

Use the existing ENROLLED_QRY query and save as ENROLLED_STATUS query with two additional runtime prompts (for a total of three prompts in the new query). The new prompts enable users to select enrollment status and whether a confirmation letter is sent.

Select course 1001, an enrollment status of enrolled (ENR), and only those students who have received confirmation letters (Y).

Note. Use *PTRPTG* for the user name and password in this activity.

Activity Detailed Steps

Perform the detailed steps to complete the activity.

Adding a Runtime Prompt to Existing Criteria

To add a runtime prompt to existing criteria:

1. If necessary, sign in to the Oracle PeopleSoft Enterprise.
2. Access the Query Manager, and open the ENROLLED_QRY query.
3. Click the Save As link and save the query as ENROLLED_STATUS.
4. Select the Criteria tab, and edit the ENROLL_STATUS criteria using the following information:

Page Element	Value or Status
Condition Type	<i>equal to</i>
Expression 2 Type	<i>Prompt</i>

5. Click the New Prompt link for Expression 2, and enter the following information:

Page Element	Value or Status
Heading Type	<i>RFT Long</i>
Edit Type	<i>Translate Table</i>

6. Click the OK button twice to return to the Criteria page.

Adding Another Runtime Prompt

To add another runtime prompt:

1. From the Criteria page, add another row of criteria.
2. Enter the following information:

Page Element	Value or Status
Expression 1	<i>CONFIRM_LETTER</i>
Condition Type	<i>equal to</i>
Expression 2 Type	<i>Prompt</i>

3. Click the New Prompt link for Expression 2, and enter the following information:

Page Element	Value or Status
Heading	<i>RFT Long</i>
Prompt Type	<i>Yes/No Table</i>

4. Click the OK button twice to return to the Criteria page.
 5. Save and rerun the query.
 6. Enter this data for run-time prompts:

Page Element	Value or Status
Course Code	<i>1001</i>
Enrollment Status	<i>Enrolled</i>
Confirmation Letter	<i>Selected</i>

7. Click the OK button, and compare the output with the following results.

Results

This is the ENROLLED_STATUS query with 42 rows of data returned:

Records	Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run
Course Code = 1001,Enrollment Status=ENR,Confirmation Letter=Y								
View All Rerun Query Download to Excel Download to XML							First 1-42 of 42 Last	
	Student	Course	Session	Enrolled	Status	Confirmation Letter		
1	2001	1001	27	07/23/2007	Enrolled	Y		
2	2009	1001	316	01/18/2009	Enrolled	Y		
3	2010	1001	315	12/18/2008	Enrolled	Y		
4	2020	1001	27	07/13/2007	Enrolled	Y		
5	2032	1001	316	01/18/2009	Enrolled	Y		
6	2101	1001	26	07/03/2007	Enrolled	Y		
7	2105	1001	805	01/06/2010	Enrolled	Y		
8	2120	1001	805	01/11/2010	Enrolled	Y		
9	2201	1001	412	01/05/2009	Enrolled	Y		
10	2202	1001	27	06/11/2007	Enrolled	Y		

This concludes the activity. Please do not continue.

Activity 10: Creating Date Range Prompts

In this activity, you will review the activity overview and:

- Create a query.
- Add runtime prompts.
- Create a prompt for a date range.

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Activity Overview

You will create the `ENROLL_RANGE` query to view all student enrollments in the specific PeopleSoft courses between two dates that you will specify when you run the query.

Use the Student Enrollment record (`PSU_STU_ENROLL`) and the student ID, course, session number, and enrollment date.

Add a runtime prompt that enable users to enter a course, and create a prompt for a date range.

Query the database for the students who enrolled in course 1001 between January 1, 2009 and June 30, 2009.

Note. Use `PTRPTG` for the user name and password in this activity.

Activity Detailed Steps

Perform the detailed steps to complete the activity.

Creating a Query

To create a query:

1. If necessary, sign in to the Oracle PeopleSoft Enterprise.
2. Access the Query Manager, and create a new query using the PSU_STU_ENROLL record.
3. Enter the following information:

Field	Heading
STUDENT_ID	Selected <i>Student</i>
COURSE	Selected <i>Course</i> <i>Order by 1</i>
SESSION_NBR	Selected <i>Session</i>
ENROLL_DT	Selected <i>Enrolled Date</i> <i>Order by 2</i>

4. Save the query as ENROLL_RANGE.

Adding Runtime Prompts

To add runtime prompts:

1. Access the Fields page, and click the Add Criteria icon associated with the A.COURSE field.

- Enter the following information:

Page Element	Value or Status
Expression 1 Type	<i>Field</i>
Expression 1	<i>A.COURSE</i>
Condition Type	<i>equal to</i>
Expression 2 Type	<i>Prompt</i>

- Click the New Prompt link, and select the following information:

Page Element	Value or Status
Heading Type	<i>RFT Long</i>
Edit Type	<i>Prompt Table</i>
Prompt Table	<i>PSU_COURSE_TBL</i>

- Click the OK button twice to return to the Fields page.
- Select the Criteria tab, and confirm that the new criteria is added to the criteria list.
- Save the query.

Results

This example shows the Criteria page listing the newly added criteria:

Creating a Prompt for a Date Range

To create a prompt for a date range:

- Select the Fields tab, and click the Add Criteria icon associated with the A.ENROLL_DT field.

2. Enter the following information:

Page Element	Value or Status
Expression 1 Type	<i>Field</i>
Expression 1	<i>A.ENROLL_DT</i>
Condition Type	<i>equal to</i>
Expression 2 Type	<i>Prompt</i>

3. Click the New Prompt link, and enter the following information:

Page Element	Value or Status
Heading Type	<i>Text</i>
Heading Text	<i>Enroll Date From</i>
Edit Type	<i>No Table Edit</i>

4. Click the OK button to return to the Edit Criteria Properties page, and click the New Prompt link for a second time.

Note. Do not change the condition type at this time.

5. Enter the following information:

Page Element	Value or Status
Heading Type	<i>Text</i>
Heading Text	<i>Enroll Date To</i>
Edit Type	<i>No Table Edit</i>

6. Click the OK button.
7. Change the Condition Type value to *between*.
8. Under the Choose Expression 2 Type section, select the *Expr – Expr* option.
9. In the first Define Expression group box, click the Add Prompt link.
10. Select the *ENROLL_DT – Enroll Date From* prompt.
11. In the second Define Expression group box, click the Add Prompt link.
12. Select the *ENROLL_DT – Enroll Date To* prompt.
13. Click the OK button to return to the Fields page, and save your query.

14. Select the Criteria tab, and confirm that the new criteria is added to the criteria list.
15. Run the query using the following data when prompted:

Page Element	Value or Status
Course	1001
Enroll Date From	01/01/2009
Enroll Date To	06/30/2009

16. Compare the output with the following results.

Results

This example shows the Criteria page listing the added criteria:

Records Query Expressions Prompts Fields **Criteria** Having View SQL Run

Query Name: ENROLL_RANGE Description: Enroll Range Feed

Add Criteria Group Criteria Reorder Criteria

Logical	Expression1	Condition Type	Expression 2	Edit	Delete
	A.COURSE - Course Code	equal to	:1	Edit	-
AND	A.ENROLL_DT - Enroll Date	between	:2 AND :3	Edit	-

This is the ENROLL_RANGE query with 70 rows returned:

Records Query Expressions Prompts Fields Criteria Having View SQL **Run**

Course Code = 1001,Enroll Date From=2009-01-01,Enroll Date To=2009-06-30

View All | Rerun Query | Download to Excel | Download to XML First 1-70 of 70 Last

	Student	Course	Session	Enrolled Date
1	2491	1001	302	01/05/2009
2	2224	1001	303	01/05/2009
3	2496	1001	302	01/05/2009
4	2517	1001	302	01/05/2009
5	2592	1001	302	01/05/2009
6	2624	1001	302	01/05/2009
7	2626	1001	302	01/05/2009
8	2651	1001	303	01/05/2009
9	2664	1001	303	01/05/2009
10	2705	1001	303	01/05/2009

This concludes the activity. Please do not continue.

Review

In this lesson, you learned that:

- You use runtime prompts to enable user input regarding the selection criteria in queries.
- You create runtime prompts from either the Prompts page or the Criteria page in Query Manager.
- You create multiple runtime prompts in a query to enable user input in selection criteria, which extends the query's usability.

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Additional Resources

This table lists additional resources that provide more details about the topics that we discussed in this lesson:

Topic	Cross-Reference
Describing runtime prompts	<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query, "Defining Selection Criteria"</i> <i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query, "Defining Prompts"</i>

Lesson 7

Working with Multiple Tables

Objectives

By the end of this lesson, you will be able to:

- Describe the purpose of joins.
- Use record-hierarchy and related-record joins.

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Describing the Purpose of Joins

Joining Multiple Records

When you join two records (tables), you relate them to each other.

This table lists the purposes of joining two records:

Purpose	Example
Retrieve additional fields	You join tables to retrieve a description (DESCR: <i>Amsterdam</i>) that explains a code LOCATION: <i>001</i>).
Limit the rows that are returned	You join tables to retrieve only the student records of students whose student Ids appear in the Enrollments table.

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Joining Multiple Records

You have created a query that retrieves data in multiple fields from one record.

Joins retrieve data from more than one table, displaying the data as if it comes from one table. PeopleSoft Query links the two records using common columns, and links the rows in the two tables using common values in the shared columns.

Example: Joining Multiple Records

You want to retrieve this data:

- STUDENT_ID
- COURSE
- ENROLL_STATUS
- DEGREE
- GRADUATE_INDICATOR

However:

- The Student Enrollment record (PSU_STU_ENROLL) stores the STUDENT_ID, COURSE, and ENROLL_STATUS data.

- The Student Education record (PSU_STUDENT_ED) stores the DEGREE and GRADUATE_INDICATOR data.

You join the two records, PSU Student Enrollment and PSU Student Education, on the common key field, STUDENT_ID. The join matches a row of student enrollment data with a row of student education data based on the student ID. When the query retrieves a row of enrollment data for student 1004, it retrieves a row of education data for the same student ID.

Describing the Purpose of Joins (continued)

Differences Between Tables and Views

A record that you access using Query Manager might be either a table or a view. This table lists the characteristics of tables and views:

Table	View
1 Stores physical data.	1 Displays logical representations of data.
2 Designed for data storage.	2 Designed for data retrieval.
3 Organized for minimum redundancy.	3 Organized as necessary to meet business need.
4 Contains a specific type of related data.	4 Displays related data, but you define the relationship.

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Differences Between Tables and Views

These are the main differences between tables and views:

- A table physically stores rows of related data in a database.

For example, the Student Data table (PSU_STUDENT_TBL.) contains rows of data that define students and their characteristics.

Each row describes a unique student, but you find no completed courses for students in this table.

- A view contains no data.

A view stores a SQL statement that executes when you use the view. The data is dynamic.

It might display a subset of data from a table, rearrange the fields in a table, or combine data from multiple tables.

For example, use a view to display student data and completed courses in one query.

- You maintain all PeopleSoft views and tables as record definitions in Application Designer.

Record names with the `_VW` and `_SRCH` suffixes indicate that the record is a view. However, not all views end in those suffixes.

Because both views and tables appear as records in Query Manager, become familiar with the records you use frequently.

For example, the PeopleTools courses view, (`PT_CRS_SRCH`) displays only the technical courses from the Course table (`PSU_COURSE_TBL`) because the view contains selection criteria for technical courses.

Views

If you cannot use an existing view:

- Determine which tables contain the necessary data.
- Create a query with those tables.
- Join the tables in the query.

If joining tables is difficult for you, contact a developer. If processes do not exist for developing new views as necessary, create them if possible. Having developers create views requires time (especially in large, global organizations), and negates a primary strength of PeopleSoft Query—quick access to data.

Pages, Records, and Fields

Locating appropriate data sources is difficult if you are unfamiliar with the application. Use Query Manager to access the PeopleTools tables `PSPNLDEFN` and `PSPNLFIELD`, and query these tables for the records and fields associated with any PeopleSoft Pure Internet Architecture page.

PeopleTools tables are in access groups in the `QUERY_TREE_PT` tree. Not all users have access to these tables; however, such a query enables technical users to spend less time searching for record definitions in Application Designer.

Press `Ctrl+J` on a data entry page to view the page name. Then use that name to complete the prompt that is in the query. Almost all definition names consist only of uppercase letters.

PeopleTools Query

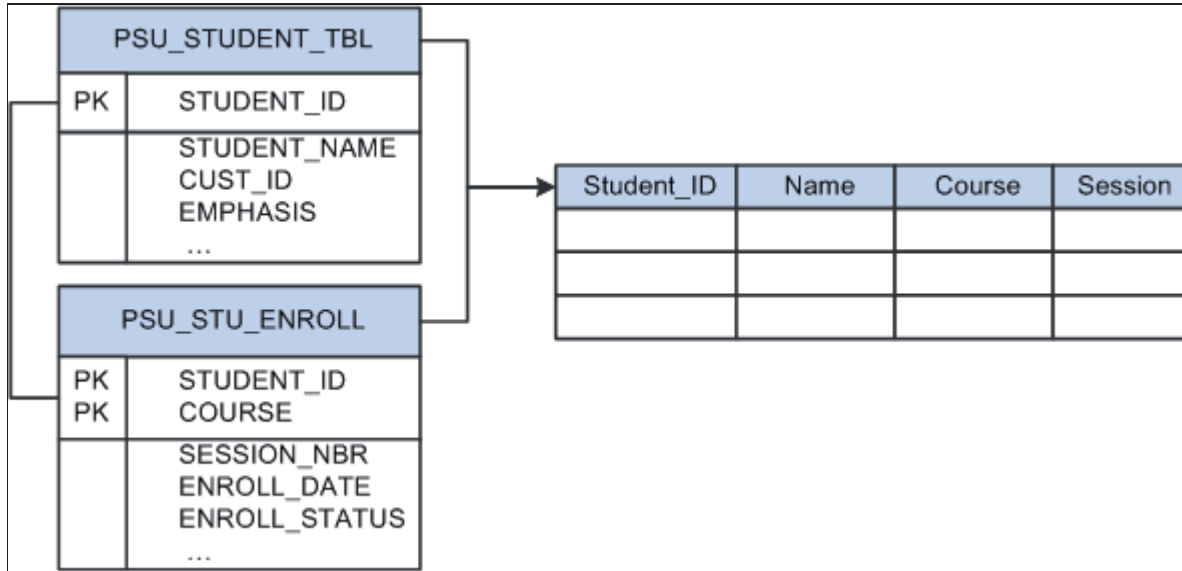
This table describes fields for a possible PeopleTools query:

Fields	Description
A = PSPNLDEFN, B = PSPNLFIELD	The PSPNLDEFN table stores basic page data such as name and description. Use this table as the base table. The PSPNLFIELD table stores the page name and its associated fields. Join this table to the PSPNLDEFN table
B.FIELDNUM	This field stores the tab order on the page. Order by this field.
A.PNLNAME	This field stores the page name that you view when you press Ctrl+J. Create a runtime prompt on this field to limit inordinate output.
A.DESCR	This field stores a useful description of the technical page name (if documented by the developer.)
B.LBLTEXT	This field stores the label that you see on the page.
B.RECNAME	This field stores the technical name of the record associated with the data.
B.FIELDNAME	This fields stores the technical name of the field.

Describing the Purpose of Joins (continued)

Record-Hierarchy Joins

This example shows record-hierarchy joins:



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Predefined Joins

In PeopleSoft Query, a predefined join is one of the following:

- Record-hierarchy join
- Related-record join

Record-Hierarchy Joins

Record-hierarchy joins use records that are related through a parent-child relationship.

You define this join in the record properties and key structure when you create the record in PeopleSoft Application Designer.

Pages Used to Determine the Parent-Child Relationship of Record Hierarchy Joins

Page Name	Navigation
Query	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Create a new query, or search for an existing one. 3. Select the Query tab.
Select record for hierarchy join	Click the Hierarchy Join link on the Query page.

- Use this page to access the *Select record for hierarchy join* page:





The screenshot displays the Query Manager interface with the 'Query' tab selected. The 'Query Name' is 'New Unsaved Query'. Below the tabs, there is a 'Description' section with instructions: 'Click folder next to record to show fields. Check fields to add to query. Uncheck fields to remove from query. Add additional records by clicking the records tab. When finished click the fields tab.' Below this is the 'Chosen Records' section, which shows a record 'A PSU_STUDENT_TBL - PSU Student Data' with a 'Hierarchy Join' link. There are 'Check All' and 'Uncheck All' buttons. Below the records is the 'Fields' section, which lists fields with checkboxes and join options:

Field Name	Description	Join Options
<input checked="" type="checkbox"/> STUDENT_ID	Student ID	
<input checked="" type="checkbox"/> STUDENT_NAME	Student Name	
<input type="checkbox"/> CUSTOMER_ID	Customer	Join PSU_CUST_TBL - Customer Table
<input checked="" type="checkbox"/> EMPHASIS	Student Emphasis	
<input type="checkbox"/> SAME_ADDR_CUSTOMER	Same address as Customer	
<input type="checkbox"/> STREET1	Street (line1)	
<input type="checkbox"/> CITY	City	
<input type="checkbox"/> STATE	State	Join STATE_TBL - States and Provinces
<input type="checkbox"/> ZIP	Zip Code	
<input type="checkbox"/> COUNTRY	Country	Join COUNTRY_TBL - Countries

- Use this page to view a list of child records and select the record to join to the existing record in the query:

Select record for hierarchy join

Left | Right

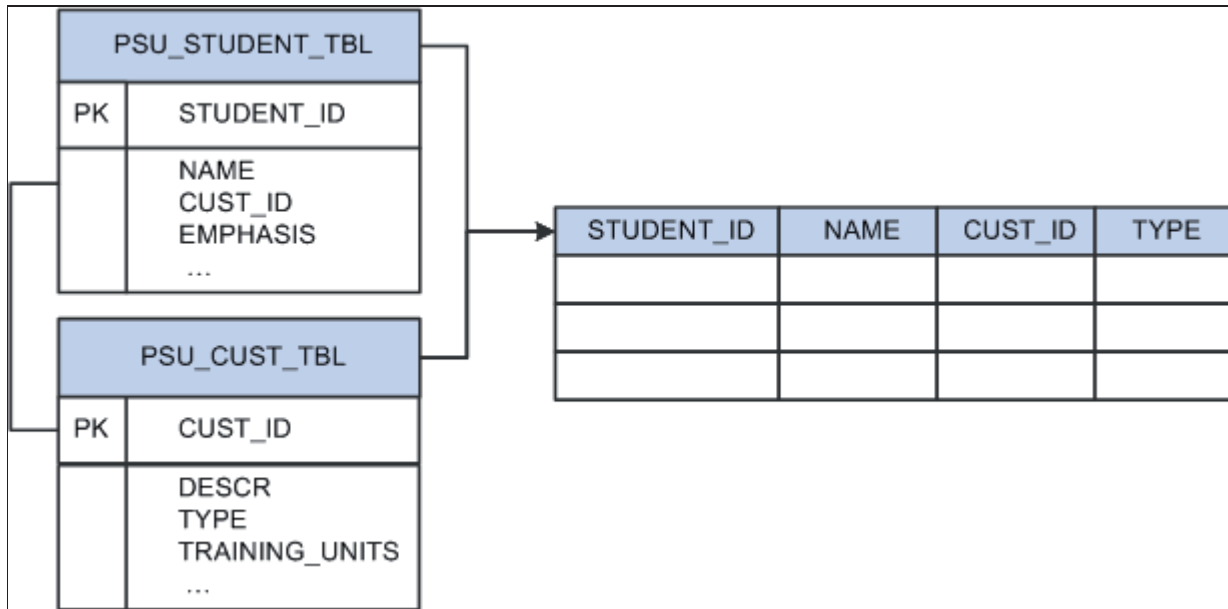
-  [PSU_STUDENT_TBL - PSU Student Data](#)
-  [PSU_STUDENT_ED - PSU Student Education](#)
-  [PSU_STUDENT_EXP - PSU Student Experience](#)
-  [PSU_STU_ENROLL - PSU Student Enrollment](#)

Note. The indented records are child tables of a parent. For example, the parent table is PSU Student Data (PSU_STUDENT_TBL), and the child table is PSU Student Experience (PSU_STUDENT_EXP).

Describing the Purpose of Joins (continued)

Related-Record Joins

This example shows related-record joins:



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Student Notes

Related-Record Joins

Related-record joins combine nonhierarchical records that share common fields. You determine this relationship when you define a field's prompt table relationship in Application Designer.

Related records are specific to a field in the current record. If you use Application Designer to set field edit properties so that the field validates against a prompt table, the related record link appears to the right of the field.

Example: Related-Record Joins

This example illustrates a related record join.

The PSU Student Data table (PSU_STUDENT_TBL) stores detailed student information such as student ID, name, and customer code. If you have not memorized all customer codes, then click the related record join link to join the Student Data table to the Customer table (PSU_CUST_TBL) and access all fields from that table.

With the Customer table joined, add the customer type (customer, partner, and so forth), customer name, or any other field:

Records Query Expressions Prompts Fields Criteria Having View SQL Run

Query Name: New Unsaved Query **Description:**

Click folder next to record to show fields. Check fields to add to query. Uncheck fields to remove from query. Add additional records by clicking the records tab. When finished click the fields tab.

Chosen Records

Alias Record

A PSU_STUDENT_TBL - PSU Student Data [Hierarchy Join](#)

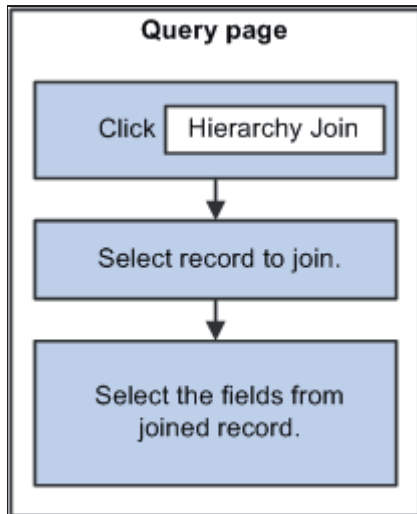
Fields Find | View All First 1-12 of 12 Last

<input checked="" type="checkbox"/>	STUDENT_ID - Student ID		
<input checked="" type="checkbox"/>	STUDENT_NAME - Student Name		
<input checked="" type="checkbox"/>	CUSTOMER_ID - Customer	Join PSU_CUST_TBL - Customer Table	
<input type="checkbox"/>	EMPHASIS - Student Emphasis		
<input type="checkbox"/>	SAME_ADDR_CUSTOMER - Same address as Customer		
<input type="checkbox"/>	STREET1 - Street (line1)		
<input type="checkbox"/>	CITY - City		
<input type="checkbox"/>	STATE - State	Join STATE_TBL - States and Provinces	
<input type="checkbox"/>	ZIP - Zip Code		
<input type="checkbox"/>	COUNTRY - Country	Join COUNTRY_TBL - Countries	

Using Record-Hierarchy and Related-Record Joins

Creating a Record-Hierarchy Join

This flowchart shows the steps to create a record-hierarchy join:



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Student Notes

Creating a Record-Hierarchy Join

To create a record-hierarchy join:

1. Select the Query page, and then click the Hierarchy Join link.
2. Select the record to join from the list of parent-child records.

This record appears on the Query page and is assigned an alias letter in the order that you added the records.

3. Select the necessary fields from the joined record.

Note. Sometimes joins increase the number of rows, and sometimes they decrease the number of rows. The only way to change the number of rows in a query is to use a `WHERE` clause, which adds criteria. Joins add a `WHERE` clause.

Example: Record-Hierarchy Join

This example shows alias letters, such as A, B, and C, assigned to display the join sequence :

Records Query Expressions Prompts Fields Criteria Having View SQL Run

Query Name: RECORD_HIERARCHY_JOIN **Description:** Record Hierarchy join

Click folder next to record to show fields. Check fields to add to query. Uncheck fields to remove from query. Add additional records by clicking the records tab. When finished click the fields tab.

Chosen Records

Alias	Record	
	A PSU_STUDENT_TBL - PSU Student Data	Hierarchy Join
	B PSU_STUDENT_ED - PSU Student Education joined with A	Hierarchy Join

Fields Find | View All First 1-6 of 6 Last

<input type="checkbox"/>	STUDENT_ID - Student ID	Join PSU_STUDENT_TBL - PSU Student Data
<input type="checkbox"/>	DEGREE - Degree	
<input type="checkbox"/>	SCHOOL_CODE - School Code	
<input checked="" type="checkbox"/>	MAJOR - Major	
<input checked="" type="checkbox"/>	GPA - Grade Point Average	
<input type="checkbox"/>	GRADUATE_INDICATOR - Graduate Indicator	

Use the View SQL page to view the WHERE clause in the code:

Records Query Expressions Prompts Fields Criteria Having View SQL Run

Query Name: RECORD_HIERARCHY_JOIN **Description:** Record Hierarchy join

Query SQL:

```
SELECT A.STUDENT_ID, A.STUDENT_NAME, A.COUNTRY, B.MAJOR, B.GPA
FROM PS_PSU_STUDENT_TBL A, PS_PSU_STUDENT_ED B
WHERE B.STUDENT_ID = A.STUDENT_ID
```

Results

These are the results of the record-hierarchy join:

Records Query Expressions Prompts Fields Criteria Having View SQL Run

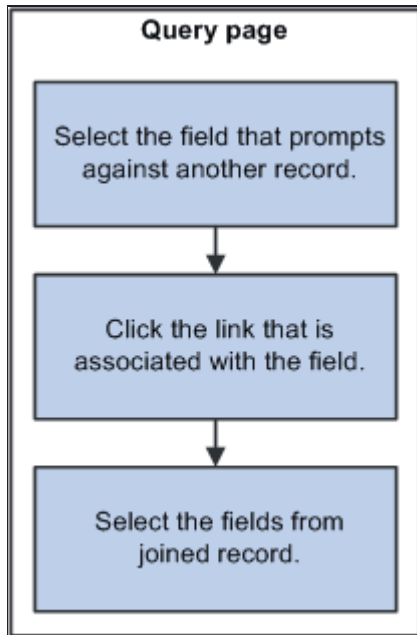
[View All](#) | [Rerun Query](#) | [Download to Excel](#) | [Download to XML](#) First Last

	ID	Name	Cntry	Major	GPA
1	2754	Fernandez,Michael Raymond	CAN	French History	3.00
2	2755	Connell,Joseph	USA	Eastern Religions	2.90
3	2756	Evans,Lawrence	CAN	Computer Science	3.10
4	2758	Lewis,Margaret	USA	Art History	2.90
5	2760	Espinoza,Alex	USA	French History	3.20
6	2761	Vallero,Joaquin	USA	Micro Biology	3.20
7	2766	Self,Nancy	USA	Electrical Engineering	3.10
8	2767	Al-Masaad,Ali	USA	Information Systems	4.00
9	2767	Al-Masaad,Ali	USA	Electrical Engineering	3.90
10	2768	Chen,Daphne	USA		2.70

Using Record-Hierarchy and Related-Record Joins (continued)

Creating a Related-Record Joins

This flowchart shows the steps to create a related-record join:



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Creating a Related-Record Join

To create a related-record join:

1. Access the Query page, and then select the field that prompts against another table for its values.

The related record appears as a link to the right of the field.

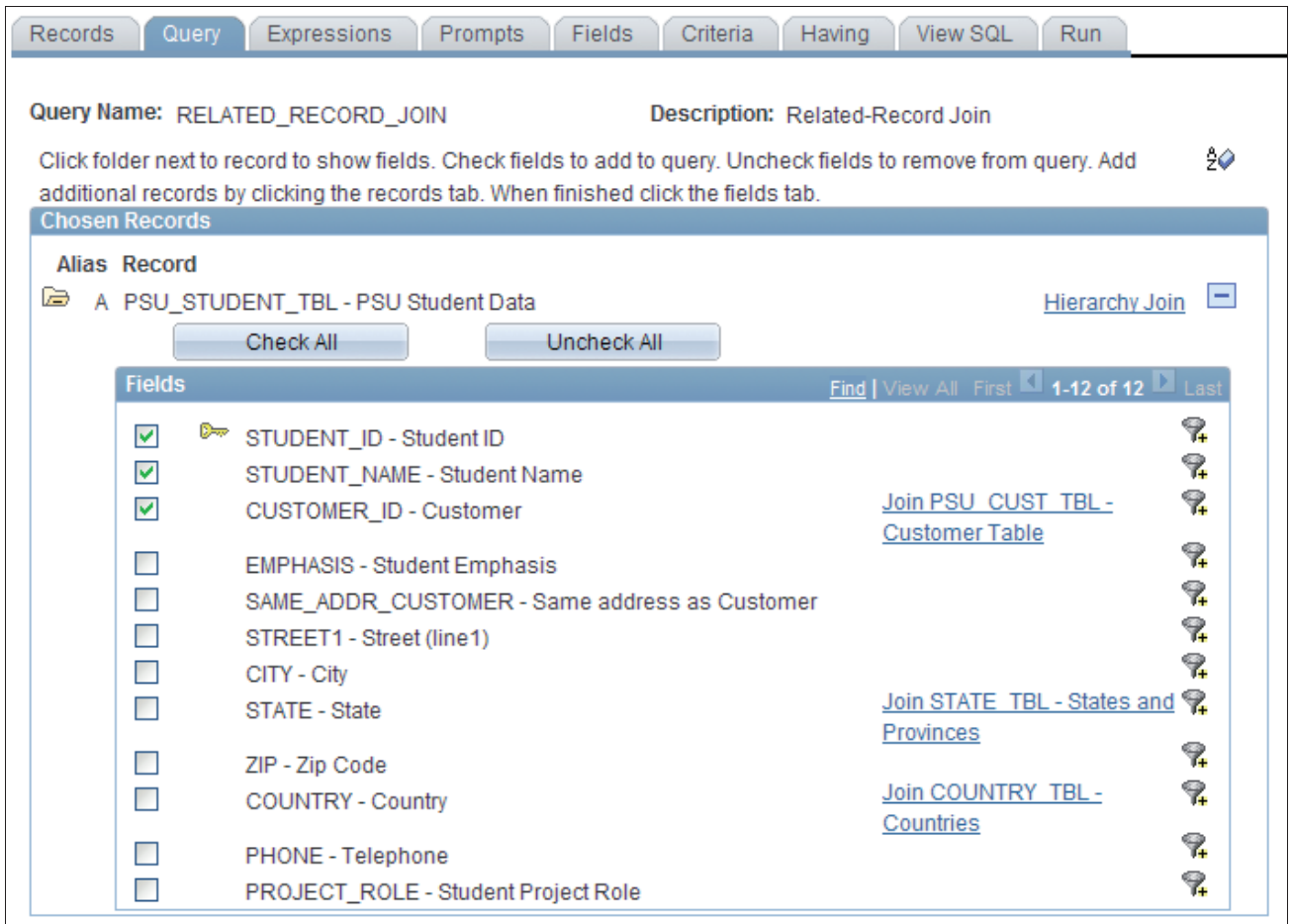
2. Click the related record link that is associated with the field.

The new record appears on the Query page and displays an alias letter that shows the order of joins.

3. Select the fields that you require from the joined record.

Example: Related-Record Join

This example shows the CUSTOMER_ID field that uses prompt table values from the PSU Customer record, making it a related-record join:



When you select the related record join link, the *Select join type* page appears:



When the second record appears, select the necessary fields:

Records Query Expressions Prompts Fields Criteria Having View SQL Run

Query Name: RELATED_RECORD_JOIN **Description:** Related-Record Join

Click folder next to record to show fields. Check fields to add to query. Uncheck fields to remove from query. Add additional records by clicking the records tab. When finished click the fields tab.

Chosen Records

Alias Record

- A PSU_STUDENT_TBL - PSU Student Data [Hierarchy Join](#) [-]
- B PSU_CUST_TBL - Customer Table joined with A.CUSTOMER_ID - Customer [Hierarchy Join](#) [-]

Fields Find | View All First 1-20 of 20 Last

- CUSTOMER_ID - Customer
- DESCR - Description
- DESCRSHORT - Short Description
- CUSTOMER_TYPE - Customer Type
- INDUSTRY_ID - Industry ID

Use the View SQL page to view the SQL for the join:

Records Query Expressions Prompts Fields Criteria Having View SQL Run

Query Name: RELATED_RECORD_JOIN **Description:** Related-Record Join

Query SQL:

```
SELECT A.STUDENT_ID, A.STUDENT_NAME, A.CUSTOMER_ID, B.DESCR
FROM PS_PSU_STUDENT_TBL A, PS_PSU_CUST_TBL B
WHERE B.CUSTOMER_ID = A.CUSTOMER_ID
```

Results

These are the results of the related-record join:

	ID	Name	Customer	Descr
1	2754	Fernandez,Michael Raymond	WSKI	Whistler Performance Skis
2	2755	Connell,Joseph	WSKI	Whistler Performance Skis
3	2756	Evans,Lawrence	WSKI	Whistler Performance Skis
4	2758	Lewis,Margaret	WSKI	Whistler Performance Skis
5	2760	Espinoza,Alex	VHOSP	Valley Hospital
6	2761	Vallero,Joaquin	VHOSP	Valley Hospital
7	2766	Self,Nancy	VHOSP	Valley Hospital
8	2767	Al-Masaad,Ali	IBA	Incline Beach Athletic Coop
9	2768	Chen,Daphne	VHOSP	Valley Hospital
10	2771	Stern,Joe	VHOSP	Valley Hospital

Using Record-Hierarchy and Related-Record Joins (continued)

Planning to Use Multiple Tables

Designing a report that uses multiple tables requires careful attention.

Consider these questions:

- Where are the fields that you want to select?
- Which records are involved?
- Which record is the focus of the report?
- How do the records relate?

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Student Notes

Planning to Use Multiple Tables

The answers for the questions on the slide often require investigation and analysis.

You most likely will find that as you gain experience with Query, it takes longer to design the query than it takes to build it.

Activity 11: Accessing Data in Multiple Tables

In this activity, you will review the activity overview and:

1. Create a query.
2. Add a record-hierarchy join.
3. Add a related-record join.

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Activity Overview

Create the CUSTOMER_PROD query to retrieve the customer ID, customer name, product purchased by customer, product description, and the production status. The data is stored in three different records. Base the query on the Customer record (PSU_CUST_TBL). Next, access the Customer product (PSU_CUST_PROD) and Product (PSU_PRODUCT_TBL) records to gain the additional data requested.

Use the following information for the query:

<i>Record</i>	<i>Fields</i>
PSU_CUST_TBL	CUSTOMER_ID DESCR (Customer Name)
PSU_CUST_PROD	PRODUCT PRODUCTION_STATUS
PSU_PRODUCT_TBL	DESCR

Note. Use *PTRPTG* for the user name and password in this activity.

Activity Detailed Steps

Perform the detailed steps to complete the activity.

Creating a Query

To create a query:

1. If necessary, sign in to the Oracle PeopleSoft Enterprise.
2. Access Query Manager, and create a new query using the PSU_CUST_TBL record.
3. Enter the following information:

Field	Value or Status
CUSTOMER_ID	Selected <i>Customer ID</i>
DESCR	Selected <i>Customer Name</i>

4. Sort the query by the CUSTOMER_ID field.
5. Save the query as *CUSTOMER_PROD*.
6. View the query results, and answer this question:

Question	Answer
How many rows of data are returned?	

Adding a Record-Hierarchy Join

To add a record-hierarchy join:

1. Access the Query page, and then click the Hierarchy Join link for the PSU_CUST_TBL record.
2. Select the PSU_CUST_PROD record, and enter the following information:

Field	Value or Status
PRODUCT	Selected <i>PeopleSoft Product</i>
PRODUCTION_STATUS	Selected <i>Production Status</i> <i>XLAT Short</i>

3. Save the query.
4. View the query results, and answer this question:

Question	Answer
How many rows of data are returned?	

Adding a Related-Record Join

To add a related-record join:

1. Access the Query page.
2. In the B PSU_CUST_PROD record, click the *Join PSU_PRODUCT_TBL - PSU Product Table* link.
3. Accept the default standard join, and click the OK button.
4. In the C PSU_PRODUCT_TBL record, select the DESCR field and modify its heading to *Product Name*.
5. Save the query, and view the output.
6. Compare the output with the following results.

Results

This is the CUSTOMER_PROD query with 35 rows returned:

Records Query Expressions Prompts Fields Criteria Having View SQL Run					
View All Rerun Query Download to Excel Download to XML					
					First 1-35 of 35 Last
	Customer ID	Customer Name	PeopleSoft Product	Production Status	Product Name
1	CONS	Consulting Services	H02	Developmen	PeopleSoft Payroll
2	CONS	Consulting Services	H01	Production	Human Resources
3	CONS	Consulting Services	F01	Developmen	PeopleSoft General Ledger
4	FLE	Friends-Little Egg Lighthouse	E04	Production	EPM Workforce Analytics
5	FLE	Friends-Little Egg Lighthouse	E03	Production	EPM Activity-Based Management
6	GCAN	Great Canadian Flag	C01	Production	CRM Help Desk & Support
7	GCAN	Great Canadian Flag	C04	Planning	CRM Marketing
8	HLOB	Harve De Grace Lobster Eatery	F01	Developmen	PeopleSoft General Ledger
9	IBA	Incline Beach Athletic Coop	H05	Planning	PeopleSoft Benefits Admin
10	LSL	LoneStar Longhorn Cattle Co.	F04	Developmen	PeopleSoft Asset Management

This concludes the activity. Please do not continue.

Review

In this lesson, you learned that:

- Joins create relationships between two tables and makes additional data accessible.
- Record-hierarchy joins and related-record joins are the two predefined joins available in Query Manager.

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Student Notes

Additional Resources

This table lists additional resources that provide more details about the topics that we discussed in this lesson:

Topic	Cross-Reference
Describing the purpose of joins	<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query, "Advanced Query Options"</i>
Query access groups	<i>Enterprise PeopleTools 8.50 PeopleBook: Security Administration, "Implementing Query Security"</i>

Lesson 8

Using Summary Calculations

Objectives

By the end of this lesson, you will be able to:

- Describe aggregate functions and Having criteria.
- Use predefined aggregate functions.
- Use the Having criteria.

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Describing Aggregate Functions and Having Criteria

Aggregate Functionality and Having Criteria

In Query Manager, you use:

- Aggregate functions to associate query fields with predefined calculations.
- Aggregate functions to return a single value for multiple rows of output.
- The Having page to access fields that use aggregate functions in selection criteria.

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Student Notes

Example: Using Aggregate Functions

For instance, instead of viewing multiple rows of data, you may want to view only a count of rows or the sum of a numeric field.

You can use the aggregate function to produce these results by grouping data and performing calculations on a field that is within the group.

Having Criteria

When you associate a field with an aggregate, you cannot use that field in selection criteria. SQL supports the use of aggregate functions in the WHERE clauses, but PeopleSoft applications don't. The Criteria page corresponds to the SQL statement WHERE clause.

PeopleSoft Query provides the Having page, to enable you to add criteria on the aggregate instead of on the field generating the aggregate. The Having criteria appear in the SQL statement HAVING clause.

Example: Using Having Criteria

You can use Having criteria to create a list of the departments that have a minimum salary greater than \$100,000.

If you experience problems with a query that is associated with aggregates, keep in mind that aggregate functions are not supported in the WHERE clause. The Criteria page creates the WHERE clause. Remember that you can use fields to join tables.

Note. You can apply the count aggregate function on any field. However, avoid keys when possible. The Count aggregate counts rows regardless of the type of field that you select.

Check the View SQL page if you have any problems.

Using Predefined Aggregate Functions

Uses of Aggregate Functions

This table provides the list of the aggregate functions in Query Manager and their uses:

<i>Aggregate Function</i>	<i>Use</i>
Avg	Adds the values from all rows and divides the result by the number of rows.
Count	Counts the number of rows. You can apply this function to any field in the record and it returns the same result.
Max	Checks all rows and returns the highest value.
Min	Checks all rows and returns the lowest value.
Sum	Adds the values in all rows and displays the total.

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Student Notes

Uses of Aggregate Functions

You apply an aggregate function to a field.

When you apply an aggregate function to a field, PeopleSoft Query replaces the field, wherever it occurs, with the results of the function.

Examples: Using Aggregate Functions

In this example, a query retrieves one row for every unique ID. The total number of rows indicates the number of employees that are in the Employee Personal Data record (PERSONAL_DATA):

Records		Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run
View All Rerun Query Download to Excel Download to XML									
									First 1-100 of 144 Last
		ID							
1		00001							
2		00002							
3		00003							
4		00004							
5		00005							
6		00006							
7		00007							
8		00008							
9		00009							
10		00010							

A better way to count the number of employees is to use the Count function as this example illustrates. The query returns a single value for multiple rows of output. Notice the heading text:

Edit Field Properties

Field Name: A.EMPLID - Empl ID

Heading	Aggregate
<input type="radio"/> No Heading <input type="radio"/> RFT Short <input checked="" type="radio"/> Text <input type="radio"/> RFT Long Heading Text: <input type="text" value="Count ID"/> *Unique Field Name: <input type="text" value="A.EMPLID"/>	<input type="radio"/> None <input type="radio"/> Sum <input checked="" type="radio"/> Count <input type="radio"/> Min <input type="radio"/> Max <input type="radio"/> Average

OK Cancel

When the query is run, notice that one row displays the number of employees that are in the record, as shown:

Records		Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run
View All Rerun Query Download to Excel Download to XML									
									First 1-1 of 1 Last
		Count ID							
1		144							

Note for Using Aggregate Functions

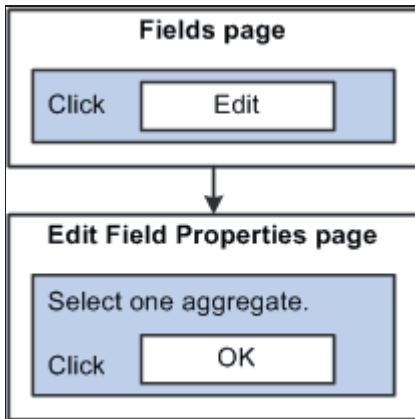
When you aggregate a field, you cannot use SQL to manipulate the individual field values. In the previous example, for purposes of writing SQL, the EMPLID field no longer exists; there is only a count of the EMPLID field. For this reason, standard criteria do not work on an aggregated field.

For example, you cannot create standard criteria to count the employees (Count (EMPLID)) for employees with ID numbers that begin with the number 1 (EMPLID is like 1%).

Using Predefined Aggregate Functions (continued)

Adding Aggregates

This flowchart shows the steps to add aggregates to query fields:



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Student Notes

Page Used to Add Aggregates

Use this page to select the Aggregate function properties of the query field:

Page Name	Navigation
Edit Field Properties	<ol style="list-style-type: none"> 1. Select Reporting Tools, Query, Query Manager. 2. Create a new query or open an existing one. 3. Select the Fields page, and then click the appropriate Edit button.

Edit Field Properties

Field Name: A.STUDENT_ID - Student ID

Heading

No Heading RFT Short
 Text RFT Long

Heading Text:

*Unique Field Name:

Aggregate

None
 Sum
 Count
 Min
 Max
 Average

Note. You cannot use the Sum or the Average aggregate function with character fields.

Steps Used to Add Aggregates to Query Fields

To add aggregates to query fields:

1. In Query Manager, select the Fields page.
2. Click the Edit button for the field that you want to add aggregate.
3. In the Edit Field Properties page, select an aggregate function, and then click the OK button.

Activity 12: Applying the Average Aggregate Function

In this activity, you will review the activity overview and:

1. Create a query.
2. Apply the Average aggregate function.

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Activity Overview

Using the Courses record, create the AVG_TRN_UNITS query to retrieve a list of the average number of training units (TRAINING_UNITS) required for each course type (COURSE_TYPE).

Sort the query by course type.

Note. Use *PTRPTG* for the user name and password in this activity.

Activity Detailed Steps

Perform the detailed steps to complete the activity.

Creating a Query

To create a query:

1. If necessary, sign in to the Oracle PeopleSoft Enterprise.
2. Access Query Manager, and create a new query using the PSU_COURSE_TBL record.
3. Accept the effective date criteria, and enter the following information:

<i>Page Element</i>	<i>Value or Status</i>
COURSE_TYPE	Selected <i>XLAT Long</i>
TRAINING_UNITS	Selected

4. Save the query as AVG_TRN_UNITS.
5. View the output, and answer this question:

<i>Question</i>	<i>Answer</i>
How many rows of data are returned?	

Applying the Average Aggregate Function

To apply the Average aggregate function:

1. Select the Fields tab, and then click the Edit button for the TRAINING_UNITS field.
2. Select the *Average* option in the Aggregate group box, and click the OK button.
3. Save the query, and view the output.
4. Compare the output with the following results.

Results

This is the AVG_TRN_UNITS query with four rows returned:

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Records Query Expressions Prompts Fields Criteria Having View SQL Run		
View All Rerun Query Download to Excel Download to XML		First <input type="button" value="◀"/> 1-4 of 4 <input type="button" value="▶"/> Last
	Type	Avg Units
1	Human Resources	2.4
2	Technical	2.6
3	Customer Relationship Mgmt	2.0
4	Financials	3.6

This concludes the activity. Please do not continue.

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Example: Select a Field and Edit Having Criteria Properties Pages

The Edit Having Criteria Properties page is identical to the Edit Criteria Properties page, except that when you select the field for Expression 1, Query Manager lists only the fields that are associated with an aggregate function on the *Select a field* page, as shown:

Select a field

Select a record to show fields for Customize | Find | [?] | [grid] | First 1 of 1 Last

Alias	Record	Record Description	Show Fields
A	PSU_COURSE_TBL		Show Fields

Select a field Customize | Find | View All | [?] | [grid] | First 1 of 1 Last

A.TRAINING_UNITS - Training Units

Cancel

After you select the field for Expression 1, the field appears on the Edit Having Criteria Properties page, as shown:

Edit Having Criteria Properties

Choose Expression 1 Type

Field
 Expression

Expression 1

Choose Record and Field

Record Alias.Fieldname:

A.TRAINING_UNITS - Training Un

*Condition Type: equal to

Choose Expression 2 Type

Field
 Expression
 Constant
 Prompt
 Subquery

Expression 2

Define Constant

Constant: []

OK Cancel

If you apply the criteria from the Fields page after an aggregate is applied, the system creates the criteria as Having criteria. This approach eliminates the need to define Expression 1 for the criteria.

Activity 13: Using the Having Criteria in Queries

In this activity, you will review the activity overview and:

1. Create a query.
2. Apply the Count aggregate function.
3. Add rows of Having criteria.

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Activity Overview

Use the Customer record (PSU_CUST_TBL) and calculate the total number of customers in the record. Display the total number of customers per country.

Then create a selection criterion that retrieves only the countries (COUNTRY) with fewer than 10 customers (CUSTOMER_ID).

Save the query as *COUNTRY_COUNT*.

Note. Use *PTRPTG* for the user name and password in this activity.

Activity Detailed Steps

Perform the detailed steps to complete the activity.

Creating a Query

To create a query:

1. If necessary, sign in to the Oracle PeopleSoft Enterprise.
2. Access Query Manager, and create a new query using the PSU_CUST_TBL record.
3. Select the CUSTOMER_ID and COUNTRY fields.
4. Save the query as COUNTRY_COUNT.
5. View the output, and answer this question:

<i>Question</i>	<i>Answer</i>
How many rows of data are returned?	

Applying the Count Aggregate Function

To apply the Count aggregate function:

1. Select the Fields page, and then click the Edit button for the CUSTOMER_ID field.
2. Select the *Count* option in the Aggregate group box, and then click the OK button.
3. Click the Reorder/Sort button, and place the A.COUNTRY field as column 1.
4. Click the OK button, and save the query.
5. View the output, and answer this question:

<i>Question</i>	<i>Answer</i>
How many rows of data are returned?	

Adding Rows of Having Criteria

To add rows of Having criteria:

1. Select the Having tab, and click the Add Having Criteria button.

2. Enter the following information:

Page Element	Value or Status
Expression 1	<i>CUSTOMER_ID</i>
Condition Type	<i>less than</i>
Expression 2	<i>10</i>

3. Click the OK button.
 4. Save the query, and view the output.
 5. Compare the output with the following results.

Results

This is the COUNTRY_COUNT query with nine rows returned:

Records Query Expressions Prompts Fields Criteria Having View SQL Run			
View All Rerun Query Download to Excel Download to XML			
		First	Last
		1-9 of 9	
	Cntry	Count Customer	
1	AUS		5
2	BRA		2
3	FRA		6
4	COL		1
5	MEX		2
6	GBR		3
7	NLD		3
8	VEN		1
9	CAN		3

This concludes the activity. Please do not continue.

Activity 14: Creating Queries with Complex Join Criteria Aggregate

In this activity, you will review the activity overview and:

1. Create a query using multiple records.
2. Add aggregate to a query.
3. Add criteria to an aggregate field.
4. Add criteria to a non-aggregate field.

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Activity Overview

Create the AGGREGATES query using the ORD_DTL record with its ORDER_NBR and PRICE fields.

Use the Hierarchy Join link to join the ORD_HRD record, the TRAINING_LOC field, and the VENDOR_CD fields.

Perform a related record join with the TRAIN_LOC_TBL record and the DESCR field.

Place the fields in this order: ORDER_NBR, VENDOR_CD, TRAINING_LOC, DESCR, PRICE. Sort the query results by the ORDER_NBR field.

On the PRICE field:

- Apply the *Sum* aggregate.
- Add criteria with the Condition Type set to *not less than* and the Expression 2 set to *300*.

On the TRAINING_LOC field, add criteria with the Condition Type set to *not equal to* and the Expression 2 set to *WC*.

Note. Use the *PTRPTG* for the user name and password in this activity.

Activity Detailed Steps

Perform the detailed steps to complete the activity.

Creating a Query Using Multiple Records

To create a query using multiple records:

1. If necessary, sign in to the Oracle PeopleSoft Enterprise.
2. Access Query Manager, and create a new query using the ORD_DTL record.
3. Select the ORDER_NBR and PRICE fields for the query.
4. Click the Hierarchy Join link, and select the *ORD_HRD - Order Header Information* record.
5. Select the TRAINING_LOC and VENDOR_CD fields of the ORD_HDR record.
6. Click the *Join TRAIN_LOC_TBL - PSU Training Locations* link associated with the TRAINING_LOC field to perform a related record join.
7. Accept the default standard join option, and click the OK button.
8. Click the OK button to accept the effective-date criteria added to the query.
9. Select the DESCR field of the TRAIN_LOC_TBL record.
10. Select the Fields tab, and click the Reorder/Sort button.
11. Enter the following information:

Page Element	Value or Status
ORDER_NBR	Column 1 Order by 1
PRICE	Column 5
TRAINING_LOC	Column 3
VENDOR_CD	Column 2
DESCR	Column 4

12. Click the OK button to return to the Fields page.
13. Save the query as *COMPLEX_JOIN_CRITERIA_AGG*, and view the query results.

Results

This example shows the results of the *COMPLEX_JOIN_CRITERIA_AGG* query with 30 rows returned:

	Order Num	Vendor	Trn Loc	Descr	Price
1	00000001	ALPH03	CORP	Corporate Headquarters	5234.00
2	00000001	ALPH03	CORP	Corporate Headquarters	2544.00
3	00000001	ALPH03	CORP	Corporate Headquarters	65.00
4	00000002	000014	WC	Walnut Creek Training Center	3.25
5	00000002	000014	WC	Walnut Creek Training Center	12.69
6	00000002	000014	WC	Walnut Creek Training Center	118.00
7	00000003	BETA02	TEA	Teaneck	187.00
8	00000003	BETA02	TEA	Teaneck	60.00
9	00000003	BETA02	TEA	Teaneck	97.69
10	00000004	KAP01	TEA	Teaneck	1.39

Adding Aggregate to the Query

To add aggregate to the query:

1. In the Fields page, click the Edit button associated with the A.PRICE field.
2. Select the *Sum* option from the Aggregate group box, and click the OK button.
3. Save the query, and view the output.

Results

After applying the *Sum* aggregate on the PRICE field, the COMPLEX_JOIN_CRITERIA_AGG query has 16 rows returned:

	Order Num	Vendor	Trn Loc	Descr	Sum Price
1	00000001	ALPH03	CORP	Corporate Headquarters	7843.00
2	00000002	000014	WC	Walnut Creek Training Center	133.94
3	00000003	BETA02	TEA	Teaneck	344.69
4	00000004	KAP01	TEA	Teaneck	1.39
5	00000005	ALPH02	WSTCH	Westchester Training Center	266.84
6	00000006	ALPH04	CORP	Corporate Headquarters	16.34
7	00000007	ALPH01	ATL	Atlanta Training Center	154.08
8	00000008	ALPH04	ONSTE	Onsite (Customer Location)	38.24
9	00000009	020034	CORP	Corporate Headquarters	335.50
10	00000010	000005	WSTCH	Westchester Training Center	1.29

Adding Criteria to an Aggregate Field

To add criteria to an aggregate field:

1. Select the Having tab, and click the Add Having Criteria button.

2. Enter the following information for the Edit Having Criteria Properties page:

Page Element	Value or Status
Expression 1	A.PRICE
Condition Type	not less than
Expression 2	300

3. Click the OK button, and save the query.
4. View the query output and compare with the following output.

Results

This example shows the Having page with a criteria on the PRICE field:

After applying the *Sum* aggregate and adding criteria on the PRICE field, the COMPLEX_JOIN_CRITERIA_AGG query now has six rows returned:

	Order Num	Vendor	Trn Loc	Descr	Sum Price
1	0000001	ALPH03	CORP	Corporate Headquarters	7843.00
2	0000003	BETA02	TEA	Teaneck	344.69
3	0000009	020034	CORP	Corporate Headquarters	335.50
4	0000012	ALPH03	CORP	Corporate Headquarters	5245.00
5	0000015	ALPH03	WC	Walnut Creek Training Center	2500.00
6	0000016	000014	WC	Walnut Creek Training Center	795.00

Adding Criteria to a Non-aggregate Field

To add criteria to a non-aggregate field:

1. Select the Fields tab, and click the Add Criteria icon associated with the TRAINING_LOC field.

- Enter the following information:

Page Element	Value or Status
Condition Type	<i>not equal to</i>
Expression 2	<i>WC</i>

- Click the OK button to return to the Fields page.
- Select the Criteria tab to verify your criteria.
- Save the query, and view the output.

Results

This example shows the Criteria page with a criteria on the TRAINING_LOC field:

Records	Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run
Query Name: COMPLEX_JOIN_CRITERIA_AGG		Description: COMPLEX_JOIN_CRITERIA_AGG						
Add Criteria		Group Criteria		Reorder Criteria				
Criteria						Customize Find First 1-2 of 2 Last		
Logical	Expression1	Condition Type	Expression 2	Edit	Delete			
	C.EFFDT - Effective Date	Eff Date <=	Current Date	Edit	-			
AND	B.TRAINING_LOC - Training Location	not equal to	WC	Edit	-			

After applying the *Sum* aggregate on the PRICE field, adding criteria on the PRICE field, and adding criteria on the TRAINING_LOC field, the COMPLEX_JOIN_CRITERIA_AGG query now has four rows returned:

Records	Query	Expressions	Prompts	Fields	Criteria	Having	View SQL	Run
View All Rerun Query Download to Excel Download to XML						First 1-4 of 4 Last		
	Order Num	Vendor	Trn Loc	Descr	Sum Price			
1	00000001	ALPH03	CORP	Corporate Headquarters	7843.00			
2	00000003	BETA02	TEA	Teaneck	344.69			
3	00000009	020034	CORP	Corporate Headquarters	335.50			
4	00000012	ALPH03	CORP	Corporate Headquarters	5245.00			

This concludes the activity. Please do not continue.

Review

In this lesson, you learned that:

- Aggregate functions derive one field value from all existing field values, and Having criteria applies selection rules to data that is in aggregated fields.
- PeopleSoft Query predefines the Avg, Count, Max, Min, and Sum aggregate functions.
- The Having criteria filter data from aggregated fields because PeopleSoft Query does not support aggregated fields in the WHERE clause.

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Student Notes

Additional Resources

This table lists additional resources that provide more details about the topics that we discussed in this lesson:

Topic	Cross-Reference
Describing aggregate functions and Having criteria	<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query, "Creating and Running Simple Queries"</i> <i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query, "Defining Selection Criteria."</i>
Using predefined aggregate functions	<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query, "Working with Advanced Query Options"</i>

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Lesson 9

Performing Administrative Tasks

Objectives

By the end of this lesson, you will be able to:

- Run a query from Query Viewer.
- Schedule a query.
- Monitor query performance and use.

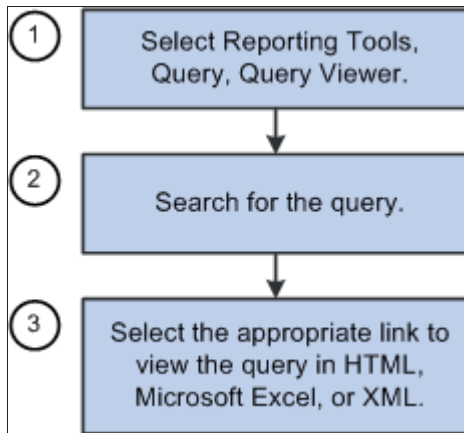
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Running a Query from Query Viewer

Query Viewer

Query Viewer provides access to run and print queries, but does not enable you to create, delete, or edit queries.

This flowchart shows the steps to view queries using Query Viewer:



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Student Notes

Query Viewer

Query Viewer is a read-only version of Query Manager. Query Viewer enables security administrators to limit some users to read-only access for all queries so that they can only view or print queries.

Query Viewer retrieves all of the queries to which you have access but for which you have no editing or creating capabilities.

Note. If you cannot access Query Manager, you can still view queries through Query Viewer.

Page Used to View Queries

Use this page to view queries:

Page Name	Navigation
Query Viewer	Reporting Tools, Query, Query Viewer

Query Viewer

Enter any information you have and click Search. Leave fields blank for a list of all values.

*Search By: begins with

[Advanced Search](#)

Search Results

*Folder View:

Query Name	Description	Owner	Folder	Run to HTML	Run to Excel	Run to XML	Schedule	Add to Favorites
BETWEEN_QRY	Between Query	Private		HTML	Excel	XML	Schedule	Favorite
ENROLL_RANGE	Enroll Range	Private		HTML	Excel	XML	Schedule	Favorite
RELATED_RECORD_JOIN	Related-Record Join	Private		HTML	Excel	XML	Schedule	Favorite
STUDENT_ED		Private		HTML	Excel	XML	Schedule	Favorite
AGGREGATES	Aggregates	Public		HTML	Excel	XML	Schedule	Favorite
AVG_TRN_UNITS	Average Training Units	Public		HTML	Excel	XML	Schedule	Favorite
CLS001	Course Session List	Public		HTML	Excel	XML	Schedule	Favorite
CLS001_COPY	Course Session List	Public		HTML	Excel	XML	Schedule	Favorite

Query Viewer and Query Manager Components

Query Viewer resembles Query Manager but the functionality is different:

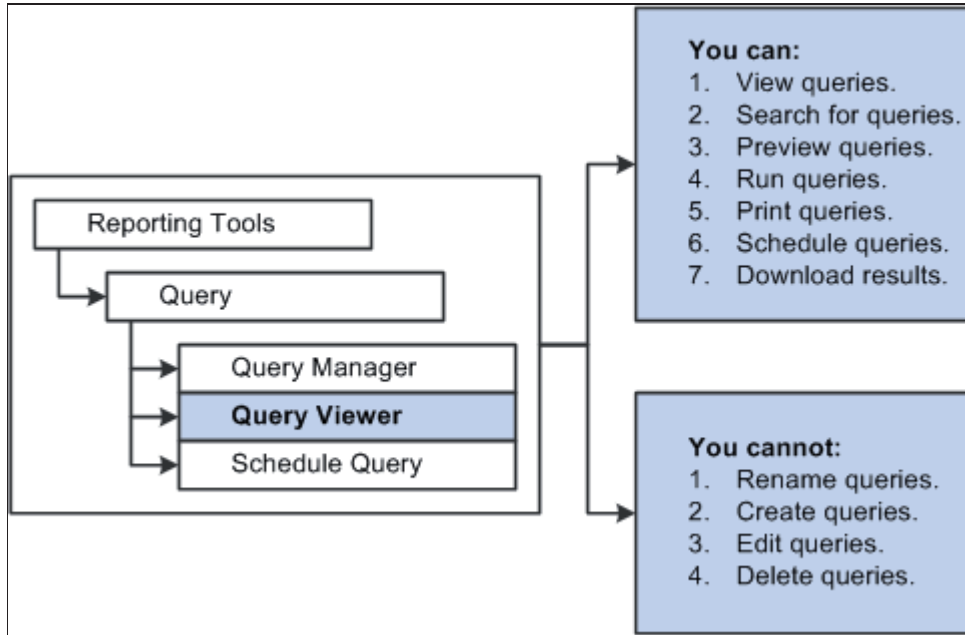
- In Query Manager, you click the Edit link to access the Query Manager pages.
- In Query Viewer, the Edit link is absent.

You can run the query to HTML, Excel, or XML; schedule the query to run later; and add the query to the My Favorite Queries list.

Running a Query from Query Viewer (continued)

Uses of Query Viewer

This diagram shows the tasks that you can and cannot perform using Query Viewer:



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Student Notes

Uses of Query Viewer

This table shows the tasks that you perform by using Query Viewer:

Task	Description
View queries	View the list of all existing queries.
Search for a query	Use the basic or advanced search functions to locate a query.
Run a query and display the results in a new browser window	Click the HTML, Excel, or XML link associated with the query name.
Print a query	Run the query to display the results. Then print the output from the browser window.
Schedule a query	<p>Set up a query run later. Query Viewer interacts with PeopleSoft Process Scheduler so that you can schedule queries.</p> <p>Submit requests to schedule a query, check the status of a request using the Process Monitor page, and view the output using Report Manager page.</p>
Download results	After running a query, you can download the output to a Microsoft Excel spreadsheet, a .csv text file, or an XML file.

Activity 15: Using Query Viewer

In this activity, you will review the activity overview and use Query Viewer to run a query.

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Activity Overview

Use Query Viewer to run the CRSE_SESSIONS query.

Note. Use *PTRPTG* for the user name and password in this activity.

Activity Detailed Steps

Perform the detailed steps to complete the activity.

Using Query Viewer to Run a Query

To use Query Viewer to run a query:

1. If necessary, sign in to the Oracle PeopleSoft Enterprise.
2. Select Reporting Tools, Query, Query Viewer.
3. Search for and select the CRSE_SESSIONS query.
4. Click the HTML link to view the output.

PeopleSoft Query displays the results in a new browser window.

Results

This is the CRSE_SESSIONS query with 105 rows returned:

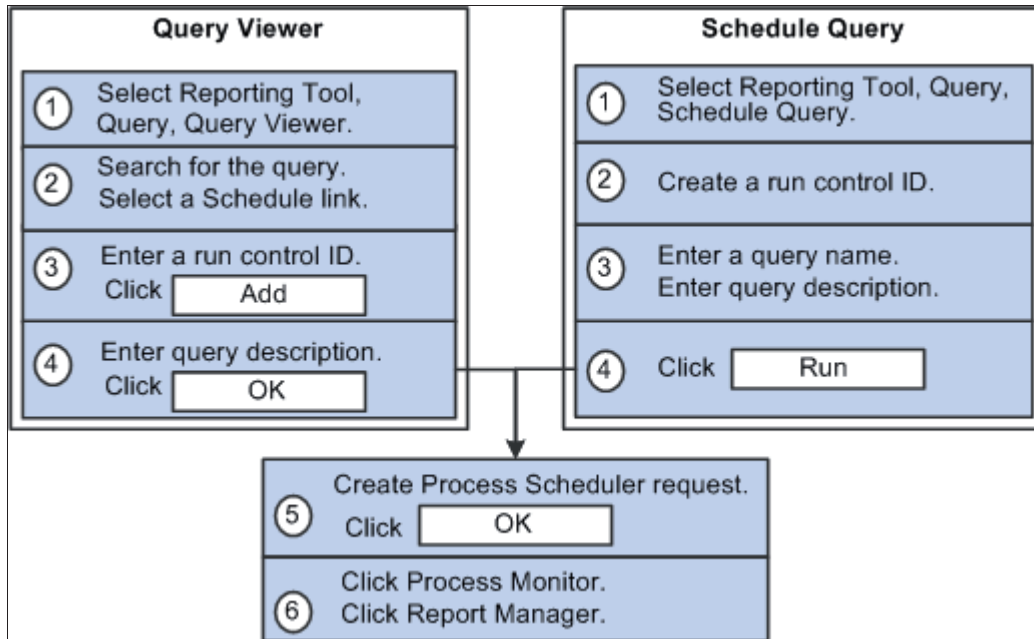
CRSE_SESSIONS- 2008 Course Sessions					
Download results in : Excel Spreadsheet CSV Text File XML File (8 kb)					
View All					First <input type="text" value="1-100 of 105"/> Last
	Tm Loc	Start	End Date	Course	Instructor
1	ATL	09/23/2008	09/24/2008	1012	DLF
2	TEA	10/21/2008	10/22/2008	1012	MEB
3	TEA	02/16/2008	02/20/2008	1014	JJJ
4	TEA	04/06/2008	04/10/2008	1014	JJJ
5	TEA	05/16/2008	05/20/2008	1014	JJJ
6	TEA	08/16/2008	08/20/2008	1014	JJJ
7	TEA	11/16/2008	11/20/2008	1014	JJJ
8	CORP	10/13/2008	10/16/2008	1015	SAS
9	TEA	02/04/2008	02/06/2008	1020	JMH
10	TEA	03/17/2008	03/19/2008	1020	JMH

This concludes the activity. Please do not continue.

Scheduling a Query

Schedule Query

You use the Schedule Query component to run queries at specified times. This flowchart shows the two ways that you can schedule queries using the Query Viewer and Schedule Query:



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Student Notes

Example: Using Schedule Query Component

You might not want to run a large query during regular business hours. Instead, schedule the query to run after business hours.

Query Manager interacts with PeopleSoft Process Scheduler so that you can schedule queries.

Before scheduling a query, you submit a process request where you specify variables such as the server where the process runs and the output format.

Note. You can also schedule queries in Query Manager and Query Viewer.

Starting from PeopleTools 8.50, you are able to add email as an output type for scheduled query results. With this option, you can schedule queries to run and have the results emailed directly to recipients (not just a link to the Report Manager).

Pages Used to Schedule a Query

Page Name	Navigation
Schedule Query	Reporting Tools, Query, Schedule Query
Process Scheduler Request	Click the Run button on the Schedule Query page.

- Use this page to establish a run control ID:

- Use this page to schedule the query to run at a particular date and time:

Select	Description	Process Name	Process Type	*Type	*Format	Distribution
<input checked="" type="checkbox"/>	PSQUERY	PSQUERY	Application Engine	Web	TXT	Distribution

Steps Used to Schedule a Query Using the Schedule Query Component

To schedule a query using the Schedule Query component:

1. Select Reporting Tools, Query, Schedule Query.
2. Enter a run control ID, the query name, and a description.
3. Save the scheduled query, and then click the Run button.
4. Enter the date and time to run the query, and then click the OK button.

5. Click the Process Monitor link to check the report run status.
The Run Status should be set to *Success*.
6. Click the Report Manager link, and then access the Administration page.
7. Click the report description link and view the report results.

Steps Used to Schedule a Query Using Query Manager or Query Viewer

To schedule queries using Query Viewer or Query Manager:

1. Select Reporting Tools, Query, Query Viewer or Query Manager.
2. Search for the query, and click the corresponding Schedule link.
3. Enter a run control ID, and click the Add button.
4. Enter the query description, and click the OK button.
5. Enter the appropriate information regarding scheduling times, and click the OK button.

Scheduling a Query with Tree Prompt

You can schedule queries that have tree prompts using the Schedule Query component or using the Schedule links in the Query Manager and Query Viewer. While scheduling these queries, you are prompted for selecting the tree for the specified field and its node list. After the successful selection of values for the tree prompts, other prompts are available for your input. These queries can either be saved and used in the future or can be scheduled and run immediately by clicking the Run button.

This is an example of the Schedule Query page when you run a query that has a criteria with tree prompt:

Schedule Query

Run Control ID: RUN_02 [Report Manager](#) [Process Monitor](#)

Query Name:

*Description:

[Update Parameters](#)

Prompt Name	Value
EMPLID	<input type="text" value="00001"/>
EMPLID	<input type="text" value="00005"/>

[Update Tree Parameters](#)

Tree Prompts	
Field Name	Expression Text
A.HEALTH_CARE_NBR	SHARE,,TRAIN_LOCS,1995-12-31,ALL_REGIONS

Update Tree Parameters This link is available if you are running queries that have tree prompts.

Click this link to access the Select a Tree page and the Select Tree Node page, where you can select a tree and its node list.

Tree Prompts

The Tree Prompts section displays the field names and expression texts, which will be used in forming the SQL before running the query.

Note. In Windows query application psqed.exe, you also can create tree prompts and use that prompts to enter input at runtime. Execution of the query is similar to PIA Query Manager, where you select the tree node to run the query.

Activity 16: Scheduling and Monitoring Queries

In this activity, you will review the activity overview and:

1. Schedule a query.
2. Check the report status.
3. View the report using Report Manager.

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Activity Overview

Use the Schedule Query page and schedule the CRSE_SESSIONS query to run two minutes from now.

Note. Use *PTRPTG* for the user name and password in this activity.

Activity Detailed Steps

Perform the detailed steps to complete the activity.

Scheduling a Query

To schedule a query:

1. If necessary, sign in to the Oracle PeopleSoft Enterprise.
2. Select Reporting Tools, Query, Schedule Query.
3. Click the Add a New Value link, and enter *CRSE_SESSN_REPT* as the run control ID.
4. Click the Add button, and enter the following information:

Page Element	Value or Status
Query Name	<i>CRSE_SESSIONS</i>
Description	<i>Course Sessions Report</i>

5. Save the run control ID.
6. Click the Run button, and enter the following information:

Page Element	Value or Status
Server Name	<i>PSNT</i>
Run Time	<two minutes from now>
Type	<i>Web</i>
Format	<i>HTM</i>

7. Click the OK button and record the information in the following table:

Page Element	Value
Process Instance number	

Checking the Report Status

To check the report status:

1. Click the Process Monitor link.
2. Click the Refresh button until the recorded Process Instance number has a run status of *Success* and a distribution status of *Posted*.

3. Click the Go Back to Schedule Query link.

Viewing the Report Using Report Manager

To view the report using Report Manager:

1. Click the Report Manager link.
2. Select the Administration tab, and then click the Details link of your process instance number.
3. Click the CRSE_SESSIONS-<your instance number>.HTML link.
4. Compare the output with the following results.

Results

This is the CRSE_SESSIONS query in Report Manager:

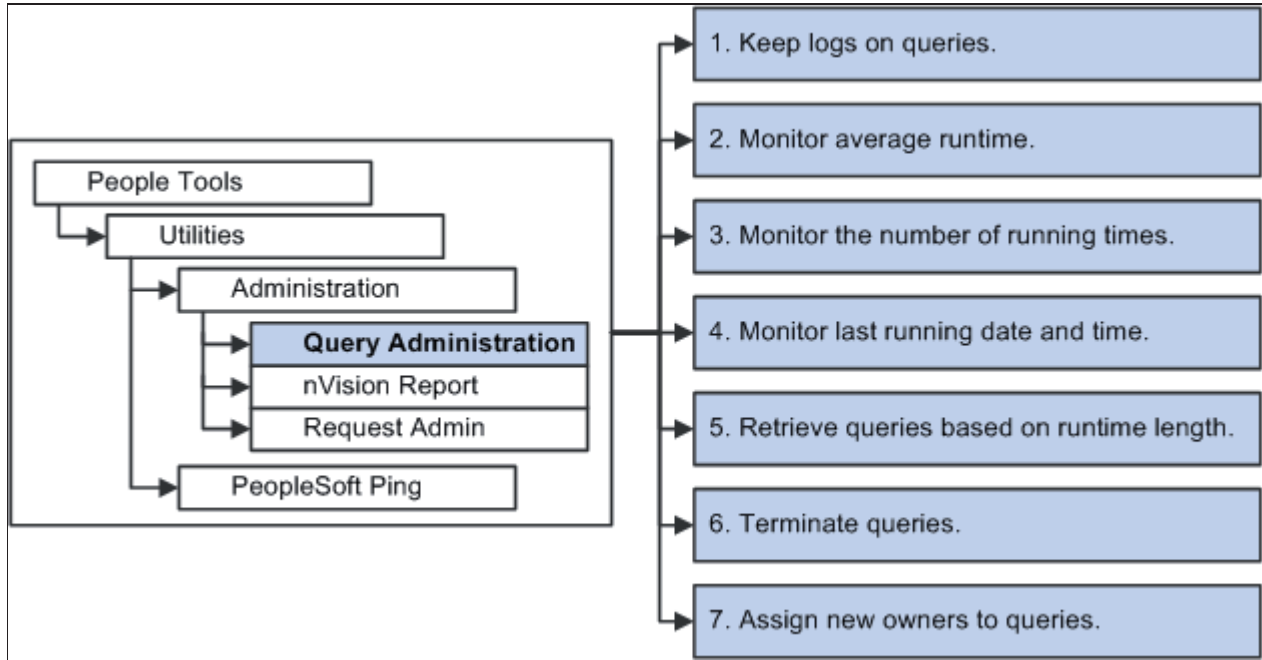
2008 Course Sessions					
	Trn Loc	Start	End Date	Course	Instructor
1	ATL	09/23/2008	09/24/2008	1012	DLF
2	TEA	10/21/2008	10/22/2008	1012	MEB
3	TEA	02/16/2008	02/20/2008	1014	JJJ
4	TEA	04/06/2008	04/10/2008	1014	JJJ
5	TEA	05/16/2008	05/20/2008	1014	JJJ
6	TEA	08/16/2008	08/20/2008	1014	JJJ
7	TEA	11/16/2008	11/20/2008	1014	JJJ
8	CORP	10/13/2008	10/16/2008	1015	SAS
9	TEA	02/04/2008	02/06/2008	1020	JMH
10	TEA	03/17/2008	03/19/2008	1020	JMH

This concludes the activity. Please do not continue.

Monitoring Query Performance and Use

Query Administration

This diagram shows the uses of the Query Administration component:



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Student Notes

Page Used to Manage Query Performance and Usage

System administrators use this page to monitor query performance and use:

Page Name	Navigation
Admin (administration)	PeopleTools, Utilities, Administration, Query Administration

The screenshot shows the 'Admin' page with tabs for 'Admin', 'Executing', and 'Settings'. Under 'Choose a predefined search:', there is a dropdown menu set to 'Queries that have been run in the last (n) days', a text input for '(n) = 10', and a 'Search' button. Below this, the 'OR perform a manual search:' section has 'Search by:' with 'Query Name' selected, 'begins with' selected, and an empty text input, followed by another 'Search' button. The search results are for 'Manual search - Query Name begins with'. There are 'Check All' and 'Uncheck All' buttons. A table titled 'Query List' is displayed with columns: Select, Owner ID, Query Name, Folder, Avg Time, Avg Rows, # Runs, Last Run Date, Last Run Time, Logging, Disabled, View SQL, and View Log. The table contains 12 rows of query data.

Select	Owner ID	Query Name	Folder	Avg Time	Avg Rows	# Runs	Last Run Date	Last Run Time	Logging	Disabled	View SQL	View Log
<input type="checkbox"/>		UNIT1		0.030	17.000	1	09/12/2002	3:38PM	Off	No	View SQL	View Log
<input type="checkbox"/>		UNITCALC		0.000	0.000	0			Off	No	View SQL	View Log
<input type="checkbox"/>		USA_USERS		0.000	0.000	0			Off	No	View SQL	View Log
<input type="checkbox"/>		VENDOR_ITEMS03		0.000	0.000	0			Off	No	View SQL	View Log
<input type="checkbox"/>		VENDOR_ITEMS04		0.000	0.000	0			Off	No	View SQL	View Log
<input type="checkbox"/>		VENDOR_ITEMS05		0.000	0.000	0			Off	No	View SQL	View Log
<input type="checkbox"/>		WFA0001_AVERAGES_BY_BP_WL		0.000	0.000	0			Off	No	View SQL	View Log
<input type="checkbox"/>		WFA0002_AVERAGES_BY_BP_WL		0.000	0.000	0			Off	No	View SQL	View Log
<input type="checkbox"/>		WFA0003_OPERATOR_AVERAGES		0.000	0.000	0			Off	No	View SQL	View Log
<input type="checkbox"/>		WFA0004_AVRG_BY_BP_WL_ALL		0.000	0.000	0			Off	No	View SQL	View Log

Example: Search Options on the Admin Page

This example shows some of the available search options on the Admin page:

The screenshot shows the 'Admin' page with the 'Choose a predefined search:' dropdown menu open. The menu lists several search options, with 'Top (n) queries by most frequently run' selected and highlighted in blue.

- Queries that have been run in the last (n) days
- Queries that belong to locked out accounts
- Queries that have been disabled
- Queries that have been run in the last (n) days
- Queries that have logging turned on
- Queries that have never been run
- Queries that have run but not in the last (n) days
- Top (n) queries by largest average number of rows
- Top (n) queries by longest run time
- Top (n) queries by most frequently run

Note. Select the *Begins With* or the *Contains* search type to search for queries manually.

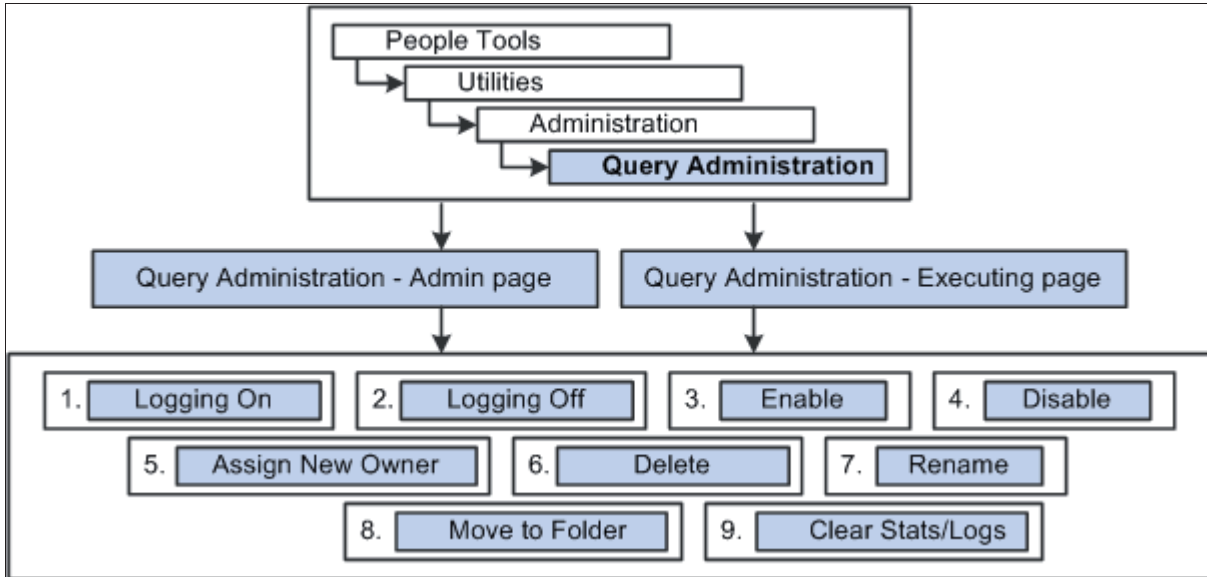
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Monitoring Query Performance and Use (continued)

Buttons in the Query Administration Component

This diagram shows the navigation path and the buttons at the bottom of the Query Administration component pages:



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Student Notes

Buttons in the Query Administration Component

When you list queries by using the Query Administration - Admin page or the Query Administration - Executing page, nine buttons appear at the bottom of these pages that enable you to select the settings that you need to manage query use and performance:

Button	Usage
Logging On	Activates logging for the selected queries.
Logging Off	Deactivates logging for the selected queries.
Enable	Activates run, preview, and schedule query functionality for the selected queries.
Disable	Turns off run, preview, and schedule query functionality for the selected queries. You can still edit the query in Query Manager.
Assign New Owner	Changes ownership of the selected query.
Delete	Removes the selected query from the database. This button moved from the Query Manager component to the Query Administration component.
Rename	Renames the selected query. This button moved from the Query Manager component to the Query Administration component.
Move to Folder	Changes the folder of the selected queries.
Clear Stats/Logs	Removes the log rows for the selected query. Note. Each time that someone runs a query with logging enabled, the system adds a new row to the log. The system purges the log when you click the Delete Log button on the View Execution Log page.

Note. The buttons appear only when you have queries on the page.

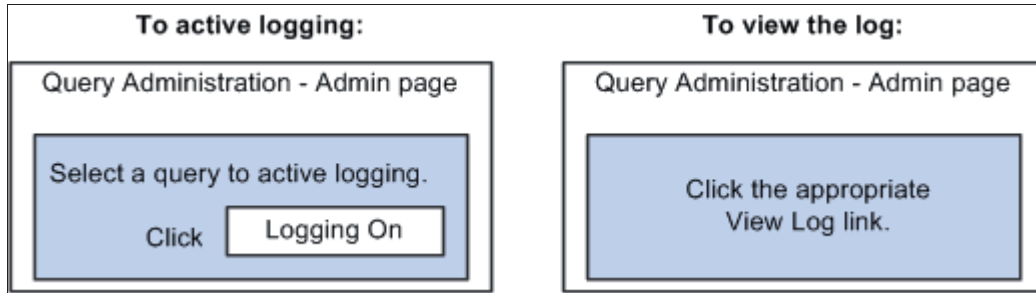
Monitoring Query Performance and Use (continued)

Collecting and Viewing Runtime Statistics

You enable logging for queries by using the Query Administration component.

If you enable logging, rows write to the PSQRYEXECLOG table when you run a query. This table stores runtime details of the query including the query name, the requesting user, the time of the request, the number of rows returned, and the time that it took the system to display output.

This diagram shows the steps to activate logging and view the log for a query:



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Student Notes

Page Used to View the Query Log

Use this page to view the query log that contains information about each instance that you run a query:

Page Name	Navigation
View Execution Log	<ol style="list-style-type: none"> 1. Select PeopleTools, Utilities, Administration, Query Administration. 2. Click the View Log link for the query.

View Execution Log

Query Name: CLS001 **Owner ID:**

Description: Course Session List

View Execution Log						
Operator Id	Run Date and Time	Num Rows	Exec Time	Fetch Time	Calling Application	
PTTRN	10/18/2009 3:56:32.000000AM	233	0.094	0.000		
PTTRN	10/18/2009 3:56:48.000000AM	105	0.000	0.000		
PTTRN	10/18/2009 3:58:49.000000AM	105	0.000	0.000		

OK Delete Log

Note. This feature is available when you select the query and the Logging On option.

Steps to Activate Logging

To activate logging:

1. Access the Query Administration - Admin page.
2. Select the query for which you want to activate logging.
3. Click the Logging On button.

After you enable logging, return to Query Manager and run the selected query. Each time that you run the query, the system adds a row to the existing log.

Steps to View the Logs

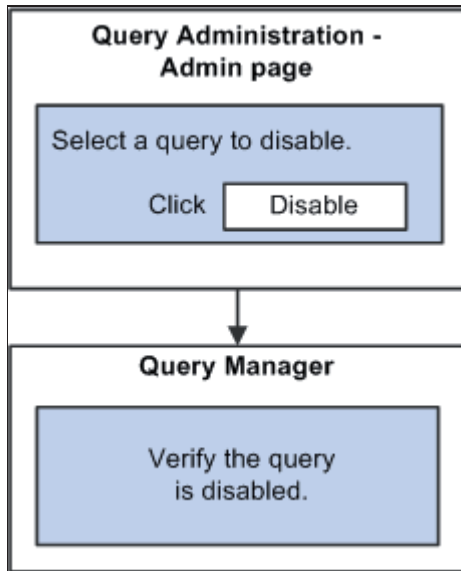
To view the logs:

1. Access the Query Administration - Admin page.
2. Click the View Log link associate with the query.
3. (Optional) Click the OK or Delete Log buttons on the View Execution Log page.

Monitoring Query Performance and Use (continued)

Disabling a Query

This diagram shows the steps to disable a query:



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Student Notes

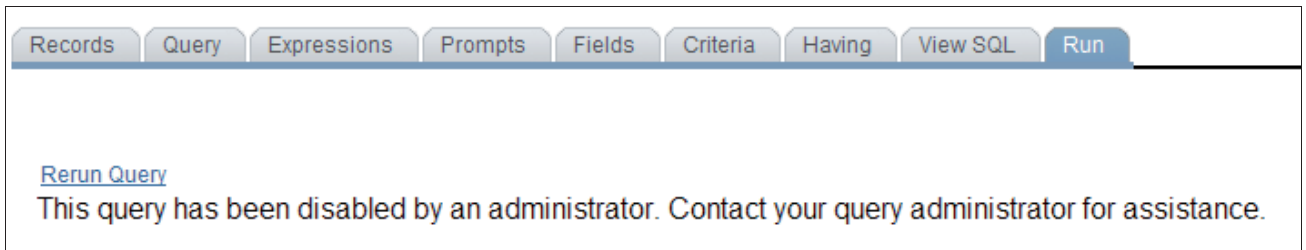
Disabling a Query

You might disable a query if:

- The query slows the system, and the system administrator needs to determine the reason.
- The query is required only at year-end or at some other scheduled time.
- A public query displays confidential data, and it must be disabled and reassigned to the appropriate users as a private query.

Example: Disabled Message

When you disable a query, the following message appears in Query Manager pages at runtime:



Disabling a Query

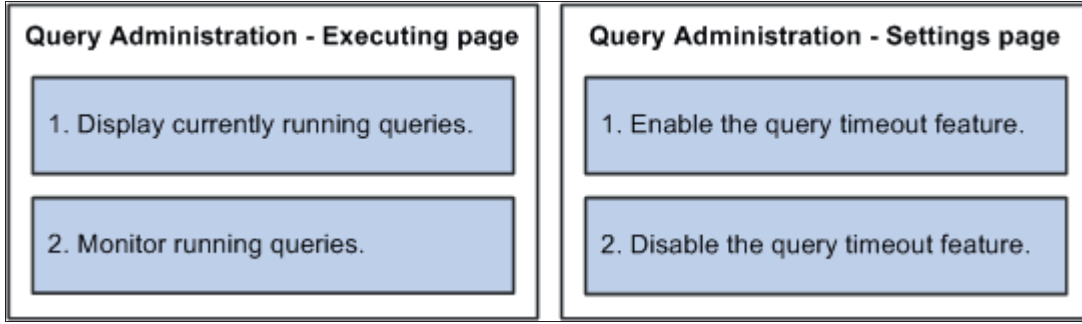
To disable a query:

1. Access the Query Administration - Admin page.
2. Select the query to disable, and then click the Disable button.
3. Return to Query Manager pages, and view the output to verify that it is disabled.

Monitoring Query Performance and Use (continued)

Query Administration: Executing and Settings

This diagram shows the uses of the Query Administration - Executing page and Query Administration - Settings page:



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Student Notes

Pages Used to Monitor Queries and Determine Waiting Time

Page Name	Navigation
Executing	<ol style="list-style-type: none"> 1. Select PeopleTools, Utilities, Administration, Query Administration. 2. Select the Executing tab.
Settings	<ol style="list-style-type: none"> 1. Select PeopleTools, Utilities, Administration, Query Administration. 2. Select the Settings tab.

- Use this page to monitor queries that run for a specified length of time:

The screenshot shows the 'Executing' tab of the Query Administration interface. It features two search sections: 'Choose a predefined search:' with a dropdown menu set to 'Queries that have been running longer than (n) minutes' and a value of '10', and 'OR perform a manual search:' with a 'Search by:' dropdown set to 'Query Name' and a 'begins with' dropdown. Below these is a 'Query List' table with the following columns: Select, User ID, Owner ID, Query Name, Domain ID, Process Identifier, Host, Machine Name, Status, and Started.

- Use this page to enable system-wide timeouts and systemwide statistics logging:

The screenshot shows the 'Settings' tab of the Query Administration interface. It contains two checkboxes: 'Enable Query Timeout' which is checked, and 'Run Query Statistics' which is unchecked.

The Query Administration - Executing Page

You use the Query Administration - Executing page to display all currently running queries and to monitor queries that are running for specified periods.

For instance, this page indicates that a simple query takes more than 10 minutes to complete. You conclude that there is a problem with the query or the application server and start to investigate.

The Query Administration - Settings Page

You use the Query Administration - Settings page to enable and disable query timeouts systemwide. You enter the value of timeout minutes in a permission list.

You also use this page to enable systemwide logging of query statistics. This field's default value is disabled. Enable this feature only for analysis purposes and then disable it.

Note. If a user has more than one permission list, the system selects the greatest timeout from all of the permission lists.

Activity 17: Using Query Administration

In this activity, you will review the activity overview and:

1. Monitor performance and use of a query.
2. Disable a query.

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Activity Overview

Set the appropriate query administrative options to monitor the CRSE_SESSIONS query. Then, run the query to generate a log.

After monitoring the query, disable it so that you cannot run it in Query Manager.

Note. Use *PTRPTG* for the user name and password in this activity.

Activity Detailed Steps

Perform the detailed steps to complete the activity.

Monitoring a Query's Performance and Use

To monitor a query's performance and use:

1. If necessary, sign in to the Oracle PeopleSoft Enterprise.
2. Select PeopleTools, Utilities, Administration, Query Administration.
3. Search for and then select the CRSE_SESSION query.
4. Click the Logging On button.
5. Select Reporting Tools, Query, Query Manager.
6. Open and run the CRSE_SESSIONS query.
7. Select PeopleTools, Utilities, Administration, Query Administration.
8. Search for the CRSE_SESSIONS query.
9. Click the View Log link for the CRSE_SESSIONS query.
10. Examine the logs on the View Execution Log page, and click the OK button.

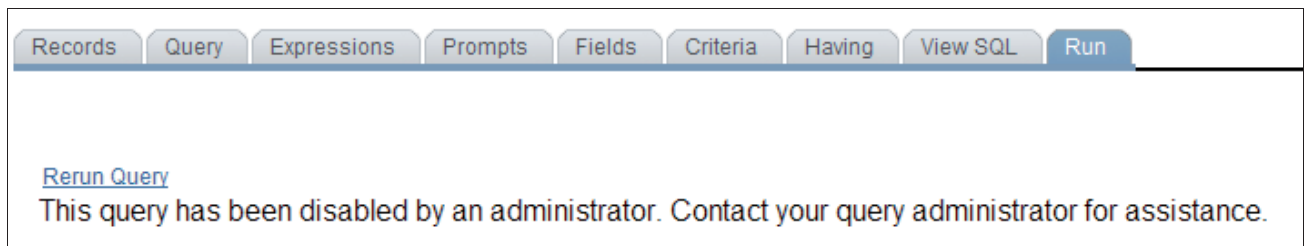
Disabling a Query

To disable a query:

1. In the Query Administration - Admin page, search for and then select the CRSE_SESSIONS query.
2. Click the Disable button.
3. Return to Query Manager and run the CRSE_SESSIONS query.

Results

After you disable the CRSE_SESSIONS query, you should receive the following message:



This concludes the activity. Please do not continue.

Review

In this lesson, you learned that:

- Use Query Viewer to run queries when you do not have security access to create and edit queries.
- Use the Schedule Query page to run queries at convenient dates and times.
- Use the Query Administration component to monitor query performance and use.

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Student Notes

Additional Resources

This table lists additional resources that provide more details about the topics that we discussed in this lesson:

Topic	Cross-Reference
Monitoring query performance and use	<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query, "Query Administration"</i>
Running a query with Query Viewer	<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query, "Creating and Running Simple Queries"</i>
Scheduling a query	<i>Enterprise PeopleTools 8.50 PeopleBook: PeopleSoft Query, "Modifying and Scheduling Queries"</i>

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