PeopleSoft HRMS V8
Intermediate Query Training

Office of Information and Instructional Technology

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# PeopleSoft HRMS V8 Intermediate Query

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PeopleSoft V8 Intermediate Query

Introduction

This class will introduce you to the basic concepts of the PeopleSoft HRMS V8 Query tool, along with some more advanced techniques to help you build your queries. Query is a graphical tool that allows you to easily retrieve the specific data you want from the PeopleSoft system by specifying the records, fields, and criteria to be applied to the search. Query results can then be viewed via several methods. This class will focus on viewing and creating ad hoc queries.
Navigating to the Query Manager Search Page

PeopleSoft provides three options for working with queries.

1. **Query Manager**: This option allows you to view, run, and modify an existing query, or create a new query.

2. **Query Viewer**: This option allows you to only view and run existing queries.

3. **Schedule Query**: This option allows you to schedule a run time for standard queries.

In this class, we will use the Query Manager.
Understanding Public and Private Queries

- Anyone can use a public query.

- Only the person who created a private query can use it.

- It is important not to make changes to any query you did not create. If you want to make changes to a public query, rename and save the query before making any changes.

- Always save your private version that you created from a public query with a unique name. We recommend using the your initials as the first three letters of the query name. Example: CEW_NAMES_QUERY.

- If you create a public query, consider creating a private copy with a unique name for yourself. Therefore, if someone mistakenly changes a public query you created, you still have a copy of the original query.

- When you search for queries from the Query Manager Search page, PeopleSoft automatically lists all private queries you created. Only you will see these. Public queries are listed after private queries.

- If you run a public query and do not receive results, you may not have authorization to some of the data used in that query.
Creating New Queries – Basic Techniques

Introduction

In this section, we will concentrate on learning how to create new queries.

Objectives:

In this section, you will learn how to:

- Select records
- Join records
- Save queries
- Work with fields
- Add criteria on the Fields tab
- Preview the query
- Add criteria on the Query and Criteria tabs
- Update the EMPLOYEES table
- Join records using different key fields
- Work with prompts
- Work with translate values
- Export data
Selecting Records

The first step to create a new query is to select a record. A record is the table that holds the data for which you are searching.

1. Select Reporting Tools⇒Query⇒Query Manager. The Query Manager page displays.

   **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:* Query Name begins with
   
   **Search** | Advanced Search

2. Click the Create New Query link. The Records page displays.

   To find the appropriate record (table), enter the name of the record in the **Search by** field and click **Search**. If you do not know the exact name of the record, you can use the **begins with** search criteria.

3. Enter JOB in the **Search By** field and click **Search**. A Search Results list of JOB records displays.
4. Click the **Show Fields** link for the **JOB – EE Job History** record to view the available fields.

**Fields for record JOB - EE Job History:**

<table>
<thead>
<tr>
<th>Fieldname</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y EMPLID - EmpID</td>
<td></td>
</tr>
<tr>
<td>Y EMPL_RCD - Empl Rcd Nbr</td>
<td></td>
</tr>
<tr>
<td>Y EFFDT - Effective Date</td>
<td></td>
</tr>
<tr>
<td>Y EFFSEQ - Effective Sequence</td>
<td></td>
</tr>
<tr>
<td>DEPTID - Department</td>
<td></td>
</tr>
<tr>
<td>JOBCODE - Job Code</td>
<td></td>
</tr>
<tr>
<td>POSITION_NBR - Position Number</td>
<td></td>
</tr>
<tr>
<td>APPT_TYPE - Appointment Type</td>
<td></td>
</tr>
<tr>
<td>MAIN_APPT_NUM_JFN - Main Appointment Number</td>
<td></td>
</tr>
<tr>
<td>POSITION_OVERRIDE - Override Position Data</td>
<td></td>
</tr>
<tr>
<td>PCSN_CHANGE_RECORD - Position Management Record</td>
<td></td>
</tr>
<tr>
<td>EMPL_STATUS - Employee Status</td>
<td></td>
</tr>
<tr>
<td>ACTION - Action</td>
<td></td>
</tr>
</tbody>
</table>

5. Click on **Return** to return to the Records tab.

6. Click the **Add Record** link to add the record to your query. For many records, you will receive the following message:

![Image](image.png)

Many tables in PeopleSoft have an automatic effective date criteria added. We recommend that you leave the criteria in your query, since most of the time you will want to see the most recent data row. However, you can remove the criteria later if you want to expand your query results.
7. Click [OK]. The Query tab displays with a list of the fields for the JOB – EE Job History record in the Chosen Records group box.

Here you can select the fields you want to see in your query output by clicking the check box ON next to the field you want to choose.

8. Click the check boxes ON to select the following fields:
   - EMPLID
   - EMPL_RCD
   - EFFDT
   - DEPTID
   - JOBCODE
   - POSITION_NBR
   - EMPL_STATUS

Now that you have chosen your records, you can save your query.
Saving Queries

We recommend that you save your queries early and often, in case you have a power outage or computer problem. That way, you will not lose what you have created.

Tips for Saving Your Queries

• You can save your query from any tab except the Records and Preview tabs.
• Query name must be all CAPS.
• Names can be up to 30 characters is length.
• No spaces or special characters are allowed except an underscore.
• We suggest you use your initials before the query name. Example: CEW_QUERY_TRAIN.
• The Description can also be up to 30 characters long.
• Your Query Type will almost always be User.
• Choose Public or Private ownership depending on whether you want others to access you query.
• The Query Definition field allows for more detailed description or special notes.

Process

1. Click on the bottom left of the tab you are on.
2. Enter your query information in the appropriate fields.

Note: For our training examples, use XXX_TRAIN# as the Query Name, where XXX are your initials and # is the query number.

3. Click . Verify SAVED appears and your page looks like this:
Joining Records

Automatic Record Joins

On the Query tab, you will notice that some fields have an underlined Join table next to the field name. PeopleSoft automatically notifies you of tables that contain information pertinent to a particular field. For example, next to the DEPTID field you see Join DEPT_TBL-Departments.

1. Click the Join DEPT_TBL - Departments link. The Select join type page displays.

Select join type

```
Select Join Type

Join Type

\(\square\) Join to filter and get additional fields (Standard Join)
\(\square\) Join to get additional fields only (Left outer join)

OK Cancel
```

When joining two or more records, PeopleSoft will ask for the join type and to which table you would like to join. You always want to join with the record containing your main information. In this example, we want a standard join to the JOB record.

Note: For most queries, you will want to use the default Join to filter and get additional fields (Standard Join) option. Outer joins will be discussed later.

2. Verify the Join to filter and get additional fields (Standard Join) radio button is selected in the Join Type group box.

3. Click on OK. The Query tab displays and PeopleSoft adds the DEPT_TBL.
4. Click the check box next to the **DESCR – Description** field ON. This will add the department ID description to your query results.

Now that you have learned about automatic record joins, you will learn how to manually join records.
Manual Record Joins

To join other records (tables) that do not have automatic joins displayed, go to the Records tab to join these manually.

1. Click the **Records** tab.

   To locate the record you want to choose, enter the Name, or part of the Name, of the Record in the **Search by** field. In this example, you will use the PAY_CHECK record.

2. Enter **PAY_CHECK** in the **Search by** field and click **Search**. A Search Results list of all records that begin with PAY_CHECK displays.

3. Click the **Join Record** link for the PAY_CHECK – Pay Check record. The Select join type page displays.

   **Select join type and then record to join with PAY_CHECK - Pay Check.**

   **Join Type**
   
   - **Join to filter and get additional fields (Standard Join)**
   - **Join to get additional fields only (Left outer join)**

   **Join Record**

   - **A = JOB – EE Job History**
   - **B = DEPT_TBL - Departments joined with A.DEPTID - Department**

   [Cancel]

4. Verify the **Join to filter and get additional fields (Standard Join)** radio button is selected in the Join Type group box.

5. Click the **A = JOB – EE Job History** link. The Auto Join Criteria page displays.

   **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.

   - **√ A.EMPLID - EmplID = C.EMPLID - EmplID**
   - **√ A.EMPL_RCD - Empl Rcd Nbr = C.EMPL_RCD - Empl Rcd Nbr**
   - **√ C.COMPANY - Company = A.COMPANY - Company**
   - **√ C.PAYGROUP - Pay Group = A.PAYGROUP - Pay Group**

   [Add Criteria] [Cancel]

Once you select the table to join to, PeopleSoft provides you with automatic join
criteria. **Always select the criteria provided.** These automatic criteria elements are based upon key fields in each table that is needed to appropriately join the tables. If you click one of these criteria joins OFF, your query will not run properly.

6. Click **Add Criteria**. This brings you back to the Query tab.

7. Select the following fields from the PAY_CHECK – Pay Check record:
   - **PAY_END_DT**
   - **OFF_CYCLE**
   - **PAYCHECK_NBR**

Now that you have selected your records and fields, you can go to the Fields tab to view your selections.
Working with Fields

1. Click the **Fields** tab.

PeopleSoft identifies each field with a letter preceding the field name. The letter corresponds to the record the field is chosen from. The records are labeled in sequential order according to when you chose the record. In our example, you chose the JOB record first, so all fields from the JOB record are preceded with the letter A. You chose the DEPT_TBL record second, so the DESCR field is preceded with the letter B.

If you would like the fields in a different order in your query output, click **Reorder / Sort** in the upper right corner of the Fields tab.

2. Click **Reorder / Sort**. The Edit Field Ordering page displays.
3. Enter sequential numbers in the fields in the **New Column** section to change the order in which your fields appear left to right in the query output.

4. Enter sequential numbers in the fields in the **New Order By** section to change how data is sorted.

5. Click **OK** to see the new order of your fields.

6. Click **Save**.

Now that you have learned how to select and order the fields for your query, you will learn how to add criteria.
Adding Criteria on the Fields Tab

To narrow down the number of records in your query output and to choose specific types of data, you need to add criteria to your query.

1. **Click the **Criteria **tab.****

   ![Criteria Tab](image)

   In the Criteria tab, you will see several criteria elements. PeopleSoft added these elements automatically to your query when you selected or joined records. These criteria include EFFDT - Effective Date to return the most recent row of data, and automatic table joins for key fields. It is best to leave these criteria elements as they are. The only one you may want to change is the Effective Date, which would allow you to expand your query results.

   There are several ways to add criteria to your query. To add criteria to the fields you have already selected, you can use the Fields tab.

2. **Click the **Fields **tab.****

   ![Fields Tab](image)
3. Click the button to the right of the field you want to use for your criteria; for example, the **PAY_END_DT** field. The Edit Criteria Properties page displays.

![Edit Criteria Properties](image)

**Expression 1**

<table>
<thead>
<tr>
<th>Choose Record and Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record Alias.Fieldname:</td>
</tr>
<tr>
<td>C.PAY_END_DT - Pay Period End</td>
</tr>
</tbody>
</table>

**Condition Type:**

![Condition Type](image)

4. Verify that the **Field** radio button is selected in the Choose Expression 1 Type group box. Most of the time you will accept this default selection.

5. Verify that **C.PAY_END_DT – Pay Period End** appears as the Record Alias.Fieldname field in the Expression 1 group box. This is the field that you selected in Step 3 to which the criteria will be added.

6. Click on the down arrow next to the Condition Type field.

![Condition Type](image)
# Condition Types

The following table describes the available Condition Types for criteria. For each of the Condition Types, Query Manager offers a *not* option that reverses its effect. For example, *not equal to* returns all rows that *equal to* would not return.

<table>
<thead>
<tr>
<th>Condition Types</th>
<th>When It Returns a Row</th>
</tr>
</thead>
<tbody>
<tr>
<td>between</td>
<td>The value in the selected record field falls between two comparison values. The range is inclusive.</td>
</tr>
<tr>
<td>equal to</td>
<td>The value in the selected record field exactly matches the comparison value.</td>
</tr>
<tr>
<td>exists</td>
<td>This operator is different from the others, in that it doesn't compare a record field to the comparison value. The comparison value is a subquery. If the subquery returns any data, PeopleSoft Query returns the corresponding row.</td>
</tr>
<tr>
<td>greater than</td>
<td>The value in the record field is greater than the comparison value.</td>
</tr>
<tr>
<td>in list</td>
<td>The value in the selected record field matches one of the comparison values in a list.</td>
</tr>
<tr>
<td>in tree</td>
<td>The value in the selected record field appears as a node in a tree created with PeopleSoft Tree Manager. The comparison value for this operator is a tree or branch of a tree that you want PeopleSoft Query to search.</td>
</tr>
<tr>
<td>is null</td>
<td>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.</td>
</tr>
<tr>
<td>less than</td>
<td>The value in the record field is less than the comparison value.</td>
</tr>
</tbody>
</table>
| like            | The value in the selected field matches a specified string pattern. The comparison value may be a string that contains wildcard characters. The wildcard characters that PeopleSoft Query recognizes are % and _.

% matches any string of zero or more characters. For example, C% matches any string starting with C, including C alone.

_ matches any single character. For example, _ones matches any five-character string ending with ones, such as Jones or Cones.

PeopleSoft Query also recognizes any wildcard characters that your database software supports. See your database management system documentation for details.

To use one of the wildcard characters as a literal character (e.g., to include a % in your string), precede the character with a \. For example, percent\%.
7. Select **between** as the Condition Type.

Note that when you selected **between**, the available options in the Choose Expression 2 Type group box changed, and an additional Define Constant 2 box was added to the Expression 2 group box.

**Note:** When you use EFFDT criteria such as PAY_END_DT, PeopleSoft Query offers special effective date operators.

8. Enter the **dates** for your date range in the **Date** and **Date 2** fields in the Expression 2 group box as shown below.

```
<table>
<thead>
<tr>
<th>Edit Criteria Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Choose Expression 1 Type</strong></td>
</tr>
<tr>
<td>☑ Field</td>
</tr>
<tr>
<td>☐ Expression</td>
</tr>
</tbody>
</table>

| **Choose Expression 2 Type** |
| ☑ Const - Const |
| ☑ Const - Field |
| ☑ Const - Expr |
| ☑ Field - Const |
| ☑ Field - Field |
| ☑ Field - Expr |
| ☑ Expr - Const |
| ☑ Expr - Field |
| ☑ Expr - Expr |

**Condition Type:**

```
between
```

```
<table>
<thead>
<tr>
<th><strong>Expression 1</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Choose Record and Field</strong></td>
</tr>
<tr>
<td>Record Alias:Fieldname:</td>
</tr>
<tr>
<td>C.PAY_END_DT - Pay Period End</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Expression 2</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Define Constant</strong></td>
</tr>
<tr>
<td><em>Date:</em> 11/01/2007</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Define Constant 2</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Date 2:</em> 11/05/2007</td>
</tr>
</tbody>
</table>
```

9. Click **OK**. This brings you back to the **Fields** tab.

Now that you have added criteria, you can preview the results of your query.
Previewing The Query

To see the information you have chosen so far, click the Run tab.

1. Click the **Run** tab.

   - The numbers in the upper right corner display the total records returned from your query. This query returned 37 records. If there were more than 100 records, only records 1-100 would be displayed. You would use the arrow buttons to view more records.

2. Click the **Query** tab.

3. Click **Save**.

The numbers in the upper right corner display the total records returned from your query. This query returned 37 records. If there were more than 100 records, only records 1-100 would be displayed. You would use the arrow buttons to view more records.
Query Exercise 1

Create a new query for employees who have terminated between 07/01/2007 and 07/31/2007.

1. Select the JOB record.

2. Select the following fields from the JOB record:
   - EMPLID
   - EFFDT
   - ACTION
   - ACTION_REASON

3. Save your query as XXX_EXERC1, where XXX are your initials.

4. Add the following criteria:
   - EFFDT between 07/01/2007 and 07/31/2007
   - ACTION = TER

   **Hint:** Go to the Fields tab to add the criteria.

5. Click the Run tab. You should see 3 records.

   Using the same query, do the following additional steps.

6. Click the Query tab.

7. Select the JOBCODE field from the JOB record.

8. Click the Join JOBCODE_TBL – Job Codes link to join to the JOBCODE table.


10. Select the DESCR field from the JOBCODE table.

11. Click the Run tab and review your results.

12. Save your query.
Adding Criteria on the Query and Criteria Tabs

You can add criteria for a field that you have not selected for your query output. You can do this through the Query tab or the Criteria tab.

**Query Tab**

1. Open your XXX_TRAIN1 query.
2. Click the Query tab.
3. Click the for the JOB record (table).

   To add criteria for the Appointment Type field, for example, you do not need to check the box for the field. You can add the criteria on the Edit Criteria Properties page from the Query tab.

4. Click the for the APPT_TYPE field. The Edit Criteria Properties page displays.

5. Click **Cancel**.
Criteria Tab

1. Click the Criteria tab.

2. Click Add Criteria. The Edit Criteria Properties page displays.

3. Click the in the Expression 1 Choose Record and Field group box. The Select a field page displays with the fields shown for the records in your query.

4. Click the link to select a field, which brings you back to the Edit Criteria Properties page with the field in the Expression 1 Choose Record and Field group box.

5. Click Cancel.

Now that you have learned how to add criteria, you will learn how to remove them.
Removing Criteria

To remove criteria you have added, access the Criteria tab and click the  beside the criteria statement you want to remove.

1. Click the **Criteria** tab.

<table>
<thead>
<tr>
<th>Logical</th>
<th>Expression 1</th>
<th>Condition Type</th>
<th>Expression 2</th>
<th>Edi</th>
<th>Del</th>
</tr>
</thead>
<tbody>
<tr>
<td>AND</td>
<td>A.EFFDT - Effective Date</td>
<td>Eff Date &lt;=</td>
<td>Current Date (EffSeq = Last)</td>
<td>Edi</td>
<td></td>
</tr>
<tr>
<td>AND</td>
<td>A.EFFDT - Effective Date</td>
<td>Eff Date &lt;=</td>
<td>A.EFFDT - Effective Date</td>
<td>Edi</td>
<td></td>
</tr>
<tr>
<td>AND</td>
<td>A.EMPLID - EmpID</td>
<td>equal to</td>
<td>C.EMPLID - EmpID</td>
<td>Edi</td>
<td></td>
</tr>
<tr>
<td>AND</td>
<td>A.EMPL_RCD - EmpID Rcd Nbr</td>
<td>equal to</td>
<td>C.EMPL_RCD - EmpID Rcd Nbr</td>
<td>Edi</td>
<td></td>
</tr>
<tr>
<td>AND</td>
<td>A.COMPANY - Company</td>
<td>equal to</td>
<td>A.COMPANY - Company</td>
<td>Edi</td>
<td></td>
</tr>
<tr>
<td>AND</td>
<td>A.PAYGROUP - Pay Group</td>
<td>equal to</td>
<td>A.PAYGROUP - Pay Group</td>
<td>Edi</td>
<td></td>
</tr>
<tr>
<td>AND</td>
<td>C.PAY_END_DT - Pay Period End Date</td>
<td>between</td>
<td>2007-08-01 AND 2007-08-15</td>
<td>Edi</td>
<td></td>
</tr>
</tbody>
</table>

Note: It is important not to remove the automatic criteria inserted by PeopleSoft! These criteria are indicated above.

Now that you have learned how to use criteria in your queries, you will do some exercises incorporating criteria, and then learn how to update the EMPLOYEES table and join records.
Query Exercises 2, 3, and 4

Exercise 2

Create a new query to provide a list of Retirees paid on 11/30/2007.

1. Create a new query.

2. Select the PAY_CHECK record.

3. Select the following fields from the PAY_CHECK record:
   - PAYGROUP
   - PAY_END_DATE
   - EMPLID

4. Click the Fields tab and add the following criteria:
   - PAYGROUP = RET
   - PAY_END_DATE = 11/30/2007

5. Click the Run tab. You should see 7 records.

   Notice the field names are not very descriptive and the data is not sorted. Follow the steps below to change the field headings and sort the data by Employee ID.

6. Click the Fields tab and then click Reorder / Sort.

7. Enter the following on the Edit Field Ordering page for EMPLID and click OK:
   - New Column = 1
   - New Order By = 1

8. Click the Fields tab and then click Edit for the PAYGROUP field.

9. Make the following changes on the Edit Field Properties page and click OK:
   - Select the Text radio button as the Heading.
   - Enter Pay Group as the Heading Text

10. Click the Run tab.

    Now your data is sorted by Employee ID and the columns have more intuitive descriptions.

11. Save your query as XXX_EXERC2, where XXX are your initials.
Exercise 3

Create a new query to obtain a list of employees in the FSA benefit who elected coverage in 2007.

1. Create a new query.

2. Select the FSA_BENEFIT record.

3. Select the following fields from the FSA_BENEFIT record:
   - EMPLID
   - PLAN_TYPE
   - COVERAGE_BEGIN_DATE

4. Click the Fields tab and add the following criteria:
   - COVERAGE_BEGIN_DATE between 01/01/2007 and 12/31/2007

5. Click the Run tab. You should see 2 records.

6. Save your query as XXX_EXERC3, where XXX are your initials.
Exercise 4

Create a new query to provide a list of employees in the B08 pay group who have a GDCPA deduction.

1. Create a new query.
2. Select the JOB record.
3. Select the following fields from the JOB record:
   - EMPLID
   - PAYGROUP
4. Click the Fields tab and add the following criteria:
   - PAYGROUP = B08
5. Click the Records tab.
6. Enter GENL_DEDUCTION and click Search.
7. Click the Join Record link.
9. Click on the A = JOB – EE Job History link.
10. Click Add Criteria.
11. Select the following fields:
    - DEDCD
    - EFFDT
12. Click the Fields tab and enter the following criteria:
    - DEDCD = GDCPA
13. Click the Run tab. You should see 5 records.
14. Save your query as XXX_EXERC4, where XXX are your initials.

Now revise your new query to provide a list of employees in the M01 pay group who have elected both MISC and PARK deductions.

15. Click the Criteria tab and then click Edit for B.DEDCD equal to GDPCA.
16. Change the Condition Type to in list.
17. Click the 📋 in the Expression 2 Define Constant group box.

18. Enter **MISC** and click on **Add Value**.

19. Enter **PARK** and click on **Add Value**.

20. Click on  **OK**.

21. Click the **Criteria** tab and then click  **Edit** for **PAYGROUP equal to B08**.

22. Change the **PAYGROUP** to **M01**.

23. Click on  **OK**.

24. Click the **Run** tab. You should get 2 records.

25. Save your query.
Updating the EMPLOYEES Table

The EMPLOYEES table is a table that combines several other tables to include a snapshot of all current employee information. This table does not update automatically, so you must update it by running the Refresh EMPLOYEES Table process.

1. Select Set Up HRMS⇒System Administration⇒Database Processes⇒Refresh EMPLOYEES Table. The Refresh EMPLOYEES Table – Find an Existing Value page displays.

2. Click on Search and select a Run Control ID.

3. Click on Search. The Parameters page displays.

   ![Parameters Image]

4. Enter the current date in the As Of Date field in the Report Request Parameters group box to update the table with the most current data.

5. Click on Run. The Process Scheduler page displays.

6. Click on OK. This brings you back to the Parameters page.

7. Click on the Process Monitor link and verify that the process has successfully run to completion.

   ![Process List Image]

Now that you have learned how to update the EMPLOYEES table, you will learn how to join records using different key fields.
Joining Records Using Different Key Fields

When joining records, PeopleSoft automatically joins the key fields in each record. These fields are indicated by a key icon, as shown below.

Joining on these fields is important, but there are a few scenarios where you would want to join on a different field. You would do this, for example, if you wanted to create a list of current employees and the names of their supervisors. A good record/table to use for a list of current employees is the EMPLOYEES table.

1. Select Reporting Tools⇒Query⇒Query Manager. The Query Manager – Find an Existing Query page displays.

2. Click the Create New Query link. The Records page displays.

3. Select the EMPLOYEES record.

4. Select the following fields from the EMPLOYEES record:
   - EMPLID
   - NAME
   - SUPERVISOR_ID

5. Save your query as XXX_TRAIN2, where XXX are your initials.

Now we need to add the Supervisor Name.

6. Click the Records tab.

7. Enter NAME in the Search by field and click Search. A Search Results list of NAME records displays.

8. Click the Join Record link on the NAMES – Person Names record. The Select join type page displays.

9. Verify the Join to filter and get additional fields (Standard Join) radio button is selected in the Join Type group box.
10. Click the **A = EMPLOYEES – Non terminated Employees** link. The Auto Join Criteria page displays.

11. Click **Add Criteria**. The Query tab displays.

12. Select the **NAME** field.

13. Click the **Run** tab to preview the results of your query.

<table>
<thead>
<tr>
<th>ID</th>
<th>Name</th>
<th>Sup ID</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Banks, Jane L</td>
<td>000000</td>
<td>Banks, Jane L</td>
</tr>
<tr>
<td>2</td>
<td>Smith, Patricia</td>
<td>000000</td>
<td>Smith, Patricia</td>
</tr>
<tr>
<td>3</td>
<td>Flood, Ten</td>
<td>000000</td>
<td>Flood, Ten</td>
</tr>
<tr>
<td>4</td>
<td>Vind, Leonardo D</td>
<td>000000</td>
<td>Vind, Leonardo D</td>
</tr>
<tr>
<td>5</td>
<td>Rossel, Dante</td>
<td>000000</td>
<td>Rossel, Dante</td>
</tr>
<tr>
<td>6</td>
<td>Hamilt, Hannah</td>
<td>000000</td>
<td>Hamilt, Hannah</td>
</tr>
<tr>
<td>7</td>
<td>Woodward, Sam</td>
<td>000000</td>
<td>Woodward, Sam</td>
</tr>
<tr>
<td>8</td>
<td>Pounds, Peter W</td>
<td>000000</td>
<td>Pounds, Peter W</td>
</tr>
<tr>
<td>9</td>
<td>Brown, Tracy</td>
<td>000000</td>
<td>Brown, Tracy</td>
</tr>
<tr>
<td>10</td>
<td>Smith, Kurt</td>
<td>000000</td>
<td>Smith, Kurt</td>
</tr>
<tr>
<td>11</td>
<td>Doty, Kim</td>
<td>000010</td>
<td>Doty, Kim</td>
</tr>
<tr>
<td>12</td>
<td>Lewicki, Matt</td>
<td>000010</td>
<td>Lewicki, Matt</td>
</tr>
<tr>
<td>13</td>
<td>Moul, Theresa</td>
<td>000055</td>
<td>Moul, Theresa</td>
</tr>
<tr>
<td>14</td>
<td>Harding, Terry</td>
<td>000042</td>
<td>Harding, Terry</td>
</tr>
<tr>
<td>15</td>
<td>Carter, John D</td>
<td>000010</td>
<td>Carter, John D</td>
</tr>
<tr>
<td>16</td>
<td>Filler, Chuck</td>
<td>000010</td>
<td>Filler, Chuck</td>
</tr>
<tr>
<td>17</td>
<td>Law, Alice</td>
<td>000010</td>
<td>Law, Alice</td>
</tr>
<tr>
<td>18</td>
<td>Lighthearted L</td>
<td>000020</td>
<td>Lighthearted L</td>
</tr>
<tr>
<td>19</td>
<td>Smith, Gary</td>
<td>000020</td>
<td>Smith, Gary</td>
</tr>
<tr>
<td>20</td>
<td>Bush, Francis</td>
<td></td>
<td>Bush, Francis</td>
</tr>
</tbody>
</table>

This query gives us the Employee Name from both the EMPLOYEES and NAMES tables because PeopleSoft automatically joined the EMPLOYEES table to the NAMES table based on Employee ID. To get the Supervisor Name from the NAMES table, we need to join these tables based on the Supervisor ID.

First, we need to remove the join to the Employee ID.

14. Click the **Criteria** tab.
15. Click **Edit** next to A.EMPLID – EmplID equal to B.EMPLID – EmplID. The Edit Criteria Properties page displays.

16. Click the **in** the Expression 1 Choose Record and Field group box. The Select a field page displays with the list of available fields.

17. Click the **A.SUPERVISOR_ID – Supervisor ID link.** This brings you back to the Edit Criteria Properties page.

18. Click on **OK**. This brings you back to the Criteria tab.
19. Click the **Run** tab.

Now you see the names of the Supervisors as well as the Employees.

20. Click on the **Query** tab and save your query.

Now that you have learned how to join records using different key fields, you will learn how to work with prompts.
Working with Prompts

Queries can be designed to prompt you for information when you run them. Therefore, the results of your query are narrowed to only the data matching the information you entered, rather than data from all records. To add a prompt to your query, access the Criteria tab.

1. Click the Create New Query link. The Records page displays.
2. Select the JOB record.
3. Select the following fields from the JOB record:
   - EMPLID
   - COMPANY
   - PAYGROUP
4. Save your query as XXX_TRAIN3, where XXX are your initials.
5. Click the Criteria tab.
6. Click Add Criteria. The Edit Criteria Properties page displays.
7. Click the in the Expression 1 Choose Record and Field group box. The Select a field page displays with all the fields shown for the JOB record.
8. Select A.COMPANY – Company from the list of available fields. This brings you back to the Edit Criteria Properties page.
9. Click on the down arrow next to the Condition Type field and select like.
10. Select the Prompt radio button in the Choose Expression 2 Type group box.
11. Click the **New Prompt** link in the Expression 2 Define Prompt group box. The Edit Prompt Properties page displays.

![Edit Prompt Properties](image)

12. Verify that **COMPANY** appears as the Field Name.

13. Verify **Prompt Table** appears in the Edit Type field. This will allow you to look up prompt selections. For example, if you are unsure of the different paygroup options, you can choose search and the query will provide a list of options from the COMPANY_TBL.

14. Change the Heading Type from RFT Short to **Text**.

15. Change the Heading Text from Group to **Enter Company**. The Heading Text is the message that you will see when prompted.

![Edit Prompt Properties](image)
16. Click **OK**. This brings you back to the Edit Criteria Properties page.

17. Click **OK**. This brings you back to the Criteria tab.

Now that you have entered a prompt for Company, you will add a second prompt for Pay Group.

18. Click **Add Criteria**. The Edit Criteria Properties page displays.

19. Click the **search** in the Expression 1 Choose Record and Field group box. The Select a field page displays with all the fields shown for the JOB record.

20. Select **A.PAYGROUP – Pay Group** from the list of available fields. This brings you back to the Edit Criteria Properties page.

21. Click on the down arrow next to the Condition Type field and select **like**.

22. Select the **Prompt** radio button in the Choose Expression 2 Type group box.

23. Click the **New Prompt** link in the Expression 2 Define Prompt group box. The Edit Prompt Properties page displays.

24. Verify that **PAYGROUP** appears as the Field Name.

25. Verify **Prompt Table** appears in the Edit Type field. This will allow you to look up prompt selections. For example, if you are unsure of the different paygroup options, you can choose search and the query will provide a list of options from the PAYGROUP_TBL.

26. Change the Heading Type from RFT Short to **Text**.

27. Change the Heading Text from **Group** to **Enter Paygroup**. The Heading Text is the message that you will see when prompted.

28. Click **OK**. This brings you back to the Edit Criteria Properties page.
29. Click OK. This brings you back to the Criteria tab.

30. Click the Run tab to view the prompt.

31. Enter 760 in the Company field.

32. Enter B06 in the Enter Paygroup field and click OK. The query returns only information for Pay Group B06.

33. Click OK. The query returns only information for Company 710 and Pay Group B06.

34. Save your query.

Now that you have learned how to add prompts to your query, you will learn how to work more with multiple prompts.
Using Multiple Prompts

As you have seen, you can add more than one prompt to your query. For example, you may want to have the option of adding several paygroups at a time.

1. Click the Fields tab.

2. Click the next to PAYGROUP to add another prompt. The Edit Criteria Properties page displays.

3. Verify the Condition Type is equal to.

4. Select the Prompt radio button in the Choose Expression 2 Type group box.

5. Click the New Prompt link in the Expression 2 Define Prompt group box. The Edit Prompt Properties page displays.

6. Verify PAYGROUP appears as the Field Name.

7. Change the Heading Type to Text.

8. Change the Heading Text to Enter Paygroup 2.

9. Click OK. This brings you back to the Edit Criteria Properties page.

10. Click OK. This brings you back to the Criteria tab.

11. Repeat Steps 1 through 10 to add one more prompt to your query.
   - Verify equal to as the Condition Type.
   - Change the Heading Type to Text.
   - Change the Heading Text to Enter Paygroup 3.

Your Criteria tab should look like the following:

---

PeopleSoft HRMS V8 Intermediate Query Training
Training Participation Guide Version 2
12. Click Group Criteria. The Edit Criteria Grouping page displays.

**Edit Criteria Grouping**

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

<table>
<thead>
<tr>
<th>Logical</th>
<th>Expression 1</th>
<th>Condition Type</th>
<th>Expression 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>AND</td>
<td>A.EFFDT - Effective Date</td>
<td>&lt;=</td>
<td>Current Date (EffSeq = Last)</td>
</tr>
<tr>
<td>AND</td>
<td>A.COMPANY - Company</td>
<td>like</td>
<td>:1</td>
</tr>
<tr>
<td>AND</td>
<td>A.PAYGROUP - Pay Group</td>
<td>equal to</td>
<td>:2</td>
</tr>
<tr>
<td>AND</td>
<td>A.PAYGROUP - Pay Group</td>
<td>equal to</td>
<td>:3</td>
</tr>
<tr>
<td>AND</td>
<td>A.PAYGROUP - Pay Group</td>
<td>equal to</td>
<td>:4</td>
</tr>
</tbody>
</table>

13. Enter a **left parenthesis (** in the left box beside the first PAYGROUP.

14. Enter a **right parenthesis )** in the right box beside the third PAYGROUP.

15. Click **OK**. This brings you back to the Criteria tab.

16. Change the Logical field for the second and third PAYGROUP prompts from AND to **OR**.

17. Click the **Run** tab. A page displays to enter your prompts.
18. Enter **760** in the Company field.

19. Enter the following Paygroups:
   - Paygroup 1: **B06**
   - Paygroup 2: **B08**
   - Paygroup 3: **M01**

20. Click **OK**. The Run tab displays.

21. Save your query.

Now that you have learned how to work with prompts, you will learn about Translate Values.
Working with Translate Values

As discussed earlier when selecting fields, sometimes it is necessary to join to another record to retrieve the description for that field. For example, earlier you joined to the DEPT_TBL to get the description for the Department Code. For some fields, PeopleSoft includes a translate (XLAT) value that allows you to see the descriptive version of the field without going to a separate table.

1. Go to Query Manager and locate your XXX_TRAIN1 query.

   ![Query Manager Screenshot]

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

   **Search By:** Query Name begins with PUR

   **Search Results**
   **Folder View:** -- All Folders --
   **Action:** -- Choose --

   **Query**
<table>
<thead>
<tr>
<th>Query Name</th>
<th>Descr</th>
<th>Owner Folder</th>
<th>Edit</th>
<th>Run to HTML</th>
<th>Run to Excel</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUR_EXETC1</td>
<td>Query Exercise 1</td>
<td>Private</td>
<td>Edit</td>
<td>HTML</td>
<td>Excel</td>
<td>Schedule</td>
</tr>
<tr>
<td>PUR_TRAIN1</td>
<td>Query Training 1</td>
<td>Private</td>
<td>Edit</td>
<td>HTML</td>
<td>Excel</td>
<td>Schedule</td>
</tr>
<tr>
<td>PUR_TRAIN2</td>
<td>Query Training 2</td>
<td>Private</td>
<td>Edit</td>
<td>HTML</td>
<td>Excel</td>
<td>Schedule</td>
</tr>
<tr>
<td>PUR_TRAIN3</td>
<td>Query Training 3</td>
<td>Private</td>
<td>Edit</td>
<td>HTML</td>
<td>Excel</td>
<td>Schedule</td>
</tr>
</tbody>
</table>

2. Click the **Edit** link. The query opens with the Fields tab displayed. Notice the column headings above the fields.
If a field has a translate value, N will appear under the XLAT column heading. Note that EMPL_STATUS has a translate value.

3. Click the Run tab to view the translate value in the EMPL_STATUS field.

<table>
<thead>
<tr>
<th>Col</th>
<th>Record/FieldName</th>
<th>Format</th>
<th>Ord</th>
<th>XLAT</th>
<th>Area</th>
<th>Headline Text</th>
<th>Add Criteria</th>
<th>Edit</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A DEPTID - Department</td>
<td>Char10</td>
<td>1</td>
<td></td>
<td></td>
<td>DeptID</td>
<td>%</td>
<td>Edit</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>B DESCR - Description</td>
<td>Char30</td>
<td></td>
<td></td>
<td></td>
<td>Descr</td>
<td>%</td>
<td>Edit</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>C PAY_END_DT - Pay Period End Date</td>
<td>Data</td>
<td>2</td>
<td></td>
<td></td>
<td>Pay Period End</td>
<td>%</td>
<td>Edit</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>D EMPID - EmpID</td>
<td>Char11</td>
<td>3</td>
<td></td>
<td></td>
<td>ID</td>
<td>%</td>
<td>Edit</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>E EMPL_RCD - EmpId Nbr</td>
<td>Num3.0</td>
<td></td>
<td></td>
<td></td>
<td>EmpId</td>
<td>%</td>
<td>Edit</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>F JOBCODE - Job Code</td>
<td>Char6</td>
<td></td>
<td></td>
<td></td>
<td>Job Code</td>
<td>%</td>
<td>Edit</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>G OFF_CYCLE - Off Cycle</td>
<td>Char1</td>
<td></td>
<td></td>
<td></td>
<td>Off Cycle</td>
<td>%</td>
<td>Edit</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>H PAYCHECK_NBR - Paycheck Number</td>
<td>Num15.0</td>
<td></td>
<td></td>
<td></td>
<td>Check#</td>
<td>%</td>
<td>Edit</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>I EFFDT - Effective Date</td>
<td>Date</td>
<td></td>
<td></td>
<td></td>
<td>Eff Date</td>
<td>%</td>
<td>Edit</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>J POSITION_NBR - Position Number</td>
<td>Char9</td>
<td></td>
<td></td>
<td></td>
<td>Position</td>
<td>%</td>
<td>Edit</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>K EMPL_STATUS - Employee Status</td>
<td>Char1</td>
<td>N</td>
<td></td>
<td></td>
<td>Status</td>
<td>%</td>
<td>Edit</td>
<td></td>
</tr>
</tbody>
</table>

Note that A appears in the Status column.

4. Click the Fields tab.

5. Click [Edit] beside EMPL_STATUS. The Edit Field Properties page displays.
6. Select the **Long** radio button in the Translate Value group box. This group box gives you the option to select a Short or Long description.

7. Click **OK**. This brings you back to the Fields tab. Notice that L now appears in the **XLAT** column heading for the EMPL_STATUS field.

8. Click the **Run** tab to view the translate value in the EMPL_STATUS field.

Notice that **Active** now appears in the Status column instead of A.

9. Save your query.

Now that you have learned about Translate values, you will learn how to export data.
Exporting Data

Query Manager allows you to export data to Excel or to a text document in CSV format. You can export data from the Query Manager run page or from the Preview page.

1. Open Query Manager and locate your XXX_TRAIN1 query.
2. Click the **HTML** link without opening the query. A separate Preview page displays.

   __PJU_TRAIN1- Query Training 1__

   ![Download results in: Excel Spreadsheet, CSV Text File (11 KB)]

<table>
<thead>
<tr>
<th>DeptID</th>
<th>Descr</th>
<th>Pay Period End</th>
<th>ID</th>
<th>Empl ID</th>
<th>Job Code</th>
<th>Off Cycle</th>
<th>Check In</th>
<th>Eff Date</th>
<th>Position</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Business Administration</td>
<td>11/02/2007</td>
<td>0000000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Humanities Administration</td>
<td>11/02/2007</td>
<td>0000000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>Humanities Administration</td>
<td>11/02/2007</td>
<td>0000000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>Humanities Administration</td>
<td>11/02/2007</td>
<td>0000000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Math Administration</td>
<td>11/02/2007</td>
<td>000002</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Nursing Administration</td>
<td>11/02/2007</td>
<td>0000000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>Campus Mail</td>
<td>11/02/2007</td>
<td>0000000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>Campus Mail</td>
<td>11/02/2007</td>
<td>0000000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>Continuing Education</td>
<td>11/02/2007</td>
<td>0000000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>Library</td>
<td>11/02/2007</td>
<td>0000022</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>Library</td>
<td>11/02/2007</td>
<td>0000023</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>Library</td>
<td>11/02/2007</td>
<td>0000068</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>Academic Affairs</td>
<td>11/02/2007</td>
<td>0000008</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>Academic Affairs</td>
<td>11/02/2007</td>
<td>0000000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15</td>
<td>Office of Student Affairs</td>
<td>11/02/2007</td>
<td>0000007</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

You have the option to download the results to an Excel Spreadsheet or a CSV Text File. Here you will choose the CSV text file.

3. Click the **CSV Text File** link. A File Download dialog box displays.

   ![File Download]

   Some files can harm your computer. If the file information below looks suspicious, or you do not fully trust the source, do not open or save the file.

   File name: PJU_TRAIN1.csv
   File type: Microsoft Excel Comma Separated Values File
   From: dev.gahiroh.uga.edu

   Would you like to open the file or save it to your computer?

   - Open
   - Save
   - Cancel
   - More Info

   ![Always ask before opening this type of file]
It is best to choose ![Save](image) and save your results to your local network drive. You can also download your data while working in your query.

4. Click ![Cancel](image) and close the separate Preview page.

5. Go back to the Query Manager – Find an Existing Query page, and click the **Excel** link. Excel runs and the query results are displayed in a separate window.

---

**Note 1:** You can also click on the **Excel Spreadsheet** link on the preview page shown in Step 2. Excel runs and the query results are displayed in a separate window.

**Note 2:** You can also open the Query and click the **Run** tab. You have the option to **Download to Excel** on this tab as well. Once again, Excel runs and the query results are displayed in a separate window.

Now that you have learned some basic techniques to create new queries, you will learn some more advanced techniques.
Creating New Queries – Advanced Techniques

Introduction
In this section, we will concentrate on more advanced concepts and techniques of the PeopleSoft HRMS V8 Query tool.

Objectives:
In this section, you will learn how to:

- Use subqueries
- Work with outer joins
- Use aggregate functions
Using Subqueries

A subquery is a query within a query. You can use subqueries to compare a value for a field in the original query to the results of a second query.

The condition type that you specify in your criteria determines what the subquery returns. Condition Types that can be used for subqueries include:

- In List
- Not In List
- Exists
- Does not Exist

A subquery can only retrieve one data field from one table.
Using a Subquery

Identify the personnel in the following job codes: 200X00, 201X00, 202X00, and 203X00. First we will identify the ones who have rank and tenure data, and then identify those who do not have rank and tenure data.

Building the Primary Query

1. Click the Create New Query link.
2. Locate and select the JOB table.
3. Select the following fields:
   - EMPLID
   - JOBCODE
4. Click on the Fields tab and add the JOBCODE criteria:
   - Condition Type: in list
   - Job Code List:
     - 200X00
     - 201X00
     - 202X00
     - 203X00
5. Save your query as XXX_TRAIN4, where XXX are your initials.
6. Click the Run tab.

<table>
<thead>
<tr>
<th>ID</th>
<th>JOBCODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>200X00</td>
</tr>
<tr>
<td>2</td>
<td>201X00</td>
</tr>
<tr>
<td>3</td>
<td>201X00</td>
</tr>
<tr>
<td>4</td>
<td>201X00</td>
</tr>
<tr>
<td>5</td>
<td>201X00</td>
</tr>
<tr>
<td>6</td>
<td>201X00</td>
</tr>
<tr>
<td>7</td>
<td>201X00</td>
</tr>
<tr>
<td>8</td>
<td>201X00</td>
</tr>
<tr>
<td>9</td>
<td>201X00</td>
</tr>
<tr>
<td>10</td>
<td>201X00</td>
</tr>
<tr>
<td>11</td>
<td>201X00</td>
</tr>
<tr>
<td>12</td>
<td>201X00</td>
</tr>
</tbody>
</table>

Note that there are 12 employees who have these Job Codes. To find out if these employees have rank or tenure data, you must see if they have an entry in the EG_TENURE_DATA table.
7. Click on the Records tab.

8. Enter `EG_TENURE_DATA` in the Search By field and click **Search**.

9. Click the Join Record link. The Select join type page displays.

10. Verify the Standard Join radio button is selected.

11. Click the A = EE Job History link. The Auto Join Criteria page displays.

12. Click **Add Criteria**. The Query tab displays with the fields for the EG_TENURE_DATA table available.

13. Select the following fields:
   - `EG_ACADEMIC_RANK`
   - `TENURE_STATUS`

14. Click the Run tab.

Note that the number of data records has decreased to 10.

15. Click the Query tab.

16. Save your query.

To find the employees who do not have records in the EG_TENURE_DATA table, we can create a subquery.
Building the Subquery

1. Click the for the EG_TENURE_DATA record.

The Confirm delete record page displays.

Confirm delete record EG_TENURE_DATA - Tenure Data? (139,71)

[Yes] [No]

2. Click [Yes]. This brings you back to the Query tab.

3. Click the Fields tab.

4. Click for EMPLID. The Edit Criteria Properties page displays.
5. Change the Condition Type to not in list.

6. Select the Subquery radio button in the Choose Expression 2 Type group box.

7. Click on the Define/Edit Subquery link in the Expression 2 Define Subquery group box. The Records tab displays.

8. Search for and select the EG_TENURE_DATA record. This brings you to the Query tab.

9. Click the Select link next to the EMPLID field. This brings you to the Fields tab.

10. Click the Run tab.

This gives you the missing records that do not have rank and tenure data.
11. Click the **Fields** tab and save your query.

Now that you have learned how to build a subquery, you will learn how to navigate between the parent query and the subquery.
Navigating between the Parent Query and the Subquery

To navigate between the parent query and subquery, click the Subquery/Union Navigation link in the upper right corner of any tab except the Preview tab.

1. Look at the Fields tab.

2. Click the Subquery/Union Navigation link in the upper right corner.

Select subquery or union to navigate to

Top Level of Query
Subquery for A.EMPLID - EmpID

3. Click the Top Level of Query link. This will bring you back to the parent query.

Now that you have learned how to navigate between the parent query and subquery, you will learn how to work with outer joins.
Working with Outer Joins

In PeopleTools 8.4, Query Manager gives you the option of selecting a Left Outer Join when joining records.

Creating an Outer Join

An example of when an Outer Join is needed is to show all employees within specified paygroups that do and do not have tenure data. When performing a Standard join with the EMPLOYEES and EG_TENURE_DATA tables, employees that do not have tenure data will not be shown in the query results. Using an Outer join between these tables, however, will produce results that show employees that both do and do not have tenure data.

1. Click the Create New Query link.
2. Locate and select the JOB record.
3. Select the following fields from the JOB record:
   • EMPLID
   • JOBCODE
4. Click the Fields tab.
5. Click the for JOBCODE. The Edit Criteria Properties page displays.
6. Change the Condition Type to in list.
7. Click on the in the Expression 2 Edit List group box. An Edit List page displays.
8. Add the following Paygroups to the Edit List page:
   • 200X00
   • 201X00
   • 202X00
   • 203X00
9. Click OK. This brings you back to the Edit Criteria Properties page.
10. Click OK. This brings you back to the Fields tab.
11. Click the Run tab. Your query should return 12 records.
Now you will add an Outer join with the EG_TENURE_DATA table.

12. Click the **Records** tab.

13. Locate the **EG_TENURE_DATA** record.

14. Click the **Join Record** link. The select join type and record to join page displays.

Select join type and then record to join with EG_TENURE_DATA - Tenure Data.

- Join to filter and get additional fields (Standard Join)
- Join to get additional fields only (Left outer join)

15. Select the **Join to get additional fields only (Left outer join)** radio button in the Join Type group box.

16. Click the **A = JOB – EE Job History** link. The Auto Join Criteria page displays.

17. Click **Add Criteria**. This brings you to the Query tab.
18. Select the following fields from the **EG_TENURE_DATA** record:
   - **EG_ACADEMIC_RANK**
   - **TENURE_STATUS**

19. Click the **Run** tab. Your query should return 12 records with tenure data. Notice that you receive 10 rows with Academic Rank and Tenure Status, and 2 rows that are blank.

   Now that you have learned how to work with outer joins, you will do some exercises and then learn how to use aggregate functions.
Query Exercises 5, 6, and 7

Exercise 5

Create a new query to provide a list of employees in Department 0100101 with their Ethnic codes and descriptions.

1. Create a new query.
2. Select the JOB record.
3. Select the following fields from the JOB record:
   - EMPLID
   - DEPTID
   - POSITION_NBR
4. Save your query as XXX_EXERC5, where XXX are your initials.
5. Click the Fields tab.
6. Click the for the DEPTID field.
7. Enter the following criteria:
   - DEPTID = 1101300
8. Click the Records tab.
9. Enter DIVERSITY and click Search.
10. Click the Join Record link for the DIVERSITY record.
11. Select Standard Join to the JOB record.
12. Click on the A = JOB – EE Job History link.
13. Click Add Criteria.
14. Select the ETHNIC_GROUP field.
15. Click the Run tab. You should see 5 records.

   Notice that the Ethnic Group code displays. For a more meaningful report, you can view the Translate value for the Ethnic Group field instead of the code. To do this, follow these steps.
16. Click the Fields tab.
17. Click **Edit** for the Ethnic Group field.

18. Select **Long** in the Translate Value group box.

19. Click **OK**.

20. Click the **Run** tab. You will now see the Translate values for the Ethnic Group field.

21. Save your query.
Exercise 6

Create a new query to provide a list of employees who terminated between 09/01/2007 and 09/30/2007 with their Job Code and Job Title.

1. Create a new query.

2. Select the JOB record.

3. Select the following fields from the JOB record:
   - EMPLID
   - EFFDT
   - JOBCODE
   - ACTION
   - ACTION_REASON

4. Save your query as XXX_EXERC6, where XXX are your initials.

5. Click the Fields tab.

6. Click the for the ACTION field.

7. Enter the following criteria:
   - ACTION = TER

8. Click OK.

9. Click the for the EFFDT field.

10. Enter the following criteria:
    - EFFDT between 07/01/2007 and 07/31/2007

11. Click on the Query tab.

12. Click the Join JOBCODE_TBL – Job Codes link next to the JOBCODE field.


14. Select the DESCR field.

15. Click the Run tab. You should get 3 records.

16. Save your query.
Exercise 7

Create a new query to provide a list of Current Employees whose original Hire Date is between 01/01/2004 and 03/31/2004, and include their current benefit program plan.

1. Create a new query.
2. Select the EMPLOYEES record.
3. Select the following fields from the EMPLOYEE record:
   - EMPLID
   - ORIG_HIRE_DT
4. Save your query as XXX_EXERC7, where XXX are your initials.
5. Click the Fields tab.
6. Click the for the ORIG_HIRE_DT field.
7. Enter the following criteria:
   - ORIG_HIRE_DT between 01/01/2004 and 03/31/2004
8. Click the Records tab.
9. Enter BEN_PROG_PARTIC and click the Join Record link.
10. Select Standard Join to the EMPLOYEES record.
11. Click on the A = EMPLOYEES – Non terminated Employees link.
12. Click Add Criteria.
13. Select the BENEFIT_PROGRAM field.
14. Click the Run tab. You should get 3 records.
15. Save your query.
Using Aggregate Functions

An aggregate function is a special type of operator that returns a single value based on multiple rows of data. When your query includes one or more aggregate functions, PeopleSoft Query collects related rows and displays a single row that summarizes their contents. When you apply an aggregate function to a field, you’re redefining how PeopleSoft Query uses a field throughout the query. PeopleSoft Query replaces the field, wherever it occurs, with the results of the function. Below are the aggregate functions you can apply to a field using PeopleSoft Query:

- **Sum** Adds the values from each row and displays the total.
- **Count** Counts the number of rows.
- **Min** Checks the values from each row and returns the lowest one.
- **Max** Checks the value from each row and returns the highest one.
- **Average** Adds the value from each row and divides the results by the number of rows.
Using Aggregate Functions

In this example, you will create a new query to find the number of paychecks per pay period for each employee from 11/02/2007 through 11/16/2007.

1. Click on the **Create New Query** link.

2. Locate and select the PAY_CHECK table.

3. Select the following fields from the PAY_CHECK table:
   • PAYGROUP
   • EMPLID

4. Click the $ for PAY_END_DT. The Edit Criteria Properties page displays.

5. Change the Condition Type to **between**.

6. Enter **11/02/2007** in the Expression 2 Define Constant field.

7. Enter **11/16/2007** in the Expression 2 Define Constant 2 field.

8. Click **OK**. This brings you back to the Query tab.

9. Click the **Fields** tab.

10. Click the $ for PAYGROUP. The Edit Criteria Properties page displays.

11. Change the Condition Type to **in list**.

12. Click on the $ in the Expression 2 Edit List group box. An Edit List page displays.

13. Add **B06** and **B08** to the Edit List page.

14. Click **OK**. This brings you back to the Edit Criteria Properties page.
15. Click __OK__ This brings you back to the Fields tab.

16. Click __Edit__ for the EMPLID field. The Edit Field Properties page displays.

**Edit Field Properties**

**Field Name:** A.EMPLID - EmpID

<table>
<thead>
<tr>
<th>Heading</th>
<th>Aggregate</th>
</tr>
</thead>
<tbody>
<tr>
<td>○ No Heading</td>
<td>○ None</td>
</tr>
<tr>
<td>○ Text</td>
<td>○ Sum</td>
</tr>
<tr>
<td></td>
<td>○ Count</td>
</tr>
<tr>
<td></td>
<td>○ Min</td>
</tr>
<tr>
<td></td>
<td>○ Max</td>
</tr>
<tr>
<td></td>
<td>○ Average</td>
</tr>
</tbody>
</table>

17. Select the **Count** radio button in the Aggregate group box.

18. Click __OK__ This brings you back to the Fields tab.

19. Click the **Run** tab.

<table>
<thead>
<tr>
<th>Group</th>
<th>Count ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>54</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
</tr>
</tbody>
</table>

Now that you have learned how to use an aggregate function, you will learn how to validate the data calculated by the function.
Validating Data

When using aggregate functions, it is a good idea to validate that the data returned are what you are looking for. There are many factors that could cause the query to return results you are not wanting (duplicate rows, employee record numbers, dates, etc.) A good rule of thumb is to limit calculation queries to a small number of fields.

In our first example, note there are 8 total employees for the B08 paygroup. To validate, you can remove the Count function and verify the detail.

1. Click the **Fields** tab.
2. Click **Edit** for the EMPLID field. The Edit Field Properties page displays.

### Edit Field Properties

**Field Name:** A.EMPLID - EmplId

<table>
<thead>
<tr>
<th>Heading</th>
<th>Aggregate</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Heading</td>
<td>None</td>
</tr>
<tr>
<td>Text</td>
<td>Sum</td>
</tr>
<tr>
<td>RFT Short</td>
<td>Count</td>
</tr>
<tr>
<td>RFT Long</td>
<td>Min</td>
</tr>
<tr>
<td></td>
<td>Max</td>
</tr>
<tr>
<td></td>
<td>Average</td>
</tr>
</tbody>
</table>

3. Select the **None** radio button in the Aggregate group box.
4. Click **OK**. This brings you back to the Fields tab.
5. Click **Reorder / Sort**. The Edit Field Ordering page displays.
6. Enter the following in the New Order By fields:
   - 1 for PAYGROUP
   - 2 for EMPLID

7. Click OK. This brings you back to the Fields tab.

8. Click the Run tab.

   Note that there are duplicate EMPLIDs. These employees received more than one paycheck during the Pay Period End Date range you entered in your query.

9. Click on the Fields tab and save your query as XXX_TRAIN6, where XXX are your initials.