

Informatica Hands-on Session

Configure Domain and Add Repository

1. Open **POWERCENTER REPOSITORY MANAGER**
2. Click **Repository** in the main menu >> **Configure Domains**
3. Click **Add a new Domain** button
4. Give **Domain name, Gateway Host** and **Port number** >> **OK**
5. The repositories under this domain is listed in the right window >> **select the repository** >> **OK**
6. Right click the **REPOSITORY** in the left pane >> **Connect** >> **username** and **pwd** >> **CONNECT**
7. It's done

Repository manager

Adding folders to your REPOSITORY

After connecting your repository

1. Click **Folder** In the main menu
2. In the **Folder Properties** tab
 - a. Give the Folder name, Description
 - b. Select the **Owner** and **Group** form the list to which this folder belongs too
 - c. If you want to allow shortcuts to this folder **CHECK** Allow Shortcut option
 - d. Status should be **Active**
 - e. Provide READ/WRITE/EXECUTE access to **OWNER, OWNER'S GROUP users** and others who have access to this repository.
 - f. Click **OK**

CREATE GROUP and give privileges in your REPOSITORY (In Version 8.6 and above this section has been moved to ADMIN CONSOLE)

After connecting your repository

1. Click **SECURITY** >> **MANAGE USERS AND PRIVILEGES** in the main menu
2. Click **GROUPS** tab
3. Click ADD button in the left top (Below the X button)
4. Give Unique **GROUP NAME, Description** and **Contact Info**
5. Click ok
6. Go to **PRIVILEGES** tab
7. Click **LIST GROUPS** radio button (This will list all the groups in this Repository)
8. Provide the required access. (For example see Developer group which has only development task access)

Check the dependent jobs of a particular SOURCE object

After connecting your repository

1. **Double click** on your folder to expand
2. **Click on the Sources** folder (You will be able to see the Sources in main page)
3. **Right click on the Source object**
4. **Select workflows** (The object types you want to see)
5. Press **OK** to view the dependent jobs of this particular source.

Check for any object lock in this repository (In Version 8.6 and above this section has been moved to ADMIN CONSOLE)

After connecting your repository

1. Click **EDIT >> Show locks**
2. If Locks exists >> Click that particular record >> **END LOCK**

Check for active connections in this repository (In Version 8.6 and above this section has been moved to ADMIN CONSOLE)

After connecting your repository

1. Click **EDIT >> Show User Connections**

Mapping designer

Import flat file as your Source



Save the above file in your local system.

Open mapping designer tool, connect to your repository

1. **Right click** your folder and Open
2. Select **Source Analyzer** tab
3. **Click Sources** in the main menu
4. Select **Import from File** option
 - a. Select your source file (Import source definition window is opened)
 - b. Select **Delimited** option
 - c. Type a **unique name** for this source
 - d. Select **"Import Field names from first line"** option
 - e. Click **Next**
 - f. Select **Delimiters >> Others** type in Pipe symbol (Make sure to Uncheck all other delimiters)
 - g. Text qualifier should be **No quotes**
 - h. Give **Next**
 - i. **Select data type** and **column name** for all the columns
 - j. Click **Finish**

- k. **Ctrl + S**
5. It's done

Create a Target definition - Table (Oracle)

Make sure to have the table in Oracle before importing the table definition

```
CREATE TABLE <TABLE NAME>
(
  EMP_ID      NUMBER(3) ,
  EMP_NAME    VARCHAR2(11 CHAR) ,
  DOJ         Date ,
  DEPT_ID     NUMBER(5) ,
  SALARY      NUMBER(5) ,
  GRADE       VARCHAR2(2 CHAR)
)
```

Your designer tool should be open and connected to your repository, folder

1. Select **Target Designer** tab
2. Select **Target >> Import from Database** from the main menu
3. Select the **ODBC** name
4. Type In **User name** and **pwd**
5. **Expand** Table folder and **select** your Table
6. **Give OK** (Your Target table definition is created)
7. **Ctrl + S**

Develop a Mapping (File to Oracle Table)

Your designer tool should be open and connected to your repository, folder

Make sure your Source definition and Target definition are created.

1. Open **Mapping Designer** tab
2. **Drag Source Definition** from source folder to the mapping designer window
3. **Type in a mapping name** prefixed with 'm_' (make sure the name is unique)
You will be able to see a Source qualifier created with the Source definition, this is to qualify the source data type etc to Informatica standards.
4. **Drag Target definition** from Target folder to the mapping designer window
5. Now, you need to **MAP** the source columns to the target columns
6. **Ctrl + S**
7. You've created a mapping.

Workflow manager

Create a session for the above developed mapping

1. **Open Workflow manager** and **Connect to your repository, folder.**
2. Go to **Workflow Designer** tab
3. **Click Workflows >> Create** in the main menu
4. **Type a Workflow name**, ex. 'wkf' prefixed with mapping name
5. **Click OK** (You can see a Start task in the workflow designer window)
6. Now **Click Tasks >> Create** in the main menu
7. **Select SESSION** and **Type a Session name**, ex. 's' prefixed with your mapping name.
8. Press **Create** button
9. **Select your mapping** from the list of mappings available in the window and press **OK** and **Done**
10. **Go to Tasks >> Link Task**
11. **Click on the START task** and **drag it to your SESSION task.**
12. **Right click your SESSION** and press **EDIT**
13. **Go to Mapping tab**
14. **Click 'SQ source' instance** - Your source file definition
15. On the properties tab, **Type the Source file directory path** and **source file name** (**Make sure the source file is placed at the mentioned path**)
16. **Click the Target instance,**
17. On the connections tab, **select the target Native relational connection.**
18. On the **properties tab**, make sure to change the following -
 - a. Target load type - Normal
 - b. Table name prefix - Your Oracle table schema name
19. **Press Apply and Ok**
20. **Ctrl + S (to save the workflow)**

Run a workflow through workflow manager

1. **Open Workflow manager** and **Connect to your repository, folder.**
2. Open your workflow
3. **Go to Workflow >> Start workflow**

Workflow monitor

Check the status of the executed workflow in Monitor

1. **Open Workflow Monitor** and **Connect to your repository, Integration services and open your folder.**
2. You will be able to see the list of running workflows.
3. **Right click your Session** (beneath your workflow) >> **Get Run Properties** and In the Task Details (Bottom window) you will be to see the start and end time of the job, success records etc.
4. Verify the same with your Oracle table.

Transformations

EMPLOYEE

EMP_ID	EMP_NAME	DOJ	DEPT_ID	SALARY	GRADE
101	Arun, K	12-Oct-2003	10001	25000	PA
102	Aakash, M	01-Oct-2005	10002	20000	PA
103	Philip, J	05-Jan-2009	10003	25550	PA
104	John, A	04-Feb-2003	10004	45000	SA
105	Kishore, O	12-Mar-2001	10005	32000	A
106	Millan, P	14-Apr-2002	10001	23000	PA
107	Srikanth, Y	15-May-2003	10003	24000	PA
108	Samy, L	16-Jun-2004	10005	35000	A
109	Ricky, P	17-Jul-2005	10004	45000	SA

DEPARTMENT

DEPT_ID	DEPT_NM
10001	BFS
10002	HC
10003	LS
10004	Retail
10005	Manlog

Transformations

1. Expression
2. Filter
3. Sorter
4. Aggregator
5. Lookup

Expression transformation:

Note: You are going to convert the **DOJ** in string format to **DATE** format

1. In the Mapping Designer, **open a mapping**.
2. Click **Transformation > Create**. Select **Expression transformation**.
3. Enter a name and click **Done**.
4. Select and drag the ports from the source qualifier or other transformations to add to the Expression transformation.
5. You can also open the transformation and create ports manually.
 - a. Create a port 'o_DOJ', Datatype should be DATE/TIME
 - b. Make it as OUTPUT port
 - c. Click the Expression window

- d. Type TO_CHAR(<INPUT_FIELD>,<DATE FORMAT>) ex. **to_date**(DOJ,'dd-mon-yyyy')
- e. Click **VALIDATE >> OK >> APPLY**
- f. Close the Edit transformation window
6. **MAP** the **output ports to the respective downstream port** (from the **EXPRESSION** Transformation, **port o_DOJ**) to a next transformation or target.
7. **Ctrl + S**
8. **Refresh** and **Validate** the session in the Workflow manager
9. **Ctrl + S**
10. **Run** the workflow

Filter transformation:

Note: You are going insert the records with **DEPT_ID = 10001**

1. In the Mapping Designer, **open a mapping**.
2. Click **Transformation > Create**. Select **Filter transformation**.
3. Enter a name for the transformation. Click **Create** and then click **Done**.
4. Select and **drag all** the ports from a source qualifier or other transformation to add them to the Filter transformation.
5. **Double-click** on the title bar and click on Ports tab. You can also manually create ports within the transformation.
6. Click the **Properties** tab to configure the filter condition and tracing level.
7. In the Value section of the filter condition, open the **Expression Editor**.
8. Enter the **filter condition** you want to apply. The default condition returns TRUE.
9. Use values from one of the input ports in the transformation as part of this condition.
10. Enter an expression. Click Validate to verify the syntax of the conditions you entered.
 - a. ex. **DEPT_ID=10001**
 - b. Click **VALIDATE >> OK >> APPLY**
11. **Connect** the **output ports** (from the **FILTER** Transformation) to a downstream transformation or target.
12. **Ctrl + S**
13. **Refresh** and **Validate** the session in the Workflow manager
14. **Ctrl + S**
15. **Run** the workflow

Sorter transformation:

Note: You are going insert the records into the table sorted by **EMP_ID Descending order**

1. In the **Mapping Designer**, click **Transformation > Create**. Select the **Sorter transformation**.
2. Enter a name for the Sorter and click **Create**.
The Designer creates the Sorter transformation.
3. Click **Done**.
4. **Drag the ports** into the Sorter transformation.
The Designer creates the input/output ports for each port you include.

5. Double-click the title bar of the transformation to open the **Edit Transformations** dialog box.
6. **Select the Ports tab.**
7. **Select the ports** you want to use as the **sort key**. (ex. **EMP_ID**)
8. For each port selected as part of the sort key, specify whether you want the Integration Service to sort data in ascending or descending order. (ex. **Descending order**)
9. Select the Properties tab, modify the Sorter transformation properties. (if any, like select only distinct Records)
10. Click **OK**.
11. **Map the ports** to the downstream transformation.
12. **Ctrl + S**
13. **Refresh** and **Validate** the session in the Workflow manager
14. **Ctrl + S**
15. **Run** the workflow

Aggregator transformation:

Note: You are going to find out the SUM (SALARY) Group by DEPT and insert it into the target table. Before starting the below instruction make sure you have the below mentioned table created in your Database, and the target definition has been imported in your folder in mapping designer

```
CREATE TABLE SUM_DEPT_<YOUR ID>
(
  DEPT_ID    NUMBER(5),
  SALARY     NUMBER(5)
);
```

1. In the **Mapping Designer**, click **Transformation > Create**. Select the **Aggregator transformation**.
2. Enter a name for the **Aggregator**, click **Create**. Then click **Done**.
The Designer creates the Aggregator transformation.
3. **Drag the ports (DEPT_ID and SALARY)** to the **Aggregator transformation** from the expression or Source qualifier transformation.
4. **Double-click** the title bar of the transformation to open the Edit Transformations dialog box.
5. Select the Ports tab.
6. **Click the group by option** for each column you want the Aggregator to use in creating groups. (ex. **DEPT_ID**)
Optionally, enter a default value to replace null groups.
7. Click **Add** to add an expression port. (**Name it as 'SUM_SALARY'**)
The expression port must be an output port. Make the port an output port by clearing Input (I).
8. **Open the Expression window** type the expression. (ex. **sum(SALARY)**)
 - a. Click **VALIDATE >> OK >> APPLY**

9. **Connect** the **output ports** (from the **Aggregator** Transformation) to a downstream transformation or target. (The output ports should be **DEPT_ID** and **SUM_SALARY**)
10. **Ctrl + S**
11. **Refresh** the session in the Workflow manager
12. Define the **Relational connection** for the **new target instance**.
13. **Ctrl + S** the Workflow and **Validate** the workflow
14. **Run** the workflow

Lookup transformation:

Note: Create a new column in your target table DEPT_NM.

Using DEPT_ID in your source, you need to pull out the DEPT_NM from the lookup table DEPARTMENT

DEPT_ID	DEPT_NM
10001	BFS
10002	HC
10003	LS
10004	Retail
10005	Manlog

Before starting the below instructions please make sure to create the below mentioned tables in your database and import new target definition in your mapping designer –

```
CREATE TABLE EMPLOYEE_DEPT_165603 -- new target table
(
    EMP_ID      NUMBER(3),
    EMP_NAME    VARCHAR2(11 CHAR),
    DOJ         Date,
    DEPT_ID     NUMBER(5),
    SALARY      NUMBER(5),
    GRADE       VARCHAR2(2 CHAR),
    DEPARTMENT  VARCHAR2(11 CHAR)
);
```

```
CREATE TABLE DEPARTMENT_165603 -- lookup table
(
    DEPT_ID NUMBER(5),
    DEPT_NM  VARCHAR2(11 CHAR)
);
```

```
INSERT INTO DEPARTMENT_165603 VALUES (10001, 'BFS');
INSERT INTO DEPARTMENT_165603 VALUES (10002, 'HC');
INSERT INTO DEPARTMENT_165603 VALUES (10003, 'LS');
INSERT INTO DEPARTMENT_165603 VALUES (10004, 'Retail');
INSERT INTO DEPARTMENT_165603 VALUES (10005, 'Manlog');
```

1. To create a Lookup transformation, **open a mapping** in the Mapping Designer.
2. **Click Transformation > Create**. Select the **Lookup transformation**.
3. Enter a name for the transformation. Click **OK**.

4. In the **Select Lookup** Table dialog box, choose one of the following options for the lookup source:
Source definition from the repository.
Target definition from the repository.
Source qualifier from the mapping.
Import a relational table or file from the repository.
(In our case, you need to Import the new lookup table which has been created. Table name `DEPARTMENT_<your id>`)
5. **Double click** the Lookup transformation and **Go to Ports tab**.
6. **Create a new input** port 'in_DEPT_ID'; make sure the Data_type, precision and scale are as per the database table.
7. **Go to Conditions tab, Create the condition** as DEPT_ID = in_DEPT_ID
8. **Give Apply** and **OK**
9. **Map** the Source **DEPT_ID** (Or Previous transformation) to **in_DEPT_ID** port in the lookup transformation.
10. **MAP** the **DEPT_NM** in the lookup transformation to the **DEPT_NM** in the **TARGET** with other ports mapped to your target from the source.
11. **Ctrl + S** the mapping
12. Go to **Workflow manager, Refresh the SESSION**, and set the **RELATIONAL CONNECTION** for the **LOOKUP TABLE** and to your new **TARGET TABLE**.
13. Ctrl + S your workflow.
14. Run your workflow.

Try to create the following transformation!!!

1. Sequence generator
2. Rank transformation
3. Router
4. Joiner
5. Update strategy
6. Union
7. Stored procedure

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