Oracle Database Express Edition

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CPCS241

lab4

Managing Tables
Modifying an existing Table

- Adding a Column To a Table
- Modifying a Column In a Table
- Dropping a Column From a Table
- Adding a Check Constraint
- Adding a Unique Constraint
- Adding a Primary Key Constraint
- Adding a Foreign Key Constraint
- Viewing Existing Constraints

To edit a table:

- On the Database Home Page, click the Object Browser icon.
- Object Browser appears.
- From the Object list, select Tables.
- From the Object Selection pane, select a table.
- The table description appears.
- Click the appropriate button described in the next slide.

Edit Table Buttons

- Add Column :Adds a new column to the table. Enter a column name and select a type.
- Modify Column : Modifies the selected column.
- Rename Column :Renames the selected column.
- Drop Column :Drops the selected column.
- Rename :Renames the selected table.
- Copy :Copies the selected table.
- Drop :Drops the selected table.
- Truncate :Removes all rows from the selected table.
- Create Lookup Table :Creates a lookup table based on the column you select. That column becomes a foreign key to the lookup table.

Adding a Column To a Table

- On the Database Home Page, click the Object Browser icon.
- In the Object list, select Tables and then click on the table that you want.
- Click Add Column.
- Enter the column name. The column can be NULL or NOT and The datatype.
- Click the Next button.
- Click the Finish button to complete the action.
- NOTE: YOU CAN MODIFY AND DELETE COLUMN AND DROPE TABLE BY THE SAME WAY

Adding Constraints

You can use Object Browser to add a constraint to a table after it has been created., you might want to add check, unique ,Primery Key ,Forign Key)
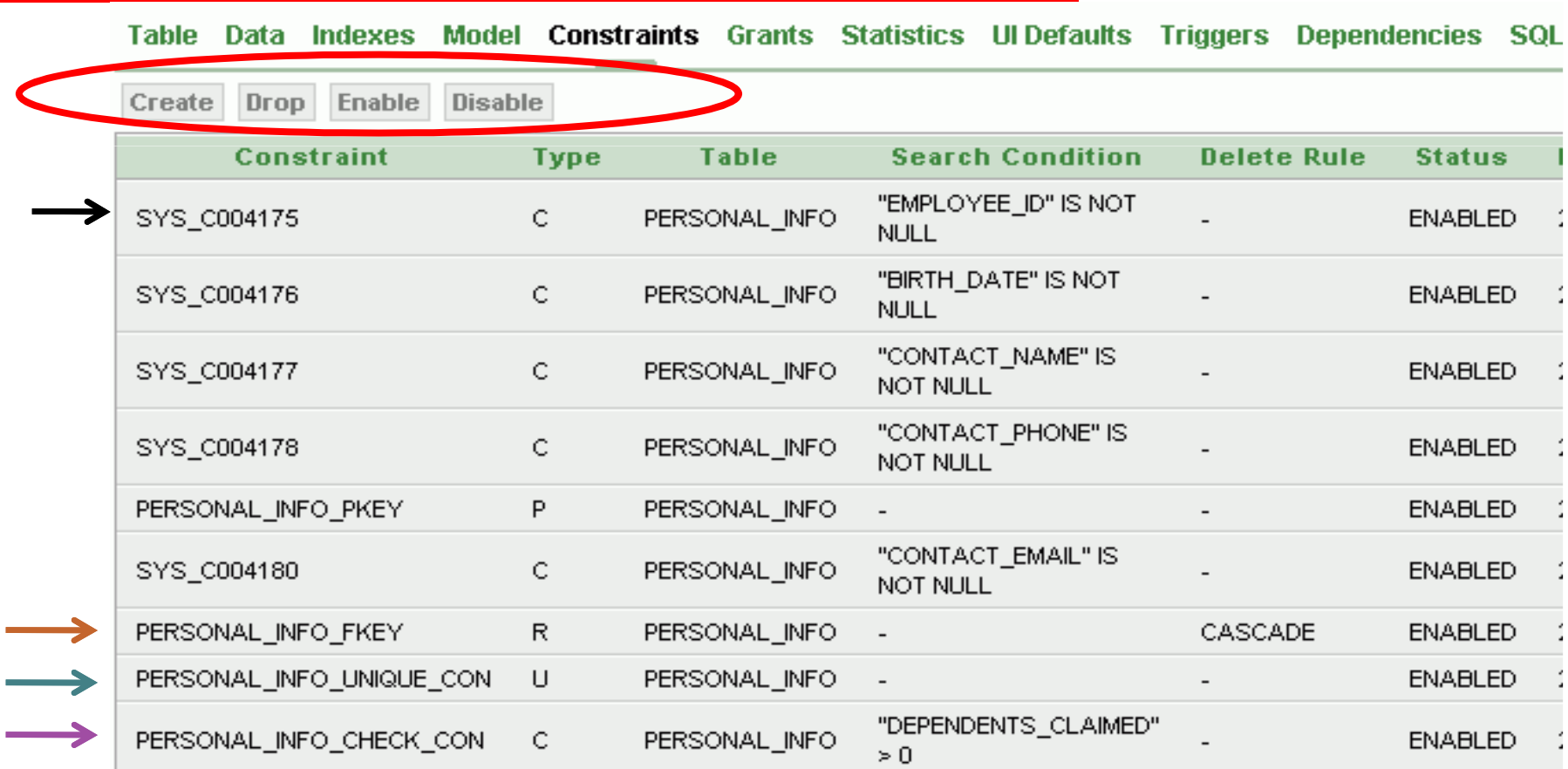
To add a constraint:

- On the Database Home Page, click the Object Browser icon.
- In the Object list, select Tables then click the table that you previously created.
- Click the Constraints tab.
- Click the Create button.
- From the field Constraint TypeYou can choose (check, unique , Primery Key ,Forign Key)

Add Constraint

| | Cancel | Next > |

Schema: **HR**
Table: **PERSONAL_INFO**

* Constraint Name `PERSONAL_INFO_CHECK_CON`

☐ Preserve Case

Constraint Type `Check ▼`

* Constraint on Column: `DEPENDENTS_CLAIMED (NUMBER) ▼`

* Constraint Expression

`> 0`

Viewing Existing Constraints

- On the Database Home Page, click the Object Browser icon.
- In the Object list, select Tables then click the desired table
- Click the Constraints tab to view a list of the constraints on the table and information about the constraints.
- NOTE: you can Drop ,Enable and Disable constraints.

Adding (insert)Data to a Table

- On the Database Home Page, click the Object Browser icon.
- In the Object list, select Tables then click the desired table.
- Click Data --→Click the Insert Row button.
- On the Create Row page, enter the data ..(the values must conform to any constraints on the table).
- Note : you can Remove row or modify data by the same way .

Ex: employee_id value must match a value in the employee_id column of the employees table

Create Row		Cancel	Create	Create and Create Another

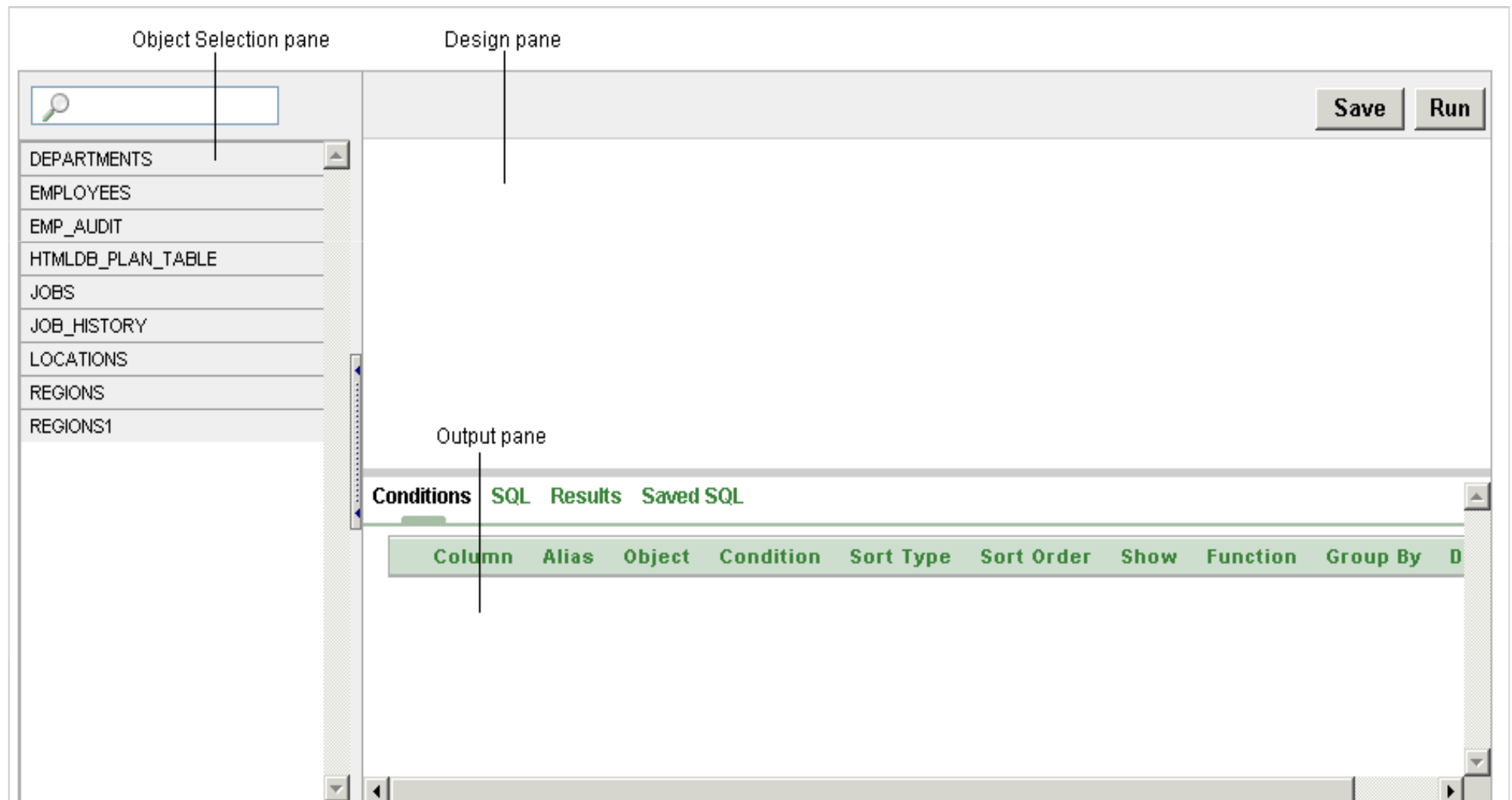| Table:	PERSONAL_INFO
* Employee Id	142
* Birth Date	01-SEP-65
* Social Security Id	555-11-4444
Marital Status	Married
Dependents Claimed	4
* Contact Name	Marilyn Davies
* Contact Phone	15552229999
Contact Email	marilyn.davies@mycompany.com

Building Queries with Query Builder

Query Builder's graphical user interface enables database developers to build SQL queries without the need for manual SQL coding. Using Query Builder, you can search and filter database objects, select objects and columns, create relationships between objects, view formatted query results, and save queries with little or no SQL knowledge.

Query Builder Page

On the Database Home Page, click the SQL icon. Click the Query
Builder icon.

the Query Building Process

To build a query in Query Builder, you perform the following steps:

- Select and Add objects to the Design pane and select columns.
- Establish relationships between objects.
- Create query conditions.
- Execute the query and view results.
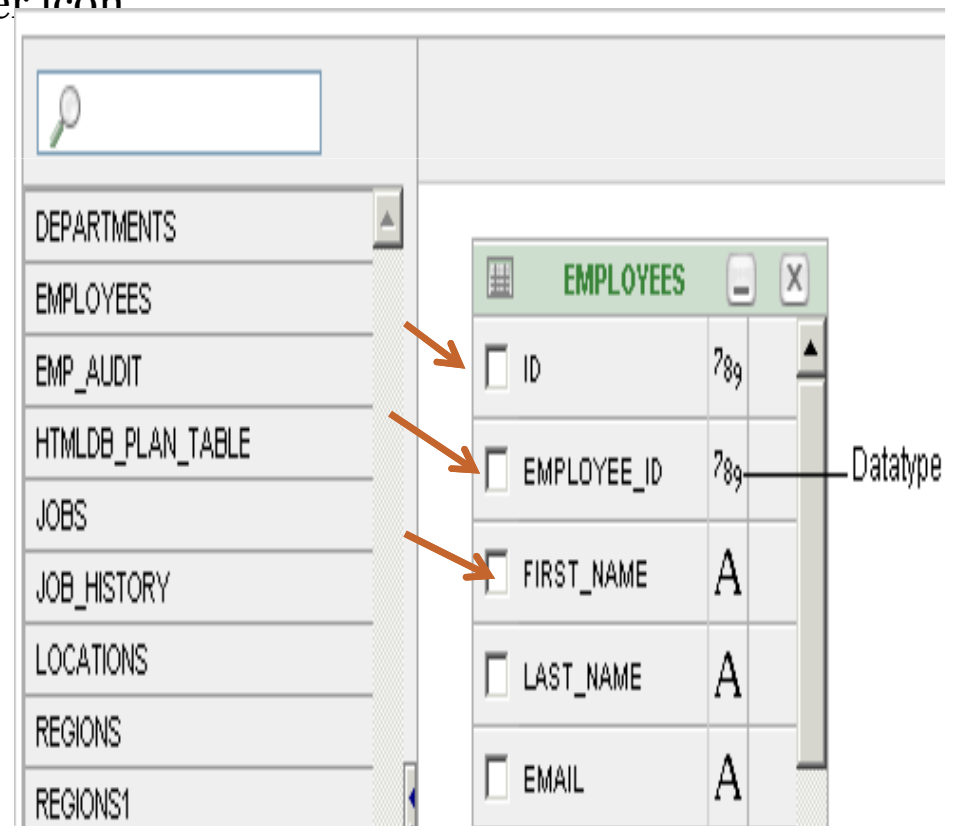
the Query Building Process

- You may only select a maximum of 60 columns for each query.
- The following column types are not selectable and cannot be included in a generated query:BLOB/NCLOB/RAW/LONG/LONG RAW/XMLType

Adding an Object to the Design Pane

- click the SQL icon -> Click the Query Builder icon.
- Query Builder appears.
- Select an object from the Object Selection pane, it will appear on right side.

Select the columns to be included in your query by clicking the check box to the left of the column name.

- To execute the query and view results , click Run.

Specifying Query Conditions

When you select a column to be added in a query , it appears as a separate row in the Conditions view

- Up and Down ArrowsControls the order that the columns to be displayed in the resulting query.
- Column:Displays the column name.
- Alias: Specify an optional column alias. An alias is an alternative column name.
- Condition: Specify a condition for the column.The condition you enter modifies the query's WHERE clause. Ex: >=10
- Select a sort type. Ascending (Asc)/ Descending (Desc)
- Sort Order: Enter a number (1, 2, 3, and so on) to specify the order in which selected columns should display.
- Show: Select this check box to include the column in your query results. You do not need to select Show if you need to add a column to the query for filtering only..
- For the deptno column, in Condition enter =10 and uncheck the Show check box.
- Function: Select an argument function. Available functions include:
- Group By: Specify columns to be used for grouping when an aggregate function is used. Only applicable for columns included in output.
- Delete: Deselect the column, excluding it from the query.

By this lab :

- ✓ Using Edit tables buttons and Adding constraints .
- ✓ Building queries (Part 1).

Now :

1. Complete building tables and add constraints for (student project database).
2. Practice building queries on that database.