# Practices for Lesson 12: Introduction to Data Dictionary Views

Before you Begin Practice 12: Using SQL Developer

Before You Begin Practice 12:

Perform the following steps before you begin the tasks in this practice if needed.

Use the oraenv command to verify or set the environment variable for the orclcdb database. Open a terminal window and at the prompt enter:

$ . oraenv

$ ORACLE\_SID= [orclcdb] ? <ENTER>

The Oracle base remains unchanged with the value /u01/app/oracle

$

Use the dbstart.sh script to start the orclcdb database and listener.

$ . dbstart.sh

…

Connected to an idle instance SQL> ORACLE instance started

…

Database mounted Database opened

…

$

Before you Begin Practice 12: Using SQL Developer

Tasks

Start SQL Developer by using the desktop icon.

Create a database connection by using the following information:

Connection Name: myconnection

Username: ora21

Password: Enter the password from the “Course Practice Environment: Security Credentials” document.

Hostname: localhost

Port: 1521

Service Name: PDBORCL

Test the new connection. If the status is Success, connect to the database by using this new connection.

Click the Test button in the New/Select Database Connection window.

If the status is Success, click the Connect button.

Browse the structure of the EMPLOYEES table and display its data.

Expand the myconnection connection by clicking the plus sign next to it.

Expand the Tables icon by clicking the plus sign next to it.

Display the structure of the EMPLOYEES table.

View the data in the DEPARTMENTS table.

Execute some basic SELECT statements to query the data in the EMPLOYEES table in the SQL Worksheet area. Use both the Run Statement (or press F9) and the Run Script (or press F5) icons to execute the SELECT statements. Review the results of both methods of executing the SELECT statements on the appropriate tabbed pages.

Write a query to select the last name and salary for any employee whose salary is less than or equal to $3,000.

Write a query to display the last name, job ID, and commission for all employees who are entitled to receive a commission.

Set your script pathing preference to /home/oracle/labs/sql2.

Select Tools > Preferences > Database > Worksheet.

Enter the value in the “Select default path to look for scripts” field.

Enter the following in the Enter SQL Statement box:

Save the SQL statement to a script file by using the File > Save menu item.

Select File > Save.

Name the file intro\_test.sql.

Place the file in your /home/oracle/labs/sql2/labs folder.

Open and run confidence.sql from your /home/oracle/labs/sql2/labs folder, and observe the output.

Practices for Lesson 12: Overview

Practice overview

This practice covers the following topics:

Querying the dictionary views for table and column information

Querying the dictionary views for constraint information

Adding a comment to a table and querying the dictionary views for comment information

Practice 12-1: Introduction to Data Dictionary Views

Overview

In this practice, you query the dictionary views to find information about objects in your schema.

Tasks

Query the USER\_TABLES data dictionary view to see information about the tables that you own.

**…**

Query the ALL\_TABLES data dictionary view to see information about all the tables that you can access. Exclude the tables that you own.

**Note:** Your list may not exactly match the following list:

…

For a specified table, create a script that reports the column names, data types, and data types’ lengths, as well as whether nulls are allowed. Prompt the user to enter the table name. Give appropriate aliases to the DATA\_PRECISION and DATA\_SCALE columns. Save this script in a file named lab\_12\_03.sql.

For example, if the user enters DEPARTMENTS, the following output results:

Create a script that reports the column name, constraint name, constraint type, search condition, and status for a specified table. You must join the USER\_CONSTRAINTS and USER\_CONS\_COLUMNS tables to obtain all this information. Prompt the user to enter the table name. Save the script in a file named lab\_12\_04.sql.

For example, if the user enters DEPARTMENTS, the following output results:

Add a comment to the DEPARTMENTS table. Then query the USER\_TAB\_COMMENTS view to verify that the comment is present.

Run the lab\_02\_06\_tab.sql script as a prerequisite for exercises 6 through 9. Alternatively, open the script file to copy the code and paste it into your SQL Worksheet. Then execute the script. This script:

Drops the existing DEPT2 and EMP2 tables

Creates the DEPT2 and EMP2 tables

Confirm that both the DEPT2 and EMP2 tables are stored in the data dictionary.

Confirm that the constraints were added, by querying the USER\_CONSTRAINTS view. Note the types and names of the constraints.

Display the object names and types from the USER\_OBJECTS data dictionary view for the

EMP2 and DEPT2 tables.

Solution 12-1: Introduction to Data Dictionary Views

Solution

Query the USER\_TABLES data dictionary view to see information about the tables you own.

Query the ALL\_TABLES data dictionary view to see information about all the tables that you can access. Exclude tables that you own.

For a specified table, create a script that reports the column names, data types, and data types’ lengths, as well as whether nulls are allowed. Prompt the user to enter the table name. Give appropriate aliases to the DATA\_PRECISION and DATA\_SCALE columns. Save this script in a file named lab\_12\_03.sql.

To test, run the script and enter DEPARTMENTS as the table name.

Create a script that reports the column name, constraint name, constraint type, search condition, and status for a specified table. You must join the USER\_CONSTRAINTS and USER\_CONS\_COLUMNS tables to obtain all this information. Prompt the user to enter the table name. Save the script in a file named lab\_12\_04.sql.

To test, run the script and enter DEPARTMENTS as the table name.

Add a comment to the DEPARTMENTS table. Then query the USER\_TAB\_COMMENTS view to verify that the comment is present.

Run the lab\_12\_06\_tab.sql script as a prerequisite for exercises 6 through 9. Alternatively, open the script file to copy the code and paste it into your SQL Worksheet. Then execute the script. This script:

Drops the DEPT2 and EMP2 tables

Creates the DEPT2 and EMP2 tables

Confirm that both the DEPT2 and EMP2 tables are stored in the data dictionary.

Query the data dictionary to find out the constraint names and types for both the tables.

Display the object names and types from the USER\_OBJECTS data dictionary view for the

EMP2 and DEPT2 tables.