# Practices for Lesson 11: Introduction to Data Definition Language

Practices for Lesson 11: Overview

Lesson Overview

This practice covers the following topics:

Creating new tables

Creating a new table by using the CREATE TABLE AS syntax

Verifying that tables exist

Altering tables

Adding columns

Dropping columns

Setting a table to READ ONLY status

Dropping tables

**Note:** Before starting this practice, execute the

/home/oracle/labs/sql1/code\_ex/cleanup\_scripts/cleanup\_11.sql script.

Practice 11-1: Introduction to Data Definition Language

Overview

In this practice, you create new tables by using the CREATE TABLE statement. Confirm that the new table was added to the database. You also learn to set the status of a table as READ ONLY, and then revert to READ WRITE. You use the ALTER TABLE command to modify table columns.

Notes

For all DDL and DML statements, click the Run Script icon (or press F5) to execute the query in SQL Developer. Thus, you get to see the feedback messages on the Script Output tabbed page. For SELECT queries, continue to click the Execute Statement icon or press F9 to get the formatted output on the Results tabbed page.

Execute the cleanup\_11.sql script from

/home/oracle/labs/sql1/code\_ex/cleanup\_scripts/cleanup\_11.sql

before performing the following tasks.

Tasks

Create the DEPT table based on the following table instance chart. Save the statement in the lab\_11\_01.sql script, and then execute the statement in the script to create the table. Confirm that the table is created.

Create the EMP table based on the following table instance chart. Save the statement in the lab\_11\_02.sql script, and then execute the statement in the script to create the table. Confirm that the table is created.

Modify the EMP table. Add a COMMISSION column of the NUMBER data type, with precision 2 and scale 2. Confirm your modification.

Modify the EMP table to allow for longer employee last names. Confirm your modification.

Drop the FIRST\_NAME column from the EMP table. Confirm your modification by checking the description of the table.

In the EMP table, mark the DEPT\_ID column as UNUSED. Confirm your modification by checking the description of the table.

Drop all of the UNUSED columns from the EMP table.

Create the EMPLOYEES2 table based on the structure of the EMPLOYEES table. Include only the EMPLOYEE\_ID, FIRST\_NAME, LAST\_NAME, SALARY, and DEPARTMENT\_ID columns.

Name the columns in your new table ID, FIRST\_NAME, LAST\_NAME, SALARY, and

DEPT\_ID, respectively. Confirm that the table is created.

Alter the status of the EMPLOYEES2 table to READ ONLY.

Try to delete all rows in the EMPLOYEES2 table.

**Note:** You will get the “Update operation not allowed on table” error message. You will not be allowed to delete data from the table because it is assigned a READ ONLY status.

Revert the EMPLOYEES2 table to the READ WRITE status. Now try to truncate the rows again.

Now, because the table is assigned a READ WRITE status, you will be allowed to truncate rows in the table.

You should get the following messages:

Drop the EMP, DEPT, and EMPLOYEES2 table.

Solution 11-2: Introduction to Data Definition Language

Create the DEPT table based on the following table instance chart. Save the statement in a script called lab\_11\_01.sql, and then execute the statement in the script to create the table. Confirm that the table is created.

To confirm that the table was created and to view its structure, issue the following command:

Create the EMP table based on the following table instance chart. Save the statement in a script called lab\_11\_02.sql, and then execute the statement in the script to create the table. Confirm that the table is created.

To confirm that the table was created and to view its structure:

Modify the EMP table. Add a COMMISSION column of the NUMBER data type, with precision 2 and scale 2. Confirm your modification.

Modify the EMP table to allow for longer employee last names. Confirm your modification.

Drop the FIRST\_NAME column from the EMP table. Confirm your modification by checking the description of the table.

In the EMP table, mark the DEPT\_ID column as UNUSED. Confirm your modification by checking the description of the table.

Drop all of the UNUSED columns from the EMP table.

Create the EMPLOYEES2 table based on the structure of the EMPLOYEES table. Include only the EMPLOYEE\_ID, FIRST\_NAME, LAST\_NAME, SALARY, and DEPARTMENT\_ID columns.

Name the columns in your new table ID, FIRST\_NAME, LAST\_NAME, SALARY, and

DEPT\_ID, respectively. Confirm that the table is created.

Alter the EMPLOYEES2 table status to READ ONLY.

Try to delete all rows in the EMPLOYEES2 table.

**Note:** You will get the “Update operation not allowed on table” error message. You will not be allowed to delete data from the table because it is assigned a READ ONLY status.

Revert the EMPLOYEES2 table to the READ WRITE status. Now try to truncate the rows again.

Now, because the table is assigned a READ WRITE status, you will be allowed to truncate rows in the table.

Drop the EMP, DEPT, and EMPLOYEES2 table.

**Note:** You can even drop a table that is in the READ ONLY status. To test this, alter the table again to READ ONLY status, and then issue the DROP TABLE command. The tables will be dropped.