# Practices for Lesson 10: Manipulating Data

Practices for Lesson 10: Overview

Lesson Overview

This practice covers the following topics:

Inserting rows into tables

Updating and deleting rows in a table

Controlling transactions

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

/home/oracle/labs/sql1/code\_ex /cleanup\_scripts/cleanup\_10.sql script.

Practice 10-1: Managing Tables by Using DML Statements

Overview

The HR department wants you to create SQL statements to insert, update, and delete employee data. As a prototype, you use the MY\_EMPLOYEE table before giving the statements to the HR department.

Notes

For all DML statements, use the Run Script icon (or press F5) to execute the query. You can see the feedback messages on the Script Output tabbed page. For SELECT queries, continue to use the Execute Statement icon or press F9 to get the formatted output on the Results tabbed page.

Execute the cleanup\_10.sql script from /home/oracle/labs/sql1/code\_ex

/cleanup\_scripts/ before performing the following tasks.

Tasks

Run the lab\_10\_01.sql script from /home/oracle/labs/sql1/labs/ to create the MY\_EMPLOYEE table. Describe the structure of the MY\_EMPLOYEE table to identify the column names.

Create an INSERT statement to add the *first row* of data to the MY\_EMPLOYEE table from the following sample data. Do not list the columns in the INSERT clause. *Do not enter all rows yet.*

Populate the MY\_EMPLOYEE table with the second row of the sample data from the preceding list. This time, list the columns explicitly in the INSERT clause.

Confirm your addition to the table.

Write an INSERT statement in a dynamic reusable script file to load the next two rows of sample data into the MY\_EMPLOYEE table. The script should prompt for all the columns (ID, LAST\_NAME, FIRST\_NAME, USERID, and SALARY). Save this script to a lab\_10\_06.sql file.

Populate the table with the next two rows of the sample data listed in step 3 by running the

INSERT statement in the script that you created.

Confirm your additions to the table.

Make the data additions permanent.

Update and delete data in the MY\_EMPLOYEE table.

Change the last name of employee 3 to Drexler.

Change the salary to $1,000 for all employees who have a salary less than $900.

Verify your changes to the table.

Delete Betty Dancs from the MY\_EMPLOYEE table.

Confirm your changes to the table.

Commit all pending changes.

Control the data transaction to the MY\_EMPLOYEE table.

Populate the table with the last row of the sample data listed in step 3 by using the statements in the script that you created in step 6. Run the statements in the script.

**Note:** Perform the steps (17-23) in one session only.

Confirm your addition to the table.

Mark an intermediate point in the processing of the transaction.

Delete all the rows from the MY\_EMPLOYEE table.

Confirm that the table is empty.

Discard the most recent DELETE operation without discarding the earlier INSERT operation.

Confirm that the new row is still intact.

Make the data addition permanent.

If you have time, complete the following exercise:

Modify the lab\_10\_06.sql script such that the USERID is generated automatically by concatenating the first letter of the first name and the first seven characters of the last name. The generated USERID must be in lowercase. Therefore, the script should not prompt for the USERID. Save this script to a file named lab\_10\_24.sql.

Run the lab\_10\_24.sql script to insert the following record:

Confirm that the new row was added with the correct USERID.

Solution 10-1: Managing Tables by Using DML Statements

Insert data into the MY\_EMPLOYEE table.

Run the lab\_10\_01.sql script from /home/oracle/labs/sql1/labs/ to create the MY\_EMPLOYEE table. Describe the structure of the MY\_EMPLOYEE table to identify the column names.

Create an INSERT statement to add the first row of data to the MY\_EMPLOYEE table from the following sample data. Do not list the columns in the INSERT clause. *Do not enter all rows yet.*

Populate the MY\_EMPLOYEE table with the second row of the sample data from the preceding list. This time, list the columns explicitly in the INSERT clause.

Confirm your additions to the table.

Write an INSERT statement in a dynamic reusable script file to load the next two rows of sample data into the MY\_EMPLOYEE table. The script should prompt for all the columns (ID, LAST\_NAME, FIRST\_NAME, USERID, and SALARY). Save this script to a file named lab\_10\_06.sql.

Populate the table with the next two rows of the sample data listed in step 3 by running the

INSERT statement in the script that you created.

Confirm your additions to the table.

Make the data additions permanent.

Update and delete data in the MY\_EMPLOYEE table.

Change the last name of employee 3 to Drexler.

Change the salary to $1,000 for all employees with a salary less than $900.

Verify your changes to the table.

Delete Betty Dancs from the MY\_EMPLOYEE table.

Confirm your changes to the table.

Commit all pending changes.

Control the data transaction to the MY\_EMPLOYEE table.

Populate the table with the last row of the sample data listed in step 3 by using the statements in the script that you created in step 6. Run the statements in the script.

**Note:** Perform the steps (17-23) in one session only.

Confirm your addition to the table.

Mark an intermediate point in the processing of the transaction.

Delete all the rows from the MY\_EMPLOYEE table.

Confirm that the table is empty.

Discard the most recent DELETE operation without discarding the earlier INSERT operation.

Confirm that the new row is still intact.

Make the data addition permanent.

If you have time, complete the following exercise:

Modify the lab\_10\_06.sql script such that the USERID is generated automatically by concatenating the first letter of the first name and the first seven characters of the last name. The generated USERID must be in lowercase. The script should, therefore, not prompt for the USERID. Save this script to a file named lab\_10\_24.sql.

Run the lab\_10\_24.sql script to insert the following record:

Confirm that the new row was added with the correct USERID.