Department of Information Systems and Technologies

CTIS259 Database Management Systems and Applications

2025 – 2025 Fall Semester

Lab Guide 13

Instructor : Nimet Ceren SERİM **Week:** 9

Assistant : Engin Zafer KIRAÇBEDEL, Hatice Zehra YILMAZ **Date:** 13-14.11.2025

Aim of this lab session: **1.** Manipulating Data (Add, Delete, Update)
2. Controlling Transactions (Commit, Savepoint, Rollback)

ORACLE Server Configurations:

IP Address: 139.179.33.231

Port number: 1522

SID: orclctis

Please USE oraxx accounts!

Practices for Lesson 10

Lesson Overview

In this practice, you add rows to the `MY_EMPLOYEE` table, update and delete data from the table, and control your transactions. You run a script to create the `MY_EMPLOYEE` table.

Practice 10-1: Manipulating Data

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.

Note: For all the DML statements, use the Run Script icon (or press [F5]) to execute the query. This way you get to 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.

Insert data into the MY_EMPLOYEE table.

1. Run the statement in the `lab_10_01.sql` script to build the `MY_EMPLOYEE` table used in this practice.

2. Describe the structure of the `MY_EMPLOYEE` table to identify the column names.

```
DESCRIBE my_employee
Name       Null     Type
---------- -------- ------------
ID         NOT NULL NUMBER(4)
LAST_NAME           VARCHAR2(25)
FIRST_NAME          VARCHAR2(25)
USERID              VARCHAR2(8)
SALARY              NUMBER(9,2)
```

3. 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.*

ID	LAST_NAME	FIRST_NAME	USERID	SALARY
1	Patel	Ralph	rpatel	895
2	Dancs	Betty	bdancs	860
3	Biri	Ben	bbiri	1100
4	Newman	Chad	cnewman	750
5	Ropeburn	Audrey	aropebur	1550

4. 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.

5. Confirm your addition to the table.

	ID	LAST_NAME	FIRST_NAME	USERID	SALARY
1	1	Patel	Ralph	rpatel	895
2	2	Dancs	Betty	bdancs	860

6. Write an `INSERT` statement in a dynamic reusable script file to load the remaining rows 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.

7. 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.

8. Confirm your additions to the table.

	ID	LAST_NAME	FIRST_NAME	USERID	SALARY
1	1	Patel	Ralph	rpatel	895
2	2	Dancs	Betty	bdancs	860
3	3	Biri	Ben	bbiri	1100
4	4	Newman	Chad	cnewman	750

9. Make the data additions permanent.

Update and delete data in the MY_EMPLOYEE table.

10. Change the last name of employee 3 to Drexler.

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

12. Verify your changes to the table.

	ID	LAST_NAME	FIRST_NAME	USERID	SALARY
1	1	Patel	Ralph	rpatel	1000
2	2	Dancs	Betty	bdancs	1000
3	3	Drexler	Ben	bbiri	1100
4	4	Newman	Chad	cnewman	1000

13. Delete Betty Dancs from the `MY_EMPLOYEE` table.

14. Confirm your changes to the table.

	ID	LAST_NAME	FIRST_NAME	USERID	SALARY
1	1	Patel	Ralph	rpatel	1000
2	3	Drexler	Ben	bbiri	1100
3	4	Newman	Chad	cnewman	1000

15. Commit all pending changes.

Control data transaction to the MY_EMPLOYEE table.

16. 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.

17. Confirm your addition to the table.

	ID	LAST_NAME	FIRST_NAME	USERID	SALARY
1	1	Patel	Ralph	rpatel	1000
2	3	Drexler	Ben	bbiri	1100
3	4	Newman	Chad	cnewman	1000
4	5	Ropeburn	Audrey	aropebur	1550

18. Mark an intermediate point in the processing of the transaction.

19. Delete all the rows from the `MY_EMPLOYEE` table.

20. Confirm that the table is empty.

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

22. Confirm that the new row is still intact.

	ID	LAST_NAME	FIRST_NAME	USERID	SALARY
1	1	Patel	Ralph	rpatel	1000
2	3	Drexler	Ben	bbiri	1100
3	4	Newman	Chad	cnewman	1000
4	5	Ropeburn	Audrey	aropebur	1550

23. Make the data addition permanent.

24. 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`.

25. Run the `lab_10_24.sql` script to insert the following record:

ID	LAST_NAME	FIRST_NAME	USERID	SALARY
6	Anthony	Mark	manthony	1230

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

	ID	LAST_NAME	FIRST_NAME	USERID	SALARY
1	6	Anthony	Mark	manthony	1230