EXERCISE-2

MANIPULATING DATA

OBJECTIVE

After, the completion of this exercise the students will be able to do the following

- Describe each DML statement
- Insert rows into tables
- Update rows into table
- Delete rows from table
- Control Transactions

A DML statement is executed when you:

- Add new rows to a table
- Modify existing rows
- Removing existing rows

A transaction consists of a collection of DML statements that form a logical unit of work.

To Add a New Row

INSERT Statement

Syntax

INSERT INTO table_name VALUES (column1 values, column2 values, …, columnn values);

Example:

INSERT INTO department (70, ‘Public relations’, 100,1700);

Inserting rows with null values

Implicit Method: (Omit the column)

INSERT INTO department VALUES (30,’purchasing’);

Explicit Method: (Specify NULL keyword)

INSERT INTO department VALUES (100,’finance’, NULL, NULL);

Inserting Special Values

Example:

Using SYSDATE

INSERT INTO employees VALUES (113,’louis’, ‘popp’, ‘lpopp’,’5151244567’,**SYSDATE**, ‘ac_account’, 6900, NULL, 205, 100);

Inserting Specific Date Values

Example:

```
INSERT INTO employees VALUES ( 114,'den', 'raphealy', 'drapheal', '5151274561',
TO_DATE('feb 3,1999','mon, dd ,yyyy'), 'ac_account', 11000,100,30);
```

To Insert Multiple Rows

& is the placeholder for the variable value

Example:

```
INSERT INTO department VALUES (&dept_id, &dept_name, &location);
```

Copying Rows from another table

- Using Subquery

Example:

```
INSER INTO sales_reps(id, name, salary, commission_pct)
                    SELECt employee_id, Last_name, salary, commission_pct
FROM employees
WHERE jod_id LIKE '%REP');
```

CHANGING DATA IN A TABLE

UPDATE Statement

Syntax1: (to update specific rows**)**

```
UPDATE table_name SET column=value WHERE condition;
```

Syntax 2: (To updae all rows)

```
UPDATE table_name SET column=value;
```

Updating columns with a subquery

```
UPDATE employees
SET job_id= (SELECT job_id
FROM employees
WHERE employee_id=205)
WHERE employee_id=114;
```

REMOVING A ROW FROM A TABLE

DELETE STATEMENT

Syntax

```
DELETE FROM table_name WHERE conditions;
```

Example:

```
       DELETE FROM department WHERE dept_name='finance'';
```

Find the Solution for the following:

1. Create MY_EMPLOYEE table with the following structure

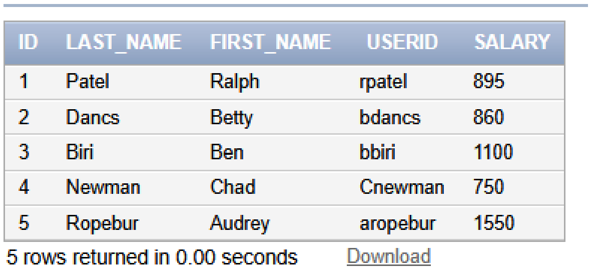
NAME	NULL?	TYPE
ID	Not null	Number(4)
Last_name		Varchar(25)
First_name		Varchar(25)
Userid		Varchar(25)
Salary		Number(9,2)

2. Add the first and second rows data to MY_EMPLOYEE table from the following sample data.

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	Ropebur	Audrey	aropebur	1550

3. Display the table with values.

```
Select * from MY_EMPLOYEE
```

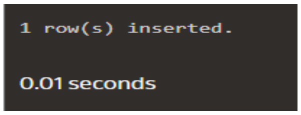


ID	LAST_NAME	FIRST_NAME	USERID	SALARY
1	Patel	Ralph	rpatel	895
2	Dancs	Betty	bdancs	860
3	Biri	Ben	bbiri	1100
4	Newman	Chad	Cnewman	750
5	Ropebur	Audrey	aropebur	1550

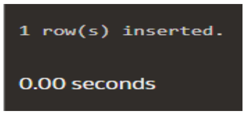
5 rows returned in 0.00 seconds Download

4. Populate the next two rows of data from the sample data. Concatenate the first letter of the first_name with the first seven characters of the last_name to produce Userid.

```
INSERT INTO MY_EMPLOYEE
VALUES
   (6,'Jason','Chadwick','cjason', 350),
   (7,'Dan','Kishore','kdan',950) ;
```

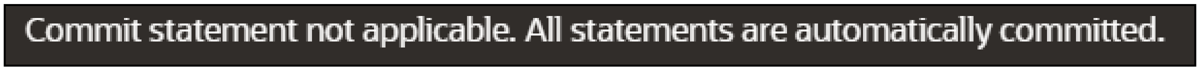


```
1 row(s) inserted.

0.01 seconds
```



```
1 row(s) inserted.

0.00 seconds
```

5. Make the data additions permanent.

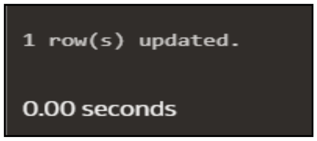


Commit statement not applicable. All statements are automatically committed.

```
commit;
```

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

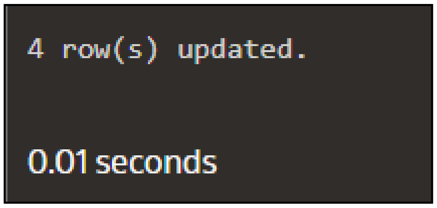
```
update MY_EMPLOYEE
SET last_name='Drexler'
Where ID=3;
```



```
1 row(s) updated.

0.00 seconds
```

7. Change the salary to 1000 for all the employees with a salary less than 900.

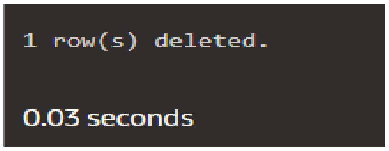
```
update MY_EMPLOYEE
SET salary=1000
Where salary<900;
```



```
4 row(s) updated.

0.01 seconds
```

8. Delete Betty dancs from MY _EMPLOYEE table.

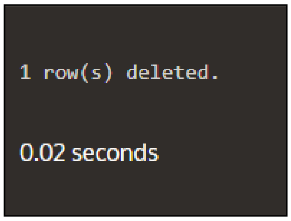
```
DELETE from MY_EMPLOYEE
where first_name='Betty'
AND last_name='Dancs';
```



```
1 row(s) deleted.

0.03 seconds
```

9. Empty the fourth row of the emp table.

```
DELETE FROM MY_EMPLOYEE
where id = ( SELECT ID FROM MY_EMPLOYEE
             ORDER BY ID
             offset 3 rows
             fetch next 1 rows only)
```



```
1 row(s) deleted.

0.02 seconds
```

Evaluation Procedure	Marks awarded
Query(5)	
Execution (5)	
Viva(5)	
Total (15)	
Faculty Signature	