

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:

```
INSERT INTO sales_reps(id, name, salary, commission_pct)  
SELECT employee_id, Last_name, salary, commission_pct  
FROM employees  
WHERE job_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	Dances	Betty	bdances	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;
```

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(1, "Patel", "Ralph",  
"rpatel", 895);  
insert into MY-EMPLOYEE values(2, "Dances", "Betty", "bdanc", 860);
```

5. Make the data additions permanent.

```
BEGIN TRANSACTION  
(insert all Rows)  
COMMIT;
```

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

```
update MY-EMPLOYEE Set last_name = "Drexler"  
where ID = 3;
```


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;
```

8. Delete Betty dances from MY_EMPLOYEE table.

```
delete from MY_EMPLOYEE where first_name =  
"dances";
```

9. Empty the fourth row of the emp table.

```
Delete from emp where ID = 4;  
Delete from emp where id = (Select id from  
employees order by id LIMIT 1 OFFSET 3);
```

Evaluation Procedure	Marks awarded
Query(5)	5
Execution (5)	5
Viva(5)	5
Total (15)	15
Faculty Signature	<u>Pran</u>