

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 ,yyy'), '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

Syntax 1: (to update specific rows)

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

Syntax 2: (To update 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)

Create table employee [

*id Number(4) Not null, last-name Varchar(25),
first-name varchar(25), userid Varchar(25), salary
Number(9,2), Constraint pk-employee-id PRIMARY KEY(id)*

);

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

Insert All

into employees (id, last_name, first_name, userid, salary) values

3. Display the table with values.

*(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)*

*Select * FROM dual;*

3. Display the table with values:

*Select * From 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 All

into employee (id, last_name, first_name, userid, salary)

values (6, 'Smith', 'John', concat(substr('John', 1, 1), substr('Smith', 1, 7)), 1200)

into employee (id, last_name, first_name, userid, salary)

values (7, 'Williams', 'Alice', concat(substr('Alice', 1, 1), substr('Williams', 1, 7)), 950)


*Select * From dual;*

5. Make the data additions permanent.

commit;

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

*Update 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 employee

Set salary = 1000

Where salary < 900;

8. Delete Betty dances from MY_EMPLOYEE table.

Delete from employee

Where first-name = 'Betty' AND last-name = 'Dances';

9. Empty the fourth row of the emp table.

Delete from employee where id = 4;

Evaluation Procedure	Marks awarded
Query(5)	5
Execution (5)	5
Viva(5)	5
Total (15)	15
Faculty Signature	<i>D.P.L.</i> 8/9/25