

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 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)

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
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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	