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Experiment No. 4

Title: DML statements
Objective: To study select, from, where clauses & update, delete, insert statements.

Theory:

DML Statements:

DML is an abbreviation of **Data Manipulation Language**.

The DML commands in Structured Query Language change the data present in the SQL database. We can easily access, store, modify, update and delete the existing records from the database using DML commands.

Four main DML commands in SQL:

1. SELECT Command
2. INSERT Command
3. UPDATE Command
4. DELETE Command

1. SELECT Command:

SELECT is the most important data manipulation command in Structured Query Language. The SELECT command shows the records of the specified table. It also shows the particular record of a particular column by using the WHERE clause.

Syntax: SELECT columnlist from tablename [where condition] ;

2. INSERT Command

INSERT is another most important data manipulation command in Structured Query Language, which allows users to insert data in database tables.

Syntax: Insert into tablename [(column1, … , column n)] values (value1, …. , value n);

3. UPDATE Command:

UPDATE is another most important data manipulation command in Structured Query Language, which allows users to update or modify the existing data in database tables.

Syntax: update tablename set column1= new value[,column2 = new value,….][where condition];

4. DELETE Command :

DELETE is a DML command which allows SQL users to remove single or multiple existing recordsfrom the database tables.

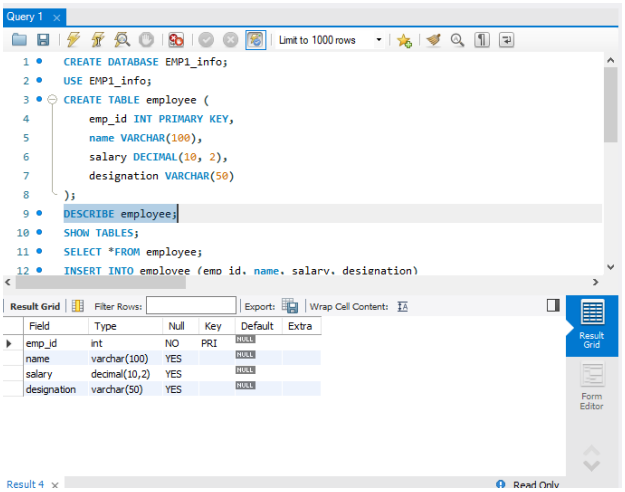
This command of Data Manipulation Language does not delete the stored data permanently from

the database. We use the WHERE clause with the DELETE command to select specific rows from the table.

Syntax: delete [from] tablename [where condition];

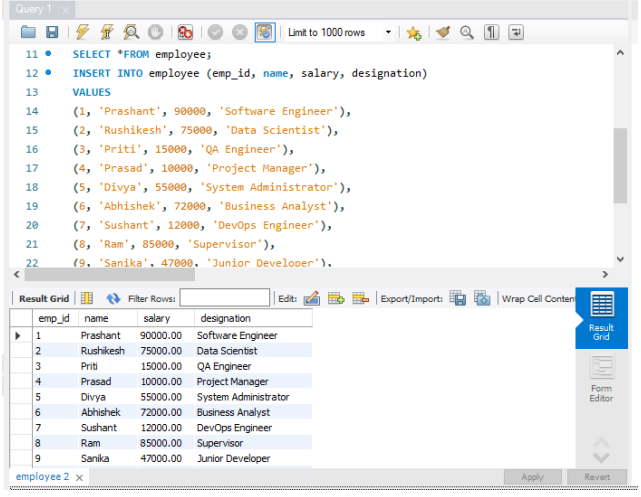
Consider the following schema
employee(emp_id, name, salary, designation)

```
CREATE TABLE employee (
    emp_id INT PRIMARY KEY,
    name  VARCHAR(100),
    salary DECIMAL(10, 2),
    designation VARCHAR(50)
);
```



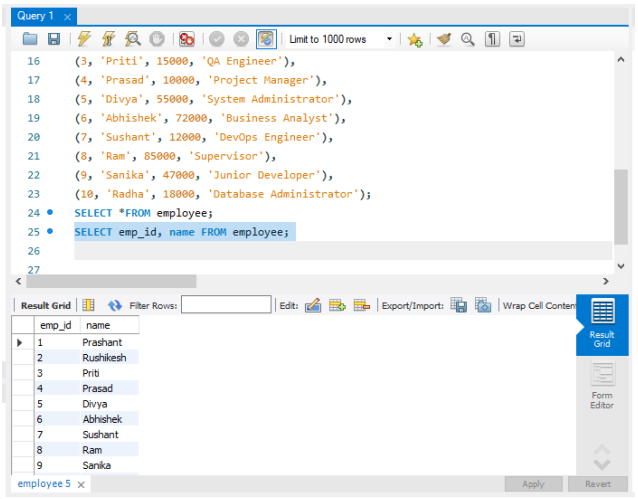
1. Insert at least 10 records with meaningful data.

```
INSERT INTO employee (emp_id, name, salary, designation)
VALUES
(1, 'Prashant', 90000, 'Software Engineer'),
(2, 'Rushikesh', 75000, 'Data Scientist'),
(3, 'Priti', 15000, 'QA Engineer'),
(4, 'Prasad', 10000, 'Project Manager'),
(5, 'Divya', 55000, 'System Administrator'),
(6, 'Abhishek', 72000, 'Business Analyst'),
(7, 'Sushant', 12000, 'DevOps Engineer'),
(8, 'Ram', 85000, 'Supervisor'),
(9, 'Sanika', 47000, 'Junior Developer'),
(10, 'Radha', 18000, 'Database Administrator');
```



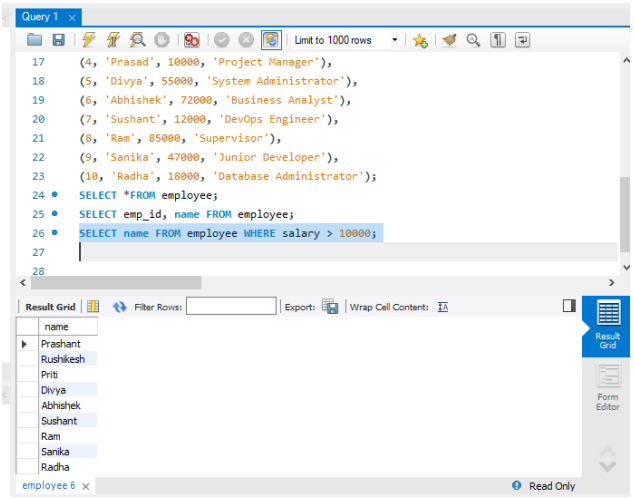
2. Find the name of the employee along with their id.

SELECT emp_id, name FROM employee;



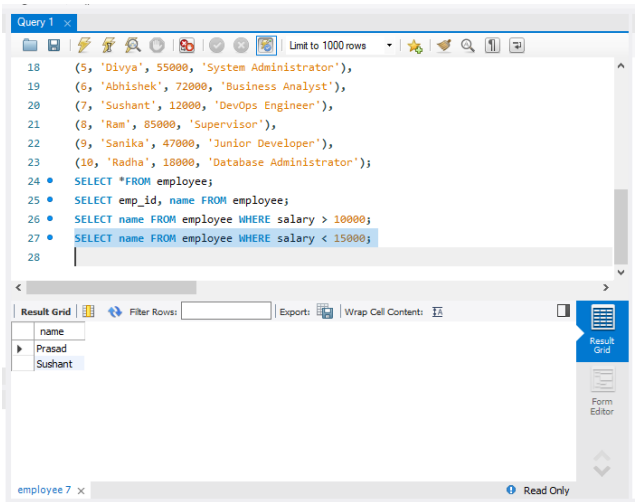
3. Find name of the employees whose salary is >10,000.

SELECT name FROM employee WHERE salary > 10000;



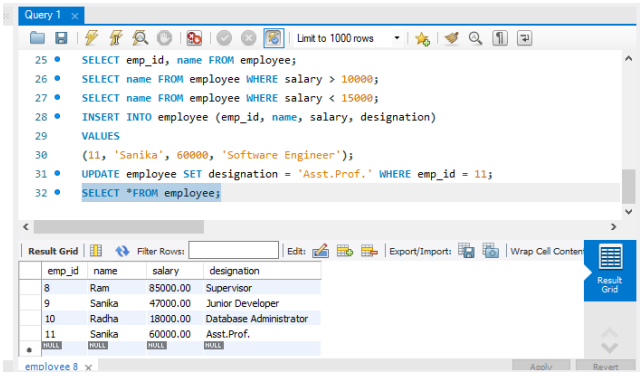
4.Find name of the employees whose salary is <15,000.

SELECT name FROM employee WHERE salary < 15000;



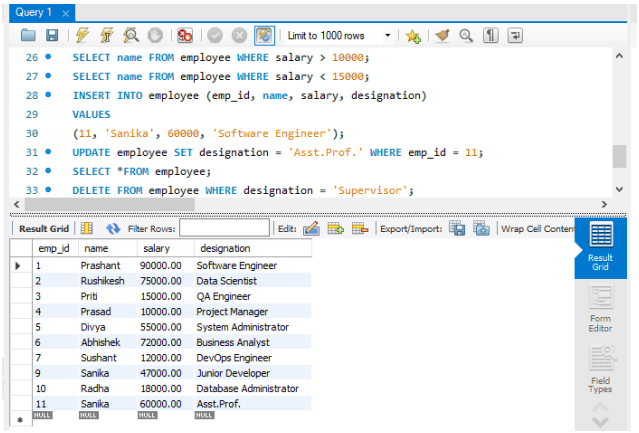
5. Update designation of employee 11 to ‘Asst.Prof.’

UPDATE employee SET designation = 'Asst.Prof.' WHERE emp_id = 11;



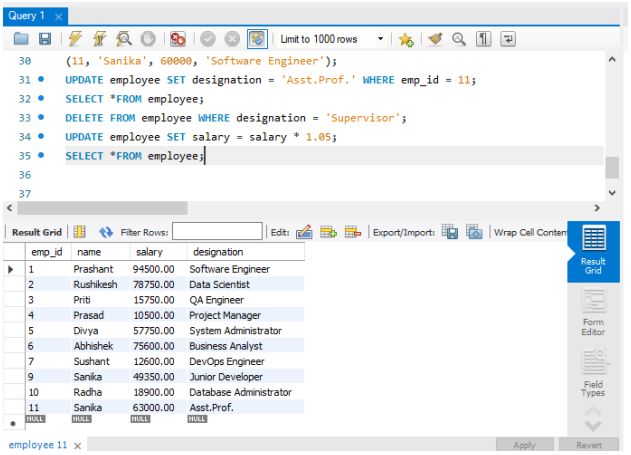
6. Delete the employees having designation supervisor.

DELETE FROM employee WHERE designation = 'Supervisor';



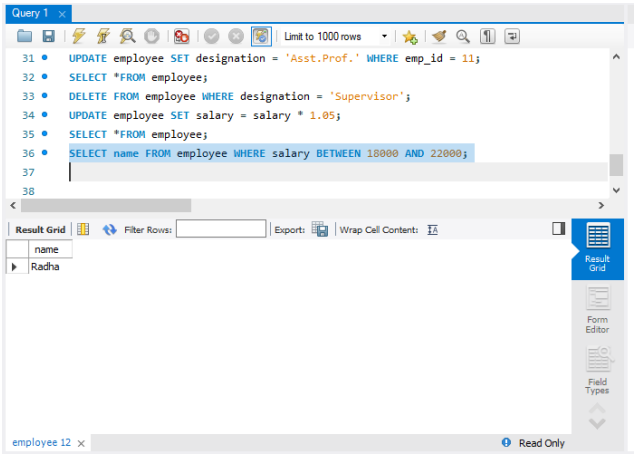
7. Increment the salary of employees by 5%.

UPDATE employee SET salary = salary * 1.05;



8.Find the name of employees having salary between 18000 and 22000.

SELECT name FROM employee WHERE salary BETWEEN 18000 AND 22000;



Outcome: Students are able to manipulate the database using DML statements.