

Assignment 3

Roll No : 31147

Problem Statement :

Design at least 10 SQL queries for suitable database application using SQL DML statements: Insert, Select, Update, delete with operators, function and set operators.

Objectives :

- 1) Understand MySQL database
- 2) Understand the DML statements in MySQL
- 3) Handle data in terms of tables.

Outcomes :

- 1) Should be able to SELECT, INSERT, UPDATE & DELETE Data from tables.
- 2) Understand clauses like where, Between, In and operators.

S/W And H/W Requirements :

- 1) Operating System (Windows/Ubuntu)
- 2) MySQL

Theory :

1) Insert Statements

i) INSERT INTO table_name
VALUES (column1D, column2D);

ii) INSERT INTO table_name (column1, column2, ...)
VALUES (column1D, column2D, ...);

D denotes data.

2) SELECT Statement :

i) SELECT * FROM table_name;

ii) SELECT column1, column2, ... FROM table_name;

3) UPDATE statement

i) UPDATE table-name

SET column-name = 'value'

WHERE column-name2 = 'New Value';

4) DELETE statement:

i) DELETE FROM table-name

WHERE condition;

ii) DELETE FROM table-name;

Insert statement is used to enter data into the tables.

Select statements are used for retrieving the data from tables.

Update statements are used to update the values already available in the tables given a particular condition.

Delete statement is used to delete data from tables (rows) given a particular condition.

Queries Performed with clause and operators:

1) LIKE operator:

Combined with WHERE clause it is used to search specific pattern.

% - It represents zero or more characters.

_ - It represents a single character.

2) DISTINCT keyword:

It is used to find distinct values in a particular column.

3) WHERE clause:

It is used to extract information based on a particular condition.

4) OR operator:

It fulfils the condition if at least one of all conditions is true.

5) AND operator:
 True if all the conditions mentioned are true.

6) IN operator:
 It is a optional OR where it check if values is in a particular set.

7) ORDER BY Clause:
 It is used to order in a sorted orders either in ascending or descending.

Test Cases :-

1) Display all customer details with city pune and mumbai and customer first name starting with 'p' or 'h'

Answer

```
SELECT *
FROM customer
WHERE (city='Pune' OR city='Mumbai') AND (cust_name LIKE 'p%'
OR cust_name LIKE 'h%');
```

2) Find the book having maximum price and find titles of book showing price between 300 and 400.

→

```
SELECT title
FROM books
WHERE price IN (SELECT max(price) * FROM books
WHERE price BETWEEN 300 AND 400);
```

Conclusion:

Implemented the insertion, updation & deletion of data from table. learnt to use nested queries and various operators as well.