SQL LAB -3

UPDATE AND SELECT COMMAND

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Lab 1. For this assignment, please use the same tables created in your previous lab session.

Task 1: Update the Student table with the following information:

Change the email to 'jane_Smith@example.com'

Where FirstName is 'Jane' and LastName is 'Smith';

Update the Instructor with the following information:

```
mysql> UPDATE Student
    -> SET FirstName = 'Jane', LastName = 'Smith', Email = 'jane_Smith@example.com'
    -> WHERE StudentID = 101;
Query OK, 1 row affected (0.06 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> select* from student;
+-----------+-----------+----------+-------------+--------+-----------------------+------------+
| StudentID | FirstName | LastName | DateOfBirth | Gender | Email                 | Phone      |
+-----------+-----------+----------+-------------+--------+-----------------------+------------+
|       101 | Jane      | Smith    | 2000-01-01  | Male   | jane_Smith@example.com | 9876543210 |
|       102 | Ishitha   | Iyer     | 2001-02-02  | Female | Ishitha@gmail.com      | 9123456789 |
|       103 | Raman     | Bhalla   | 2002-03-03  | Male   | Bhalla@gmail.com       | 9282726252 |
|       104 | Ruhi      | Khan     | 2003-04-04  | Female | Ruhi@gmail.com         | 9325649871 |
|       105 | Vidyuth   | Sahay    | 2004-05-05  | Male   | Vidyuth@gmail.com      | 9563214789 |
+-----------+-----------+----------+-------------+--------+-----------------------+------------+
5 rows in set (0.00 sec)
```

Change the email to 'rogerwhite@example.com'

Where FirstName of the instructor is 'Roger' and LastName is 'White';

```
mysql> UPDATE Instructor
    -> SET FirstName = 'Roger', LastName = 'White', Email = 'rogerwhite@example.com'
    -> WHERE InstructorID = 301;
Query OK, 1 row affected (0.06 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> select* from instructor;
+--------------+-----------+----------+-----------------------------+
| InstructorID | FirstName | LastName | Email                       |
+--------------+-----------+----------+-----------------------------+
|          301 | Roger     | White    | rogerwhite@example.com      |
|          302 | Marie     | Curie    | marie.curie@example.com     |
|          303 | Isaac     | Newton   | isaac.newton@example.com    |
|          304 | Charles   | Darwin   | charles.darwin@example.com  |
|          305 | Alan      | Turing   | alan.turing@example.com     |
+--------------+-----------+----------+-----------------------------+
5 rows in set (0.00 sec)
```

Task 2:

Delete record from the Student table on following condition:

Delete student/students records from the Student table where last name is Smith.

Cannot delete or update a parent row

Task 3: List the student whose first name starts with J.

Submission: Create an SQL script file containing your solutions for all tasks (queries). Name the file "lab_assignment1.sql" Provide comments above each query to indicate the task number and the query's purpose

```
mysql> SELECT * FROM Student
    -> WHERE FirstName LIKE 'J%';
+-----------+-----------+----------+-------------+--------+---------------------+------------+
| StudentID | FirstName | LastName | DateOfBirth | Gender | Email               | Phone      |
+-----------+-----------+----------+-------------+--------+---------------------+------------+
|       101 | Jane      | Smith    | 2000-01-01  | Male   | jane_Smith@example.com | 9876543210 |
+-----------+-----------+----------+-------------+--------+---------------------+------------+
1 row in set (0.00 sec)
```

Lab 2.Database Schema:

Consider a simple database with one tables: Employee

Employee Table:

- **Columns: emp_id (Primary Key), first_name, last_name, age, email**

Task 1: Insert Data

Write an SQL INSERT statement to insert data into the Employee table.

```
mysql> create table employee(
    -> emp_id int primary key,
    -> firstname varchar(30) not null,
    -> lastname varchar(30) not null,
    -> age int not null,
    -> email varchar(30) not null unique);
Query OK, 0 rows affected (0.11 sec)

mysql> describe employee;
+-----------+-------------+------+-----+---------+-------+
| Field     | Type        | Null | Key | Default | Extra |
+-----------+-------------+------+-----+---------+-------+
| emp_id    | int         | NO   | PRI | NULL    |       |
| firstname | varchar(30) | NO   |     | NULL    |       |
| lastname  | varchar(30) | NO   |     | NULL    |       |
| age       | int         | NO   |     | NULL    |       |
| email     | varchar(30) | NO   | UNI | NULL    |       |
+-----------+-------------+------+-----+---------+-------+
5 rows in set (0.00 sec)
```

```
mysql> insert into employee
    -> values(1,'aadhya','singh',20,'aadhya20@gmail.com'),
    -> (2,'laxman','pandya',25,'laxmanp@gmail.com'),
    -> (3,'hrithik','roshan',24,'hrithikro@gmail.com');
Query OK, 3 rows affected (0.01 sec)
Records: 3  Duplicates: 0  Warnings: 0
```

Task 2: Retrieving Data

Write an SQL SELECT statement to retrieve the first_name and last_name of all employees from the Employee table.

```
mysql> select firstname,lastname from employee;
+-----------+----------+
| firstname | lastname |
+-----------+----------+
| aadhya    | singh    |
| laxman    | pandya   |
| hrithik   | roshan   |
+-----------+----------+
3 rows in set (0.00 sec)
```

Task 3: Filtering Data

Write an SQL SELECT statement to retrieve the first_name, last_name, and age of employees who are older than 30 years.

```
mysql> select firstname,lastname from employee
    -> where age>30;
Empty set (0.00 sec)
```

Because no data has a age entry >30.

Task 4: Updating Data

Write an SQL UPDATE statement to increase the age of employees by 1 year for all employees older than 25.

```
mysql> update employee
    -> set age=age+1
    -> where age>25;
Query OK, 0 rows affected (0.00 sec)
Rows matched: 0  Changed: 0  Warnings: 0

mysql> select*from employee;
+--------+-----------+----------+-----+---------------------+
| emp_id | firstname | lastname | age | email               |
+--------+-----------+----------+-----+---------------------+
|      1 | aadhya    | singh    |  20 | aadhya20@gmail.com  |
|      2 | laxman    | pandya   |  25 | laxmanp@gmail.com   |
|      3 | hrithik   | roshan   |  24 | hrithikro@gmail.com |
+--------+-----------+----------+-----+---------------------+
3 rows in set (0.00 sec)
```

Since the given age of every data is less than 25 it did not get updated.

ChatGPT Exercise

Using ChatGPT generates SQL queries to update the Employee salary.

Scenario:

Due to a pricing adjustment, the company decided to increase the salary of all employees by 10%. Create an SQL update query to apply this change selectively to employees with a specific job title, say 'Manager'

To update the salary of employees with a specific job title, such as 'Manager', by increasing it by 10%, you can use the following SQL UPDATE statement:

UPDATE Employee

SET salary = salary * 1.1

WHERE job_title = 'Manager';

This statement updates the salary column of the Employee table, multiplying it by 1.1 (which increases it by 10%) for all employees whose job_title is 'Manager'.

Make sure to replace Employee with the actual name of your table if it's different.

After executing this statement, the salary of all employees with the job title 'Manager' will be increased by 10%.