

SQL MODULE

LAB – 3

BY

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Questions

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:

Change the email to 'rogerwhite@example.com'

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

Task 2:

Delete record from the Student table on following condition:

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

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.

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.

Task 2: Retrieving Data

Write an SQL SELECT statement to retrieve the first_name and last_name of all

employees from the Employee table.

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.

Task 4: Updating Data

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

employees older than 25.

Submission:

Create an SQL script file containing your solutions for all tasks (queries). Name the

file "lab_assignment2.sql" Provide comments above each query to indicate the

task number and the query's purpose.

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'

Solutions:

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:

Change the email to 'rogerwhite@example.com'

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

```
mysql> update student
-> set FirstName = 'Jane', LastName = 'Smith', Email = 'jane_Smith@example.com'
-> where StudentID = 5;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from student;
+-----+-----+-----+-----+-----+-----+-----+
| StudentID | FirstName | LastName | DateOfBirth | Gender | Email | phone |
+-----+-----+-----+-----+-----+-----+-----+
| 1 | Mohammed Sharfuddin | Shaik | 2002-02-02 | Male | sharfoddin28@gmail.com | 6303729550 |
| 2 | Gautham | Lakhude | 2003-03-26 | Male | lakhundegautham@gmail.com | 9381631295 |
| 3 | Susmitha | Pothireddy | 2002-10-26 | Female | susmil123@gmail.com | 9472549645 |
| 4 | Sirisha | Yarrampally | 2001-05-12 | Female | Siril123@gmail.com | 9276539234 |
| 5 | Jane | Smith | 2002-07-18 | Female | jane_Smith@example.com | 9652900626 |
+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

Instructor table:

```
mysql> Update instructor
-> set FirstName = 'Roger', LastName = 'White',Email = 'rogerwhite@example.com'
-> where InstructorID = 5;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from instructor;
+-----+-----+-----+-----+
| InstructorID | FirstName | LastName | Email |
+-----+-----+-----+-----+
| 1 | Afshan | Shaik | afshan@anudip.org |
| 2 | Nagarjuna | Akkineni | nagarjuna@anudip.org |
| 3 | Balakrishnan | Golla | balakrishnan@srit.ac.in |
| 4 | Meerimatha | G | meerimatha@srit.ac.in |
| 5 | Roger | White | rogerwhite@example.com |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

: List the student whose first name starts with J.

```
mysql> select * from student
-> where FirstName like 'J%';
+-----+-----+-----+-----+-----+-----+-----+
| StudentID | FirstName | LastName | DateOfBirth | Gender | Email | phone |
+-----+-----+-----+-----+-----+-----+-----+
| 5 | Jane | Smith | 2002-07-18 | Female | jane_Smith@example.com | 9652900626 |
+-----+-----+-----+-----+-----+-----+-----+
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

```
mysql> create table Employee
-> (emp_id int primary key,
-> FirstName varchar(50) not null,
-> LastName varchar(50) not null,
-> Age int not null,
-> Email varchar(30) not null unique);
Query OK, 0 rows affected (0.06 sec)
```

```
mysql> desc employee;
```

Field	Type	Null	Key	Default	Extra
emp_id	int	NO	PRI	NULL	
FirstName	varchar(50)	NO		NULL	
LastName	varchar(50)	NO		NULL	
Age	int	NO		NULL	
Email	varchar(30)	NO	UNI	NULL	

5 rows in set (0.01 sec)

Task 1: Insert Data

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

```
mysql> insert into employee
-> values(1,'Mohammed Sharfuddin','Shaik',22,'sharfoddin28@gmail.com'),
-> (2,'Anusha','Mukkamulla',22,'mukkamullaanusha143@gmail.com'),
-> (3,'Gautham','Lakhude',21,'lakhundegautham@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 |
+-----+-----+
| Mohammed Sharfuddin | Shaik |
| Anusha | Mukkamulla |
| Gautham | Lakhude |
+-----+-----+
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)
```

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 | Mohammed Sharfuddin | Shaik | 22 | sharfoddin28@gmail.com |
| 2 | Anusha | Mukkamulla | 22 | mukkamullaanusha143@gmail.com |
| 3 | Gautham | Lakhude | 21 | lakhundegautham@gmail.com |
+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

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'

o update the salaries of all employees with the job title 'Manager' by 10%, you can use the following SQL query

```
UPDATE employee
```

```
SET salary = salary * 1.10
```

```
WHERE job_title = 'Manager';
```

Here's a breakdown of the query:

- **UPDATE employees:** This specifies the table you want to update.
- **SET salary = salary * 1.10:** This sets the new salary to be 110% of the current salary, effectively increasing it by 10%.
- **WHERE job_title = 'Manager':** This ensures that only employees with the job title 'Manager' are affected by the update.

By adding one more column into employee table and by using above command we are able to increase the salary of employees.