

SQL MODULE

LAB - 4

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Questions

Lab

(PN: ChatGPT exercise is mandatory)

Lab 1: Database Schema:

Consider a simple database with one tables: BankAccount

BankAccount Table:

- Columns: account_id (Primary Key), account_holder_name, account_balance

Task 1: Insert Data

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

Task 2: Retrieving Data

Write an SQL SELECT statement to retrieve the account_holder_name and account_balance of all account holders from the BankAccount table.

Task 3: Filtering Data

Write an SQL SELECT statement to retrieve the account_holder_name and account_balance where the account_balance is more than 30,000.

Task 4: Updating Data

Write an SQL UPDATE statement to change the account_balance of the account holder whose ID is 101.

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.

ChatGPT Exercise

Using ChatGPT generates SQL queries of the below problem .

Scenario 1: In an employee database, you want to retrieve information about employees who belong to the "Sales" department and have a salary greater than 50,000.

Scenario 2: An employee has resigned, and you need to remove their record from the "employees" table. Write an SQL DELETE query for this.

Scenario 3: You want to delete all orders placed before '2022-01-01' that are still in the 'Pending' status. Write an SQL DELETE query for this.

Scenario 4: You want to remove all products from the "Discontinued" category as they are no longer available. Write an SQL DELETE query for this.

Scenario 5: Employees in the "Sales" department are getting a bonus, and you want to add 1000 to the bonus column for all employees in that department. Write an SQL UPDATE query for this

TASK -1:

```
mysql> CREATE TABLE BankAccount (
  -> account_id INT PRIMARY KEY,
  -> account_holder_name VARCHAR(255),
  -> account_balance DECIMAL(10, 2)
  -> );
Query OK, 0 rows affected (1.08 sec)

mysql> describe BankAccount;
+-----+-----+-----+-----+-----+-----+
| Field                | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| account_id           | int           | NO   | PRI | NULL    |       |
| account_holder_name  | varchar(255)  | YES  |     | NULL    |       |
| account_balance      | decimal(10,2) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.08 sec)

mysql> INSERT INTO BankAccount (account_id, account_holder_name, account_balance) values
  -> (1, 'John Doe', 50000),
  -> (2, 'Jane Smith', 35000),
  -> (3, 'Michael Johnson', 40000);
Query OK, 3 rows affected (0.13 sec)
Records: 3  Duplicates: 0  Warnings: 0
```

Activate Windows
Go to Settings to activate Windows.

TASK -2

```
mysql> UPDATE BankAccount
  -> SET account_balance = 60000
  -> WHERE account_id = 101;
Query OK, 0 rows affected (0.03 sec)
Rows matched: 0 Changed: 0 Warnings: 0
```

```
mysql> UPDATE BankAccount
  -> SET account_balance = 60000
  -> WHERE account_id = 1;
Query OK, 1 row affected (0.07 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> select *from BankAccount;
```

account_id	account_holder_name	account_balance
1	John Doe	60000.00
2	Jane Smith	35000.00
3	Michael Johnson	40000.00

3 rows in set (0.00 sec)

TASK -3

```
mysql> select * from emp2;
```

empID	first_name	last_name	age	email	salary	job_title
1	jhon	Doe	28	jhon.doe3@example.com	50000.00	Developer
2	jane	smith	35	jane.smith3@example.com	60000.00	Manger
3	Emily	Jhonson	40	emily.jhonson3@example.com	70000.00	Developer
4	Michel	Brown	45	Michel.brown3@example.com	80000.00	Designer
6	John	Doe	30	john.doe@example.com	55000.00	Software Engineer
7	Jane	Smith	25	jane.smith@example.com	60000.00	Project Manager
8	Emily	Jones	40	emily.jones@example.com	75000.00	Director of Operations
9	Michael	Brown	35	michael.brown@example.com	50000.00	Quality Assurance
10	Sarah	Davis	28	sarah.davis@example.com	48000.00	Human Resources

9 rows in set (0.00 sec)

TASK -4 :

```
mysql> SELECT account_holder_name, account_balance FROM BankAccount
  -> WHERE account_balance > 30000;
```

account_holder_name	account_balance
John Doe	50000.00
Jane Smith	35000.00
Michael Johnson	40000.00

3 rows in set (0.04 sec)

```
mysql> UPDATE BankAccount
  -> SET account_balance = 60000
  -> WHERE account_id = 101;
Query OK, 0 rows affected (0.03 sec)
Rows matched: 0 Changed: 0 Warnings: 0
```

```
mysql> UPDATE BankAccount
  -> SET account_balance = 60000
  -> WHERE account_id = 1;
Query OK, 1 row affected (0.07 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> select *from BankAccount;
```

account_id	account_holder_name	account_balance
1	John Doe	60000.00
2	Jane Smith	35000.00
3	Michael Johnson	40000.00

3 rows in set (0.00 sec)

TASK -5

```
mysql> delete from Orders
      -> WHERE order_date < '2022-01-01' AND status='pending';
Query OK, 2 rows affected (0.16 sec)
```

```
mysql> select * from Orders;
```

order_id	order_date	status	product_id
2	2022-01-02	Shipped	2
3	2022-01-03	Pending	3

```
2 rows in set (0.00 sec)
```

```
mysql> delete from product
      -> WHERE category='Discontinued';
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> delete from product
      -> WHERE status='Discontinued';
Query OK, 1 row affected (0.14 sec)
```

```
mysql> select * from product;
```

product_id	product_name	category	price	stock_quantity	status
1	Laptop	Electronics	1200.00	10	Active
2	Headphones	Electronics	50.00	20	Active
3	Desk	Furniture	200.00	5	Active

```
3 rows in set (0.00 sec)
```

Activate Windows
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TASK -6

```
mysql> update employees
      -> set bonus= bonus+1000
      -> WHERE department='Sales';
Query OK, 2 rows affected (0.12 sec)
Rows matched: 2  Changed: 2  Warnings: 0
```

```
mysql> selecet * from employees;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax
near 'selecet * from employees' at line 1
```

```
mysql> select * from employees;
```

emp_id	first_name	last_name	department	salary	bonus
1	John	Doe	Sales	60000.00	3000.00
2	Jane	Smith	Sales	65000.00	3500.00
3	Michael	Johnson	IT	70000.00	3000.00
4	Emily	Jones	HR	55000.00	1500.00

```
4 rows in set (0.00 sec)
```