

Full Stack Application Development with MS Azure Cloud

Module 3 - Back-End Development & Integration <u>Lab Practical Manual</u>

Unit 3 – Data Persistence and Database Integration

Topic: MYSQL - Solved Question

Lab 1: Create a database in MySQL and create an employee table and perform CURD operations

Creating Database

Create a Database: You can create a new database using the following SQL command:

```
CREATE DATABASE new db;
```

Use the Database: After creating the database, you need to use it to perform operations within it:

```
USE new_db;
```

Create Tables and Start Programming: Now that you have the database set up, you can create tables and start programming with SQL queries.

1. Create an employee table and insert values

```
CREATE TABLE employee (
emp_id INT PRIMARY KEY,
emp_name VARCHAR(50),
job_name VARCHAR(50),
manager_id INT,
hire_date DATE,
salary DECIMAL(10, 2),
commission DECIMAL(10, 2),
dep_id INT
);
```



INSERT INTO employee (emp_id, emp_name, job_name, manager_id, hire_date, salary, commission, dep_id)

VALUES

- (1, 'John Doe', 'Manager', NULL, '2020-01-15', 5000.00, NULL, 1),
- (2, 'Jane Smith', 'Developer', 1, '2021-05-10', 4000.00, 500.00, 1),
- (3, 'Michael Johnson', 'Analyst', 1, '2019-11-30', 3500.00, NULL, 2),
- (4, 'Emily Brown', 'Designer', 2, '2022-02-20', 4200.00, 200.00, 2);

select * from employee;

| utput | | | | | | |
|--------|--------------------|-----------|------------|------------|--------|------------|
| emp_id | emp_name | job_name | manager_id | hire_date | salary | commission |
| 1 | John Doe | Manager | | 2020-01-15 | 5000 | |
| 2 | Jane Smith | Developer | 1 | 2021-05-10 | 4000 | 500 |
| 3 | Michael Johnson | Analyst | 1 | 2019-11-30 | 3500 | |
| 4 | Emily Brown | Designer | 2 | 2022-02-20 | 4200 | 200 |

2. SQL query to find employees who joined before 2020 and return their complete information: Assuming you have a hire_date column in the format 'YYYY-MM-DD', you can use the following SQL query to find employees who joined before 2020:

SELECT * FROM employee WHERE hire_date < '2020-01-01';

| Output | | | | | | | | |
|--------|-----------------|----------|------------|------------|--------|------------|--------|--|
| emp_id | emp_name | job_name | manager_id | hire_date | salary | commission | dep_id | |
| 3 | Michael Johnson | Analyst | 1 | 2019-11-30 | 3500 | | 2 | |

3. Update the salary of a particular employee

UPDATE employee SET salary = 6000.00 WHERE emp_id = 3;

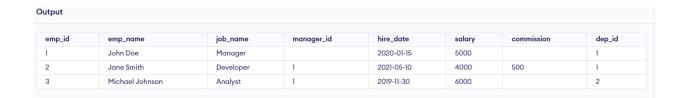
select * from employee;



| utput | | | | | | | |
|--------|-----------------|-----------|------------|------------|--------|------------|--------|
| emp_id | emp_name | job_name | manager_id | hire_date | salary | commission | dep_id |
| 1 | John Doe | Manager | | 2020-01-15 | 5000 | | 1 |
| 2 | Jane Smith | Developer | 1 | 2021-05-10 | 4000 | 500 | 1 |
| 3 | Michael Johnson | Analyst | 1 | 2019-11-30 | 6000 | | 2 |
| 4 | Emily Brown | Designer | 2 | 2022-02-20 | 4200 | 200 | 2 |

4. Delete the details of particular employee

DELETE FROM employee WHERE emp_id = 4; select * from employee;



Unsolved Question

Lab 2: Create a database in MySQL and create a book table and perform CURD operations