



**University of Petroleum
&
Energy Studies
SCHOOL OF COMPUTER SCIENCE**

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BATCH: 1

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Experiment 9: To understand the concepts of Views.

Objective: Students will be able to implement the concept of views.

1. Create table of table name: EMPLOYEES and add 6 rows

Column Name	Data Type	Width	Attributes
Employee_id	Character	10	PK
First_Name	Character	30	NN
Last_Name	Character	30	NN
DOB	Date		
Salary	Number	25	NN
Department_id	Character	10	

Creating Table:

```
mysql> CREATE DATABASE LAB_9;
Query OK, 1 row affected (0.01 sec)

mysql> USE LAB_9;
Database changed
mysql> CREATE TABLE EMPLOYEES (
    ->     Employee_id CHAR(10) PRIMARY KEY,
    ->     First_Name CHAR(30) NOT NULL,
    ->     Last_Name CHAR(30) NOT NULL,
    ->     DOB DATE,
    ->     Salary NUMERIC(25) NOT NULL,
    ->     Department_id CHAR(10)
    -> );
Query OK, 0 rows affected (0.05 sec)
```

Inserting Data:

```
mysql> INSERT INTO EMPLOYEES (Employee_id, First_Name, Last_Name, DOB, Salary, Department_id) VALUES
    -> ('E001', 'Alice', 'Smith', '1990-05-12', 60000, '10'),
    -> ('E002', 'Bob', 'Jones', '1985-11-24', 75000, '20'),
    -> ('E003', 'Charlie', 'Brown', '1992-07-15', 50000, '30'),
    -> ('E004', 'David', 'Wilson', '1988-09-10', 82000, '20'),
    -> ('E005', 'Emma', 'Davis', '1995-03-20', 67000, '10'),
    -> ('E006', 'Frank', 'Miller', '1983-12-08', 55000, '30');
Query OK, 6 rows affected (0.01 sec)
Records: 6  Duplicates: 0  Warnings: 0
```

2. Execute the following view related queries:

- a. Create View of name emp_view and the column would be Employee_id, Last_Name, salary and department_id only.

```
mysql> CREATE VIEW emp_view AS
-> SELECT Employee_id, Last_Name, Salary, Department_id
-> FROM EMPLOYEES;
Query OK, 0 rows affected (0.01 sec)
```

- b. Insert values into view(remove the NOT NULL constraint and then insert values):

Removing NOT NULL:

```
mysql> ALTER TABLE EMPLOYEES MODIFY Last_Name CHAR(30) DEFAULT NULL;
Query OK, 0 rows affected (0.11 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> ALTER TABLE EMPLOYEES MODIFY Salary NUMERIC(25) DEFAULT NULL;
Query OK, 0 rows affected (0.01 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

Inserting values:

```
mysql> INSERT INTO emp_view (Employee_id, Last_Name, Department_id)
-> VALUES ('E009', 'Taylor', '40');
Query OK, 1 row affected (0.01 sec)
```

- c. Modify, delete and drop operations are performed on view.

Modify:

```
mysql> UPDATE emp_view
-> SET Salary = 65000
-> WHERE Employee_id = 'E001';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

Delete:

```
mysql> DELETE FROM emp_view
-> WHERE Employee_id = 'E003';
Query OK, 1 row affected (0.01 sec)
```

Drop:

```
mysql> DROP VIEW emp_view;
Query OK, 0 rows affected (0.01 sec)
```

- d. Creates a view named salary_view. The view shows the employees in department 20 and their annual salary.

```
mysql> CREATE VIEW salary_view AS  
-> SELECT Employee_id, First_Name, Last_Name, (Salary * 12) AS Annual_Salary  
-> FROM EMPLOYEES  
-> WHERE Department_id = '20';  
Query OK, 0 rows affected (0.01 sec)
```