

LAB-7 VIEWS

A view is a database object that has no values. Its contents are based on the base table. It contains rows and columns similar to the real table. In MySQL, the View is a **virtual table** created by a query by joining one or more tables. It is operated similarly to the base table but does not contain any data of its own. The View and table have one main difference that the views are definitions built on top of other tables (or views). If any changes occur in the underlying table, the same changes reflected in the View also.

MySQL allows us to create a view in mainly two ways:

1. **MySQL Command line client**
2. **MySQL Workbench**

MySQL Command Line Client

MySQL Create VIEW

We can create a new view by using the **CREATE VIEW** and **SELECT** statement. **SELECT** statements are used to take data from the source table to make a VIEW.

Syntax

Following is the syntax to create a view in MySQL:

```
CREATE [OR REPLACE] VIEW view_name AS  
SELECT columns  
FROM tables  
[WHERE conditions];
```

MySQL Update VIEW

In MYSQL, the ALTER VIEW statement is used to modify or update the already created VIEW without dropping it.

Syntax:

Following is the syntax used to update the existing view in MySQL:

```
ALTER VIEW view_name AS  
SELECT columns  
FROM table  
WHERE conditions;
```

MySQL Drop VIEW

We can drop the existing VIEW by using the **DROP VIEW** statement.

Syntax:

The following is the syntax used to delete the view:

```
DROP VIEW [IF EXISTS] view_name;
```

QUESTIONS

- a. The organization wants to display only the details of the employees those who are ASP.

CREATE VIEW NEWJOB AS SELECT EMPNO, ENAME, JOB, DEPTNO, SAL FROM EMPLOYEE WHERE JOB = 'ASP';

```
mysql> CREATE VIEW NEWJOB AS SELECT EMPNO, ENAME, JOB, DEPTNO, SAL FROM EMPLOYEE WHERE JOB = 'ASP';
Query OK, 0 rows affected (0.00 sec)
```

SELECT * FROM NEWJOB;

```
mysql> SELECT * FROM NEWJOB;
```

EMPNO	ENAME	JOB	DEPTNO	SAL
5	KUSHAL PIYA	ASP	4	15000
6	RAMESH SHRESTHA	ASP	5	15000

2 rows in set (0.00 sec)

- b. The organization wants to display only the details like empno, ename, deptno, sal of the employees.

CREATE VIEW FILTEREDEMPTABLE AS SELECT EMPNO, ENAME, DEPTNO, SAL FROM EMP;

```
mysql> CREATE VIEW FILTEREDEMPTABLE AS SELECT EMPNO, ENAME, DEPTNO, SAL FROM EMP;
Query OK, 0 rows affected (0.00 sec)
```

SELECT * FROM FILTEREDEMPTABLE;

```
mysql> SELECT * FROM FILTEREDEMPTABLE;
```

EMPNO	ENAME	DEPTNO	SAL
1	ROSHAN SHRESTHA	1	200000
2	UKESH SHRESTHA	1	100000
3	SUMIT ADHIKARI	2	100000
4	SHREEJAN BALAMI	3	80000
5	KUSHAL PIYA	4	15000
6	RAMESH SHRESTHA	5	15000
7	RUBEEN SHRESTHA	7	55000

7 rows in set (0.00 sec)

c. Execute the DML commands on the view created.

Performing the update:

```
ALTER VIEW FILTEREDEMPTABLE AS SELECT EMPNO, ENAME, DEPTNO, SAL FROM EMP  
WHERE SAL>50000;
```

```
[mysql> ALTER VIEW FILTEREDEMPTABLE AS SELECT EMPNO, ENAME, DEPTNO, SAL FROM EMP WHERE SAL  
>50000;  
Query OK, 0 rows affected (0.01 sec)
```

```
SELECT * FROM FILTEREDEMPTABLE;
```

```
[mysql> SELECT * FROM FILTEREDEMPTABLE;  
+-----+-----+-----+-----+  
| EMPNO | ENAME          | DEPTNO | SAL    |  
+-----+-----+-----+-----+  
| 1     | ROSHAN SHRESTHA | 1       | 200000 |  
| 2     | UKESH SHRESTHA  | 1       | 100000 |  
| 3     | SUMIT ADHIKARI  | 2       | 100000 |  
| 4     | SHREEJAN BALAMI | 3       | 80000  |  
| 7     | RUBEEN SHRESTHA | 7       | 55000  |  
+-----+-----+-----+-----+  
5 rows in set (0.00 sec)
```

d. Drop a view.

```
DROP VIEW NEWJOB;  
DROP VIEW FILTEREDEMPTABLE;
```

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

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