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Experiment No.	**7**

AIM:	**To implement VIEWS in MySQL**
PROBLEM STATEMENT:	Create Views of the tables of the existing mysql database and perform CRUD actions on the views
THEORY:	**VIEWS:** In SQL, a view is a virtual table based on the result-set of an SQL statement. A view contains rows and columns, just like a real table. The fields in a view are fields from one or more real tables in the database. You can add SQL statements and functions to a view and present the data as if the data were coming from one single table. **Create VIEW Syntax:** CREATE VIEW *view_name* AS SELECT *column1*, *column2*, ... FROM *table_name* WHERE *condition*; **Update VIEW Syntax:** CREATE OR REPLACE VIEW *view_name* AS SELECT *column1*, *column2*, ... FROM *table_name* WHERE *condition*; **Drop VIEW Syntax:** DROP VIEW *view_name*;

QUERIES:

Create VIEW Queries:

1. Create view "patient ages" which stores patient & their age

```
CREATE VIEW patient_ages AS
SELECT P_id,Age
FROM patient;
```

2. Create view doctor table which stores doctor's name, salary & field:

```
CREATE VIEW doctor_details AS
SELECT Dname,Salary,Field
FROM doctor;
```

Select VIEW Queries:

1. Display view "patient_ages":

```
SELECT * FROM patient_ages;
```

P_id	Pname	Age
abc Filter...	abc Filter...	abc Filter.
1	Rahul	25
2	Raj	30
3	Pranay	35
4	Dev	40
5	Hatim	45
6	Virinchi	50
7	Udit	55
8	Kaif	60
9	Anish	65
10	Husain	21

2. Display view "doctor_details":

SELECT * FROM doctor_details;

Dname	Salary	Field
Filter...	Filter...	Filter...
akash	500000	Cardiologist
pramod	720000	Neurologist
hansraj	200000	Orthopedic
ritu	350000	dermatologist
viraj	100000	dentist
rohit	560000	ophthalmologist
Iyer	320000	gynecologist
sachin	450000	pediatrician
sagar	450000	pediatrician

Update VIEW Queries:

1. Update the patient age view to also display the patient's name:

CREATE OR REPLACE VIEW patient_ages AS

SELECT P_id,Pname,Age

FROM patient;

2. Update the doctor details view to also display the doctor's ID:

CREATE OR REPLACE VIEW doctor_details AS

SELECT D_id,Dname,Salary,Field

FROM doctor;

D_id	Dname	Salary	Field
Filter...	Filter...	Filter...	Filter...
1	akash	500000	Cardiologist
2	pramod	720000	Neurologist
3	hansraj	200000	Orthopedic
4	ritu	350000	dermatologist
5	viraj	100000	dentist
6	rohit	560000	ophthalmologist
7	Iyer	320000	gynecologist
8	sachin	450000	pediatrician
9	sagar	450000	pediatrician
10	Dhruv	50000	Neurologist

VIEWS with JOIN Clause:

1. Create a view which shows all patients and theirname who have been assigned a doctor, the view should also show the doctor assigned:

```
CREATE VIEW patient_doctor AS
SELECT patient.P_id,patient.Pname,doctor.Dname,doctor.D_id
FROM doctor,patient
WHERE doctor.D_id=patient.D_id;
```

P_id	Pname	Dname	D_id
abc Filter.	abc Filter...	abc Filter...	abc Filter...
1	Rahul	akash	1
2	Raj	pramod	2
3	Pranay	hansraj	3
4	Dev	ritu	4
5	Hatim	viraj	5
6	Virinchi	Iyer	7
7	Udit	Kaif	11
8	Kaif	sachin	8
9	Anish	akash	1
10	Husain	ritu	4
11	Dhruv	pramod	2
12	Vivek	pramod	2

2. Create a view of a cross join between patient and doctor table displaying the patient & doctor's names:

```
CREATE OR REPLACE VIEW pd_alt AS
SELECT patient.Pname,doctor.Dname
FROM patient CROSS JOIN doctor;
```

	<table><tr><th>Pname</th><th>Dname</th></tr><tr><td>abc Filter...</td><td>abc Filter...</td></tr><tr><td>Rahul</td><td>Virinchi</td></tr><tr><td>Rahul</td><td>Kaif</td></tr><tr><td>Rahul</td><td>Dhruv</td></tr><tr><td>Rahul</td><td>sagar</td></tr><tr><td>Rahul</td><td>sachin</td></tr><tr><td>Rahul</td><td>Iyer</td></tr><tr><td>Rahul</td><td>rohit</td></tr><tr><td>Rahul</td><td>viraj</td></tr><tr><td>Rahul</td><td>ritu</td></tr><tr><td>Rahul</td><td>hansraj</td></tr><tr><td>Rahul</td><td>pramod</td></tr><tr><td>Rahul</td><td>akash</td></tr></table> **Drop VIEW Queries:** 1. DROP VIEW patient_ages; 2. DROP VIEW doctor_details; 3. DROP VIEW patient_doctor; 4. DROP VIEW pd_alt;
CONCLUSION:	In this experiment, we learned how to perform CURD (create, update, read & delete) actions on a VIEW in MySQL db