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**Subject :** Task 7

**Task 7**: Creating Views

**Objective**: Learn to create and use views

**Tools** :DB Browser for SQLite / MySQL Workbench

**Deliverables**: View definitions and usage examples

**1.Use CREATE VIEW with complex SELECT**

I give my practical file in [github.com](https://github.com/harshtankariya/SQL-DEVELOPER-INTERNSHIP-ELEVATE-LABS)

**2.Use views for abstraction and security**

I give my practical file in [github.com](https://github.com/harshtankariya/SQL-DEVELOPER-INTERNSHIP-ELEVATE-LABS)

Interview Questions

**1. What is a view?**

A **view** is a **virtual table** created from a SELECT query. It does **not store data**, just shows results.

**Example :** CREATE VIEW view\_name AS SELECT ...;

**2. Can we update data through a view?**

Yes, **if** the view is based on a **single table** and does **not use GROUP BY, JOIN, or aggregate functions**.  
 No, for complex views.

**3. What is a materialized view?**

A **materialized view** **stores** the result of the query physically.  
It can be **refreshed manually or automatically**.

Not supported in SQLite or MySQL, but available in Oracle/PostgreSQL.

4. Difference between view and table?

| **Feature** | **View (Virtual)** | **Table (Physical)** |
| --- | --- | --- |
| Data | Not stored | Stored permanently |
| Speed | Slower (runs query) | Faster |
| Editable | Sometimes (limited) | Always editable |

5. How to drop a view?

DROP VIEW view\_name;

**6. Why use views?**

* Hide sensitive data
* Simplify complex queries
* Reuse common logic
* Improve security & abstraction

**7. Can we create indexed views?**

Yes, in **SQL Server** and **Oracle** — called **materialized/indexed views**.  
 No, in **MySQL/SQLite** (no index support on views).

**8. How to secure data using views?**

* **Hide columns** you don’t want users to see
* **Restrict rows** using WHERE
* Use WITH CHECK OPTION to control inserts/updates

**9. What are limitations of views?**

* Cannot always be updated
* Cannot store data
* Slower than tables
* No indexing in basic views

**10. How does WITH CHECK OPTION work?**

Ensures **inserted or updated data** still matches the WHERE condition of the view.

Example : CREATE VIEW View\_PatientAhmedabad AS

SELECT \* FROM Patient WHERE City = 'Ahmedabad' WITH CHECK OPTION;

Key Concepts : Views, Data Abstraction

**What is a View?**

A **view** is a **virtual table** based on a SQL SELECT query.  
It **doesn’t store data** itself — it just shows data from one or more tables.

**Example:** CREATE VIEW View\_DoctorList AS

SELECT Dr\_Name, HosID FROM Doctor;

**What is Data Abstraction?**

**Data abstraction** means showing only the **necessary data** to the user, hiding details like IDs or sensitive fields.

**Example of abstraction using a view :**

CREATE VIEW View\_PatientPublic AS

SELECT Name, HosID FROM Patient;