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**Subject :** Task 3

**Task 3**: Writing Basic SELECT Queries

Objective:Extract data from one or more tables.

Tools :DB Browser for SQLite / MySQL Workbench

Deliverables:SQL script with SELECT, WHERE, ORDER BY, LIMIT

**1.Use SELECT \* and specific columns**

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

**2.Apply WHERE, AND, OR, LIKE, BETWEEN**

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

**3.Sort with ORDER BY**

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

Interview Questions

**1. What does SELECT \* do?**

It selects **all columns** from a table.

**Example** : SELECT \* FROM Patient;

**2. How do you filter rows?**

Use the WHERE clause.

**Example** : SELECT \* FROM Doctor WHERE HosID = 1;

**3. What is LIKE '%value%'?**

It checks if a column **contains** a value (partial match).

**Example :** SELECT \* FROM Patient WHERE Name LIKE '%a%';

**4. What is BETWEEN used for?**

To filter data **between two values** (inclusive).

**Example :** SELECT \* FROM Outdoor WHERE Charge BETWEEN 300 AND 500;

**5. How do you limit output rows?**

Use the LIMIT keyword.

**Example :** SELECT \* FROM Patient LIMIT 3;

**6. Difference between = and IN**

* = is for **one value**
* IN is for **multiple values**

**Example :** One value

SELECT \* FROM Doctor WHERE HosID = 1;

Multiple values

SELECT \* FROM Doctor WHERE HosID IN (1, 2);

**7. How to sort in descending order?**

Use ORDER BY column DESC

**Example :** SELECT \* FROM Doctor ORDER BY Dr\_Name DESC;

**8. What is aliasing?**

Giving a **temporary name** to a column or table.

**Example :** SELECT Name AS PatientName FROM Patient;

**9. Explain DISTINCT.**

Removes **duplicate values** from results.

**Example :** SELECT DISTINCT HosID FROM Doctor;

**10. What is the default sort order?**

Ascending (ASC)

**Example :** SELECT \* FROM Patient ORDER BY Name; -- ASC is default

Filtering, Projection

**1. Filtering**

**Definition:**

**Filtering** means **selecting specific rows** from a table using conditions with the WHERE clause.

**Example :**

-- Get patients from Hospital 1

SELECT \* FROM Patient

WHERE HosID = 1;

-- Get doctors whose name starts with 'Dr. M'

SELECT \* FROM Doctor

WHERE Dr\_Name LIKE 'Dr. M%';

-- Get outdoor patients with charge above 400

SELECT \* FROM Outdoor

WHERE Charge > 400;

**2. Projection**

**Definition:**

**Projection** means **selecting specific columns** (not all) using SELECT column1, column2...

**Example :**

-- Show only Name and HosID from Patient

SELECT Name, HosID FROM Patient;

-- Show only DrID and Dr\_Name from Doctor

SELECT DrID, Dr\_Name FROM Doctor;

-- Show only Report\_Name from Medical\_Record

SELECT Report\_Name FROM Medical\_Record;

**Combined Example (Filtering + Projection)**

-- Show names of patients from Hospital 2 only

SELECT Name FROM Patient

WHERE HosID = 2;

-- Show doctor names who work in Hospital 1

SELECT Dr\_Name FROM Doctor

WHERE HosID = 1;

**Summary**

| **Concept** | **SQL Keyword** | **Purpose** |
| --- | --- | --- |
| Filtering | WHERE | Select specific rows |
| Projection | SELECT | Select specific columns |