Task 7 : Creating Views

Objective: Learn to create and use views

Tools :DB Browser for SQLite / MySQL

Workbench Deliverables: View definitions and usage examples

Creating a View (Syntax)

CREATE VIEW view_name AS

SELECT column1, column2, ...

FROM table_name

WHERE condition;

;

-- Create the Students table

CREATE TABLE Students (

    student_id INTEGER PRIMARY KEY AUTOINCREMENT,
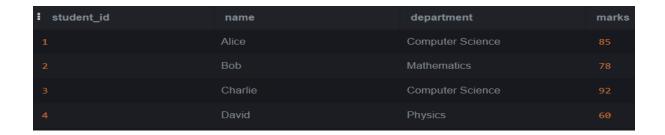
    name TEXT,

    department TEXT,

    marks INTEGER

);

-- Insert sample data

INSERT INTO Students (name, department, marks) VALUES

('Alice', 'Computer Science', 85),

('Bob', 'Mathematics', 78),

('Charlie', 'Computer Science', 92),

('David', 'Physics', 60);

student_id	name	department	marks
1	Alice	Computer Science	85
2	Bob	Mathematics	78
3	Charlie	Computer Science	92
4	David	Physics	60

Create a view for Computer Science students

```
CREATE VIEW cs_students AS

SELECT student_id, name, marks

FROM Students

WHERE department = 'Computer Science';
```

View all Computer Science students

```
SELECT * FROM cs_students;
```

student_id	name	marks
1	Alice	85
3	Charlie	92

Filter students with marks > 90 using the view

```
SELECT * FROM cs_students

WHERE marks > 90;
```

student_id	name	marks
3	Charlie	92

Update data through the view

```
UPDATE cs_students

SET marks = 95

WHERE name = 'Alice';
```

Drop the view

```
DROP VIEW cs_students;
```