

Task 7: Creating & Using Views for Student Scores

This task focuses on **simplifying data analysis** by using **SQL views** to store reusable query logic.

Objective:

- ♦ **Enhance database efficiency** by creating views for **student scores** and **pass status**.
 - ♦ **Reuse queries** without rewriting complex SQL statements.
-

Project Steps:

1. Setup Database & Tables

- ✅ **Create and populate tables** (e.g., **students**, **scores**).
-

2. Tasks to Perform

1 Create a View for Student Scores

📌 **Objective:** Store student names and scores for easier access.

📌 **Query:**


```
CREATE VIEW student_scores AS
SELECT s.student_id, s.name, sc.subject, sc.score
FROM students s
JOIN scores sc ON s.student_id = sc.student_id;
```

📌 **Usage:**

```
SELECT * FROM student_scores;
```

2 Create a View for Students Who Passed All Subjects

 **Objective:** Show students who passed all subjects (e.g., passing score ≥ 40).



 **Query:**

```
CREATE VIEW passed_students AS
SELECT student_id, name
FROM students
WHERE student_id NOT IN (
    SELECT student_id FROM scores WHERE score < 40
);
```

 **Usage:**

```
SELECT * FROM passed_students;
```

3. Execution & Validation




-  **Run queries sequentially** to create views.
 -  **Verify results** by selecting data from views.
-

4. Documentation & Reporting

 **Include the following:**

- ✓ **Screenshots** of SQL queries and outputs.
 - ✓ **Explanations** of each query's purpose.
 - ✓ **Summary of findings** (e.g., number of passing students).
-

Final Deliverables:

-  **Reusable views for student scores & pass status.**
-  **Validation with sample queries.**
-  **Documented findings for analysis.**

Would you like to extend this with additional views for subject-wise performance or ranking? 

Deadline Compliance

- **Restriction:** **Submit the project within 7 days** from the start date.
- **Reason:** Meeting deadlines is crucial in the real-world software development environment. This restriction helps students practice **time management** and **task prioritization**. In professional settings, tight deadlines are often the norm, and learning to meet them without compromising quality is an essential skill.
- **Learning Outcome:** Students will learn to manage their time effectively, complete projects under pressure, and **deliver results on time**, which are all important skills in the workplace.