■ Student Course Management Project (SQL)

Internship Task 2 – Main Flow Services and Technologies Pvt. Ltd.

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Database Used: SQLite

■ *Objective*

To extend the Student Management System by introducing Courses and Enrolments tables. The task demonstrates how to manage course offerings, student enrolments, and analyze course participation using SQL operations.

■ *Step 1: Create Tables*

- Courses Table with course ID, name, and description
- Enrolments Table to link students to courses (many-to-many relationship)

■ *Step 2: Insert Sample Data*

- 4 courses were inserted (Mathematics, Science, English, Computer Science).
- 10 enrolments were added, mapping students to courses.

■ *Step 3: Queries & Results*

1. List students with their enrolled courses
■ Shows all students and their respective courses.
Example Output:
- Aarav Sharma → Mathematics, Science
- Rohan Verma → Mathematics, Science, Computer Science

2. Count students per course
- Mathematics → 4 students
- Science → 3 students
- English → 2 students
- Computer Science → 1 student

3. Students enrolled in more than one course
- Aarav Sharma (2 courses)
- Rohan Verma (3 courses)
- Ananya Desai (2 courses)

4. Course with highest enrolments
- Mathematics → 4 students

5. Delete enrolment example
- Deleted Aarav Sharma's enrolment in Science (course_id = 2).

■ *Final Insights*

- Mathematics is the most popular course (4 students).
- Rohan Verma is the most enrolled student (3 courses).
- Multiple students enrolled in more than one course, showing cross-disciplinary interests.

■ *Conclusion*

This task provided practical experience in handling many-to-many relationships using junction tables, performing joins, grouping, and deletions. It extended the Student Management System to cover real-world course enrolments and analytics.