SQL Database Project Report

1. Introduction The purpose of this project is to design a relational database system to manage students, courses, and teachers efficiently. The system ensures structured storage and retrieval of academic records, including student enrollments, course details, and assigned instructors.

2. Database Schema The database consists of three main tables:

- **Students Table**: Stores student details, including their selected course and payment status.

- **Courses Table**: Maintains course-related information, including duration and student enrollment.

- **Teachers Table**: Assigns teachers to specific courses and stores their details.

The relationships between these tables ensure consistency and integrity in data management.

3. Table Descriptions

- **Students Table:**

    o std_id (Primary Key)

    o std_name

    o std_mob_no

    o std_address

    o course_choosen

    o amount_paid

- **Courses Table:**

    o course_id (Primary Key)

    o course_name

    o course_period

    o std_id (Foreign Key referencing Students Table)

- **Teachers Table:**

    o teacher_id (Primary Key)

    o teacher_name

    o teacher_course

    o teacher_experience

    o course_id (Foreign Key referencing Courses Table)

    o std_id (Foreign Key referencing Students Table)

4. SQL Queries The following are sample SQL INSERT statements used to populate the tables:

INSERT INTO students_info(std_id, std_name, std_mob_no, std_address, course_choosen, amount_paid) VALUES (...);

INSERT INTO courses(course_id, course_name, course_period, std_id) VALUES (...);

INSERT INTO teachers(teacher_id, teacher_name, teacher_course, teacher_experience, course_id, std_id) VALUES (...);

These queries ensure that students are assigned to courses and linked with their respective instructors.

5. Conclusion This SQL project successfully structures and organizes student-course-teacher relationships within a relational database. It provides a robust framework for managing academic records, reducing redundancy, and ensuring data integrity. Future improvements can include additional tables for attendance tracking, performance evaluation, and automated report generation.