Project Report: Student Result Processing System

1. Introduction

This project automates student result processing using MySQL, calculating GPAs, generating rank lists, and exporting semester-wise reports. It eliminates manual errors and provides a scalable solution for educational institutions to track academic performance efficiently.

2. Abstract

The system comprises:

- A relational database (MySQL) with tables for Students, Courses, Grades, and Semesters.

- SQL queries to compute GPA, pass/fail rates, and rank students.

- Triggers for automatic GPA updates.

- Export functionality for semester summaries.

3. Tools Used

- My SQL Workbench

- SQL Language (DDL,DML,Triggers)

4. Steps Involved in Building the Project

- Created normalized tables with constraints

- Inserted sample data

- GPA calculation, Pass/Fail Statistics, Rank list

- Applied triggers to updates GPA automatically when new grades are inserted:

- Report Generation for Semester-wise Summaries

5. Conclusion

This system simplifies academic record-keeping by automating GPA calculation, rankings, and reporting.