Student Result Processing System – Project Report

# 1. Objective

The objective of this project is to build a Student Result Processing System using MySQL to manage students' grades, calculate GPA/CGPA, generate rank lists, and export semester-wise summaries.

# 2. Tools Used

• MySQL  
• SQL Queries and Triggers  
• ER Diagram

# 3. Database Schema

The database consists of four main tables:  
• Students  
• Courses  
• Semesters  
• Grade

# 5. GPA & Grade Calculation

Grades and GPA are automatically calculated using a BEFORE INSERT TRIGGER on the Grades table.

# 6. Sample Queries

• GPA Calculation per Semester  
• Pass/Fail Status based on grades  
• Rank List using Window Functions  
• Export Results using SELECT INTO OUTFILE

# 7. Output Screenshots

Include screenshots of table outputs and SQL queries execution here (can be added manually after export).

# 8. Conclusion

This project efficiently manages student results and allows future expansion like cumulative CGPA, web interfaces, and dashboards.