COLLEGE CODE : 8203

COLLEGE NAME: A.V.C. College of Engneering

DEPARTMENT: Computer Science And Engineering

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ROLL NO: 820323104078

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Completed the project named as Phase -3 TECHNOLOGY

PROJECT NAME: Student Grading System

SUBMITTED BY,

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Phase-3 MVP Implementation

1. Project Setup

- Install and configure the necessary development tools (e.g., Python/Java, MySQL, VS Code, or Eclipse).
- Initialize the project structure (frontend, backend, database connections).
- Define required dependencies and libraries (frameworks such as Flask/Django/Spring Boot).
- Set up environment variables and configuration files.

2. Core Features Implementation

- Student Registration & Management: Create modules for adding, updating, and deleting student records.
- Marks Entry: Teachers can enter marks/grades for different subjects and assessments.
  Grade Calculation: Implement logic to compute grades automatically based on predefined rules.
- Report Generation: Provide student-wise and subject-wise performance reports.
- User Roles: Differentiate access for admin (managing system), teacher (marks entry), and student (view results).

3. Data Storage (Local State / Database)

- Design a relational database schema (tables for Students, Courses, Marks, Grades, Users).
- Ensure normalization for efficiency and integrity.
- Support CRUD (Create, Read, Update, Delete) operations for all entities.
- Store data either in a local database (MySQL/SQLite/PostgreSQL) or structured state files during development.

Example Table Design:

Table : Students

Student_ID	Name	Class	Roll _No	Email	Mobile_No
101	Rahul	10-A	12	rahul02@gmail.com	9577883210
102	Priya	10-B	25	priya56@gmail.com	9346231678

Table :Marks

Mark_ID	Student_ID	Subject	Marks	Grade
1	101	Maths	80	A+
2	102	Physics	96	O

4. Testing Core Features

- Unit Testing: Check correctness of grade calculation logic, data entry validations, and report generation.
- Integration Testing: Ensure modules (student records, marks entry, and reports) work together smoothly.
- User Testing: Verify different user roles (admin/teacher/student) are functioning properly.

- Bug Fixing: Document and fix errors encountered during testing.

5. Version Control (GitHub)

- Initialize Git for version control.
- Commit each milestone (setup, database design, core features, testing).
- Push the repository to GitHub for collaboration and backup.
- Create branches for new features to ensure clean and maintainable code.
- Maintain documentation in the repository (README.md, contribution guidelines).