Software Requirement Specification

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Seat No	:	**238**
Project Id	:	**14**
Project title	:	**Mark Entry**

Technology Stack:

Frontend	HTML, CSS, Javascript
Backend	Python Django
Database	PostgerSQL
API	OpenAPI, REST Ful API

Stages:

Stage 1	Planning and Requirement Gathering
Stage 2	Design and UI/UX Prototyping
Stage 3	Database design and implementation
Stage 4	Backend development
Stage 5	Integration and Testing

Problem Statement:

◉ Educational institutions often face challenges in managing and analyzing students' marks across multiple periodical tests. The traditional methods of mark entry and result analysis are time-consuming and prone to errors. Additionally, there is a need for accurate CO and PO calculations to assess students' performance against defined educational objectives.

◉ To address these challenges, a comprehensive Mark Entry System is required. This system will enable faculty to enter marks for five periodical tests in a CO-wise manner, calculate CO and PO achievements automatically, and provide insightful result analysis through detailed reports and visual tools. The proposed solution will enhance efficiency, accuracy, and transparency in managing students' academic performance data.

Project-workflow:

1. Purpose:
The purpose of this project is to develop a centralized platform that facilitates the entry and management of periodical test marks, CO PO calculations, and result analysis for educational institutions. This system aims to streamline the process of mark entry, ensure accurate calculation of Course Outcomes (COs) and Program Outcomes (POs), and provide detailed analytical reports for both faculty and administration.

2. Scope of these project:
The scope of the "Mark Entry System with Five CO wise Periodical Test Marks, CO PO Calculation, and Result Analysis" project encompasses the development, implementation, and maintenance of a comprehensive software solution for managing academic performance data within educational institutions.

3. System Overview:

The Mark Entry System will allow faculty to enter marks for five periodical tests. It will calculate CO and PO achievements based on these marks and provide detailed result analysis.

3.1 For Students (Users):

- **User Authentication:**
  - Students log in using their unique college credentials.
  - Secure authentication ensures that only authorized students can access their personal data and mark entry sections.
- **Mark Entry Interface:**
  - A user-friendly interface where students can view their marks for the five periodical tests..
  - The system displays marks entered by faculty CO-wise, providing transparency and helping students understand their performance in relation to specific Course Outcomes.
- **Performance Feedback:**
  - o Students receive detailed feedback on their performance based on CO and PO calculations.
  - o The system provides insights into which COs they excel in and which need improvement.
- **Support and Help:**

    Access to a Helpdesk and online documentation to assist students with any issues or questions related to their marks and performance analysis.
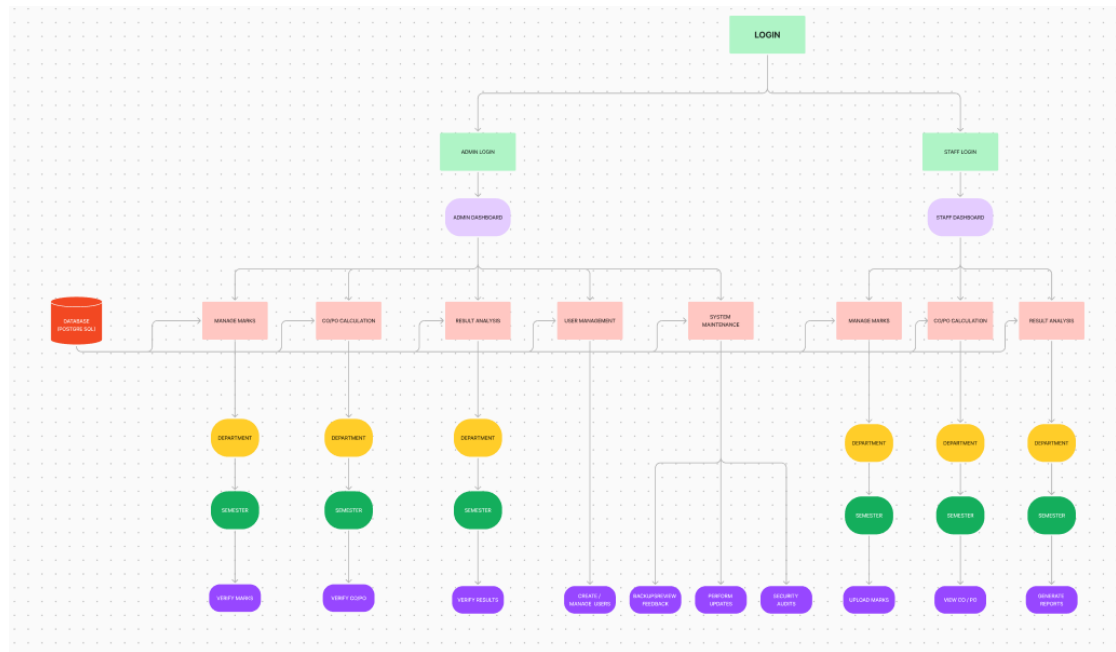
3.2 For College Management(Admin):

- **Admin Dashboard:**
  - o A centralized dashboard that provides an overview of all student marks entered by faculty.
  - o Admins can view and manage data categorized by student, class, CO, and PO.
- **Mark Approval and Management:**
  - o Admins can review and approve or reject marks entered by faculty.
  - o They have the ability to edit marks if necessary and provide comments or feedback for faculty.
- **CO & PO Calculation and Management:**
  - o Tools for calculating and reviewing CO and PO achievements based on the marks entered.
  - o Admins can generate and analyze reports to ensure alignment with educational objectives and standards.

- **Result Analysis:**
  - o Advanced analytical tools to generate comprehensive reports on student performance.
  - o Visual representations (charts and graphs) to facilitate understanding and communication of performance data.

4. Flow Chart:

5. OUTCOMES:

The Mark Entry System enhances academic performance management by streamlining mark entry, CO/PO calculations, and result analysis. It provides students with insights into their achievements and offers faculty robust tools for managing and analyzing data. This secure, efficient platform supports high educational standards and operational excellence within institutions.