BANNARI AMMAN INSTITUTE OF TECHNOLOGY
An Autonomous Institution Affiliated to Anna University - Chennai, Accredited by NAAC with A+ Grade
Sathyamangalam - 638401 Erode District, Tamil Nadu, India

Software Requirement Specification

Name : PRAJAN S
Roll No : 7376221CS259
Seat No : 240
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:

The manual process of managing marks entry, CO-wise periodical test marks, CO-PO calculation, and result analysis within educational institutions poses significant challenges, including:

- **Inaccuracies in mark entry:** Manual entry of marks leads to errors and inconsistencies in academic assessment data.
- **Time-consuming CO-wise mark calculation:** manually Calculating Course Outcome (CO) wise marks is labor-intensive and prone to errors.
- **Lack of alignment between COs and POs:** Mapping Course Outcomes (COs) to Program Outcomes (POs) for assessment purposes is not streamlined, affecting assessment alignment.
- **Limited insights from result analysis:** Manual result analysis hampers the ability to derive actionable insights from assessment data, hindering academic improvement efforts.

PROJECT FLOW:

Purpose: To develop a centralized system for managing mark entry processes, CO-wise periodical test marks, CO-PO calculation, and result analysis, addressing existing challenges and enhancing efficiency in academic assessment management.

Scope: This system encompasses user authentication, mark entry forms, CO-wise mark calculation, PO mapping, result analysis tools, and real-time dashboards for monitoring academic performance. It integrates with existing academic management systems to streamline assessment processes.

Business Context: The mark entry system aims to improve accuracy and transparency in academic assessment, facilitating better decision-making for faculty and administrators. Primary stakeholders include faculty members, educational coordinators, administrative staff, and the IT department.

Consideration:

- All users must have authenticated access to the academic management system.
- Users should have access to internet-enabled devices for system usage.

Dependencies:

- Integration with the existing academic management system for data synchronization.
- Consistent performance and availability of the IT infrastructure supporting the academic management system.

User Personas:

- **Faculty Member:** A user-friendly interface for entering and managing students' marks is needed.
- **Academic Coordinator:** Requires tools for CO-wise mark calculation, PO mapping, and result analysis.
- **Administrator:** Manages system operations, resolves technical issues, and ensures data integrity.

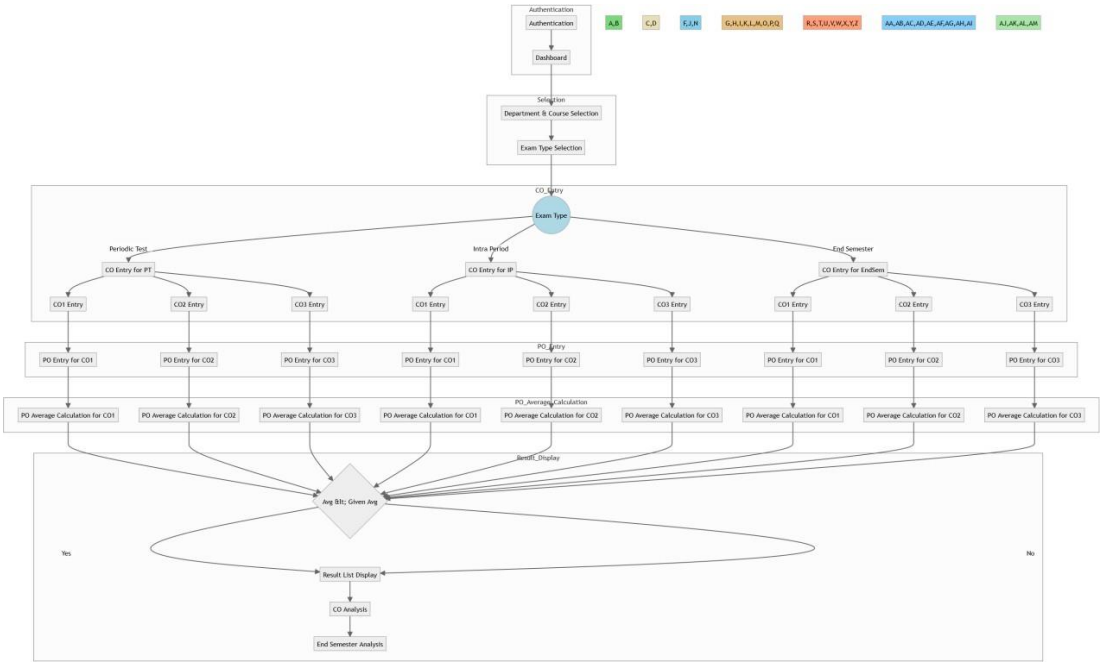
User Stories:

- As a faculty member, I want to efficiently enter and manage students' marks for periodical tests.
- As an academic coordinator, I need tools to calculate CO-wise marks, map them to POs, and analyze the results.
- As an administrator, I want to ensure the system operates smoothly and resolves any technical issues promptly.

FUNCTIONAL REQUIREMENTS:

- **User Authentication:** Secure login using existing credentials from the academic management system.
- **Mark Entry Forms:** User-friendly forms for entering periodical test marks.
- **CO-wise Mark Calculation**: Automated calculation of CO-wise marks based on entered data.
- **PO Mapping:** Mapping of COs to POs for assessment alignment.
- **Result Analysis Tools:** Tools for analyzing assessment results, including graphical representations.
- **Real-time Dashboards:** Dashboards for monitoring assessment progress and performance.

FLOW CHART:


Authentication
Authentication
Dashboard
A,B
C,D
F,J,N
G,H,I,K,L,M,O,P,Q
R,S,T,U,V,W,X,Y,Z
AA,AB,AC,AD,AE,AF,AG,AH,AI
AJ,AK,AL,AM
Selection
Department & Course Selection
Exam Type Selection
CO_Entry
Exam Type
Periodic Test
Intra Period
End Semester
CO Entry for PT
CO Entry for IP
CO Entry for EndSem
CO1 Entry
CO2 Entry
CO3 Entry
CO1 Entry
CO2 Entry
CO3 Entry
CO1 Entry
CO2 Entry
CO3 Entry
PO_Entry
PO Entry for CO1
PO Entry for CO2
PO Entry for CO3
PO Entry for CO1
PO Entry for CO2
PO Entry for CO3
PO Entry for CO1
PO Entry for CO2
PO Entry for CO3
PO_Average_Calculation
PO Average Calculation for CO1
PO Average Calculation for CO2
PO Average Calculation for CO3
PO Average Calculation for CO1
PO Average Calculation for CO2
PO Average Calculation for CO3
PO Average Calculation for CO1
PO Average Calculation for CO2
PO Average Calculation for CO3
Benefit_Display
Avg Blt; Given Avg
Yes
No
Result List Display
CO Analysis
End Semester Analysis