Software Requirement Specification

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Roll No	:	**7376221CS191**
Seat No	:	**243**
Project Id	:	**03**
Project title	:	**Internship and Job offer letter Repository**

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

BANNARI AMMAN INSTITUTE OF TECHNOLOGY

**An Autonomous Institution Affiliated to Anna University - Chennai,
Accredited by NAAC with A+ Grade**

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Student Name: PRAJAN S

Seat No:

Project ID: 14

Project title: Mark Entry

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.

```
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  CO2  CO3             CO1  CO2  CO3                    CO1  CO2  CO3
 Entry Entry Entry        Entry Entry Entry                Entry Entry Entry
```

```
PO_Entry
 PO Entry   PO Entry   PO Entry   PO Entry   PO Entry   PO Entry   PO Entry   PO Entry   PO Entry
 for CO1    for CO2    for CO3    for CO1    for CO2    for CO3    for CO1    for CO2    for CO3
```

```
PO_Average_Calculation
 PO Average   PO Average   PO Average   PO Average   PO Average   PO Average   PO Average   PO Average   PO Average
 Calculation  Calculation  Calculation  Calculation  Calculation  Calculation  Calculation  Calculation  Calculation
 for CO1      for CO2      for CO3      for CO1      for CO2      for CO3      for CO1      for CO2      for CO3
```

```
Result_Display
                        ◇ Avg Blt; Given Avg ◇
        Yes                                              No
                       │
                       ▼
                Result List Display
                       │
                       ▼
                  CO Analysis
                       │
                       ▼
              End Semester Analysis
```