BANNARI AMMAN INSTITUTE OF TECHNOLOGY
An Autonomous Institution Affiliated to Anna University - Chennai • Approved by AICTE • Accredited by NAAC with 'A+' Grade
SATHYAMANGALAM - 638401 ERODE DISTRICT TAMILNADU INDIA
Ph: 04295-226000/221289 Fax: 04295-226666 Email: stayahead@bitsathy.ac.in Web: www.bitsathy.ac.in
Stay Ahead

# SOFTWARE REQUIREMENT SPECIFICATION FOR MARK ENTRY PORTAL

| | |
|---|---|
| ***Name*** | *PRAVEENA C* |
| ***Roll no*** | *7376221BM140* |
| ***Seat no*** | *480* |
| ***Project ID*** | *14* |
| ***Problem Statement*** | *Mark entry Portal* |

## 1.INTRODUCTION:

### 1.1. Purpose:

The purpose of this document is to present a detailed description of the Mark entry portal. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli. Faculties can easily enter the mark of the students and they can able to track the student's level of learning concepts in each unit and also overall percentage of the mark.

### 1.2. Scope of the Project:

- ✓ The portal will securely store student information, including names, IDs, enrollment details, and program information. Staff can view reports summarizing marks and data to monitor progress and identify areas needing improvement.
- ✓ Reports tracking individual student progress over time, potentially helping to identify students who might need additional attention.

- ✓ Integration with student information systems or learning management systems for a streamlined workflow and reduced manual data entry.
- ✓ Students level of learning and understanding the concepts in each unit can be analyzed and IP data are considered alongside other factors, such as student participation, effort, and external challenges, to provide a well-rounded picture of student performance.
- ✓ Administrators may have access to manage user accounts, configure settings, and generate reports on overall class performance or individual student progress. Faculty members can access and update student marks, manage assignments, and track their performance.

## 2.SYSYTEM OVERVIEW:

### 2.1. Users:

#### 1.Faculty:

- ✓ The Mark Entry System is a web-based platform that allows you, the staff member, to securely enter, manage, and view student assessment marks for various courses and programs. Staff are responsible for ensuring the accuracy and security of entered marks. This might involve using strong passwords, following proper data entry protocols.
- ✓ Staff can edit or update previously entered marks as needed, following the established academic policies for correcting errors or adjustments.

#### 2.Admins:

- ✓ Create accounts for staff members (faculty, instructors) with appropriate permissions and roles within the system (e.g., course instructors, department heads).
- ✓ They can Set data access permissions for different user roles to ensure data security.
- ✓ Admins can Ensure the mark entry system integrates seamlessly with other relevant college systems, such as student information systems or learning management systems, to streamline data flow and reduce manual data entry.

### 2.2. Features:

#### 1.Login and registration:

- ✓ Faculties can login with their existing account and easily enter the marks for the student.

#### 2. Secure Mark Entry:

Staff can enter marks for Periodical test 1, Periodical test 2, IP 1, IP2 marks and they can asses the performance of the students.

**3.Student Information Management:**

- ✓ Secure storage of student data, including names, IDs, enrolment details, and program information.
- ✓ It allows staff (faculty, instructors) and potentially students (depending on access levels) to gain insights into individual progress and identify areas where students might need additional support.

**4. Class Performance Reports:**

- ✓ Generate reports summarizing the performance of an entire class, providing insights into grade distribution, areas requiring improvement, or overall effectiveness.

5. **Individual Student Progress Reports:**

- ✓ Ability to generate reports tracking individual student progress over time, potentially helping to identify students who might need additional attention.

**6. Integration with Other Systems:**

- ✓ The mark entry system might integrate with other systems like student information systems or learning management systems for a more streamlined workflow and reduced manual data entry.

**7. Multiple Factors:**

- ✓ Performance tracking should be considered alongside other factors, such as student participation, effort, and external challenges, to provide a holistic picture.

**8. Early Intervention:**

- ✓ Staff can identify students struggling early on, allowing them to provide targeted interventions or additional support before issues become significant.

**9. Performance Over Time:**

- ✓ Reports might display marks and attendance trends over time (e.g., semester, course duration) to visualize student progress and identify any potential dips or areas for improvement.

**10. Comparison with Class Averages:**

- ✓ Some systems might allow comparing a student's performance with class averages for specific assessments or overall grades. This can provide context for individual performance and identify students consistently below or above average.

**3. FUNCTONAL REQUIREMENTS:**

**3.1. User Management:**

- ✓ Faculties can register and login.
- ✓ Admins have access control with an analytical dashboard and dedicated features.

**3.2. Mark Entry:**

Faculties Can Submit Enter the Mark with Appropriate Details.

Portal Contains:

- ✓ DEPARTMENT
- ✓ SEMESTER
- ✓ COURSE
- ✓ PT 1 AND PT 2 MARK ENTRY
- ✓ IP 1 AND IP 2 MARK ENTRY
- ✓ END SEMESTER MARK ENTRY

**3.3. Session Management:**

- ✓ The system should manage user sessions with appropriate timeouts for inactivity to maintain security. Users should be able to log out explicitly when finished.

**3.4. User Interface:**

- ✓ The user interface for managing users should be intuitive and user-friendly for authorized personnel.

**3.5. Account Creation:**

- ✓ The system should allow authorized personnel (e.g., administrators) to create user accounts for staff members (faculty, instructors) with unique usernames and secure passwords.

**3.6. Admin Dashboard:**

- ✓ Create accounts for staff members (faculty, instructors) with appropriate permissions and roles within the system (e.g., course instructors, department heads).
- ✓ Deactivate accounts for staff or students who no longer require access.
- ✓ Respond to inquiries or troubleshoot technical issues faced by staff regarding system access, data entry, or report generation.

**10.Secure Data Entry:**

- ✓ Admin are responsible for ensuring the accuracy and security of entered marks. This might involve using strong passwords, following proper data entry protocols, and being cautious about unauthorized access.

**11.Familiarization and Training:**

- ✓ Depending on the system, staff might be involved in attending training sessions or familiarizing themselves with user manuals and tutorials to understand the system's functionalities and proper data entry procedures.

## 4. NON-FUNCTIONAL REQUIREMENTS:

### 4.1. Performance:

- ✓ The portal should be able to handle a large number of concurrent users and process FC submissions quickly to avoid delays.

### 4.2. Reliability:

- ✓ The system should be available 24/7 with minimal downtime for maintenance or upgrades. It should also have backup and recovery mechanisms in place to prevent data loss.

### 4.3. Usability:

- ✓ The portal should have a user-friendly interface that is easy to navigate, with clear instructions and guidance for users.

### 4.4. Compatibility:

- ✓ The portal should be compatible with a range of devices and browsers to ensure accessibility for all users.

### 4.5. Scalability:

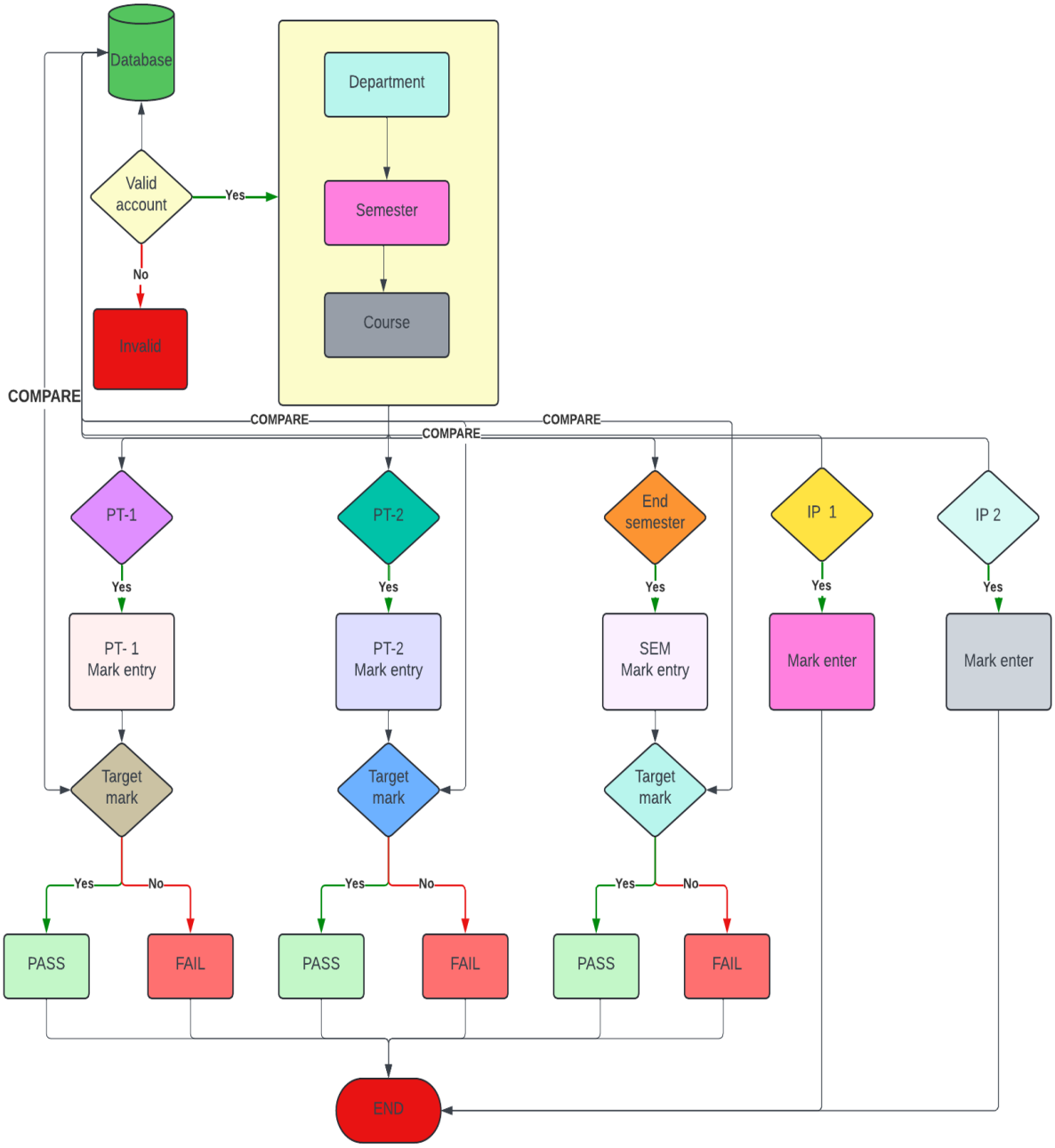
- ✓ The system should be designed to accommodate an increasing number of users and data volume over time, and it should be scalable to support additional features and functionalities as per future requirements.

**STACK:**

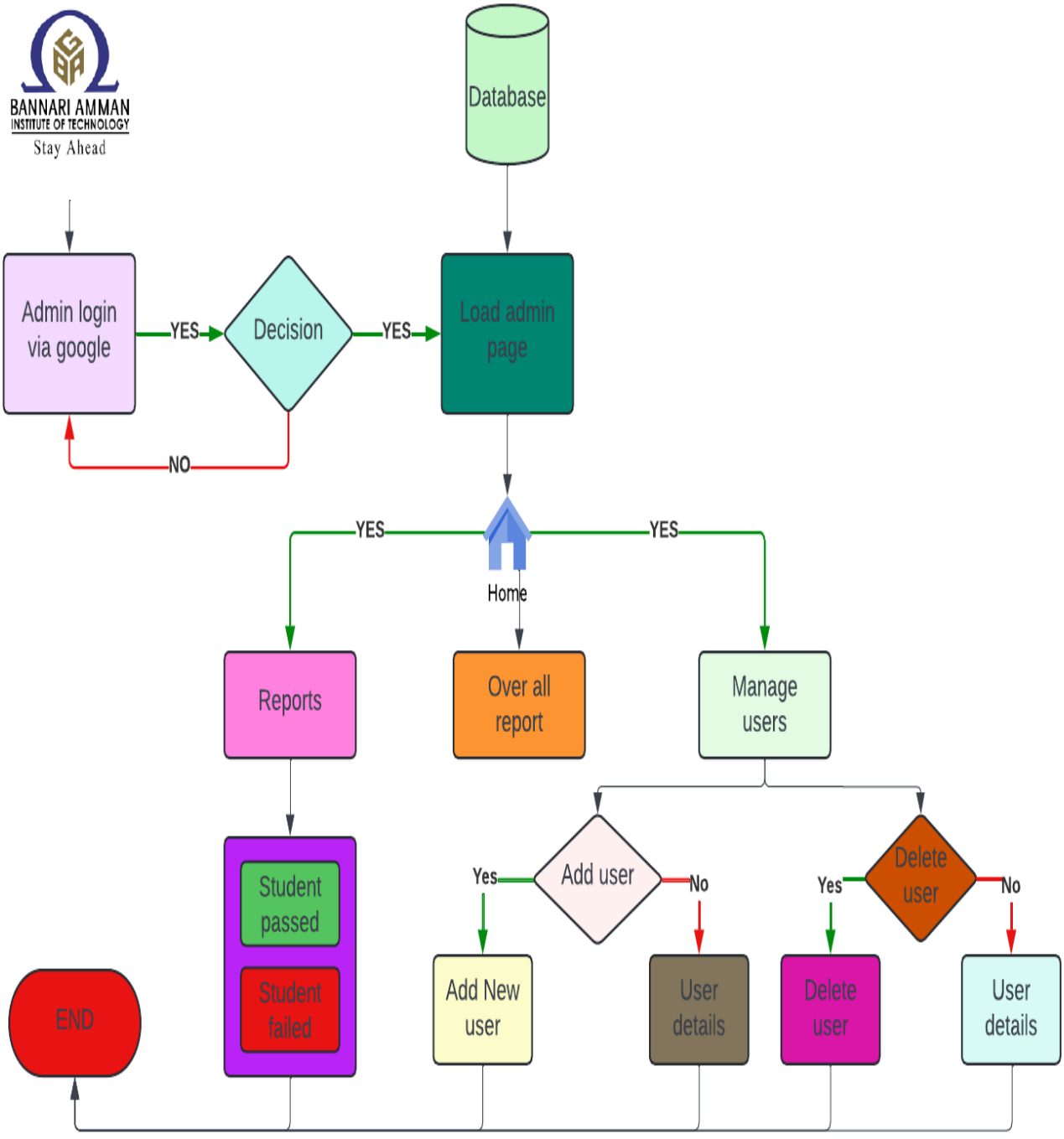
| | |
|---|---|
| *Front End* | *React* |
| *Backend* | *Node.js with Express.js* |
| *Database* | *MongoDB* |
| *API* | *Open API* |

**FLOW CHART:**

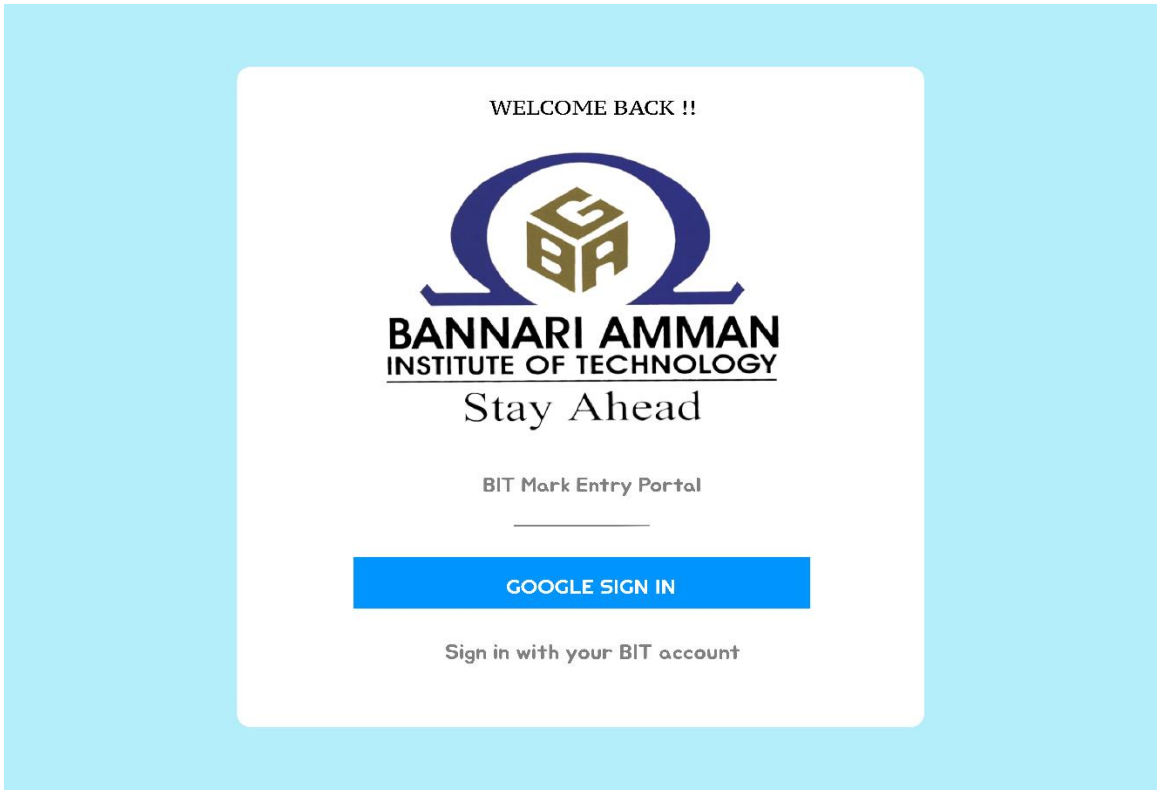
**USER INTERFACE**



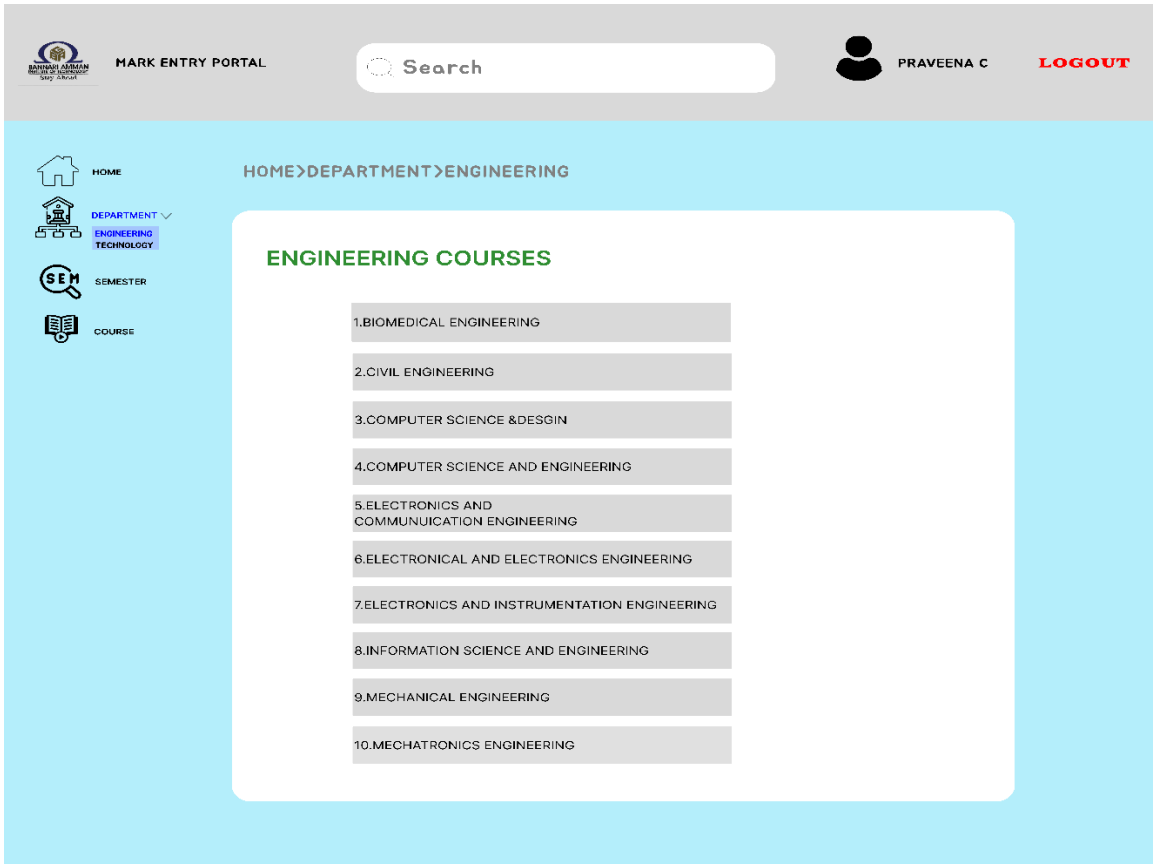
**ADMIN INTERFACE:**



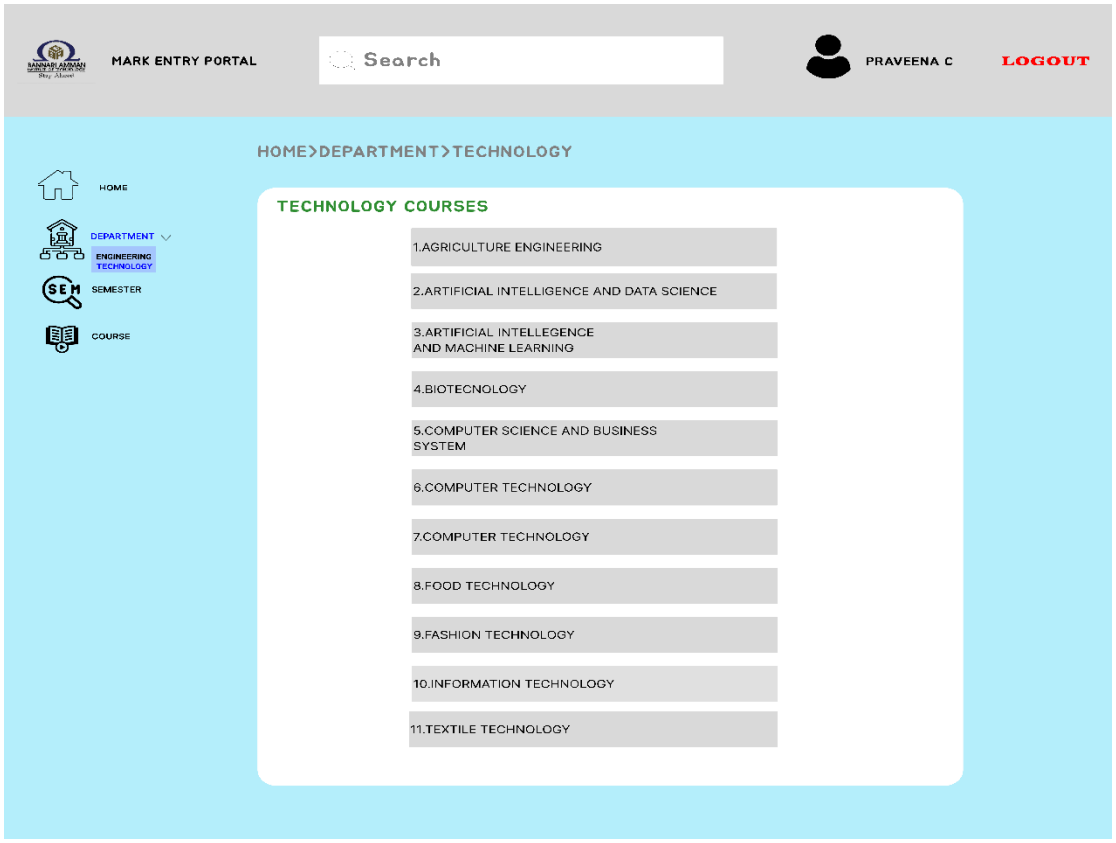
## 1)SIGNIN WITH GOOGLE:



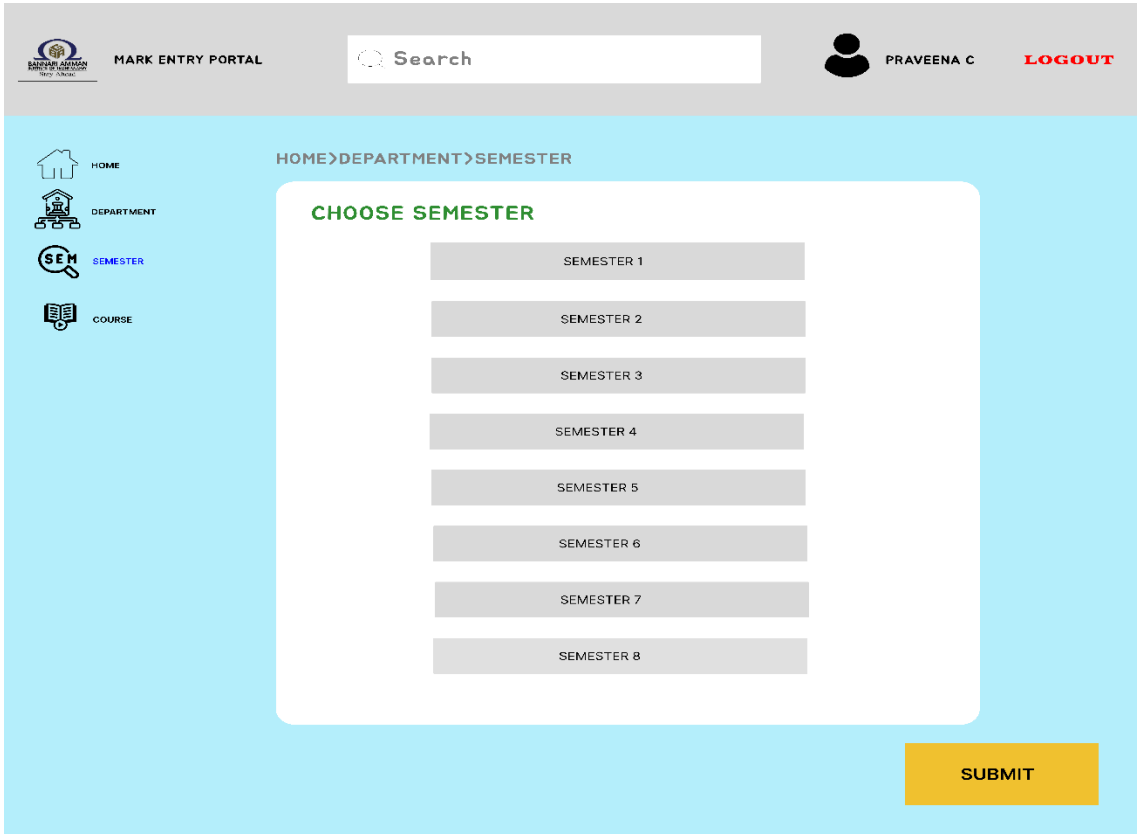

## 2)HOME>DEPARTMENT>ENGINEERING



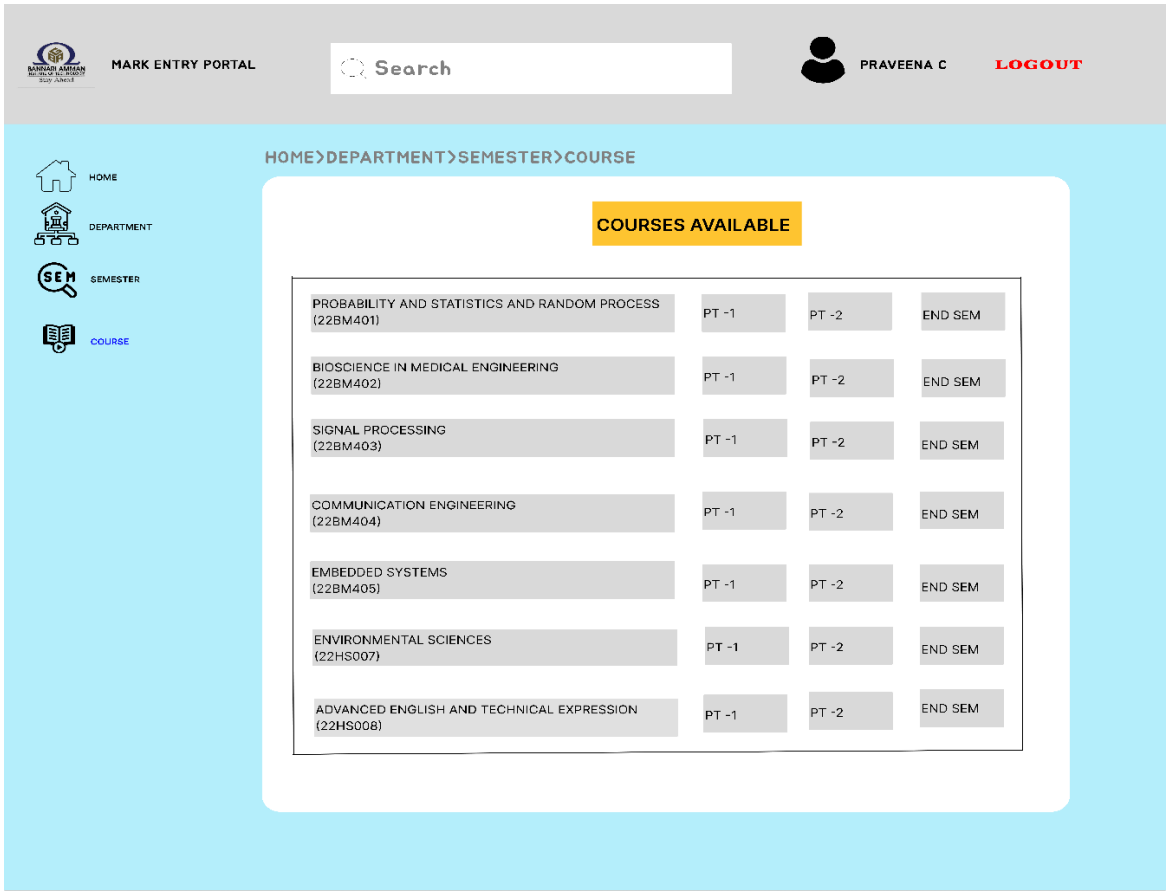
## 3)HOME>DEPARTMENT>TECHNOLOGY

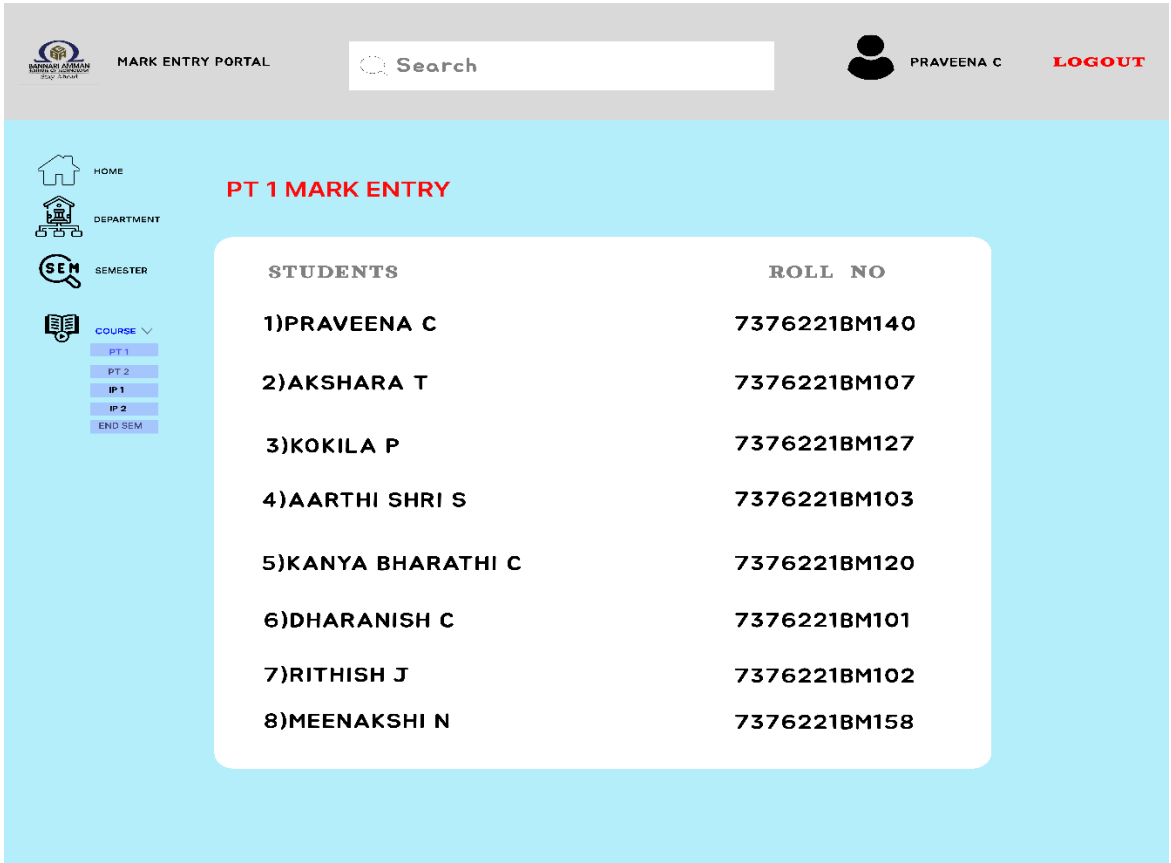



## 4) HOME>DEPARTMENT>SEMESTER

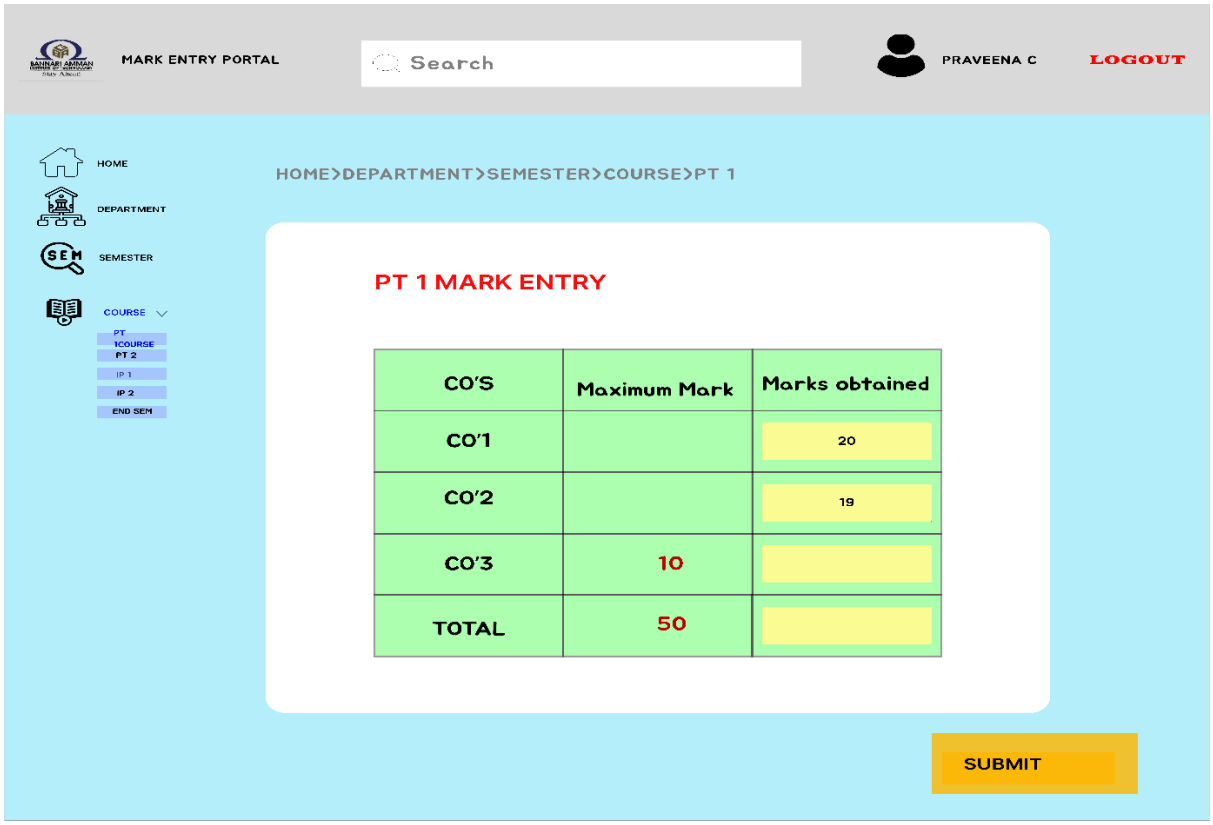


## 5) HOME>DEPARTMENT>SEMESTER>COURSE

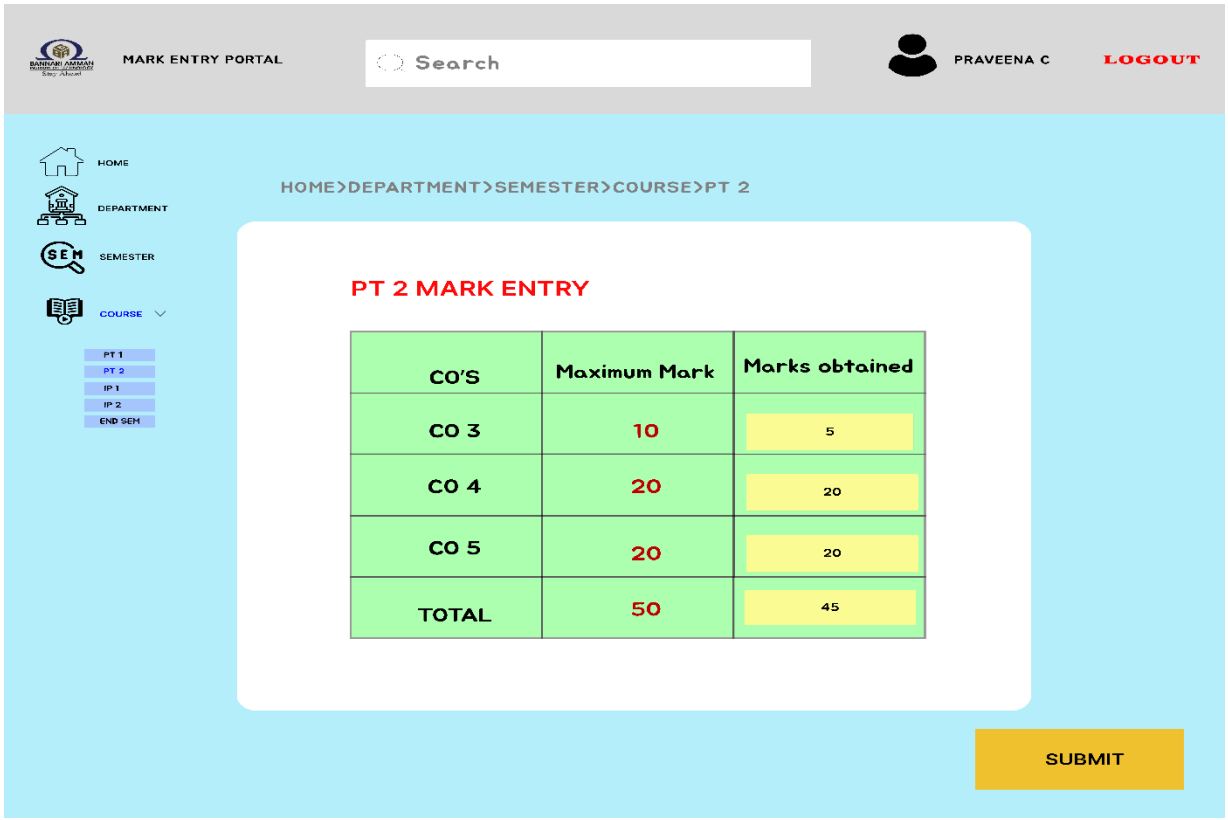


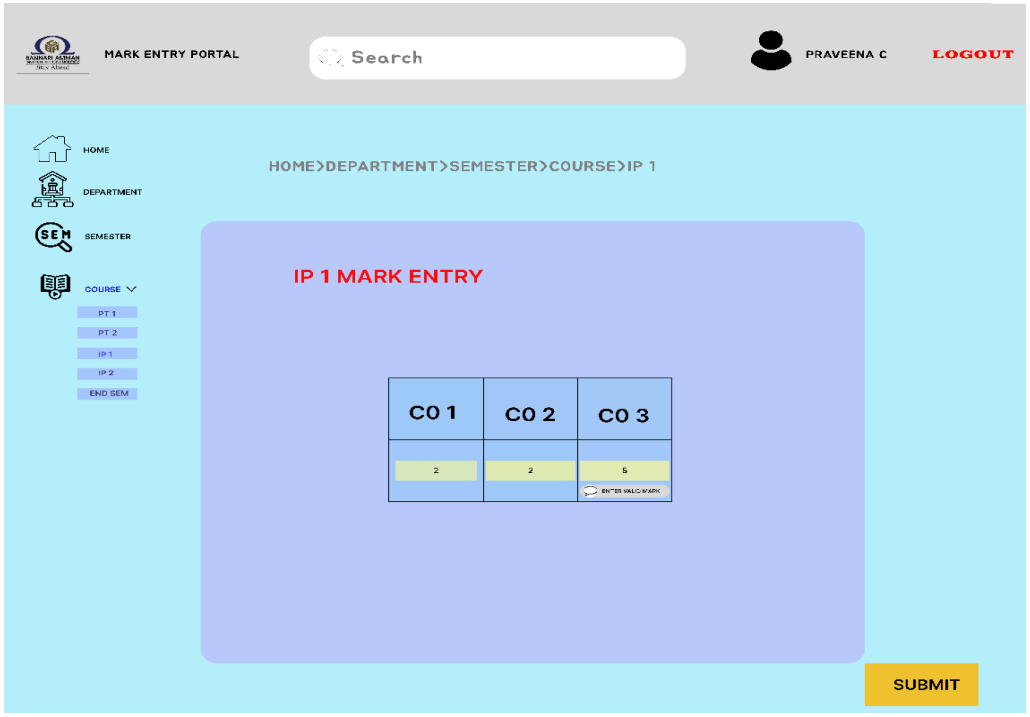
## 6) HOME>DEPARTMENT>SEMESTER>COURSE>PT 1



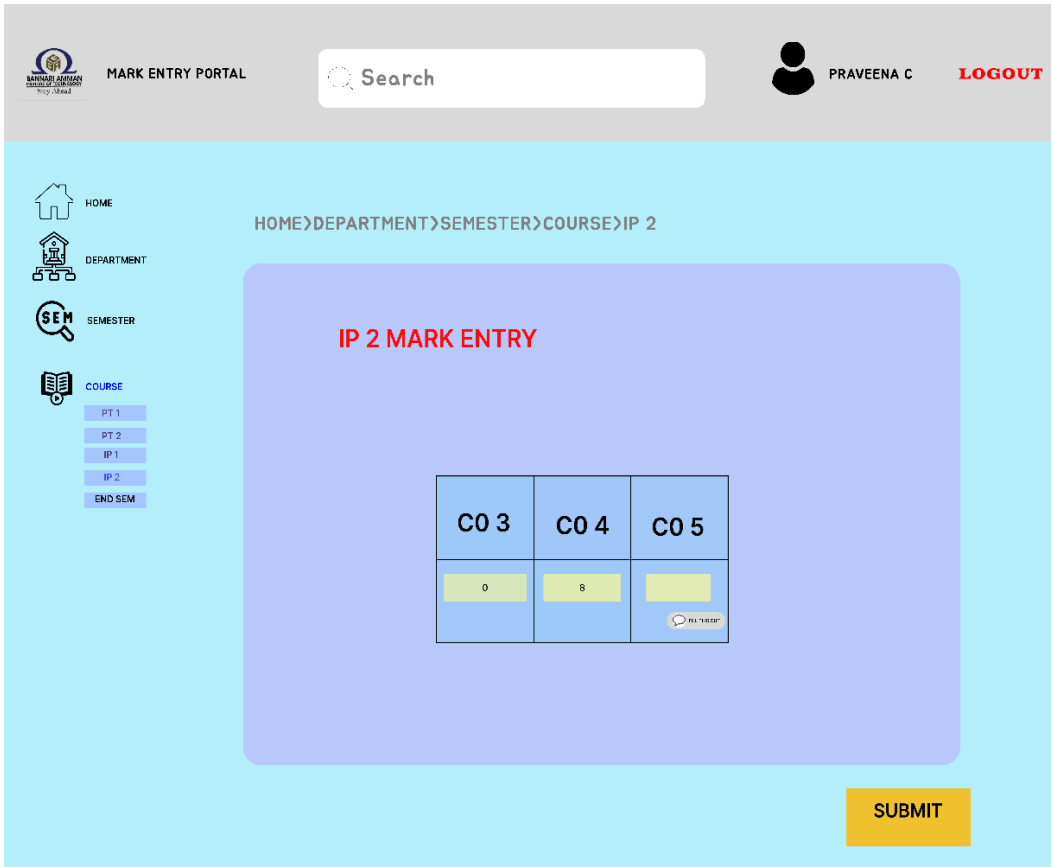

## 7) HOME>DEPARTMENT>SEMESTER>COURSE>PT 2



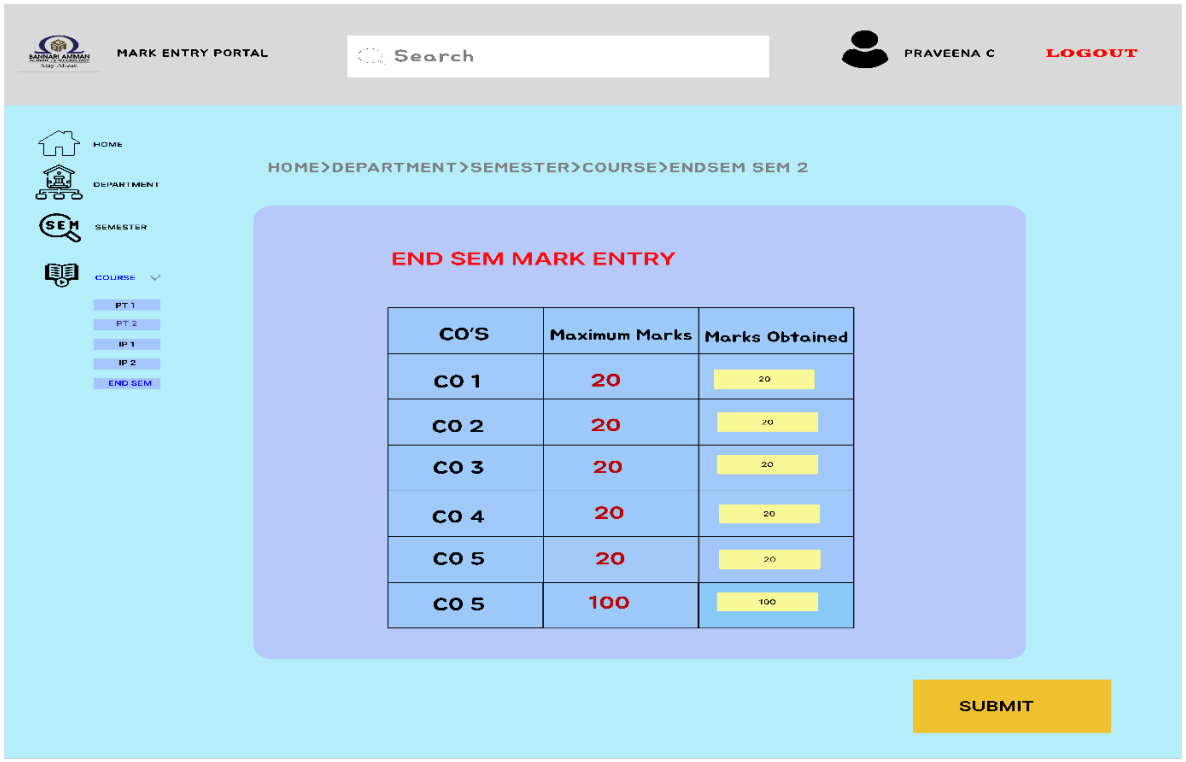
## 8) HOME>DEPARTMENT>SEMESTER>COURSE>IP 1



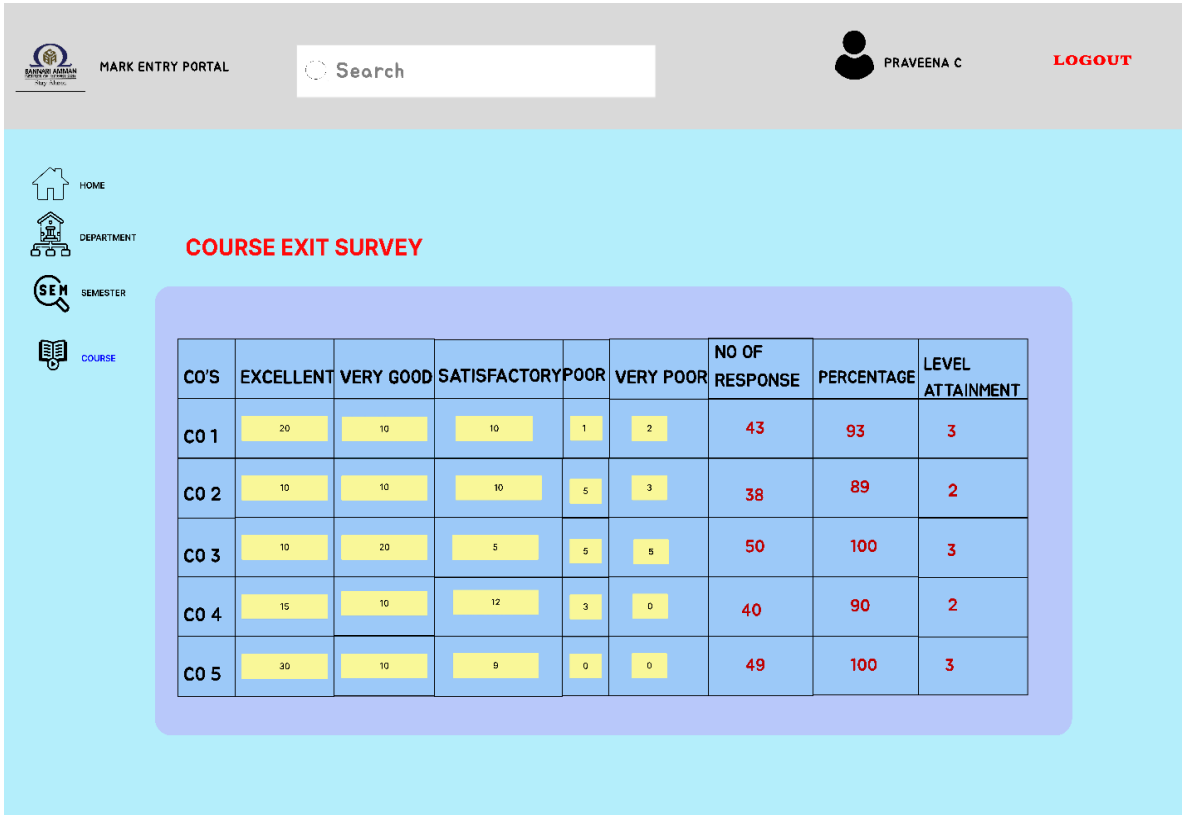

## 9) HOME>DEPARTMENT>SEMESTER>COURSE>IP 2



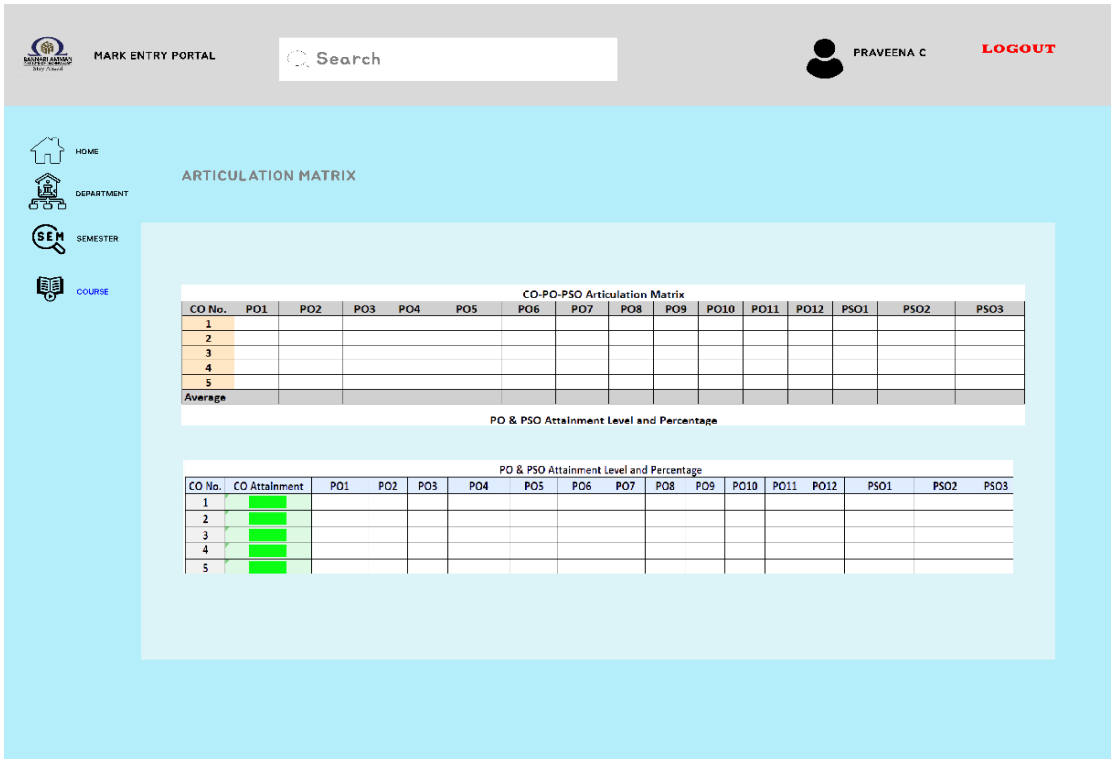
## 10)HOME>DEPARTMENT>SEMESTER>COURSE>ENDSEM



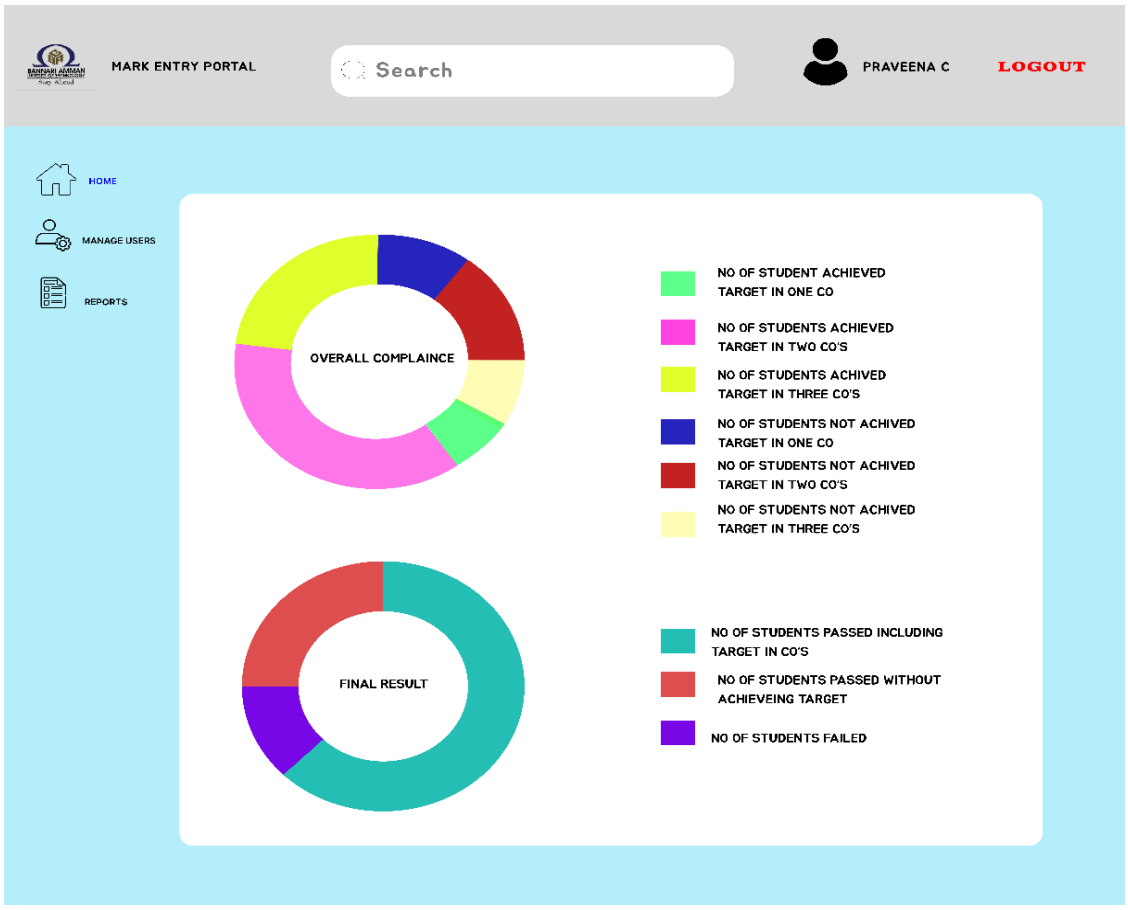

## 11) HOME>DEPARTMENT>SEMESTER>COURSE



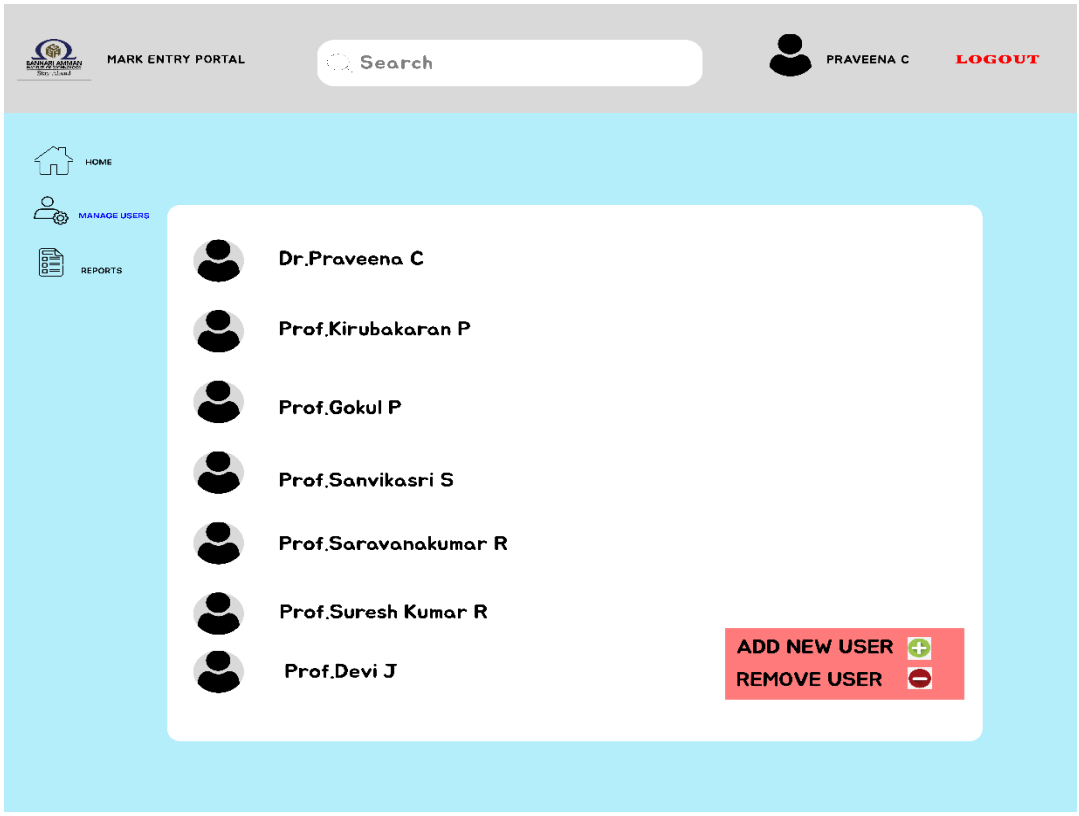
## 12)USER CAN FIND ARTICULATION MATRIX

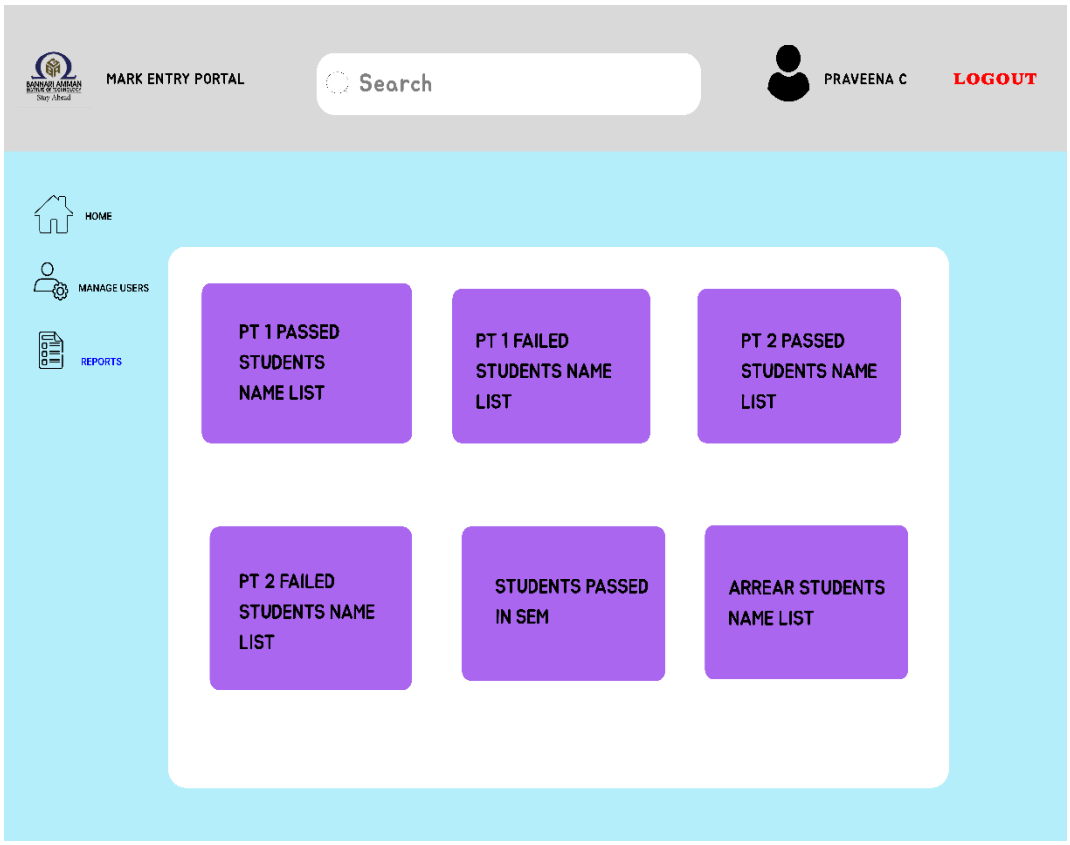



## 13)ADMIN'S VIEW:



## 14)MANAGE USERS:




## 15)MANAGE USERS: