Software Requirements Specification (SRS)

For Student Mentorship Program (SMP) Portal

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Introduction

The Student Mentorship Program (SMP) at the Institute is a vital initiative within the student community aimed at fostering constructive and positive interactions while providing guidance and mentorship to junior students by their senior counterparts. The essence of SMP lies in the wealth of experience that senior student mentors bring to the table, using it to facilitate the growth and development of first-year students.

In essence, a Student Mentor's role is to be a facilitator, offering support and contributing to the holistic development of the student community as a whole. This mentoring relationship benefits the mentees and provides valuable learning and growth opportunities for the mentors.

Currently, SMP uses various tools like spreadsheets, forms, and paper for different administrative tasks like selecting mentors, assigning mentors to mentees, tracking mentor-mentee interactions, etc. These are very cumbersome and time consuming, consuming precious time of the head of the counseling service.

The aim of this project is to develop a web application/portal that can be used to manage all the SMP administrative activities, making it easier for mentors to help mentees and administration to manage the program.

Type of the users

There are three types of users for this application:

- Admin: The person (generally the head counselor) who would monitor the entire SMP functioning and manage the mentors and mentees. The admin manages the overall program including tasks like recruit mentors, mentor-mentee mapping, schedule meetings and review feedback, etc.
- Mentor: Senior students who would volunteer to provide mentorship. Senior students apply for this program, and once approved can manage their profile, schedule meetings with assigned mentees, etc.

- Mentee: First year students who would receive the mentorship. All first year students are mentees and their list is uploaded by the admin. Mentees attend the meetings with mentors and can give feedback.

Functional requirements - Overview of Use Cases

As mentioned above, the SMP portal will have 3 types of users. Here is a brief overview of the use cases for each of them. The details of the use cases, including exceptional scenarios, are given later in the document.

Mentor

UC Name (Goal/priority)	Brief Description	Entry Condition
Fill Application form (essential)	Interested Students must fill out the application form and take an M.C.Q-based test.	Student in 3rd/4th year
Fill Consent Form (essential)	Selected Students will fill be sent a consent form. On submission, they are added as mentor	Student in 3rd/4th year
Check Assigned Mentees (essential)	On the dashboard, a mentor can see his assigned mentee's list	Mentor-mentee mapping is done, and Mentor is logged in.
Check Scheduled Meetings (optional)	Mentors check the meeting set up by the Admin and them	Mentor is logged in
Schedule Mentor - Mentee Meeting (essential)	Mentors schedule monthly meetings.	Mentor-mentee mapping is done, and Mentor is logged in.

Mentee

UC Name (Goal/priority)	Brief Description	Entry Condition
Check Mentor Details (essential)	Mentees can check the details of the mentor assigned to them.	Mentee is logged in
Check Meetings Schedule (essential)	Mentee checks the meeting schedule	Mentee is logged in
Give Feedback for the Program (essential)	Mentee provides feedback for their assigned mentor	Mentee is logged in and mentor is assigned

Admin

UC Name (Goal/priority)	Brief Description	Entry Condition
Mentor Recruitment and Approval (essential)	Admin starts the form for mentor application; approves selected students based on their test score; and sends them the consent form; on consent, the mentor is added	Admin is logged in
Add/remove a mentor (essential)	Can add/remove a mentor later	Admin logged in
Schedule Meeting (optional)	Schedules meetings with mentors and mentees	Admin is logged in
View/edit/download Mentor-Mentee List (essential)	Admins view/edit/download the Mentor-Mentee list	Admin is logged in
View Mentor-Mentee Profile (essential)	Admins view the status of the mentor-mentee profile.	Admin is logged in

Form Management (essential)	Admin manages (enables/disables) forms: enrollment, consent, and feedback. In responses to enrollment form, can approve students. Upon approval a mail is sent to fill the consent form.	Admin is logged in
Mentor-mentee mapping (essential)	Admin selects approved mentors and clicks the mentor-mentee button to initiate branch-wise mapping	Admin is logged in
Upload Mentee list (essential)	Uploads the list of mentees who will be assigned mentors	
Add/delete Mentee (essential)	Add/delete a mentee (which may have been missed in the original list)	

Non-Functional requirements

User Interface and Integration

The SMP Portal would be primarily a web-based application. It should be linked with the existing SMP website by providing a button on the header tab that redirects the user to this portal. In addition:

- The portal should have an intuitive and easy-to-use interface which will work with most commonly used browsers (Chrome, Mozilla, Edge, etc.)
- Ability for users to log in the portal using their institute email address

Performance

- **Uptime and Accessibility:** The portal should be accessible and functional 100% of the time, except for some foretold downtime for maintenance or upgradation.
- **Response Time:** The page response time should be less than 3s for all the web pages to ensure consistent user engagement.
- **Scalability:** It should handle concurrent users. (However, the number of concurrent users is likely to be few and the load at any time will be low.)

Since we would host this on Institute infrastructure, the first three requirements would be automatically fulfilled.

Security Constraints

- **Data Encryption:** Use of HTTPS to encrypt data transmitted between the user's browser and the server to protect sensitive information.
- **User Authentication and Authorization:** Implement authentication to ensure only authorized users can access specific features and data.

Use Case Details

Mentor

Use Case 1: Fill Application form

- **Actor**: Mentor
- **Description:** This use case involves interested students filling out the Mentor application form and taking an MCQ-based test to determine their eligibility for the mentorship role.
- **Entry Condition**: Student Must be in 3rd or 4th year.
- **Event flow:**

1. Students will receive mail for the mentorship program.
2. Students log in to the portal using their credentials.
3. Students access the Mentor application form.
4. They provide the necessary branch details and other required information in the form.
5. Students answer the multiple-choice questions.
6. Once completed, students can review and submit the form.
7. The system evaluates their responses and records the submitted application for review by the admin.

- **Special/Exceptional Requirements:** NA

Use Case 2: Fill Consent Form

- **Actor:** Mentor
- **Description:** This use case involves students who have submitted the Mentor application form filling and submitting the Consent form
- **Entry Condition**: Students are logged in and have submitted the Mentor application form.
- **Event flow:**

1. Students who submit the Mentor application form are notified about filling out the consent form via mail.
2. Students log in to the portal.
3. They access the Consent form.
4. Fill the solutions to the given questions.
5. The system evaluates their responses, determines their eligibility based on the responses and updates their status.
6. Eligible students are granted the mentorship role late by the admin.

- **Special/Exceptional Requirements:** NA

Use Case 3: Check Assigned Mentees

- **Actor:** Mentor
- **Description:** This use case allows mentors to check the assigned mentees list on their dashboard.
- **Entry Condition**: Mentor-mentee mapping is done, and Mentor is logged in.
- **Event flow:**

1. After logging in, the mentor is redirected to the dashboard.
2. On the dashboard they can see their and the assigned mentee's details.

- **Special/Exceptional Requirements:** NA

Use Case 4: Check Scheduled Meetings

- **Actor:** Mentor
- **Description:** This use case allows mentors to check the meeting schedule set up by the Admin or by them
- **Entry Condition**: The mentor is logged in and has opened the "Meeting" page.
- **Event flow:**

1. The portal displays the previous and upcoming meetings with details such as dates, times, and locations.
2. Mentors review the meeting schedule to ensure they are aware of upcoming training sessions.

- **Special/Exceptional Requirements:** NA

Use Case 5: Mentor-Mentee Meeting Schedule

- **Actor:** Mentor
- **Description:** This use case allows the mentor to schedule monthly mentor-mentee meetings, determine the time and place, add mentees to the schedule, and optionally add an image of the meeting.

- **Entry Condition**: The mentor is logged in and has opened the “Meeting” page.

- **Event flow:**

1. The portal provides options to schedule a new meeting.
2. The mentor selects the option to schedule a new meeting.
3. The mentor specifies the following details:
   - Meeting date and time (monthly schedule).
   - Meeting location or venue.
   - Agenda or topics to be discussed during the meeting.
4. The mentor adds mentees to the meeting schedule by selecting mentees from a list of assigned mentees. The portal may also allow the mentor to search for and select specific mentees.
5. The portal saves the meeting details and updates the meeting schedule.

- **Special/Exceptional Requirements:** Cancel Meeting and Edit Meeting Details

Use Case 6: Take Attendance

- Actor: Mentor

- Description: This use case allows the mentor to mark the attendance of the mentees after a scheduled mentor-mentee meeting.

- **Entry Condition**: The mentor is logged in and has opened the "Meeting" page, and the meeting already exists in the schedule.

- **Event flow:**

1. After the scheduled meeting has taken place, the mentor logs in to the portal.
2. The portal displays a list of scheduled meetings.
3. The mentor selects the specific meeting that occurred.
4. The mentor navigates to the "Meeting Attendance" or a similar section.
5. For that meeting, the portal presents a list of mentees who were expected to attend.
6. The mentor marks the attendance of each mentee who attended the meeting.
7. The portal records the attendance and updates the status accordingly.

- **Special/Exceptional Requirements:** NA

Mentee

Use Case 1: Check Mentor Details

- **Actor**: Mentee
- **Description:** This use case allows the mentee to check the mentor details.
- **Entry Condition**: The mentee is logged.
- **Event flow:**
  1. The mentee dashboard shows the details of the mentor assigned to the given mentee and on the same page they can also see their details.
- **Special/Exceptional Requirements:** NA

Use Case 2: Check Meetings Schedule

- **Actor**: Mentee
- **Description:** This use case allows the mentee to check the meeting schedule provided by both the mentor and admin.
- **Entry Condition**: The mentee is logged in and has opened the meeting page.
- **Event flow:**
  1. The portal displays the meeting schedule, including details of meetings with the mentor and admin along with their statuses.
  2. The mentee reviews the schedule to see upcoming meetings.
- **Special/Exceptional Requirements:** NA

Use Case 3: Give Feedback for the Program

- **Actor:** Mentee
- **Description:** This use case for the mentee to provide feedback for their assigned mentor through a feedback form.
- **Entry Condition:** The mentee is assigned a mentor, logged in, and opened the Feedback page.
- **Event flow:**
  1. The mentee accesses the "Feedback" section.
  2. The portal presents a feedback form related to the mentor's performance.
  3. The mentee fills out the feedback form, sharing their thoughts and comments.
  5. Once completed, the mentee submits the feedback form.
- **Special/Exceptional Requirements:** NA

Admin

Use Case 1: Mentor Recruitment and Approval

- **Actor:** Admin
- **Description:** Mentors are selected and approved based on their test scores.
- **Entry Conditions:** Admin is logged into the web portal.
- **Event flow:**
    1. Login to Admin Account:
       The admin opens a web browser and navigates to the SMP portal.
       The admin logs in using their admin credentials (username and password).
    2. Access Recruitment Section:
       After successfully logging in, the admin is presented with the admin's dashboard.
    3. The admin locates and selects the "Form and Responses" section where forms are listed.
    4. Initiate Recruitment Process:
       The admin sets the status of the "Enrollment Form" to "on" and sends the mail to the 3rd and 4th year B.Tech students and 2nd-year M.Tech students informing them about the process.
    5. Review Applications and Test Scores:
       Once the recruitment process is initiated, the admin gains access to a list of student applications by clicking on "View Responses" button in front of the enrollment form.
    6. The admin can review the applications, typically including the student's name, contact details, academic records, and a test score.
    7. The admin may sort or filter the applications based on the test scores.
    8. Before selecting the mentors, the admin set the "Consent Form" status to "on".
    9. Select Mentors based on Test Scores:
       The admin assesses the applications, paying particular attention to the test scores submitted by students.
    10. The admin selects potential mentors based on predefined criteria, which may include minimum test score thresholds.
    11. For selected applicants, the admin clicks on the "Send Consent Form" button to send the mail of approval and consent form.
    12. Once the Consent Form is filled, the responses can be seen by clicking the View Responses button.
- **Special/Exceptional Requirements:** NA

Use Case 2: Form Management

- **Primary Actor:** Admin
- **Entry conditions**: Admin is logged into the web portal.
- **Event flow:**
    1. Access Forms Section: Admin can access the forms section by clicking on the "Forms and Responses" or a similar section from the navigation bar.
    2. View Form List: Multiple forms will be listed with an on/off toggle bar and a View Responses button in front of them.
    3. Changing Status of Form: Toggling the On/Off button will change the form status.
    4. Viewing Responses: Clicking on the View Responses button of any specific form will open its responses.
    5. Searching/Sorting/Filtering Responses: The admin may have the option to search for specific responses or filter or sort the list based on certain criteria (e.g., academic year, program cycle, score).
    6. Selecting the responses: There is a checkbox or similar option in front of every response which can be clicked to select or deselect the response/submitter.
- **Special/Exceptional Requirements:** NA

Use Case 3: Mentor-Mentee Mapping

- **Primary Actor:** Admin
- **Entry conditions**: Admin is logged into the web portal. A consent Form has been floated.
- **Event flow:**
    1. Access Forms Section: Admin can access the forms section by clicking on the "Forms and Responses" or a similar section from the navigation bar.
    2. Selecting Approved Mentors: By clicking on the "View Responses" of "Consent Form", all the responses of the consent form can be seen and mentors with the status "Accepted" can be selected using checkboxes in front of every response.
    3. Initiate the Mapping: After selection, there is a button "Mentor-Mentee Mapping" which initiates the branch-wise mapping based on the selection.
- **Special/Exceptional Requirements:** NA

Use Case 4: Schedule Meeting

- **Actor:** Admin
- **Entry Conditions:** Admin is logged into the web portal.
- **Event flow:**
    1. Login to Admin Account.

2. The admin locates and selects the "Meetings" section from the “Navigation bar, " allowing them to manage mentor training.
3. In the "Meetings" section, the admin initiates the scheduling process by clicking a button or link labelled "Create Schedule" or something similar.
    a. The admin may be prompted to specify details about the meeting, such as the date, time, topic, description and participants of the training sessions.
4. The admin selects the attendees who need to attend the training sessions.
5. Once the meeting schedule is finalised, the system generates email notifications to inform selected attendees about their meeting date, time, and other relevant details.

- **Special/Exceptional Requirements:** NA

Use Case 5 : Take Attendance

- **Primary Actor:** Admin
- **Entry conditions:** Admin is logged into the web portal.
- **Event flow:**
    1. Access Meetings Section:
       After successfully logging in, the admin is presented with the portal's dashboard.
       The admin locates and selects the "Meetings" section from the navigation bar, which allows them to manage meetings.
    2. Select Meetings:
       In the "Meeting" section, the admin identifies the scheduled meetings for which they need to take attendance.
       The admin clicks on the specific meeting or selects it from a list.
    3. Take Attendance:
       Within the selected training session, the admin sees a list of mentors/Mentees expected to attend.
    4. The admin marks each mentor as "Present" or "Absent" by checking boxes or using a similar interface element.
    5. Review and Confirm:
       After taking attendance, the admin reviews the attendance list to ensure accuracy.
       The admin can update the attendance records if any corrections are needed.
    6. Save Attendance:
       Once the attendance list is accurate, the admin saves the attendance records by clicking a "Save" or "Submit" button within the portal. The system updates the attendance records for the selected training session.
- **Special/Exceptional Requirements:** NA

Use Case 6: View/ Edit/Download Mentor-Mentee List (Admin)

- **Actor:** Admin

- **Entry Conditions:** Admin is logged into the web portal. Mentor and mentee pairings have been established and recorded in the system.
- **Event Flow:**
  1. Access Mentor-Mentee List Section: The admin locates and selects the "Mentors/Mentees" or similar sections from the navigation bar.
  2. In the Mentees section, the admin can upload the CSV with the details of first-year students given by the Academic Department. It will replace the current list with the new set of students/mentees.
  3. There is a "Download CSV" button to download the current details.
  4. View Mentor-Mentee List: In the "Mentor-Mentee" section, the admin can view a comprehensive list of mentors and mentees.
  5. Search and Filter: The admin may have the option to search for specific mentor-mentee pairs or filter the list based on certain criteria (e.g., academic year, program cycle).
  6. Edit Pairings: If the admin identifies any inaccuracies or needs to make adjustments to pairings (e.g., reassigning mentors or mentees), they can initiate edits through the portal by going to the Mentees List page and using the "Change Mentor" button in the front of every mentee entry in the table.
  7. To remove any button, there is a "Trash Icon" in front of every mentee, which can be clicked on to remove the mentee after confirmation.
  8. The "Add Mentor/Mentee" button on both sections is to add any mentee and mentor manually.

Use Case 7: View Mentor/Mentee Profile

- **Primary Actor:** Admin
- **Entry conditions**: Admin is logged into the web portal.
- **Event flow:**
  1. Access Mentor/Mentee Profiles Section:
     After successfully logging in, the admin is presented with the portal's dashboard. The admin locates and selects the "Mentors/Mentees" or similar sections from the navigation bar.
  2. Search for Profiles:
     In the "Mentor/Mentees" section, the admin can search for specific mentor or mentee profiles. The admin may use search boxes, filters, or other search criteria (e.g., name, academic year) to locate the desired profiles.
  3. View Profile Details:
     Once the admin has found the profile(s) they are interested in, they can click on the respective profile to view its details. Mentor and mentee profiles typically contain

personal details, contact information, their respective mentor-mentee pairing and details, and program-related information.

- **Special/Exceptional Requirements:** NA