Project Report

Project Name: Semester Project Managment

Name: Syed Mustafa

Registration Number: SP23-BSE-015

Use Case 1: Submit Proposal

Use Case Name: Submit Proposal

Actor: Student

Goal in Context: The student wants to submit a proposal document for the assigned project.

Preconditions:

The student must be logged into the system.

The student must be part of a group.

The project must be assigned.

Postconditions:

- Proposal is submitted and saved in the system.
- Submission date is recorded.

Main Success Scenario (Basic Flow):

- Student logs into the system.
- Navigates to the proposal submission section.
- Uploads the proposal document.
- Enters any required metadata (e.g., title, description).
- Submits the proposal.
- System stores the proposal and confirms submission.
- System logs the date and time of submission.

Extensions (Alternative Flows):

1. If the file format is invalid, system shows an error message.
2. If required fields are missing, system prevents submission and displays a prompt.

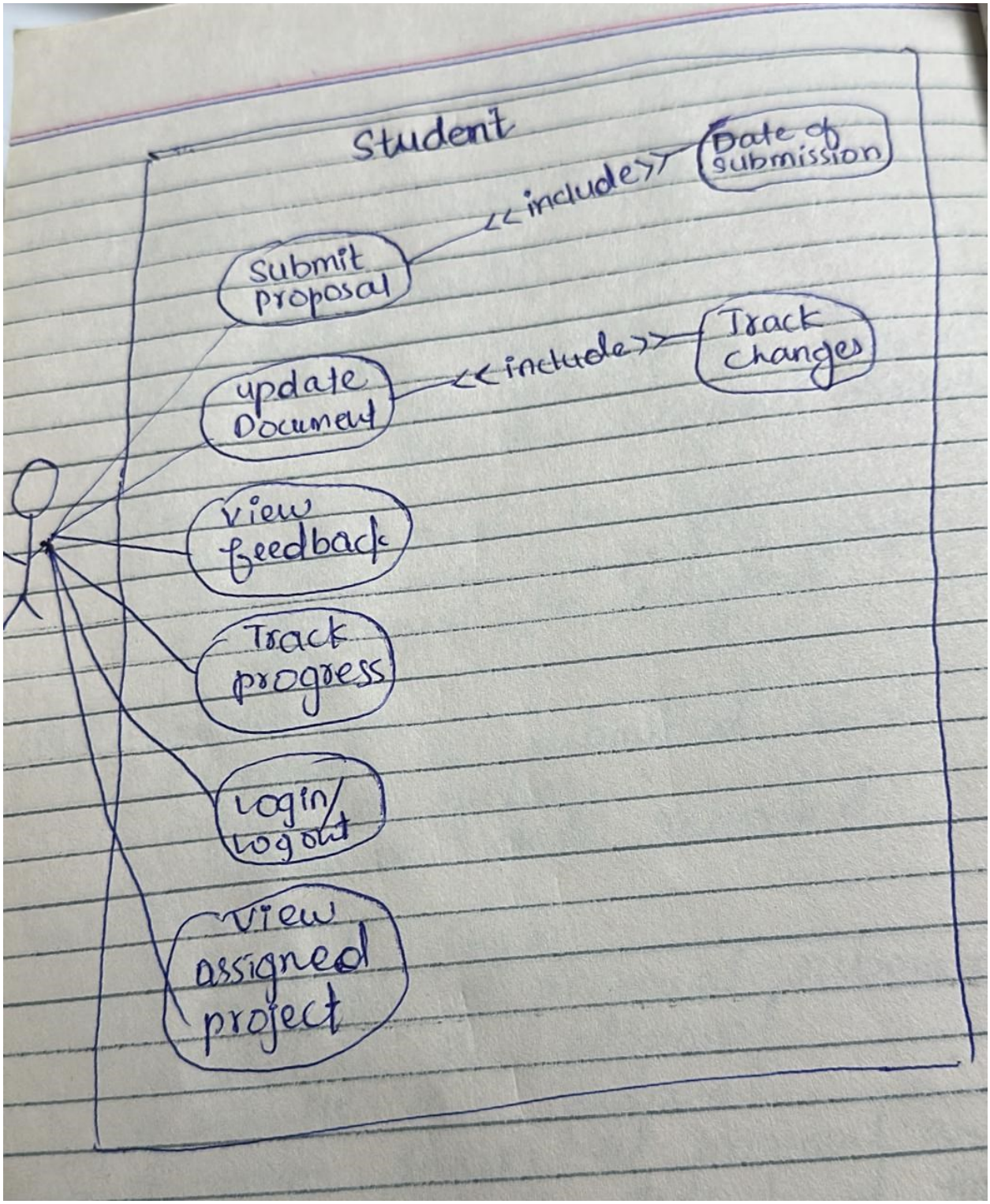
Includes

Date of submission

Special Requirements

The uploaded document must be in PDF or DOCX format.

Maximum file size allowed: 10MB.


Student
Submit proposal
<<include>>
Date of submission
update Document
<<include>>
Track changes
View feedback
Track progress
Login/ Logout
View assigned project

Name: Rana Asad Ur Rahman

Registration Number: SP23-BSE-029

Fully Dressed Use Case: Update Project Status

Use Case Name	Update Project Status
Scope	Project Management System
Level	User goal
Primary Actor	Faculty
Stakeholders and Interests	- **Faculty**: Wants to reflect the accurate status of the project based on its progress. - **Students**: Want to be informed of their project's progress. - **Admin**: Needs accurate records for tracking and reporting.
Preconditions	- Project exists in the system. - Faculty is assigned as the advisor to the project. - User is authenticated.
Post conditions	- Project status is updated successfully in the system.
Success Metrics	The status of the project is updated to the selected new status and stored correctly.
Minimal Guarantee	The system logs the update attempt even if it fails and shows an appropriate error message.

💼 Main Success Scenario (Basic Flow)

1. Faculty logs into the system.
2. Faculty navigates to the project list and selects a specific project.
3. Faculty clicks on the “Update Status” button.
4. The system displays current project status and a list of valid status options (e.g., "Not Started", "In Progress", "Completed").
5. Faculty selects a new status and clicks “Submit”.
6. The system validates the change.
7. The system updates the project status in the database.
8. The system confirms the update with a success message.
9. Project status is now reflected in the project details.

🔁 Extensions (Alternate Flows)

3a. Project not found

- 3a1. System shows an error: "Project not found."

- 3a2. Use case ends.

5a. Invalid status selected

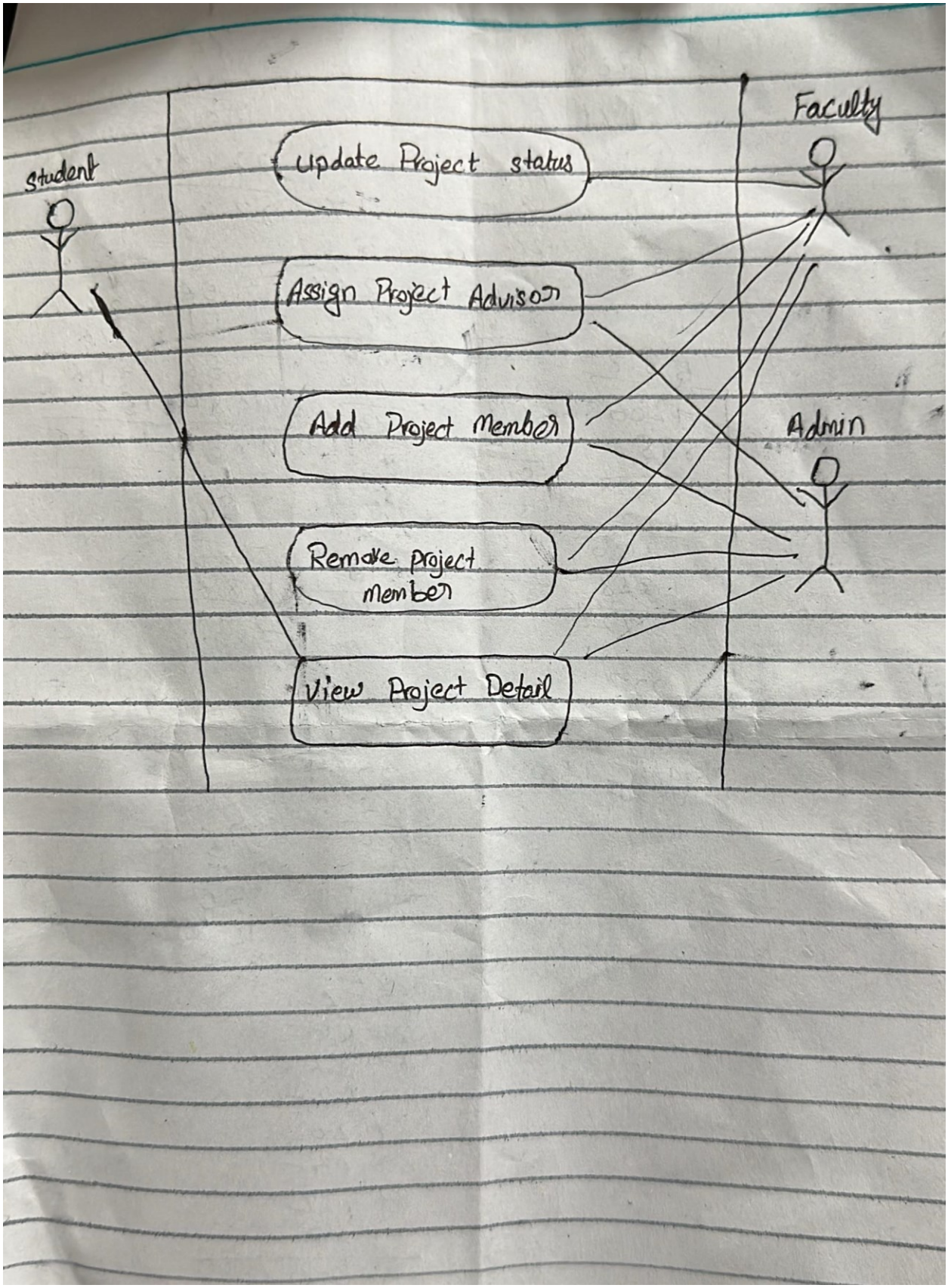
- 5a1. System shows an error: "Invalid status."
- 5a2. Faculty selects a valid status.
- 5a3. Returns to step 6.

6a. Database update fails

- 6a1. System displays error: "Failed to update project status."
- 6a2. Faculty retries or contacts admin.
- 6a3. Use case ends.

🔐 Special Requirements

- The system must validate user permissions before allowing the update.
- Status values must be predefined and consistent (possibly from an enum).
- Audit trail should log the date/time of the update and the actor's ID.



Comprehensive Use Case Specification for Admin in FYP Management System

1. System Overview

The **Final Year Project (FYP) Management System** allows university administrators to manage student projects, supervisors, evaluations, and system configurations. The **Admin** is the primary actor responsible for maintaining data, generating reports, and ensuring smooth system operations.

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2. Actors

Actor	Description
Admin	Manages students, supervisors, projects, and system settings.
Student	(Secondary) Submits project proposals and reports.
Supervisor	(Secondary) Guides students and evaluates projects.

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3. Detailed Use Cases

Use Case 1: Login to System

- **Actor:** Admin
- **Description:** Admin logs into the FYP Management System.
- **Preconditions:** Admin has valid credentials.
- **Basic Flow:**

1. Admin enters email and password.
2. System verifies credentials.
3. On success, redirects to Admin Dashboard.

- **Alternative Flow:**

- If credentials are invalid, system displays an error.

Post conditions: Admin gains access to the system.

Use Case 2: Manage Students

- **Actor:** Admin
- **Description:** Admin adds, edits, or removes student records.
- **Preconditions:** Admin is logged in.

- **Basic Flow:**

1. Admin clicks **"Manage Students"**.
2. System displays a list of students.
3. Admin selects:

- **Add Student**: Enters (Name, ID, Email, and Program).
- **Edit Student**: Modifies existing details.
- **Delete Student**: Removes record after confirmation.

4. System validates and updates the database.

- **Alternative Flows:**

- If student ID already exists, system rejects duplication.

Post conditions: Student records are updated.

Use Case 3: Manage Supervisors

- **Actor:** Admin
- **Description:** Admin adds or assigns faculty supervisors.
- **Preconditions:** Admin is logged in.
- **Basic Flow:**

1. Admin clicks **"Manage Supervisors"**.
2. System shows the list of supervisors.
3. Admin:

- **Adds Supervisor** (Name, Department, Max Projects).
- **Assigns Supervisor** to a project.

4. System checks availability and updates records.

- **Alternative Flows:**

- If supervisor's project limit is exceeded, system shows an error.

Post conditions: Supervisor assignments are updated.

Use Case 4: Manage Projects

- **Actor:** Admin

- **Description:** Admin creates, assigns, and tracks FYP projects.
- **Preconditions:** Students and supervisors are registered.
- **Basic Flow:**

1. Admin clicks **"Manage Projects"**.
2. Chooses:

- **Create Project** (Title, Description, and Deadline).
- **Assign Student & Supervisor** (from dropdown lists).

3. System validates and links them in the database.

- **Alternative Flows:**

- If a student is already assigned, system prevents duplication.

Post conditions: Project is added and visible in tracking.

Use Case 5: Generate Reports

- **Actor:** Admin
- **Description:** Admin exports project progress or evaluation reports.
- **Preconditions:** Projects exist with submission data.
- **Basic Flow:**

1. Admin clicks **"Generate Reports"**.
2. Selects report type:

- **Progress Report** (Student milestones).
- **Evaluation Report** (Supervisor feedback).

3. Filters by Department/Date Range.
4. System compiles data into **PDF/Excel**.
5. Admin downloads or prints.

- **Alternative Flows:**

- If no data exists, system displays "No records found."

Post conditions: Report is generated for review.

Use Case 6: System Configuration

- **Actor:** Admin
- **Description:** Admin sets deadlines, grading rules, and permissions.
- **Basic Flow:**

1. Admin clicks **"System Configuration"**.
2. Updates:

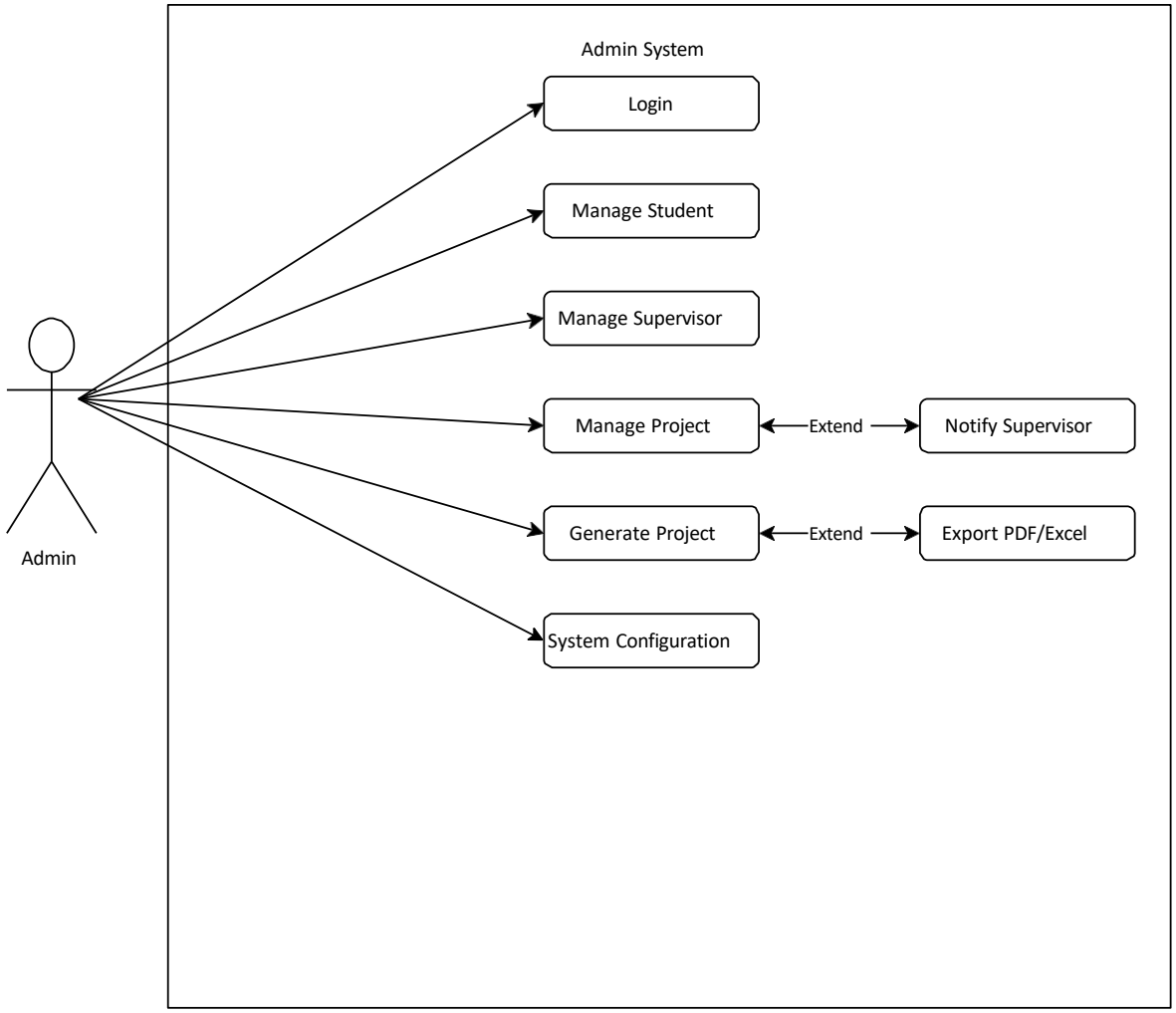
- **Submission Deadlines** (e.g., Proposal: 30-May-2024).
- **Grading Criteria** (e.g., 70% for final report).

3. System saves changes and notifies affected users.

- **Alternative Flows:**

- If a deadline is in the past, system rejects it.

Postconditions: System settings are updated.



Name: Abdullah

Reg No: SP23-BSE-116

Use Case 1: addMember()

Use Case Name: Add Member

Scope: Group Management

Level: User goal

Primary Actor: Administrator

Stakeholders and Interests:

Administrator: Wants to add students to a group efficiently.

Students: Want to be part of the correct group for their semester project.

Preconditions:

- The group must already exist.
- The student must be registered in the system.
- The student is not already part of another group.

Postconditions:

The student is successfully added to the group's member list.

Main Success Scenario (Basic Flow):

- Administrator selects an existing group.
- Administrator selects a student to add.
- System checks if the student is already part of any group.
- System adds the student to the selected group.
- System confirms the addition and displays updated group information.

Extensions (Alternate Flows):

3a. If the student is already part of another group:

→ System shows an error message and aborts the addition.

4a. If the group has reached its member limit:

→ System prevents the addition and notifies the administrator.

Special Requirements:

- Real-time validation of student eligibility.
- Notification sent to the student upon successful addition.

✓ **Use Case 2:** removeMember()

Use Case Name: Remove Member

Scope: Group Management

Level: User goal

Primary Actor: Administrator

Stakeholders and Interests:

Administrator: Needs control over group membership.

Students: Should be properly removed if they withdraw or switch groups.

Preconditions:

- Group and student must exist.
- Student must already be a member of the group.

Postconditions:

The student is removed from the group member list.

Main Success Scenario (Basic Flow):

- Administrator opens group details.
- Administrator selects the student to remove.
- System verifies the student's membership in the group.
- Student is removed from the list.
- System confirms removal.

Extensions (Alternate Flows):

3a. If the student is not found in the group:

→ System notifies the admin and aborts the removal.

4a. If the removed student is a group leader:

→ System prompts to assign a new leader or continue.

Special Requirements:

Notification sent to the student upon removal.

✅ **Use Case 3:** assignAdvisor()

Use Case Name: Assign Advisor

Scope: Group Management

Level: User goal

Primary Actor: Administrator

Stakeholders and Interests:

Administrator: Needs to assign supervisors fairly and efficiently.

Supervisors: Want to be assigned groups within their capacity.

Students: Need an advisor for guidance.

Preconditions:

- Group must exist.
- Advisor must be registered.
- Advisor must be available (not exceeding their group limit).

Postconditions:

Advisor is successfully linked to the group.

Main Success Scenario (Basic Flow):

- Administrator selects a group.
- Administrator chooses an advisor from a list.
- System checks advisor's availability.
- Advisor is assigned to the group.
- Confirmation message is shown.

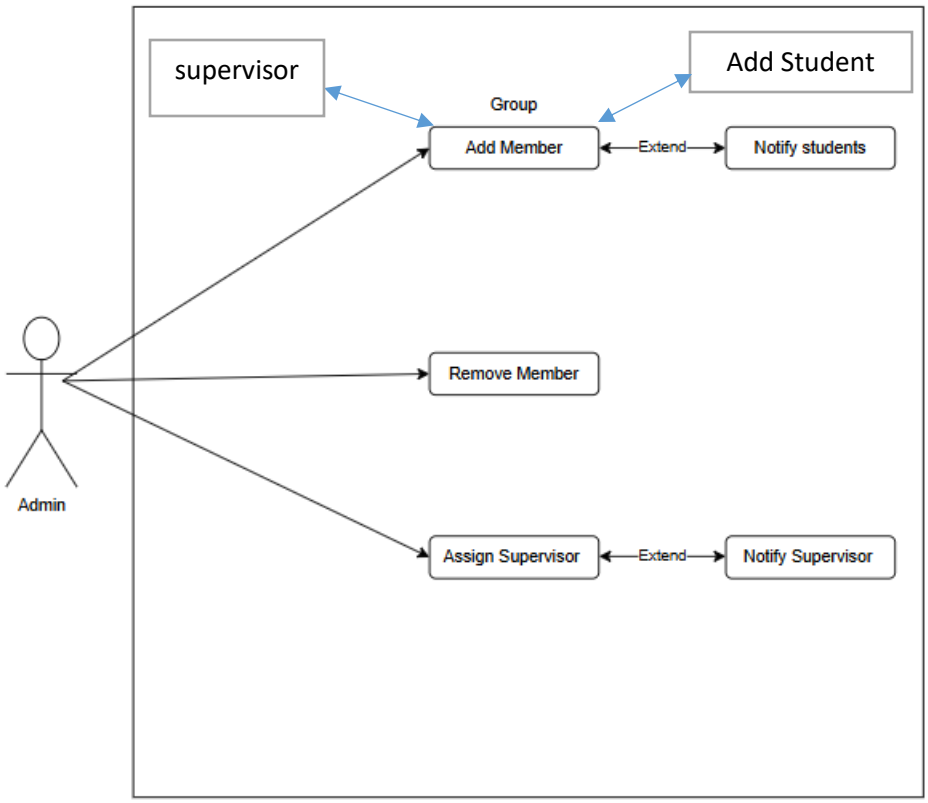
Extensions (Alternate Flows):

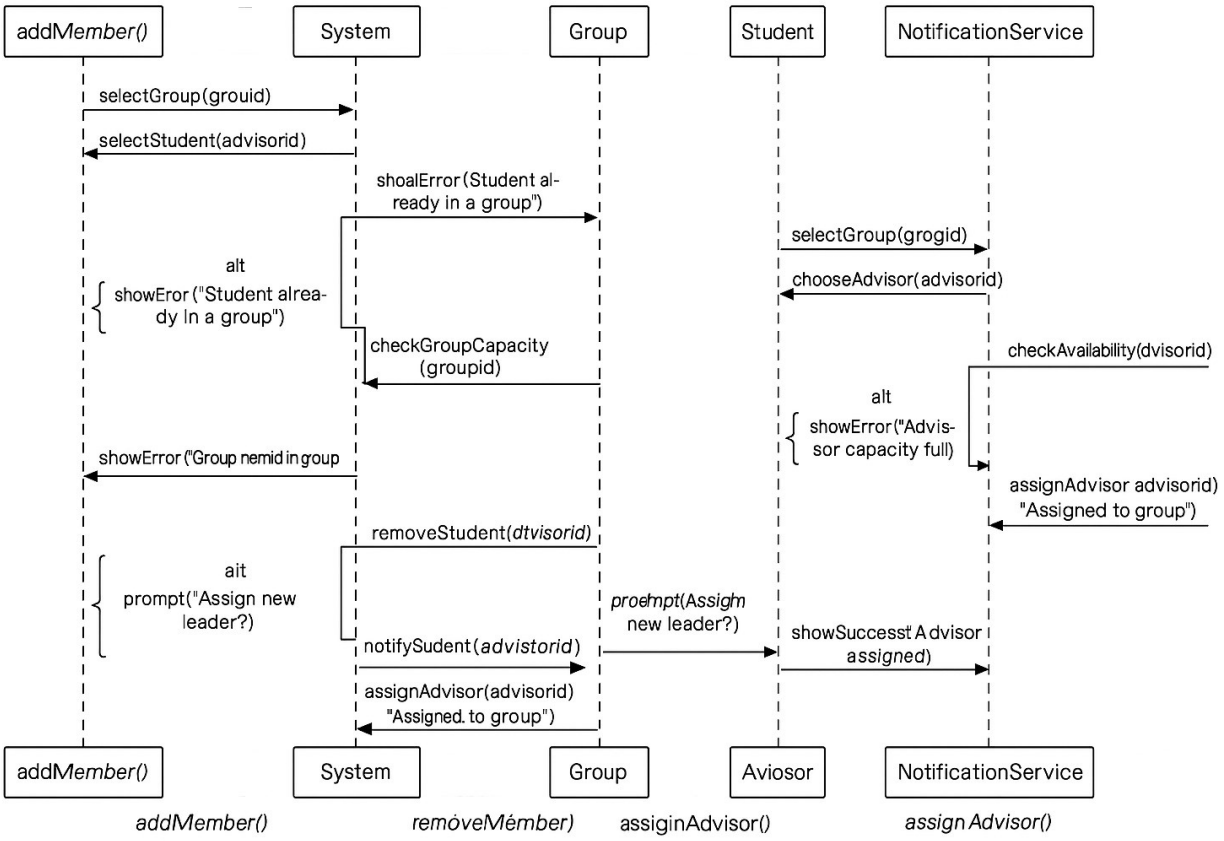
3a. If the advisor already has maximum assigned groups:

→ System blocks the assignment and shows a warning.

Special Requirements:

- System should prevent duplicate advisor assignments to the same group.
- Email notification to advisor and group members upon assignment.


supervisor
Add Student
Group
Add Member
Extend
Notify students
Remove Member
Admin
Assign Supervisor
Extend
Notify Supervisor


addMember()
System
Group
Student
NotificationService
selectGroup(grouid)
selectStudent(advisorid)
shoalError(Student al-
ready in a group")
selectGroup(grogid)
alt
showEror("Student alrea-
dy In a group")
chooseAdvisor(advisorid)
checkGroupCapacity
(groupid)
checkAvailability(dvisorid)
alt
showError("Advis-
sor capacity full)
showError("Group nemid in goup
assignAdvisor advisorid)
"Assigned to group")
removeStudent(dtvisorid)
ait
prompt("Assign new
leader?)
proempt(Assigm
new leader?)
notifySudent(advistorid)
showSuccesst A dvisor
assigned)
assignAdvisor(advisorid)
"Assigned. to group")
addMember()
System
Group
Aviosor
NotificationService
addMember()
removeMember)
assiginAdvisor()
assign Advisor()

NAME: Aizaz Ullah

Reg No: SP23-BSE-003

Use case Diagram

FYP (Final Year Project)

The central component representing the system's purpose: managing student projects, supervision, and evaluations.

2. Registration

Function: Allows students and faculty to create accounts.

- Details:
  - Students register their groups.
  - Supervisors/Faculty register as advisors.

3. Login

- Function: Secure access for users (students, supervisors, admins).
- Details

Role-based permissions (e.g., students submit proposals, supervisors review).

4. Group Members

- Function: Manages student teams.
- Details:

- Students form groups (typically 3–5 members).
- Admin may assign/approve groups.

5. Supervisor

- Function: Guides and evaluates student projects.
- Details:
  - Assigns milestones.
  - Provides feedback/grades (linked to Feedback and Evolution).

6. Chat

- Function: Real-time communication between students and supervisors.
- Details:
  - Discuss project progress, clarify doubts.
  - May include file sharing.

7. Feedback

- Function: Supervisor’s evaluations on submissions.
- Details:
  - Covers proposals, reports, or presentations.
  - Tied to Evolution (grading).

8. Meeting Timings

- Function: Schedules discussions between students and supervisors.
- Details:
  - Calendar integra

Automated reminders.

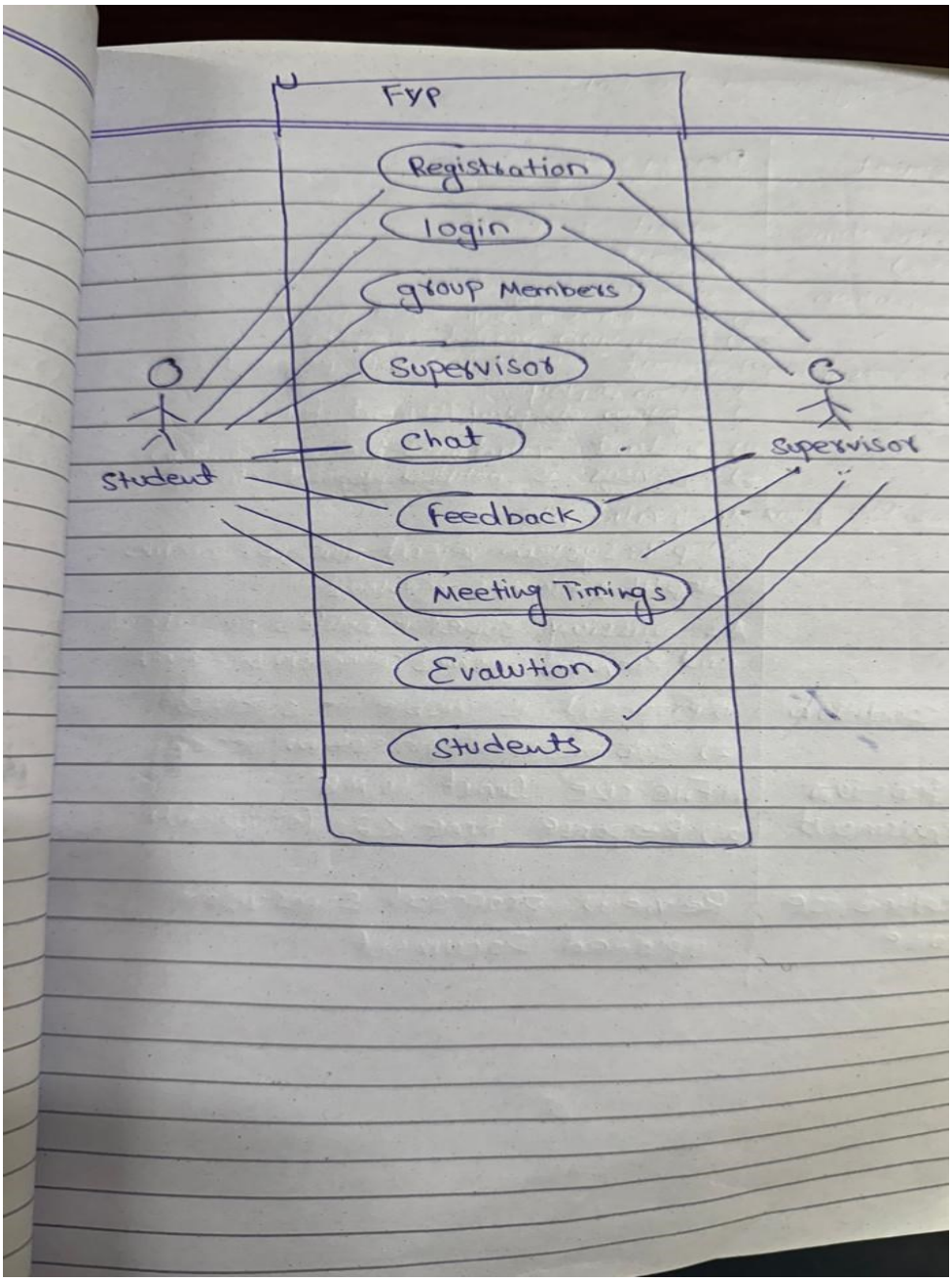
9. Evolution (Likely "Evaluation")

- Function: Grading and assessment of projects.
- Details:
  - Supervisors/faculty assign marks.
  - Generates final reports.

10. Students

- Primary actors who:

- Form groups (Group Members).
- Submit proposals.
- Receive Feedback and grades (Evolution)


Fyp
Registration
login
group Members
Supervisor
Chat
Feedback
Meeting Timings
Evalution
Students
Student
Supervisor

fully Dressed Use Case: Submit Proposal

1. Basic Information*

Element *Description* |

Use Case Name | Submit Proposal |

Actor | Student |

2. Preconditions

- Student is logged in.
- Student has a registered group.
- Submission period is open.

3. Main Success Scenario

1. Student selects "Submit Proposal".
2. System displays a submission form (title, description, file upload).
3. Student fills details and uploads a proposal file (PDF/DOCX).
4. System validates the file (format, size ≤10MB).
5. Supervisor is notified; proposal status changes to "Under Review".

4. Alternative Flows

- *A1: Invalid File
  - Ste 4a: System rejects non-PDF/DOCX files.

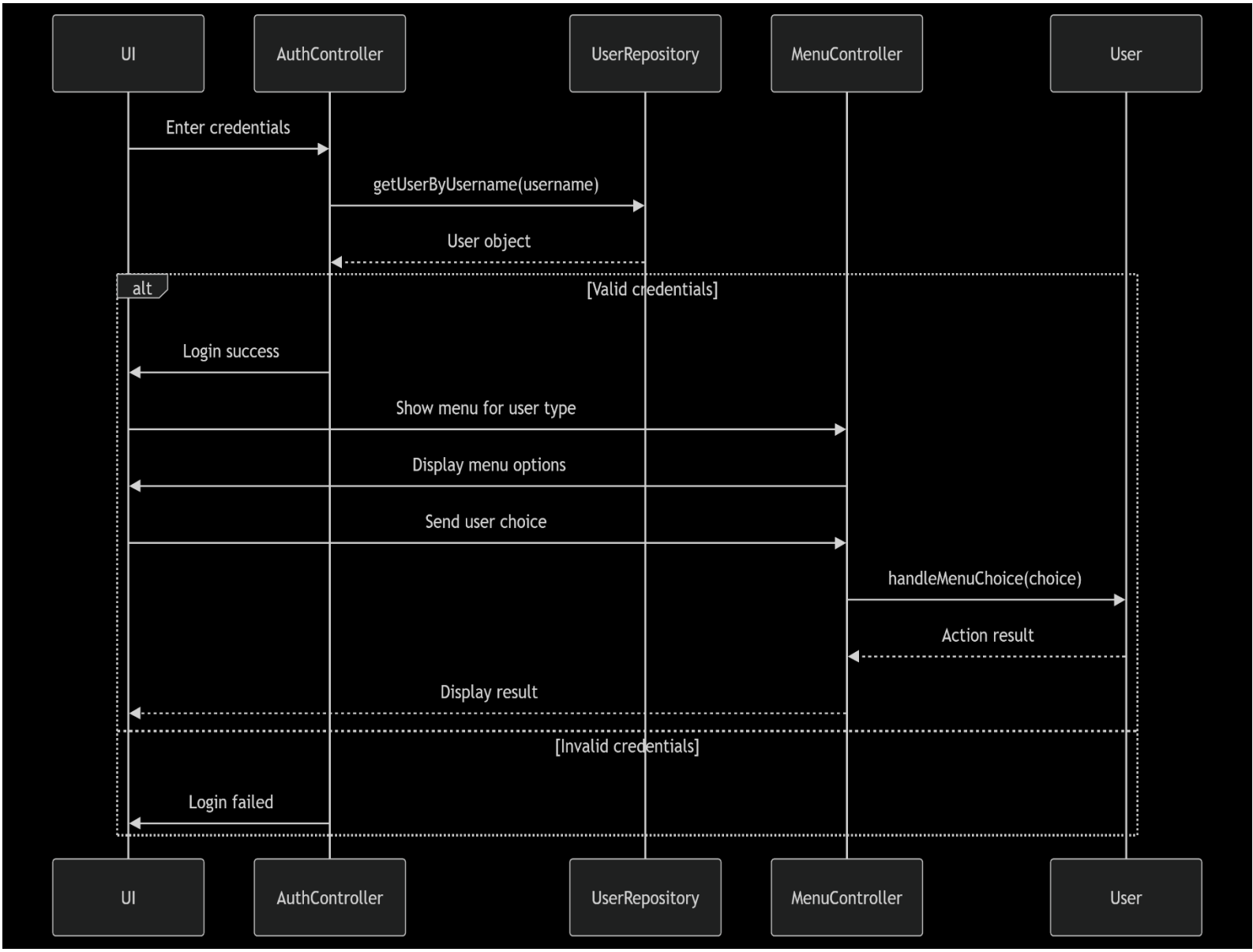
Fully Dressed use case

Element	Description
Use case Name	Submit Proposal
Actors)	Student
Pre-condition	1) Student is logged in 2) Student has a registered group 3) Submission period is open
Main sucess Scenario	1) Student selects "submit proposal 2) System display 3) System display /Student fill 4) student validates file and confirm 5) supervisor is notified proposal status
Alternative flow	A1: Invalid file Step 4a: System rejeect non-PDF /Doc files Step 4b: Proomps reupload A2 missing super is notifed proposal stat and Required supervisor selection before sub
Post Condition	1) Proposal is visble to supervisor 2) submission timestamp record
Non function Requirment	1) File size limit 10 MB 2) Response time < 2s for validate
Realted use Case	Review proposal Supervisor uploded Document

Sequence Diagram

1. **AuthorController / AuthController** – Manages user authentication, interacting with:
    - **UserRepository** (handles user data)
    - **MenuController** (controls menu displays)
    - **User** (represents user data).
2. **Enter Credentials** – The system calls getUserByUsername(username) to fetch the **User object** for validation.
3. **Login Success** – If credentials are valid:
    - The system displays a **menu tailored to the user's type**.
4. **Display Menu Options** – The user selects an option, triggering handleMenuChoice(choice) to process the input.
5. **Display Result** – The outcome of the user's action is shown.
6. **Invalid Credentials** – If login fails, the system returns a **"Login failed"** message.

The flow is **modular (Unit-based)**, emphasizing clear separation between authentication, menu handling, and user actions.

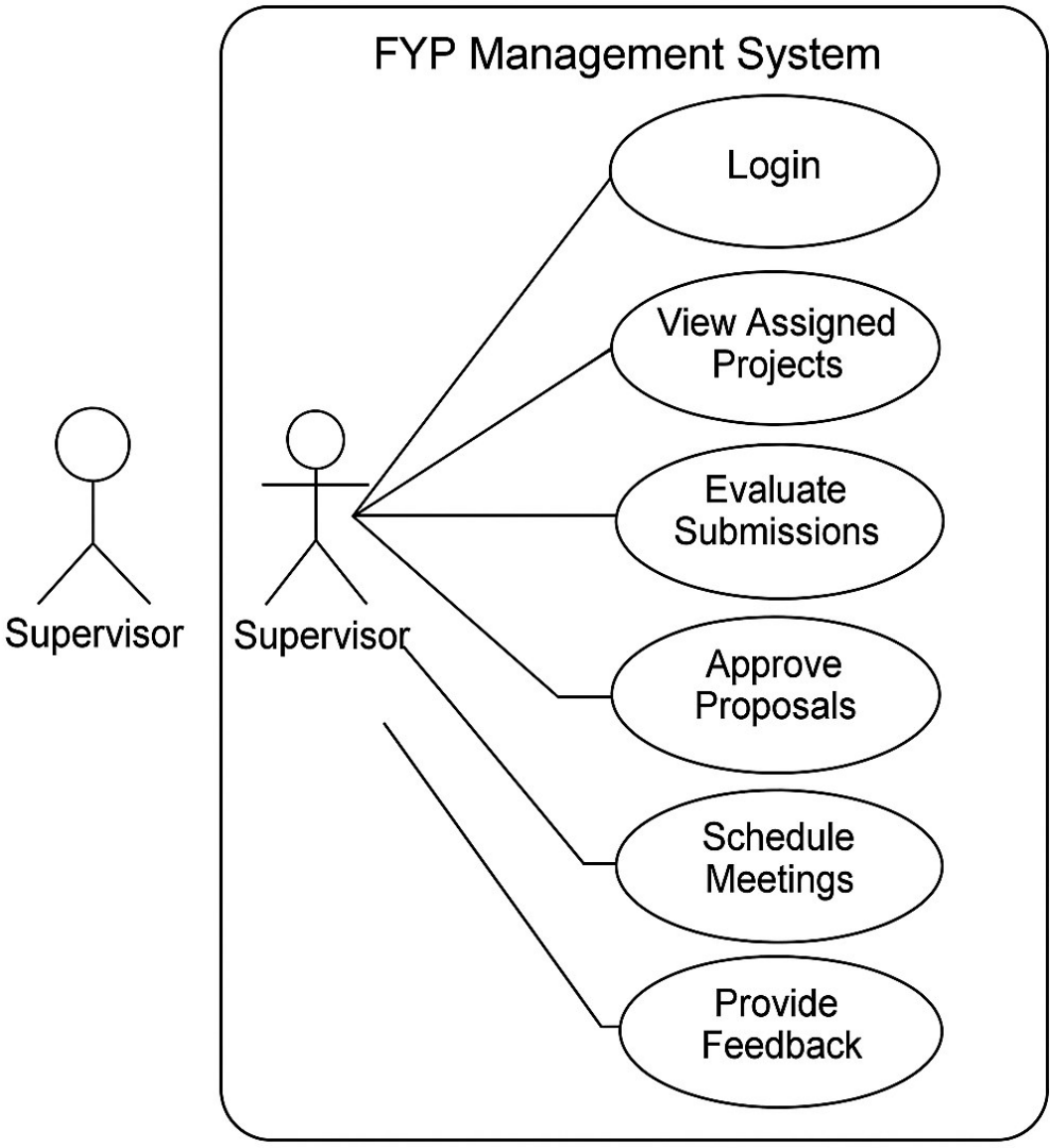

UI
AuthController
UserRepository
MenuController
User
Enter credentials
getUserByUsername(username)
User object
alt
[Valid credentials]
Login success
Show menu for user type
Display menu options
Send user choice
handleMenuChoice(choice)
Action result
Display result
[Invalid credentials]
Login failed
UI
AuthController
UserRepository
MenuController
User

SDA Lab Assignment :

Use case of supervisor:

- **Login** – Access the system securely.
- **View Assigned Projects** – See projects under their supervision.
- **Evaluate Submissions** – Grade or comment on reports, presentations, or milestones.
- **Approve Proposals** – Review and approve/reject project proposals.
- **Schedule Meetings** – Set meetings with students.
- **Communicate with Students** – Send messages or feedback.
- **Submit Evaluation Reports** – Submit grades or evaluation results to the system/admin.

Use Case diagram:



Fully dressed use case:

Use Case Element	Details
Use Case ID	UC-SUP-03
Use Case Name	Evaluate Submissions
Primary Actor	Supervisor
Stakeholders and Interests	Supervisor (wants to grade fairly and efficiently), Students (want timely feedback)
Preconditions	- Supervisor must be logged in. - The project must be assigned to the supervisor.
Postconditions	- Submission is marked as evaluated. - Grades and feedback are saved in the system.
Main Success Scenario	1. Supervisor logs into the system. 2. Navigates to assigned projects. 3. Selects a submission. 4. Views content of the submission. 5. Enters feedback and grade. 6. Clicks "Submit Evaluation". 7. System stores evaluation and notifies student.
Extensions (Alternative Flows)	3a. No submissions available: System shows message "No pending submissions". 5a. Supervisor cancels evaluation: System returns to project list without saving.
Special Requirements	- Evaluation should support file previews (PDF, DOCX). - Should allow file attachments in feedback.
Frequency of Use	Weekly or bi-weekly during submission periods.
Business Rules	- Grades must be within a valid range (e.g., 0–100). - Feedback is mandatory for final evaluation.