**Software Requirements Specification**

**for**

FYP Management System

**Version 1.0 approved**

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**Revision History**

| **Name** | **Date** | **Reason For Changes** | **Version** |
| --- | --- | --- | --- |
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# **Introduction**

## **Purpose**

The software requirements listed in this paper are related to creating an all-inclusive system that will oversee academic institutions' Final Year Project (FYP) procedures. The system's functional and non-functional requirements, as well as user roles, features, and interactions, are described in this SRS.

## **Document Conventions**

The report uses bullet points for clarity and conventional SRS style guidelines, such as headings and subheadings. Each criterion is given a unique identification and is presented in an organized way with clear and short descriptions.

## **Intended Audience and Reading Suggestions**

Developers, project managers, system testers, and other stakeholders engaged in the creation and implementation of the FYP management system are the target audience for this document. It offers an in-depth review of all the specifications for the system, including its features, usability, and performance levels.

## **Product Scope**

The FYP management system provides a single platform for communication, progress monitoring, and cooperation amongst students, supervisors, and committee members. By automating processes and increasing transparency, the software boosts operational efficiency, stakeholder participation, and project quality. Aligned with institutional goals, it promotes research quality and academic repute, eventually encouraging innovation and success inside the institution.

## **References**

This document does not refer to any external sources as of yet.

# **Overall Description**

## **Product Perspective**

This Software Requirements Specification describes a web-based management system for Final Year Projects. It is not a replacement for any current systems, but rather a solution intended to improve the management of final-year projects in academic institutions.

This software was created to overcome the issues of manually managing the FYP process, which can lead to inefficiencies, mistakes, prolonged time consumption, and increased costs - all leading to unneeded paperwork. To address these challenges, we decided to create a web-based system that would automate many areas of FYP management and increase overall efficiency and accuracy.

## **Product Functions**

The product must allow the user to perform the following major functions:

**Account management:** Includes creating user accounts and assigning user roles.

**Notifications:** Send notifications for a variety of circumstances, including surpassing project allocation limitations and pending reviews.

**Reports**: Create project reports and let students submit progress reports.

**Deadlines:** Set and check project deadlines.

**Panel management:** Create project panels and attach FYP groups to them.

**Student management:** Includes viewing the list of enrolled students, FYP group details, project details, assigned panels, reviews, and suggestions, as well as uploading assignments/deliverables.

**Project management:** Access assigned FYPs, view all active FYPs, view progress reports, FYP materials, and deadlines, communicate with assigned student groups, submit requests for extra materials, view evaluation forms and grades, read reviews and suggestions, and make suggestions to FYP panel members.

**Evaluations:** View evaluation forms and grades, assess FYPs, and handle missing evaluations.

## **User Classes and Characteristics**

**FYP Committee Members:**

Characteristics: Professors and/or administrative staff are in charge of managing the FYP management process.

Frequency of Use: On a regular basis, as they are involved in every area of FYP management.

Functions Used: Account management, notifications, reports, deadlines, panel management, student management, project management, and assessments.

Importance: The most significant user class, as they are crucial players in the overall management and coordination of FYPs.

**Supervisors**:

Characteristics: Faculty members are assigned to oversee FYP student groups.

Frequency of Use: Frequently, especially during FYP supervision periods.

Functions Used: Notifications, project management, evaluations, and communication with student groups.

Importance: This user class is extremely significant because they directly supervise FYP student groups

**Panel Members**:

Characteristics: Faculty members or external experts are assigned to evaluate FYP projects.

Frequency of use: Periodically, throughout fiscal year review periods.

Functions Used: Project management, evaluations, and contact with student groups.

Importance: Important user class since they provide valuable input and assessments on FYP projects.

**Students**:

Characteristics: Include final-year undergraduate or graduate students enrolled in FYP courses.

Frequency of Use: On a regular basis, as they are actively working on FYP projects.

Functions Used: Account management, student management, project management, evaluations, and contact with supervisors and panel members.

Importance: Important user class since they are the major beneficiaries of the FYP management system and have a direct impact on project success.

## **Operating Environment**

The software will work in an academic setting, specifically within the infrastructure of educational institutions that offer final year project (FYP) courses. The environment contains:

**Hardware Platforms:**

The program is designed to be accessible via ordinary computing devices such desktop PCs, laptops, tablets, and smartphones.It should be compatible with typical hardware configurations, including processors from many manufacturers, as well as enough RAM and storage to enable web-based applications.

**Operating systems and versions**:

The software should be compatible with a wide range of operating systems, including but not limited to:

Windows: Windows 10 or later.

macOS version 10.13 or later

Linux version: Ubuntu 18.04 LTS or later

Additionally, the software should be accessible via commonly used web browsers such as Google Chrome, Mozilla Firefox, Safari, and Microsoft Edge.

**Software Components and Applications:**

The program must work with other software applications typically used in educational institutions, such as but not limited to:

FLEX (or any other learning management system)

Email methods for communication.

Document systems to store and share project-related materials

Database systems for storing user and project information

Integration with these systems may be required for features such as user authentication, synchronization of student enrollment data, email notifications, and document upload.

## **Design and Implementation Constraints**

Several constraints exist while designing and implementing the FYP management system, including:

**Regulatory Policies**: The software must adhere to regulatory policies and standards governing data privacy, security, and accessibility.

**Hardware Limitations:** To achieve optimal performance across a wide range of computing devices, the system must function within the restrictions of available hardware resources, such as timing and memory.

**Technologies, Tools, and Databases:** The development team may be required to use specific technologies, tools, and databases prescribed by the customer or company, such as programming languages, frameworks and databases.

**Security Considerations:** The program must follow the best practices for security, such as encrypting sensitive data, protecting against common vulnerabilities and implementing secure authentication techniques.

**Design conventions and programming standards:** The development team may be required to adhere to certain design conventions and programming standards specified by the client's company or industry rules in order to assure software consistency, maintainability, and scalability.

Overall, these limitations will drive the design and implementation process, influencing the team's decisions.

## **User Documentation**

The software will be distributed with the following user documentation components:

The User Manual is a complete reference to utilizing the FYP management system, including step-by-step instructions and explanations.

Tutorials are video or written guides that demonstrate certain workflows within the software to help users learn more successfully, these may be included down the road.

These documentation components will meet standards for clarity and usability and may be in formats such as PDF files or web-based help systems.

## **Assumptions and Dependencies**

**Assumptions**:

* Third-party tools or services may be required for certain functionalities.
* Development and operating environments must be dependable and well-equipped.
* Regulatory compliance and security requirements must be addressed.

**Dependencies**:

* Integration of existing systems, such as Learning Management Systems (eg FLEX).
* Reusing software components from other projects.
* Working well with stakeholders like academics and students.

If any of these assumptions are inaccurate or external circumstances change, it may have an impact on the project's success. Clear communication and management is required to effectively manage these factors.

# **External Interface Requirements**

## **User Interfaces**

Each of the interfaces has clear navigation paths and intuitive design elements to facilitate ease of use. It includes standard buttons for actions such as assigning roles, evaluating FYPs, generating reports and displays clear and descriptive error messages that guide users on necessary steps for resolution. There are 4 user interfaces required: Supervisor, Panel Member, Student and FYP Committee. Detailed specifications for each interface are provided in a separate user interface specification document.

## **Hardware Interfaces**

The FYP Management System has been designed to be widely accessible, with a focus on being compatible with a wide variety of hardware devices and not needing any particular hardware interfaces. The system is compatible with laptops, mobile phones and desktop computers running Windows, Linux or MAC operating systems. The system primarily interacts through standard input devices such as keyboard, mouse and touchscreens. The HTTP(s) web protocols are used for data interchange between hardware devices, ensuring security and compatibility.

## **Software Interfaces**

The FYP Management System relies on connections with various software components to work effectively. These components include:

**Operating systems:** The system is compatible with Windows, Mac and Linux

**Databases:** SQL Server Management Studio 19 database management system, which stores and manages all data related to FYPs, users, evaluations and deadlines, ensuring efficient management and retrieval of data

**Tools:** Windows Forms is utilized to develop the user interface, providing a visually appealing and intuitive experience for users to interact with the system.

**Integrated components:** incorporates a component for plagiarism detection to ensure the academic integrity of the submissions

## **Communications Interfaces**

The FYP Management System integrates various communication interfaces to make smooth and effective interactions. The system supports modern browsers and http(s) to ensure encrypted data transmission and user privacy and uses WebSockets for real-time features such as notification updates. The security measures include https with SSL/TLS encryption. This approach ensures a secure seamless user experience.

# **System Features**

**4.1 System Feature: User Account Creation**

4.1.1 Description and Priority:

This feature enables FYP committee members to create user accounts for students, supervisors, and panel members of the FYP, facilitating management and control of system access.

Priority: High priority

Benefit: 8

Creating user accounts enhances system usability and ensures efficient management of FYP-related activities.

Penalty: 4

Failure to provide this feature may result in administrative inefficiencies and delays in project management tasks.

Cost: 5

Implementing this feature requires moderate development effort and resources.

Risk: 6

Inadequate implementation of user account creation may lead to security vulnerabilities or unauthorized access to system resources.

4.1.2 Stimulus/Response Sequences

Stimulus: FYP committee member logs in and clicks on the “Create User” button.

Response: System displays user account creation interface.

Stimulus: FYP committee member enters user details including name, email, and role.

Response: System validates entered details.

Stimulus: Validation is successful.

Response: System creates a new user account and notifies the FYP committee member.

4.1.3 Functional Requirements

REQ-1: User Account Creation Interface

The system shall provide an interface for FYP committee members to create user accounts.

The interface shall include fields for entering user details such as name, email, and role.

The interface shall include a “Create User” button for initiating the account creation process.

REQ-2: User Account Validation

The system shall validate entered user details to ensure completeness and correctness.

Validation checks shall include verifying that all required fields are filled, email format is valid, and role selection is appropriate.

REQ-3: User Account Creation

Upon successful validation, the system shall create a new user account with the provided details.

User accounts shall be created with appropriate access permissions based on the specified role (student, supervisor, or panel member).

REQ-4: Notification of Account Creation

After successful account creation, the system shall notify the FYP committee member of the newly created user account.

Notification shall include confirmation of account creation and relevant account details.

## 4.2 System Feature: Assigning User Roles

4.2.1 Description and Priority:

This feature enables FYP committee members to assign roles such as Student, Panel Member, and Supervisor to users, ensuring correct permissions are granted.

Priority: High priority

Benefit: 9

Assigning roles ensures proper access control and delegation of responsibilities, enhancing system security and efficiency.

Penalty: 5

Failure to provide this feature may result in confusion regarding user permissions and potential security breaches.

Cost: 6

Implementing this feature requires moderate development effort and resources.

Risk: 7

Inadequate role assignment may lead to unauthorized access to sensitive information or improper use of system functionalities.

4.2.2 Stimulus/Response Sequences

Stimulus: FYP committee member logs in and accesses the list of users.

Response: System displays the user list interface.

Stimulus: FYP committee member selects a particular user and assigns them a specific role.

Response: System updates the user's role and displays a message confirming the role assignment.

4.2.3 Functional Requirements

REQ-1: User Role Assignment Interface

The system shall provide an interface for FYP committee members to assign roles to users.

FYP committee members shall be able to access a list of users within the system.

The interface shall allow the selection of a particular user from the list.

REQ-2: Role Selection

The interface shall include options for selecting specific roles (e.g., Student, Panel Member, Supervisor) to assign to the selected user.

REQ-3: Role Assignment

Upon selection of a role and confirmation by the FYP committee member, the system shall update the role of the selected user accordingly.

REQ-4: Confirmation Message

After successful role assignment, the system shall display a message confirming the successful role assignment to the user.

**4.3 System Feature: Supervisor Workload Notification**

4.3.1 Description and Priority:

This feature enables FYP committee members to receive notifications when a project supervisor has reached their maximum project limit of 6 FYPs, allowing redistribution of projects to supervisors with less workload.

Priority: High priority

Benefit: 9

Notification of supervisor workload limits ensures equitable distribution of projects and prevents overload, enhancing project management efficiency.

Penalty: 6

Failure to provide this feature may result in uneven workload distribution among supervisors, potentially leading to project delays or dissatisfaction among stakeholders.

Cost: 7

Implementing this feature requires moderate development effort to integrate notification mechanisms and workload tracking functionalities.

Risk: 8

Inadequate workload management may lead to supervisor burnout, decreased project quality, and negative impact on student learning outcomes.

4.3.2 Stimulus/Response Sequences

Stimulus: Supervisor reaches the maximum limit of 6 assigned FYPs.

Response: System generates a notification to the FYP committee member regarding the supervisor's workload status.

Stimulus: FYP committee member attempts to assign a project to the overloaded supervisor.

Response: The system displays a notification indicating that the supervisor has reached the maximum number of FYPs assigned and prevents further assignment to that supervisor.

4.3.3 Functional Requirements

REQ-1: Supervisor Workload Notification

The system shall track the number of FYPs assigned to each supervisor.

When a supervisor reaches the maximum limit of 6 assigned FYPs, the system shall generate a notification to the FYP committee member.

The notification shall include details of the supervisor and their current workload status.

REQ-2: Prevention of Further Assignment

Upon receiving the notification, the system shall prevent the FYP committee member from assigning additional FYPs to the overloaded supervisor.

The system shall display a notification indicating that the supervisor has reached the maximum number of FYPs assigned and provide guidance for redistributing the projects to other supervisors.

**4.4 System Feature: Supervisor Confirmation for Project Allocation**

4.4.1 Description and Priority:

This feature enables FYP committee members to send notifications to supervisors about their assigned student groups and receive confirmation from them, facilitating the finalization of the project allocation process.

Priority: High priority

Benefit: 9

Sending notifications and receiving confirmation from supervisors ensures clarity and accountability in project allocation, leading to smoother project management processes.

Penalty: 6

Failure to provide this feature may result in delays and confusion in finalizing project allocations, potentially impacting project timelines and student progress.

Cost: 7

Implementing this feature requires moderate development effort to integrate notification functionalities and confirmation mechanisms.

Risk: 8

Inadequate confirmation processes may lead to misunderstandings between supervisors and FYP committee members, affecting project execution and supervision quality.

4.4.2 Stimulus/Response Sequences

Stimulus: FYP committee member assigns a student group to a supervisor.

Response: System sends a notification email to the assigned supervisor.

Stimulus: Assigned supervisor receives the notification email.

Response: Supervisor confirms or declines the assignment through the provided interface.

Stimulus: Supervisor confirms the assignment.

Response: System updates the record of allocated groups to reflect the confirmation.

4.4.3 Functional Requirements

REQ-1: Notification to Supervisor

Upon assigning a student group to a supervisor, the system shall send a notification email to the assigned supervisor.

The notification email shall include details of the assigned student group and instructions for confirmation.

REQ-2: Supervisor Confirmation

The system shall provide the assigned supervisor with the option to confirm or decline the assignment through the notification email.

Upon confirmation by the supervisor, the system shall update the record of allocated groups to reflect the confirmation.

REQ-3: Record Update

After receiving confirmation from the supervisor, the system shall update the record of allocated groups to indicate the confirmed assignment.

**4.5 System Feature: Generate Project Reports**

4.5.1 Description and Priority:

This feature allows FYP committee members to create reports for the project, including missing evaluations, a list of FYPs supervised by faculty, and grades report, facilitating progress assessment and issue identification.

Priority: High priority

Benefit: 9

Generating project reports enables comprehensive assessment of project progress and identification of potential issues, leading to effective project management.

Penalty: 6

Failure to provide this feature may result in limited visibility into project status and issues, hindering effective decision-making and oversight.

Cost: 7

Implementing this feature requires moderate development effort to design and implement report generation functionalities.

Risk: 8

Inadequate reporting capabilities may lead to incomplete or inaccurate assessment of project progress, impacting project outcomes and stakeholder satisfaction.

4.5.2 Stimulus/Response Sequences

Stimulus: FYP committee member clicks the ‘Reports’ button.

Response: System displays options to select report type (e.g., missing evaluations, list of FYPs supervised by faculty, grades report).

Stimulus: Member selects a report type (e.g., missing evaluations).

Response: System generates the selected report according to the chosen type.

Stimulus: Member attempts to download the generated report.

Response: System allows the member to download the report for further analysis.

4.5.3 Functional Requirements

REQ-1: Report Generation Interface

The system shall provide an interface with a ‘Reports’ button for FYP committee members to access report generation functionalities.

Upon clicking the ‘Reports’ button, the system shall display options to select the desired report type.

REQ-2: Report Generation

The system shall generate reports for the project based on the selected report type (e.g., missing evaluations, list of FYPs supervised by faculty, grades report).

Generated reports shall include relevant project information and be formatted for readability and analysis.

REQ-3: Report Download

After generating the report, the system shall allow the FYP committee member to download the report for further analysis or distribution.

The system shall provide options for selecting the file format (e.g., PDF, CSV) for the downloaded report.

**4.6 System Feature: Set Project Deadlines**

4.6.1 Description and Priority:

This feature allows FYP committee members to set deadlines for projects, including submission and evaluation deadlines, ensuring timely submissions and establishing project timelines.

Priority: High priority

Benefit: 9

Setting project deadlines ensures adherence to timelines and facilitates effective project planning and management, leading to successful project completion.

Penalty: 6

Failure to provide this feature may result in missed deadlines, project delays, and disorganization in project management processes.

Cost: 7

Implementing this feature requires moderate development effort to integrate deadline-setting functionalities and ensure user-friendly interface design.

Risk: 8

Inadequate deadline management may lead to confusion and inefficiencies in project scheduling, impacting project outcomes and stakeholder satisfaction.

4.6.2 Stimulus/Response Sequences

Stimulus: FYP committee member accesses the list of FYPs.

Response: System displays the list of FYPs.

Stimulus: Member selects a particular FYP and enters submission and evaluation deadlines.

Response: System saves the entered deadlines for the selected FYP and displays them for reference.

4.6.3 Functional Requirements

REQ-1: Deadline Setting Interface

The system shall provide an interface for FYP committee members to set deadlines for projects.

FYP committee members shall be able to access a list of FYPs within the system.

Upon selecting a particular FYP, the system shall display options to enter submission and evaluation deadlines.

REQ-2: Deadline Entry

FYP committee members shall be able to enter submission and evaluation deadlines for the selected FYP.

The system shall validate the entered deadlines to ensure they are in the correct format and within acceptable ranges.

REQ-3: Deadline Saving and Display

After entering the deadlines, the system shall save them for the selected FYP.

The system shall display the saved deadlines for reference by FYP committee members and project stakeholders.

**4.7 System Feature: Create Project Panels**

4.7.1 Description and Priority:

This feature enables FYP committee members to create project panels composed of faculty members, ensuring a diverse yet balanced team for fair evaluation of projects.

Priority: High priority

Benefit: 9

Creating project panels with diverse faculty members ensures unbiased and comprehensive evaluation of projects, leading to fair assessment and feedback for students.

Penalty: 6

Failure to provide this feature may result in limited diversity in project evaluation teams, potentially leading to biased assessments and dissatisfaction among stakeholders.

Cost: 7

Implementing this feature requires moderate development effort to design and implement panel creation functionalities and ensure seamless integration with faculty member lists.

Risk: 8

Inadequate panel creation capabilities may lead to imbalanced or incomplete project evaluation teams, impacting the quality and fairness of project assessments.

4.7.2 Stimulus/Response Sequences

Stimulus: FYP committee member accesses the list of faculty members.

Response: System displays the list of faculty members.

Stimulus: Member clicks on the ‘Create Panel’ button.

Response: System prompts the member to add faculty members to the panel.

Stimulus: Member adds faculty members to the created panel.

Response: System creates a new project panel with the added faculty members and displays the panel details and members.

4.7.3 Functional Requirements

REQ-1: Panel Creation Interface

The system shall provide an interface for FYP committee members to create project panels.

Upon clicking the ‘Create Panel’ button, the system shall prompt the member to add faculty members to the panel.

REQ-2: Panel Composition

FYP committee members shall be able to select and add faculty members from the list of available faculty members to the created panel.

The system shall ensure a minimum and maximum number of faculty members are added to the panel to maintain balance and diversity.

REQ-3: Panel Details Display

After adding faculty members, the system shall create a new project panel with the added faculty members.

The system shall display the details of the created panel, including panel members, for reference by FYP committee members and project stakeholders.

**4.8 System Feature: Assign FYP Groups to Panels**

4.8.1 Description and Priority:

This feature allows FYP committee members to allocate FYP groups to the created project panels, facilitating a smooth and streamlined process for evaluating the projects.

Priority: High priority

Benefit: 9

Assigning FYP groups to project panels streamlines the evaluation process, ensuring efficient allocation of resources and timely feedback to students, leading to improved project outcomes.

Penalty: 6

Failure to provide this feature may result in disorganization and inefficiency in project evaluation, leading to delays and inconsistencies in feedback delivery.

Cost: 7

Implementing this feature requires moderate development effort to integrate assignment functionalities and ensure seamless interaction between FYP groups and project panels.

Risk: 8

Inadequate assignment capabilities may lead to misallocation of FYP groups, affecting the fairness and effectiveness of project evaluations and feedback processes.

4.8.2 Stimulus/Response Sequences

Stimulus: FYP committee member accesses the lists of FYP groups and project panels.

Response: System displays the lists of FYP groups and project panels.

Stimulus: Member selects an FYP group and a project panel.

Response: System assigns the selected FYP group to the chosen project panel and updates the FYP group list to reflect the assignment.

Stimulus: Member views the details of the assigned FYP group.

Response: System displays the assigned project panel on the FYP group page for reference.

4.8.3 Functional Requirements

REQ-1: Assignment Interface

The system shall provide an interface for FYP committee members to assign FYP groups to project panels.

FYP committee members shall be able to select an FYP group and a project panel from the respective lists.

REQ-2: Assignment Process

Upon selecting an FYP group and a project panel, the system shall assign the FYP group to the chosen project panel.

The system shall update the FYP group list to reflect the assignment and display the assigned project panel on the FYP group page.

REQ-3: Validation

The system shall validate the assignment process to ensure that FYP groups are allocated to project panels in accordance with the defined guidelines and restrictions.

Validation checks shall include verifying that the selected project panel has sufficient capacity to accommodate the assigned FYP group

**4.9 System Feature: View Registered Students List**

4.9.1 Description and Priority:

This feature enables FYP committee members to view lists of all registered students in FYP1, facilitating efficient management of project allocations.

Priority: High priority

Benefit: 9

Viewing lists of registered students allows FYP committee members to accurately assess available resources and allocate projects effectively, leading to improved project outcomes.

Penalty: 6

Failure to provide this feature may result in inefficiencies and errors in project allocation processes, potentially leading to mismatches between student skills and project requirements.

Cost: 7

Implementing this feature requires moderate development effort to integrate student list functionalities and ensure data retrieval and display are optimized for user experience.

Risk: 8

Inadequate access to student lists may lead to incomplete or inaccurate assessments of available resources, impacting project allocation decisions and outcomes.

4.9.2 Stimulus/Response Sequences

Stimulus: FYP committee member clicks on the ‘Students’ button.

Response: System displays all registered students in FYP1 along with their information.

4.9.3 Functional Requirements

REQ-1: Student List Display

The system shall provide an interface for FYP committee members to view lists of all registered students in FYP1.

Upon clicking the ‘Students’ button, the system shall display a comprehensive list of registered students, including their information such as name, email, and other relevant details.

REQ-2: Information Presentation

The system shall present student information in a clear and organized manner to facilitate easy identification and assessment by FYP committee members.

Student information shall be presented in a tabular format or similar layout for efficient browsing and analysis.

REQ-3: Filtering and Sorting

The system shall allow FYP committee members to filter and sort the list of registered students based on various criteria such as name, email, or project preferences.

Filtering and sorting functionalities shall enhance usability and enable more targeted management of project allocations.

**4.10 System Feature: View FYP Groups' Details**

4.10.1 Description and Priority:

This feature allows FYP committee members to view specific details of FYP groups, including group members, assigned supervisor, and project information, enabling informed decision-making and management of FYP activities.

Priority: High priority

Benefit: 9

Viewing FYP group details provides FYP committee members with comprehensive insights into group dynamics, supervisor assignments, and project specifics, facilitating effective oversight and management of FYP activities for successful project outcomes.

Penalty: 6

Failure to provide this feature may result in incomplete or inaccurate assessments of FYP group compositions and project details, potentially leading to misallocation of resources and inefficiencies in project management.

Cost: 7

Implementing this feature requires moderate development effort to integrate group details functionalities and ensure accurate retrieval and presentation of information for user access.

Risk: 8

Inadequate access to FYP group details may lead to misunderstandings or oversight of critical project aspects, impacting project progress and stakeholder satisfaction.

4.10.2 Stimulus/Response Sequences

Stimulus: FYP committee member accesses the FYP groups list.

Response: System displays the list of FYP groups.

Stimulus: Member selects a specific FYP group.

Response: System displays detailed information about the selected FYP group, including group members, assigned supervisor, and project information.

4.10.3 Functional Requirements

REQ-1: Group Details Display

The system shall provide an interface for FYP committee members to view specific details of FYP groups.

Upon selecting an FYP group from the list, the system shall display comprehensive details including group members, their information, assigned supervisor, and project information.

REQ-2: Group Members Information

The system shall present information about group members, including their names, email addresses, and other relevant details, in a clear and organized manner.

Group member information shall be displayed in a structured format to facilitate easy identification and assessment by FYP committee members.

REQ-3: Assigned Supervisor Details

The system shall display information about the assigned supervisor for the selected FYP group, including their name, contact information, and supervisory role.

Supervisor details shall be presented alongside group member information for contextual understanding of project oversight.

REQ-4: Project Information Display

The system shall present project information for the selected FYP group, including project title, description, and any other relevant details.

Project information shall be displayed prominently to provide FYP committee members with insights into project goals, scope, and requirements.

**4.11 System Feature: Viewing Project Details**

4.11.1 Description and Priority:

This feature enables students to view details of their assigned FYP project, including group members, supervisor, project title, and description, providing clarity and context for project engagement.

Priority: High priority

Benefit: 9

Viewing project details allows students to understand the project scope, team dynamics, and supervisory support, enhancing project comprehension and contributing to successful project outcomes.

Penalty: 6

Failure to provide this feature may result in student confusion or misunderstandings regarding project details, potentially leading to inefficiencies or misalignments in project execution.

Cost: 7

Implementing this feature requires moderate development effort to integrate project details functionalities and ensure accurate retrieval and presentation of information for student access.

Risk: 8

Inadequate access to project details may lead to student disengagement or frustration, impacting project participation and overall student satisfaction with the FYP experience.

4.11.2 Stimulus/Response Sequences

Stimulus: Student logs in and selects the ‘My Project’ option.

Response: System displays project details, including group members, supervisor, project title, and description.

4.11.3 Functional Requirements

REQ-1: Project Details Display

The system shall provide an interface for students to view details of their assigned FYP project.

Upon selecting the ‘My Project’ option, the system shall display comprehensive project details, including group members, supervisor, project title, and description.

REQ-2: Group Members Information

The system shall present information about group members, including their names and other relevant details, in a clear and organized manner.

Group member information shall be displayed alongside other project details to provide context for team collaboration.

REQ-3: Supervisor Details

The system shall display information about the project supervisor, including their name, contact information, and supervisory role.

Supervisor details shall be presented prominently to highlight the support available to students during project execution.

REQ-4: Project Title and Description

The system shall present the project title and description to provide students with insights into the project scope, objectives, and deliverables.

Project title and description shall be displayed prominently for easy reference and comprehension by students.

**4.12 System Feature: Viewing Assigned Panel**

4.12.1 Description and Priority:

This feature enables students to view the panel assigned to their FYP project, providing transparency and awareness of the assessment process.

Priority: High priority

Benefit: 8

Viewing the assigned panel allows students to understand the assessment process, expectations, and evaluators involved, facilitating preparation and engagement in project presentations and evaluations.

Penalty: 5

Failure to provide this feature may result in student confusion or lack of clarity regarding the assessment process, potentially leading to unpreparedness or anxiety during project evaluations.

Cost: 6

Implementing this feature requires moderate development effort to integrate panel assignment functionalities and ensure accurate retrieval and presentation of information for student access.

Risk: 7

Inadequate access to panel assignment details may lead to misunderstandings or misinterpretations of assessment criteria, impacting student performance and satisfaction with the evaluation process.

4.12.2 Stimulus/Response Sequences

Stimulus: Student logs in.

Response: System displays the panel assigned to the student to keep track of the assessment process.

4.12.3 Functional Requirements

REQ-1: Assigned Panel Display

The system shall provide an interface for students to view the panel assigned to their FYP project.

Upon logging in, the system shall display the assigned panel to the student for tracking the assessment process.

REQ-2: Panel Details

The system shall present details of the assigned panel, including panel members and any relevant information related to the assessment process.

Panel details shall be displayed in a clear and organized manner to facilitate understanding and awareness of the assessment process.

REQ-3: Assessment Process Tracking

The system shall enable students to keep track of the assessment process by displaying the assigned panel and related information.

Students shall be able to access panel details easily to stay informed about the evaluation process and prepare accordingly.

**4.13 System Feature: Viewing Reviews and Suggestions**

4.13.1 Description and Priority:

This feature enables students to view reviews and suggestions provided by panel members, facilitating improvements in the quality of their work.

Priority: High priority

Benefit: 9

Viewing reviews and suggestions allows students to receive valuable feedback from panel members, guiding them in enhancing the quality of their work and achieving better project outcomes.

Penalty: 4

Failure to provide this feature may result in missed opportunities for students to receive constructive feedback, potentially hindering their ability to make necessary improvements and optimize project performance.

Cost: 6

Implementing this feature requires moderate development effort to integrate review and suggestion functionalities and ensure accurate retrieval and presentation of feedback for student access.

Risk: 7

Inadequate access to reviews and suggestions may lead to student dissatisfaction or disengagement with the evaluation process, impacting their motivation and project outcomes.

4.13.2 Stimulus/Response Sequences

Stimulus: Student logs in.

Response: System provides access to the 'Reviews' section.

Stimulus: Student selects the 'Reviews' section.

Response: System displays reviews and suggestions related to the project from the panel members.

4.13.3 Functional Requirements

REQ-1: Reviews Display

The system shall provide an interface for students to view reviews and suggestions from panel members.

Upon selecting the 'Reviews' section, the system shall display comprehensive feedback provided by panel members.

REQ-2: Review Details

The system shall present details of reviews and suggestions, including comments, recommendations, and any relevant information provided by panel members.

Review details shall be displayed in a clear and organized manner to facilitate understanding and application of feedback by students.

REQ-3: Feedback Access

The system shall enable students to easily access reviews and suggestions from panel members for ongoing review and improvement of their work.

Students shall be able to view feedback related to their project from panel members at their convenience to inform their efforts in enhancing project quality.

**4.14 System Feature: Checking Deadlines**

4.14.1 Description and Priority:

This feature enables students to view deadlines for presentations and document submissions, facilitating timely completion of assigned tasks.

Priority: High priority

Benefit: 8

Checking deadlines allows students to plan and prioritize their work effectively, ensuring timely completion of presentations and document submissions and minimizing the risk of missed deadlines.

Penalty: 5

Failure to provide this feature may result in students being unaware of upcoming deadlines, leading to potential delays in project milestones and impacting overall project progress.

Cost: 6

Implementing this feature requires moderate development effort to integrate deadline checking functionalities and ensure accurate retrieval and presentation of deadline information for student access.

Risk: 7

Inadequate access to deadline information may lead to student confusion or disorganization, impacting their ability to manage project tasks and meet project requirements within specified timelines.

4.14.2 Stimulus/Response Sequences

Stimulus: Student logs in.

Response: System provides access to the 'Assignments' section.

Stimulus: Student selects the 'Assignments' section.

Response: System displays deadlines for presentations and document submissions.

4.14.3 Functional Requirements

REQ-1: Deadlines Display

The system shall provide an interface for students to view deadlines for presentations and document submissions.

Upon selecting the 'Assignments' section, the system shall display comprehensive deadline information for assigned tasks.

REQ-2: Deadline Details

The system shall present details of deadlines, including dates, times, and any additional instructions or requirements related to presentations and document submissions.

Deadline details shall be displayed in a clear and organized manner to facilitate understanding and adherence to assigned timelines.

REQ-3: Timely Notifications

The system shall enable students to receive timely notifications or reminders about upcoming deadlines to help them stay informed and prepared.

Notifications shall be delivered through appropriate channels to ensure students are aware of impending deadlines and can plan their work accordingly.

**4.15 System Feature: Reviewing Final Grade**

4.15.1 Description and Priority:

This feature enables students to view their final grade for the FYP, providing insight into their performance in the project.

Priority: High priority

Benefit: 9

Reviewing the final grade allows students to assess their performance, identify areas of strength and improvement, and gauge their overall achievement in the project.

Penalty: 4

Failure to provide this feature may result in students being unaware of their final grade, hindering their ability to reflect on their work and make informed decisions for future projects or academic pursuits.

Cost: 6

Implementing this feature requires moderate development effort to integrate final grade retrieval functionalities and ensure accurate presentation of grade information for student access.

Risk: 7

Inadequate access to final grade information may lead to student dissatisfaction or uncertainty about their performance, impacting their motivation and satisfaction with the FYP experience.

4.15.2 Stimulus/Response Sequences

Stimulus: Student logs in.

Response: System provides access to the 'Transcript' section.

Stimulus: Student selects the 'Transcript' section.

Response: System displays the final grade for the FYP.

4.15.3 Functional Requirements

REQ-1: Final Grade Display

The system shall provide an interface for students to view their final grade for the FYP.

Upon selecting the 'Transcript' section, the system shall display the final grade achieved by the student.

REQ-2: Grade Details

The system shall present details of the final grade, including the grade achieved, any accompanying remarks or feedback, and relevant information regarding grading criteria.

Grade details shall be displayed in a clear and organized manner to facilitate understanding and interpretation by the student.

REQ-3: Grade Accessibility

The system shall enable students to easily access their final grade for the FYP at any time.

Students shall be able to review their final grade information conveniently to gain insight into their performance and progress in the project.

**4.16 System Feature: Uploading Assignments/Deliverables**

4.16.1 Description and Priority:

This feature allows students to submit soft copies of documents and presentations for assignments, minimizing the need for unnecessary paperwork.

Priority: High priority

Benefit: 9

Uploading assignments/deliverables digitally reduces paperwork, streamlines the submission process, and enhances accessibility and organization of submitted materials.

Penalty: 4

Failure to provide this feature may result in increased administrative overhead, potential loss or misplacement of physical documents, and inefficiencies in managing assignment submissions.

Cost: 7

Implementing this feature requires moderate development effort to integrate file upload functionalities, ensure data security, and provide a user-friendly interface for submission.

Risk: 6

Inadequate implementation of file upload mechanisms may lead to technical issues, data loss, or security vulnerabilities, impacting the reliability and effectiveness of the submission process.

4.16.2 Stimulus/Response Sequences

Stimulus: Student logs in.

Response: System provides access to the 'Assignments' section.

Stimulus: Student selects the 'Assignments' section.

Response: System displays options for uploading assignments/deliverables.

4.16.3 Functional Requirements

REQ-1: Assignment Submission Interface

The system shall provide an interface for students to upload soft copies of documents and presentations for assignments.

Upon selecting the 'Assignments' section, the system shall display options for uploading assignment files.

REQ-2: File Upload

The system shall allow students to select and upload files from their local devices for assignment submission.

Supported file types may include documents (e.g., PDF, Word) and presentations (e.g., PowerPoint).

REQ-3: Submission Confirmation

Upon successful file upload, the system shall confirm the submission to the student and provide a timestamp indicating the submission date and time.

Confirmation of submission shall be displayed to the student to ensure acknowledgment of successful upload.

REQ-4: Error Handling

The system shall handle errors encountered during the file upload process, such as invalid file formats or upload failures.

Clear error messages shall be displayed to the student to guide them in resolving issues and ensuring successful submission.

**4.17 System Feature: Submitting Progress Report**

4.17.1 Description and Priority:

This feature enables students to submit progress reports on their FYP, allowing them to provide updates on the status of the project.

Priority: High priority

Benefit: 8

Submitting progress reports facilitates communication and transparency regarding the project's status, enabling stakeholders to monitor progress and address any issues or challenges promptly.

Penalty: 5

Failure to provide this feature may result in a lack of visibility into project progress, hindering effective monitoring and coordination efforts among stakeholders.

Cost: 6

Implementing this feature requires moderate development effort to create a user-friendly interface for progress report submission and ensure data integrity and security.

Risk: 7

Inadequate implementation of progress report submission mechanisms may lead to incomplete or inaccurate project status updates, impacting stakeholders' ability to make informed decisions.

4.17.2 Stimulus/Response Sequences

Stimulus: Student logs in.

Response: System provides access to the 'Report' section.

Stimulus: Student selects the 'Report' section.

Response: System redirects to another page for progress report submission.

4.17.3 Functional Requirements

REQ-1: Progress Report Submission Interface

The system shall provide an interface for students to submit progress reports on their FYP.

Upon selecting the 'Report' section, the system shall redirect to a dedicated page for progress report submission.

REQ-2: Report Form

The system shall present a form or template for students to enter information regarding their project progress.

The report form shall include fields for key aspects of project status, such as milestones achieved, tasks completed, challenges faced, and plans for future work.

REQ-3: File Upload

The system shall allow students to upload supporting documents or materials along with the progress report, if necessary.

Supported file types may include documents, images, or other relevant files related to project progress.

REQ-4: Submission Confirmation

Upon successful submission, the system shall confirm receipt of the progress report to the student.

Confirmation of submission shall include a timestamp indicating the submission date and time.

**4.18 System Feature: Accessing Assigned FYPs**

4.18.1 Description and Priority:

This feature allows panel members to access the FYPs assigned to their panel, enabling them to identify which projects they need to evaluate.

Priority: High priority

Benefit: 8

Accessing assigned FYPs provides panel members with clarity on their evaluation responsibilities, facilitating efficient assessment and feedback processes.

Penalty: 4

Failure to provide this feature may lead to confusion among panel members regarding their assigned projects, potentially resulting in missed evaluations or delays in the assessment process.

Cost: 6

Implementing this feature requires moderate development effort to create an interface for accessing assigned FYPs and ensuring accurate assignment tracking.

Risk: 7

Inadequate implementation of FYP access mechanisms may lead to panel members overlooking assigned projects or accessing projects they are not assigned to, compromising evaluation accuracy and fairness.

4.18.2 Stimulus/Response Sequences

Stimulus: Panel member logs in.

Response: System provides access to the 'Assigned Projects' section.

Stimulus: Panel member selects the 'Assigned Projects' section.

Response: System displays all FYPs assigned to the panel, including those assigned to the respective panel member.

4.18.3 Functional Requirements

REQ-1: Assigned FYPs Interface

The system shall provide an interface for panel members to access FYPs assigned to their panel.

Upon selecting the 'Assigned Projects' section, the system shall display a list of FYPs assigned to the panel.

REQ-2: FYP Listing

The system shall list all FYPs assigned to the panel, including project titles, descriptions, and relevant details.

Panel members shall be able to view information about each assigned FYP to identify projects for evaluation.

REQ-3: Panel Member Assignment

The system shall ensure that panel members can only access FYPs assigned to the panel of which they are a part.

Access to assigned FYPs shall be restricted based on panel membership to maintain evaluation integrity and fairness.

**4.19 System Feature: Evaluating FYPs**

4.19.1 Description and Priority:

This feature enables panel members to fill out evaluation forms for FYPs assigned to them, allowing them to participate in the assessment process.

Priority: High priority

Benefit: 8

Enabling panel members to evaluate FYPs facilitates comprehensive assessment and feedback, contributing to the quality and fairness of project evaluations.

Penalty: 5

Failure to provide this feature may lead to incomplete assessments or delays in the evaluation process, impacting the timely feedback provided to students.

Cost: 7

Implementing this feature requires moderate development effort to create evaluation form interfaces and ensure data integrity and security.

Risk: 6

Inadequate implementation of evaluation mechanisms may result in inconsistencies or biases in project assessments, affecting the overall fairness and reliability of evaluations.

4.19.2 Stimulus/Response Sequences

Stimulus: Panel member logs in.

Response: System provides access to assigned FYPs.

Stimulus: Panel member selects a specific FYP for evaluation.

Response: System redirects the member to an evaluation form for the selected FYP.

4.19.3 Functional Requirements

REQ-1: Evaluation Form Interface

The system shall provide an interface for panel members to fill out evaluation forms for assigned FYPs.

Upon selecting a specific FYP for evaluation, the system shall redirect the panel member to an evaluation form interface.

REQ-2: Form Content

The evaluation form shall include fields for assessing various aspects of the FYP, such as project quality, methodology, presentation, and adherence to requirements.

Panel members shall be able to provide ratings, comments, and suggestions for improvement on different evaluation criteria.

REQ-3: Form Submission

The system shall allow panel members to submit completed evaluation forms for assigned FYPs.

Upon submission, the system shall record the evaluation data and notify the FYP committee of the completed assessment.

REQ-4: Evaluation Completion Tracking

The system shall track the completion status of evaluations for assigned FYPs by panel members.

Panel members shall be able to view their progress in completing evaluations and identify any pending assessments.

**4.20 System Feature: Handling Missing Evaluations**

4.20.1 Description and Priority:

This feature allows panel members to receive notifications for missing evaluation forms, enabling them to complete pending evaluations efficiently.

Priority: Medium priority

Benefit: 6

Providing notifications for missing evaluations helps ensure timely completion of assessments, contributing to the efficiency of the evaluation process.

Penalty: 3

Lack of this feature may result in delays in completing evaluations, potentially affecting the overall assessment timeline.

Cost: 5

Implementing this feature requires moderate development effort to integrate notification functionalities and link them to pending evaluations.

Risk: 4

Inadequate handling of missing evaluations may lead to incomplete assessments, impacting the accuracy and fairness of project evaluations.

4.20.2 Stimulus/Response Sequences

Stimulus: Panel member logs in.

Response: System displays notifications for missing evaluation forms.

Stimulus: Panel member clicks on a missing evaluation notification.

Response: System redirects the member to the evaluation form of the project that has not been evaluated yet.

4.20.3 Functional Requirements

REQ-1: Notification System

The system shall provide notifications to panel members for missing evaluation forms.

Notifications shall indicate the specific FYPs for which evaluations are pending.

REQ-2: Notification Handling

Panel members shall be able to click on notifications to access the corresponding evaluation forms directly.

Upon clicking on a notification, the system shall redirect the panel member to the evaluation form of the project with missing evaluations.

REQ-3: Evaluation Completion Tracking

The system shall track the completion status of evaluations for all assigned FYPs by panel members.

Panel members shall have visibility into pending evaluations through the notification system and be able to prioritize completion accordingly.

**4.21 System Feature: View All Active FYPs**

4.21.1 Description and Priority:

This feature allows supervisors to view a list of all active Final Year Projects (FYPs) they are currently supervising, facilitating efficient management of workload and student groups.

Priority: High priority

Benefit: 9

Providing supervisors with a comprehensive list of active FYPs enhances their ability to manage workload and student groups effectively, leading to improved project supervision.

Penalty: 3

Absence of this feature may result in supervisors facing difficulties in tracking and managing their assigned FYPs, potentially leading to oversight or neglect of certain projects.

Cost: 6

Implementing this feature requires moderate development effort to integrate functionality for retrieving and displaying active FYPs under each supervisor.

Risk: 5

Inadequate visibility into active FYPs may lead to suboptimal supervision practices and could impact the overall quality of project outcomes.

4.21.2 Stimulus/Response Sequences

Stimulus: Supervisor logs in.

Response: System displays an option to view all active FYPs.

Stimulus: Supervisor selects the option to view active FYPs.

Response: System retrieves and displays a list of all active FYPs supervised by the logged-in supervisor.

4.21.3 Functional Requirements

REQ-1: List of Active FYPs

The system shall provide supervisors with the capability to view a list of all active FYPs they are currently supervising.

The list shall include details such as project titles, group members, and project statuses.

REQ-2: Filtering and Sorting Options

Supervisors shall be able to filter and sort the list of active FYPs based on criteria such as project status, deadline, or group members.

Filtering and sorting options shall enhance the usability of the feature and enable supervisors to prioritize tasks effectively.

REQ-3: Project Status Display

The system shall display the status of each FYP in the list (e.g., ongoing, pending evaluation, completed).

Clear indication of project status enables supervisors to identify projects requiring immediate attention or intervention.

REQ-4: Group Member Details

For each active FYP, the system shall display details of group members, including student names and roles within the project.

Access to group member information aids supervisors in understanding project dynamics and assigning tasks effectively.

**4.22 System Feature: View Details of Each FYP**

4.22.1 Description and Priority:

This feature enables supervisors to access detailed information about each Final Year Project (FYP) they are supervising, including project and group details. It is crucial for effective guidance and management of student projects.

Priority: High priority

Benefit: 9

Providing supervisors with detailed project and group information enhances their ability to guide and support student groups effectively, leading to improved project outcomes.

Penalty: 4

Absence of this feature may hinder supervisors' understanding of project dynamics and could result in inadequate support or guidance to student groups, potentially impacting project success.

Cost: 7

Implementing this feature requires moderate to high development effort to integrate functionality for retrieving and displaying detailed project and group information.

Risk: 6

Insufficient access to project and group details may lead to misunderstandings or miscommunication between supervisors and student groups, affecting project progress and outcomes.

4.22.2 Stimulus/Response Sequences

Stimulus: Supervisor logs in.

Response: System displays an option to view details of each FYP.

Stimulus: Supervisor selects the option to view FYP details.

Response: System retrieves and displays a list of all active FYPs under the supervision of the

logged-in supervisor.

Stimulus: Supervisor selects a specific FYP from the list.

Response: System provides access to detailed project and group information for the selected FYP.

4.22.3 Functional Requirements

REQ-1: List of Active FYPs

The system shall provide supervisors with the capability to view a list of all active FYPs they are currently supervising.

The list shall include project titles and other relevant project identifiers.

REQ-2: Project Information Display

For each FYP in the list, the system shall display detailed project information, including project description, objectives, and milestones.

Access to project information enables supervisors to understand project scope and objectives, facilitating effective guidance and support.

REQ-3: Group Information Display

The system shall provide supervisors with access to detailed information about the student group assigned to each FYP.

Group information shall include student names, roles within the group, and contact details.

Detailed group information aids supervisors in understanding group dynamics and facilitating effective communication and collaboration.

REQ-4: Navigation Interface

The system shall provide a user-friendly navigation interface for supervisors to easily switch between viewing details of different FYPs.

A clear and intuitive navigation interface enhances usability and ensures efficient access to project and group information.

**4.23 System Feature: Review Progress Reports**

4.23.1 Description and Priority:

This feature enables supervisors to review progress reports submitted by student groups, facilitating effective monitoring of project progress and providing necessary guidance and feedback.

Priority: High priority

Benefit: 9

Allowing supervisors to review progress reports empowers them to closely monitor project progress, identify potential issues early, and provide timely guidance and feedback to student groups, ultimately leading to improved project outcomes.

Penalty: 4

Absence of this feature may result in supervisors being unaware of the progress of student projects, leading to inadequate support and potentially impacting project success.

Cost: 6

Implementing this feature requires moderate development effort to integrate functionality for listing and viewing progress reports within the system.

Risk: 7

Inability to review progress reports may lead to misalignment between supervisors and student groups, potentially causing delays or misunderstandings in project execution.

4.23.2 Stimulus/Response Sequences

Stimulus: Supervisor logs in.

Response: System displays an option to review progress reports.

Stimulus: Supervisor selects the option to review progress reports.

Response: System lists progress reports submitted by the relevant student group(s).

Stimulus: Supervisor selects a specific progress report from the list.

Response: System allows the supervisor to view the selected progress report in detail.

4.23.3 Functional Requirements

REQ-1: List of Progress Reports

The system shall provide supervisors with the capability to view a list of progress reports submitted by student groups under their supervision.

The list shall include details such as report titles, submission dates, and status indicators.

REQ-2: Progress Report Viewing

For each progress report in the list, the system shall allow supervisors to view the content of the report.

Supervisors should be able to access detailed information regarding project progress, including achievements, challenges, and future plans outlined in the progress report.

REQ-3: Feedback and Comments

The system shall provide supervisors with the ability to provide feedback and comments on the progress reports they review.

Supervisors should be able to offer constructive feedback, suggestions, and guidance to student groups based on the content of the progress reports.

REQ-4: Notification of New Reports

The system shall notify supervisors when new progress reports are submitted by student groups under their supervision.

Timely notifications ensure that supervisors are aware of new progress reports and can review them promptly.

**4.24 System Feature: View FYP Materials**

4.24.1 Description and Priority:

This feature allows supervisors to access FYP materials, including proposals, final reports, and other submitted documents, provided by student groups. It enables supervisors to review and examine the materials to ensure project quality and provide necessary feedback.

Priority: High priority

Benefit: 9

Allowing supervisors to access FYP materials facilitates effective supervision and assessment of student projects, enabling supervisors to provide valuable guidance and feedback for project improvement.

Penalty: 4

Absence of this feature may result in supervisors being unable to review essential project documents, leading to inadequate supervision and potentially impacting project outcomes.

Cost: 6

Implementing this feature requires moderate development effort to integrate functionality for accessing and displaying FYP materials within the system.

Risk: 7

Inability to access FYP materials may lead to misalignment between supervisors and student groups, potentially causing delays or misunderstandings in project execution.

4.24.2 Stimulus/Response Sequences

Stimulus: Supervisor logs in.

Response: System displays an option to view FYP materials.

Stimulus: Supervisor selects the option to view FYP materials.

Response: System lists the materials submitted by the student groups of the FYP projects under the supervisor's supervision.

Stimulus: Supervisor selects a specific material (e.g., proposal, final report) from the list.

Response: System allows the supervisor to access and examine the selected material in detail.

4.24.3 Functional Requirements

REQ-1: List of FYP Materials

The system shall provide supervisors with the capability to view a list of FYP materials (e.g., proposals, final reports) submitted by student groups under their supervision.

The list shall include details such as material types, submission dates, and status indicators.

REQ-2: Material Viewing

For each material in the list, the system shall allow supervisors to view the content of the material.

Supervisors should be able to access and examine the submitted materials, including proposals, final reports, presentations, etc.

REQ-3: Feedback and Comments

The system shall provide supervisors with the ability to provide feedback and comments on the FYP materials they review.

Supervisors should be able to offer constructive feedback, suggestions, and guidance to student groups based on the content of the submitted materials.

REQ-4: Notification of New Materials

The system shall notify supervisors when new FYP materials are submitted by student groups under their supervision.

Timely notifications ensure that supervisors are aware of new materials and can review them promptly.

**4.25 System Feature: View Deadlines for All FYP Related Assessments**

4.25.1 Description and Priority:

This feature enables supervisors to access and view deadlines for all FYP-related assessments, including submissions, presentations, and other evaluation activities. It allows supervisors to effectively manage their time, plan their schedules, and remind students of impending deadlines, ensuring smooth progress of FYP projects.

Priority: High priority

Benefit: 8

Providing supervisors with access to FYP assessment deadlines facilitates effective time management and ensures timely completion of project milestones, contributing to overall project success.

Penalty: 5

Lack of this feature may result in supervisors being unaware of crucial deadlines, leading to potential delays in project submissions and evaluations, impacting project outcomes.

Cost: 6

Implementing this feature requires moderate development effort to integrate functionality for displaying and managing FYP assessment deadlines within the system.

Risk: 7

Inaccurate or inaccessible assessment deadlines may lead to confusion among supervisors and students, potentially affecting project progress and outcomes.

4.25.2 Stimulus/Response Sequences

Stimulus: Supervisor logs in.

Response: System displays an option to view FYP assessment deadlines.

Stimulus: Supervisor selects the option to view deadlines.

Response: System lists all active FYPs and their respective assessment deadlines.

Stimulus: Supervisor selects a specific FYP from the list.

Response: System displays detailed information about assessment deadlines associated with the selected FYP, including submission dates, presentation schedules, etc.

4.25.3 Functional Requirements

REQ-1: List of FYP Assessment Deadlines

The system shall provide supervisors with the capability to view a list of assessment deadlines for all active FYPs under their supervision.

The list shall include details such as FYP titles, assessment types (submission, presentation), and associated deadlines.

REQ-2: Detailed Deadline Information

For each FYP in the list, the system shall allow supervisors to access detailed information about assessment deadlines.

Supervisors should be able to view specific deadlines for different assessment activities, such as submission dates for project reports, presentation schedules, etc.

REQ-3: Deadline Reminder

The system shall provide supervisors with the ability to set reminders for upcoming assessment deadlines.

Supervisors should receive notifications or reminders regarding approaching deadlines to help them plan and manage their schedules effectively.

REQ-4: Student Notification

The system shall enable supervisors to notify students about upcoming assessment deadlines.

Supervisors should be able to communicate deadline information to students, ensuring that they are aware of and prepared for upcoming assessments.

**4.26 System Feature: Notify Regarding Pending Reviews**

4.26.1 Description and Priority:

This feature enables supervisors to receive notifications regarding pending reviews for projects they supervise. It allows supervisors to prioritize completing reviews, ensuring timely feedback to students and effective progress monitoring.

Priority: Nice to have feature

Benefit: 6

Notifying supervisors about pending reviews enhances accountability and ensures timely completion of assessment tasks, contributing to improved project management.

Penalty: 3

Lack of this feature may result in supervisors overlooking pending reviews, leading to delays in providing feedback to students and potentially affecting project timelines.

Cost: 4

Implementing this feature requires moderate development effort to integrate notification functionality within the system and manage pending reviews for supervisors.

Risk: 5

Inadequate notification of pending reviews may lead to oversight of assessment tasks, impacting the quality and timeliness of feedback provided to students.

4.26.2 Stimulus/Response Sequences

Stimulus: Supervisor logs in.

Response: System checks for pending reviews for projects supervised by the logged-in supervisor.

Stimulus: Pending reviews are detected for a specific FYP project.

Response: System sends a notification to the supervisor regarding the pending review.

Stimulus: Supervisor selects the notification.

Response: System redirects the supervisor to the review interface for the respective FYP project, allowing them to submit the review.

4.26.3 Functional Requirements

REQ-1: Review Notification

The system shall monitor pending reviews for projects supervised by each logged-in supervisor.

When pending reviews are detected, the system shall send notifications to the respective supervisors.

Notifications should include details such as the FYP project title and a link to access the review interface.

REQ-2: Review Submission

Supervisors shall be able to access the review interface directly from the notification.

The review interface shall allow supervisors to submit reviews for the respective FYP projects.

Upon review submission, the system shall update the status of the review and notify relevant stakeholders (e.g., students, panel members).

REQ-3: Notification Settings

Supervisors shall have the option to customize notification settings for pending reviews.

Settings should include preferences for notification frequency, delivery method (e.g., email, in-app notification), and notification thresholds (e.g., number of pending reviews).

**4.27 System Feature: Communicate With Assigned Student Groups**

4.27.1 Description and Priority:

This feature enables supervisors to communicate directly with their assigned student groups, facilitating efficient resolution of queries and issues. It enhances collaboration between supervisors and students, ensuring effective guidance and support throughout the FYP process.

Priority: Need to have feature

Benefit: 7

Enabling direct communication between supervisors and student groups streamlines query resolution, fosters collaboration, and enhances the overall supervision experience.

Penalty: 4

Lack of this feature may result in delays in addressing student queries and issues, potentially impacting project progress and student satisfaction.

Cost: 5

Implementing this feature requires moderate development effort to integrate communication functionality within the system and ensure seamless interaction between supervisors and student groups.

Risk: 6

Inadequate communication channels may lead to misunderstandings or misinterpretations of project requirements, affecting project outcomes and supervisor-student relationships.

4.27.2 Stimulus/Response Sequences

Stimulus: Supervisor logs in.

Response: System provides access to communication interface for assigned student groups.

Stimulus: Supervisor selects a specific student group.

Response: System displays queries or issues raised by the selected student group.

Stimulus: Supervisor composes a response.

Response: System sends the response to the respective student group.

4.27.3 Functional Requirements

REQ-1: Communication Interface

The system shall provide supervisors with access to a communication interface for each assigned student group.

The interface shall display queries or issues raised by the student group, categorized by topic or urgency.

Supervisors shall be able to view the entire communication history with the student group.

REQ-2: Responding to Queries

Supervisors shall be able to compose responses directly within the communication interface.

Responses shall be timestamped and attributed to the supervisor.

Upon response submission, the system shall update the communication thread and notify the student group of the response.

REQ-3: Notification System

The system shall send notifications to supervisors upon receiving new queries or issues from student groups.

Notifications should include a brief summary of the query or issue and a link to access the communication interface.

Supervisors shall have the option to customize notification preferences, including frequency and delivery method.

REQ-4: Access Control

Supervisors shall only have access to communication interfaces for student groups assigned to them.

Access control mechanisms shall ensure confidentiality and privacy of communication between supervisors and student groups.

**4.28 System Feature: Submit Requests For Extra Materials**

4.28.1 Description and Priority:

This feature enables supervisors to request additional materials or resources for the FYP projects they are supervising, enhancing their ability to support and guide their students effectively.

Priority: Nice to have feature

Benefit: 6

Allowing supervisors to request extra materials facilitates better support for student projects, potentially improving project outcomes and student satisfaction.

Penalty: 3

Lack of this feature may result in supervisors having limited resources to assist students, potentially hindering project progress and quality.

Cost: 4

Implementing this feature requires moderate development effort to integrate request submission functionality within the system and establish communication channels with panel members.

Risk: 5

Without proper monitoring and response mechanisms, requests for extra materials may lead to delays or inefficiencies in the procurement process, impacting project timelines.

4.28.2 Stimulus/Response Sequences

Stimulus: Supervisor identifies the need for extra materials for a specific FYP project.

Response: System provides access to a request submission interface.

Stimulus: Supervisor submits a request for extra materials, specifying the required resources and justification.

Response: System notifies panel members about the request and records it for tracking purposes.

Stimulus: Panel members review the request and provide a response.

Response: System notifies the supervisor of the panel members' response and updates the request status accordingly.

4.28.3 Functional Requirements

REQ-1: Request Submission Interface

The system shall provide supervisors with access to a request submission interface for each FYP project they are supervising.

The interface shall include fields for specifying the required materials/resources, quantity, and justification for the request.

Supervisors shall be able to submit requests directly through the interface.

REQ-2: Notification to Panel Members

Upon request submission, the system shall send notifications to panel members, informing them about the request and providing relevant details.

Notifications should include a link to access the request details and respond to the request.

REQ-3: Response Mechanism

Panel members shall have the ability to review the request details and provide a response, indicating whether the request is approved or denied.

Responses shall be timestamped and recorded for tracking purposes.

REQ-4: Notification to Supervisor

Once panel members respond to the request, the system shall notify the supervisor of the response.

Notifications should include the panel members' decision and any additional comments provided.

REQ-5: Request Status Tracking

The system shall maintain a record of all requests submitted by supervisors, along with their current status (pending, approved, denied).

Supervisors shall be able to view the status of their requests and any associated comments or responses from panel members.

**4.29 System Feature: Upload Supplementary Documents**

4.29.1 Description and Priority:

This feature enables supervisors to upload supplementary documents or materials for student groups, facilitating effective communication and providing additional resources to support student learning and success.

Priority: Nice to have feature

Benefit: 7

Allowing supervisors to upload supplementary documents enhances support for student learning and provides additional resources to aid project completion.

Penalty: 3

Lack of this feature may result in limited access to supplementary materials, potentially hindering student progress and performance.

Cost: 5

Implementing this feature requires moderate development effort to integrate document upload functionality within the system and establish access controls for students.

Risk: 4

Inadequate management of uploaded documents may lead to confusion or misuse of supplementary materials by students, impacting project outcomes.

4.29.2 Stimulus/Response Sequences

Stimulus: Supervisor identifies the need to provide supplementary documents or materials for a student group.

Response: System provides access to a document upload interface.

Stimulus: Supervisor uploads the relevant supplementary documents or materials.

Response: System stores the uploaded documents securely and makes them accessible to the respective student group.

Stimulus: Student group accesses the system to view available supplementary documents.

Response: System displays the uploaded documents for the student group to access and download.

4.29.3 Functional Requirements

REQ-1: Document Upload Interface

The system shall provide supervisors with access to a document upload interface for each FYP student group they are supervising.

The interface shall allow supervisors to upload supplementary documents or materials in various formats (e.g., PDF, Word, PowerPoint).

Supervisors shall be able to provide a brief description or title for each uploaded document.

REQ-2: Document Storage and Accessibility

Uploaded documents shall be securely stored within the system, accessible only to authorized users (supervisors and respective student groups).

Supervisors shall have the ability to view, edit, or delete uploaded documents as needed.

Student groups shall be able to access and download uploaded documents specific to their FYP project.

REQ-3: Version Control

The system shall maintain version control for uploaded documents, allowing supervisors to track revisions and updates.

Supervisors shall have the option to upload new versions of existing documents, with the system preserving previous versions for reference.

REQ-4: Notification to Student Groups

Upon uploading new documents or making changes to existing ones, the system shall notify the respective student groups.

Notifications shall include details of the uploaded documents and any relevant instructions provided by the supervisor.

**4.30 System Feature: View Evaluation Forms and Grades**

4.30.1 Description and Priority:

This feature enables supervisors to access and review the evaluation forms and grades submitted by panel members for their students' projects. It provides supervisors with insights into the assessment process and allows them to understand how each assigned student group was evaluated.

Priority: Need to have feature

Benefit: 8

Providing supervisors with access to evaluation forms and grades enhances transparency and accountability in the assessment process, allowing for informed guidance and support to student groups.

Penalty: 4

Lack of access to evaluation forms and grades may limit supervisors' ability to assess student performance accurately and provide targeted feedback for improvement.

Cost: 6

Implementing this feature requires integration with the evaluation system and ensuring appropriate access controls for supervisors to view evaluation data securely.

Risk: 5

Inadequate access controls or system security measures may compromise the confidentiality of evaluation data, leading to privacy concerns or unauthorized access.

4.30.2 Stimulus/Response Sequences

Stimulus: Supervisor navigates to the evaluation section for a specific student group.

Response: System displays a list of evaluation forms and corresponding grades submitted by panel members for the selected project.

Stimulus: Supervisor selects a specific evaluation form or grade for detailed review.

Response: System presents the detailed evaluation criteria, comments, and assigned grades provided by panel members.

4.30.3 Functional Requirements

REQ-1: Evaluation Forms Display

The system shall provide supervisors with access to view all evaluation forms submitted by panel members for each student group assigned to them.

Evaluation forms shall include detailed assessment criteria, comments, and assigned grades for various aspects of the project.

REQ-2: Grades Display

The system shall display the grades assigned by panel members to each student group for different evaluation criteria.

Grades shall be presented in a clear and structured format, allowing supervisors to easily interpret and analyze the assessment outcomes.

REQ-3: Navigation and Filtering

Supervisors shall be able to navigate between different evaluation forms and grades for each student group.

The system shall provide filtering options to allow supervisors to sort evaluation data based on criteria such as assessment date, evaluator, or specific evaluation criteria.

REQ-4: Access Control

Access to evaluation forms and grades shall be restricted to authorized supervisors assigned to the respective student groups.

Supervisors shall be required to authenticate their identity before accessing evaluation data, ensuring data confidentiality and security.

**4.31 System Feature: View Review and Suggestions**

4.31.1 Description and Priority:

This feature enables supervisors to access and review any reviews and suggestions provided by panel members for their student groups' projects. It allows supervisors to gain insights into the feedback provided by panel members and guide their students accordingly.

Priority: Need to have feature

Benefit: 7

Providing supervisors with access to reviews and suggestions enhances collaboration and communication between supervisors and panel members, leading to improved project guidance and outcomes.

Penalty: 3

Lack of access to review and suggestions may hinder supervisors' ability to address panel feedback effectively, potentially impacting the quality of student projects.

Cost: 6

Implementing this feature requires integration with the review system and ensuring appropriate access controls for supervisors to view feedback securely.

Risk: 4

Inadequate access controls or system security measures may compromise the confidentiality of review data, leading to privacy concerns or unauthorized access.

4.31.2 Stimulus/Response Sequences

Stimulus: Supervisor navigates to the review and suggestions section for a specific student group.

Response: System displays a list of reviews and suggestions provided by panel members for the selected project.

Stimulus: Supervisor selects a specific review or suggestion for detailed review.

Response: System presents the detailed feedback provided by panel members, including any suggestions for improvement.

4.31.3 Functional Requirements

REQ-1: Review and Suggestions Display

The system shall provide supervisors with access to view all reviews and suggestions submitted by panel members for each student group assigned to them.

Reviews and suggestions shall include detailed feedback and recommendations provided by panel members for improving the project.

REQ-2: Response Capability

Supervisors shall be able to respond to reviews and suggestions if necessary, providing clarifications or addressing any queries raised by panel members.

The system shall facilitate communication between supervisors and panel members by allowing supervisors to submit responses directly within the system interface.

REQ-3: Navigation and Filtering

Supervisors shall be able to navigate between different reviews and suggestions for each student group.

The system shall provide filtering options to allow supervisors to sort review data based on criteria such as review date, evaluator, or specific feedback categories.

REQ-4: Access Control

Access to reviews and suggestions shall be restricted to authorized supervisors assigned to the respective student groups.

Supervisors shall be required to authenticate their identity before accessing review data, ensuring data confidentiality and security.

**4.32 System Feature: Offer Suggestions to FYP Panel Members**

4.32.1 Description and Priority:

This feature enables supervisors to provide suggestions to FYP panel members regarding various aspects of the FYP program. It facilitates collaboration and input from supervisors to improve the overall FYP process.

Priority: Nice to have feature

Benefit: 6

Offering suggestions to panel members allows supervisors to contribute valuable insights and recommendations, potentially leading to enhancements in the FYP program's effectiveness and efficiency.

Penalty: 2

Lack of this feature may limit supervisors' ability to provide feedback and suggestions for improving the FYP process, potentially missing out on valuable opportunities for enhancement.

Cost: 5

Implementing this feature requires integrating a suggestion submission mechanism within the system and ensuring panel members can view and respond to suggestions effectively.

Risk: 3

Inadequate implementation of this feature may result in ineffective communication of suggestions or overlook valuable input from supervisors, impacting the overall improvement of the FYP program.

4.32.2 Stimulus/Response Sequences

Stimulus: Supervisor wants to offer suggestions to panel members.

Response: System provides a suggestion submission interface for the supervisor to input their suggestions.

Stimulus: Supervisor submits suggestions.

Response: System sends the suggestions to the respective panel members for review and consideration.

4.32.3 Functional Requirements

REQ-1: Suggestion Submission

The system shall provide supervisors with a dedicated interface to submit suggestions to FYP panel members.

Supervisors shall be able to input their suggestions regarding various aspects of the FYP program, such as process improvements, resource allocation, or evaluation criteria.

REQ-2: Notification to Panel Members

Upon submission of suggestions by supervisors, the system shall notify the respective panel members regarding the received suggestions.

Panel members shall receive notifications containing details of the suggestions submitted by supervisors, facilitating their review and consideration.

REQ-3: Viewing and Responding to Suggestions

Panel members shall have access to view all suggestions submitted by supervisors.

The system shall provide panel members with the capability to respond to suggestions, acknowledging receipt or providing feedback as necessary.

REQ-4: Suggestions Archive

The system shall maintain an archive of all suggestions submitted by supervisors for reference and review.

Supervisors and panel members shall be able to access the archive to revisit past suggestions and track the status of implementation or response.

# **Other Nonfunctional Requirements**

## **Performance Requirements**

* Under typical load levels, the system shall react to user inputs in no more than two seconds.
* Database queries shall be completed in one second.
* The system shall be capable of supporting many user sessions at once, up to 1000 students at a time.

## **Safety Requirements**

* Data encryption techniques shall be implemented to safeguard sensitive information, such as user credentials and project evaluations, from unauthorized interception or tampering.
* Regular data backups shall be conducted to ensure that project data can be restored in the event of data loss or system errors.
* The system shall adhere to university data protection policies, regulations, and legal requirements governing the handling, storage, and transmission of sensitive information.
* Strong user authentication mechanisms, including passwords, two-factor authentication, and biometric verification, shall be enforced to verify the identity of users accessing the system.

## **Security Requirements**

* The system shall utilize encryption algorithms to encrypt sensitive data at rest and during transmission to protect it from unauthorized access or interception.
* The system shall comply with relevant security standards, regulations, and policies, such as GDPR(General Data Protection Regulation), HIPAA (Health Insurance Portability and Accountability Act), or university-specific data protection policies.

## **Software Quality Attributes**

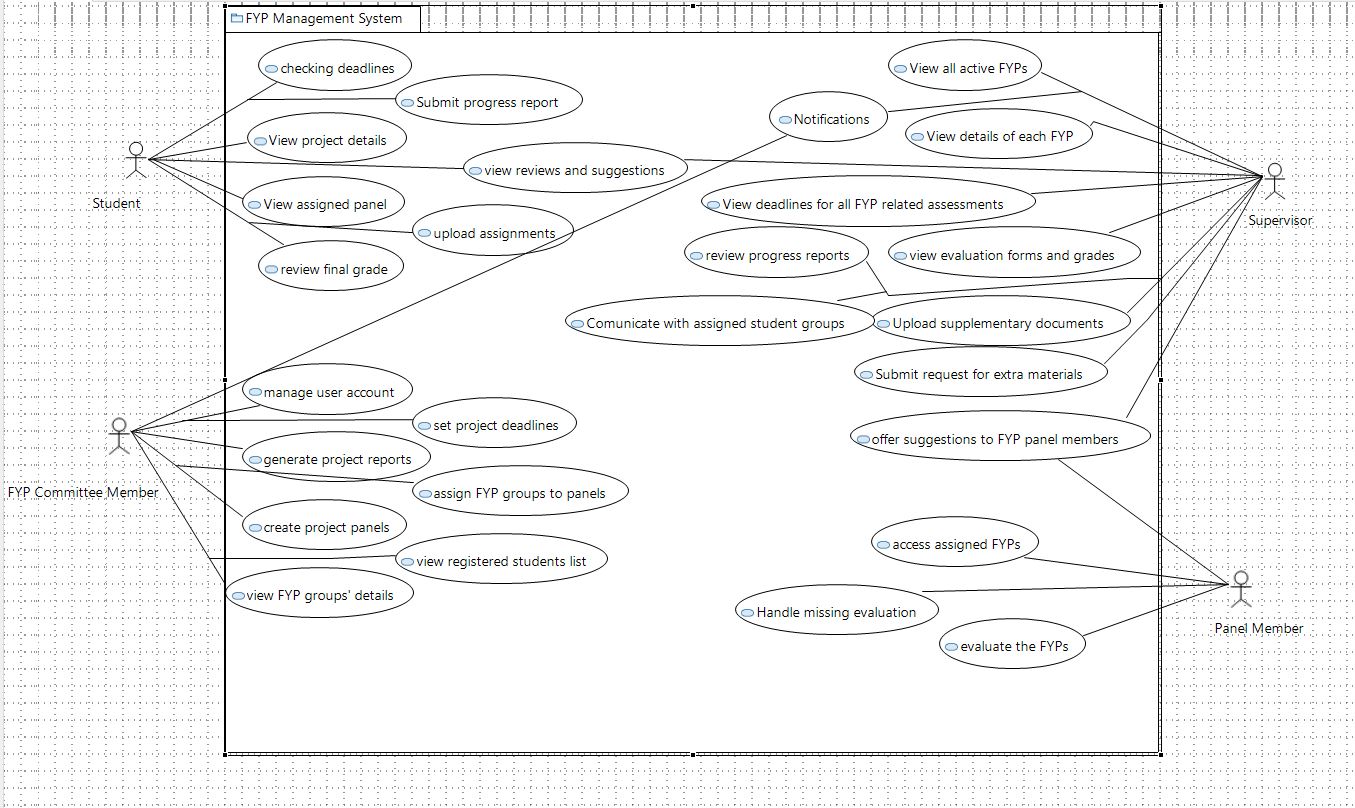
* The system shall support access from at least three different web browsers (Chrome, Firefox, Safari) and two mobile platforms (iOS, Android).
* The system shall adhere to industry-standard data exchange formats (e.g., JSON, XML) and APIs (e.g., RESTful APIs) for integration with external systems.

## **Business Rules**

* Only FYP Committee members have the authority to assign supervisors to FYP groups.
* Each faculty member can only be part of one evaluation panel.
* Once a final year project group is created, the group members cannot be changed.
* Supervisors cannot oversee more than six final year projects simultaneously
* All panel members must complete evaluation forms for assigned final year projects.

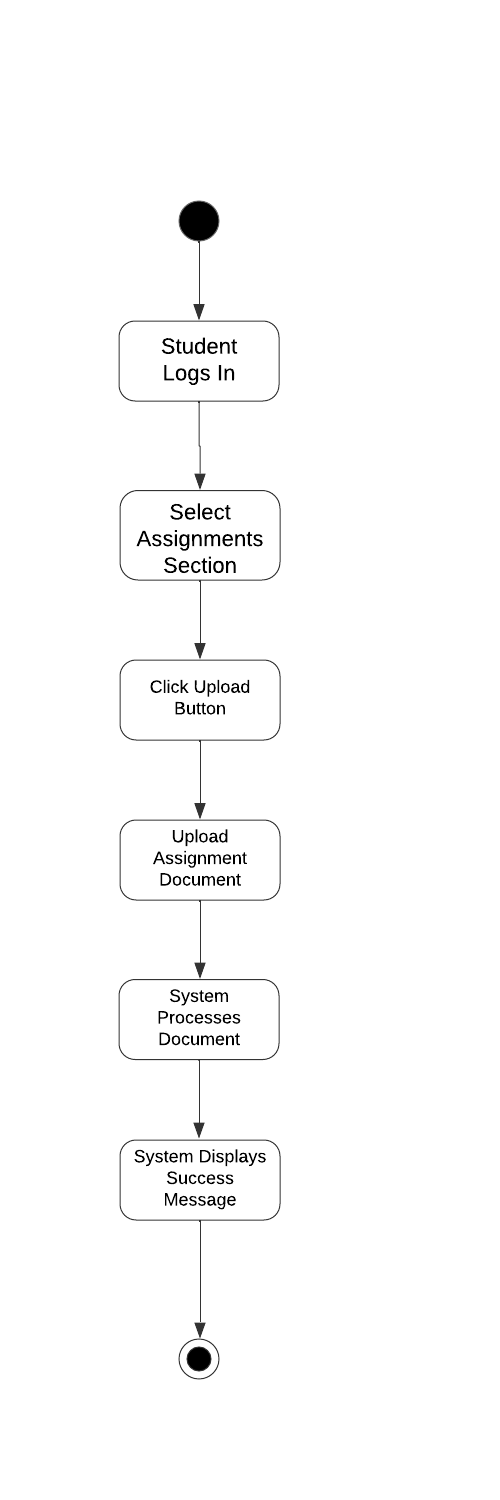
# **Diagrams**

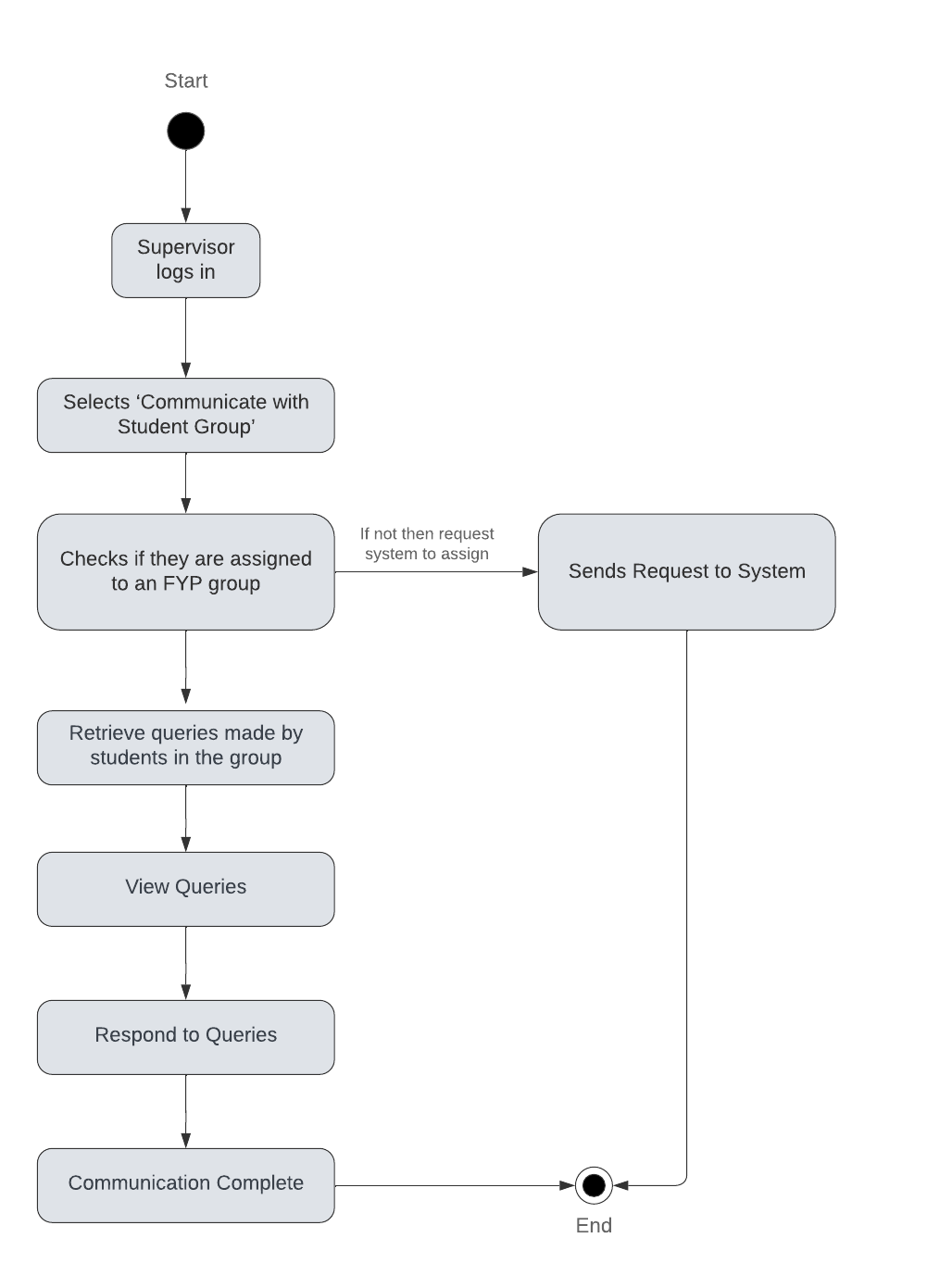
## **Use Case Diagram**



## **Activity Diagram**

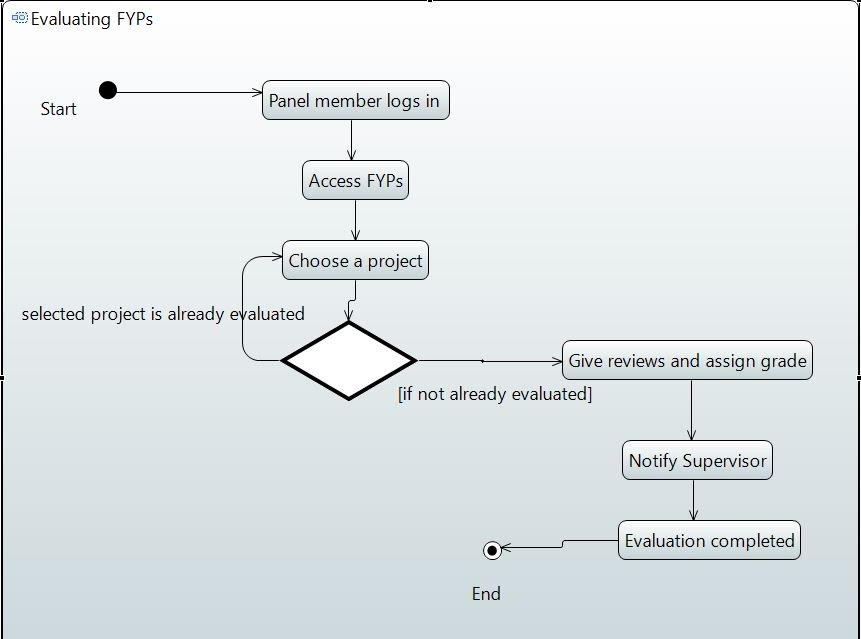
User Story : Uploading Assignments

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*User Story: Communicate with the student group*

**Communicate With Student Group**

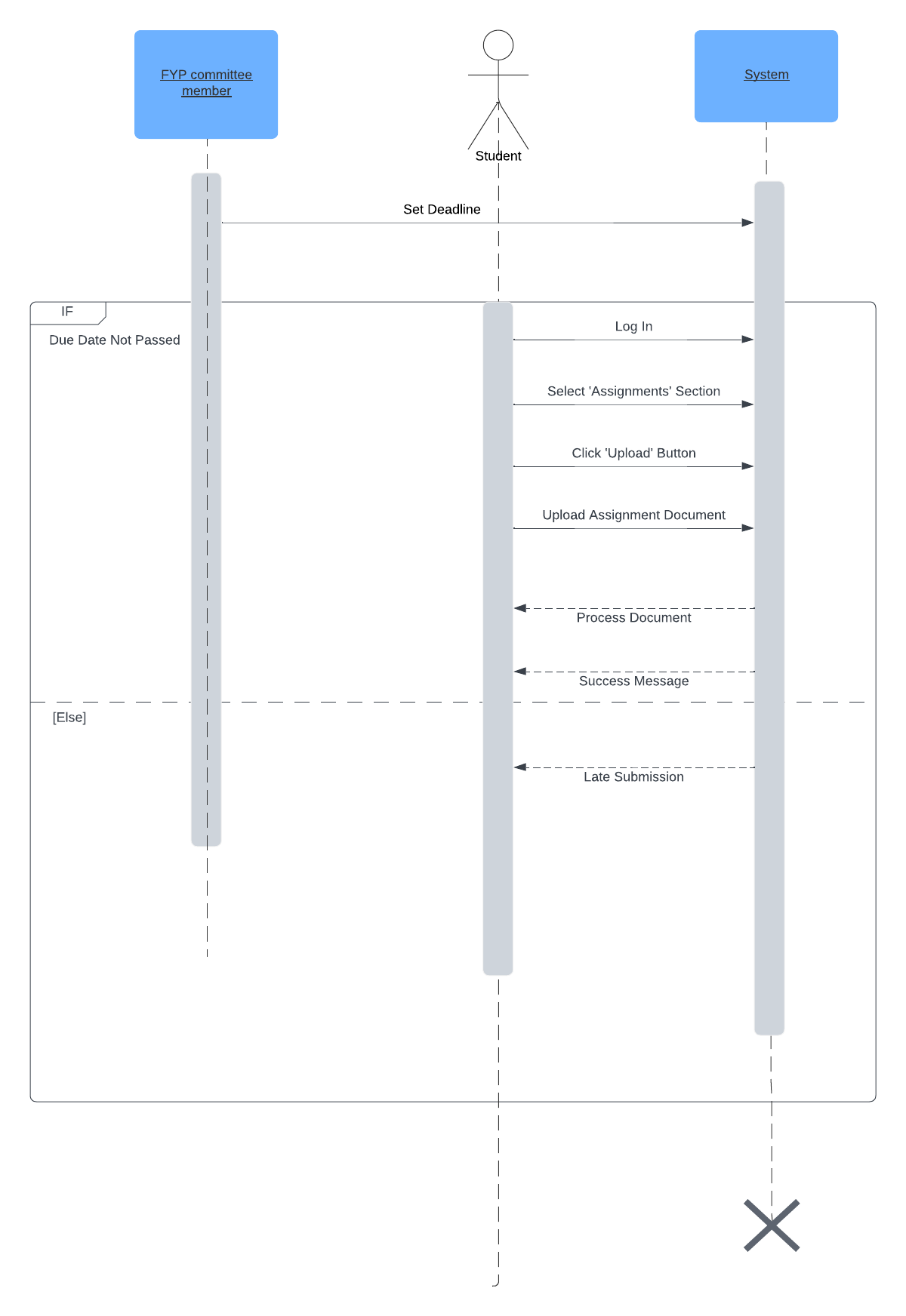
User Story: Evaluating FYPs



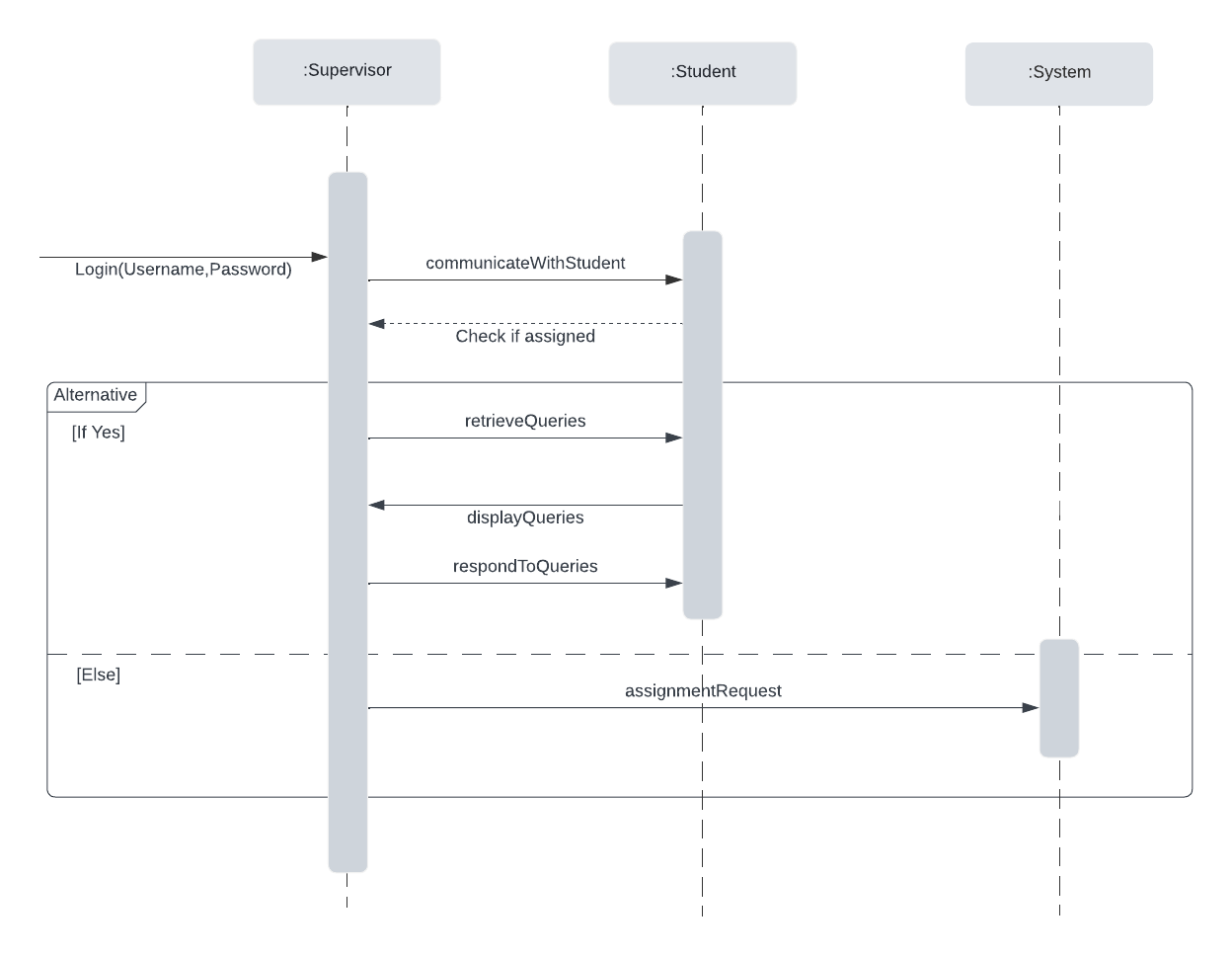
**Evaluating FYPs**

## **Sequence Diagram**

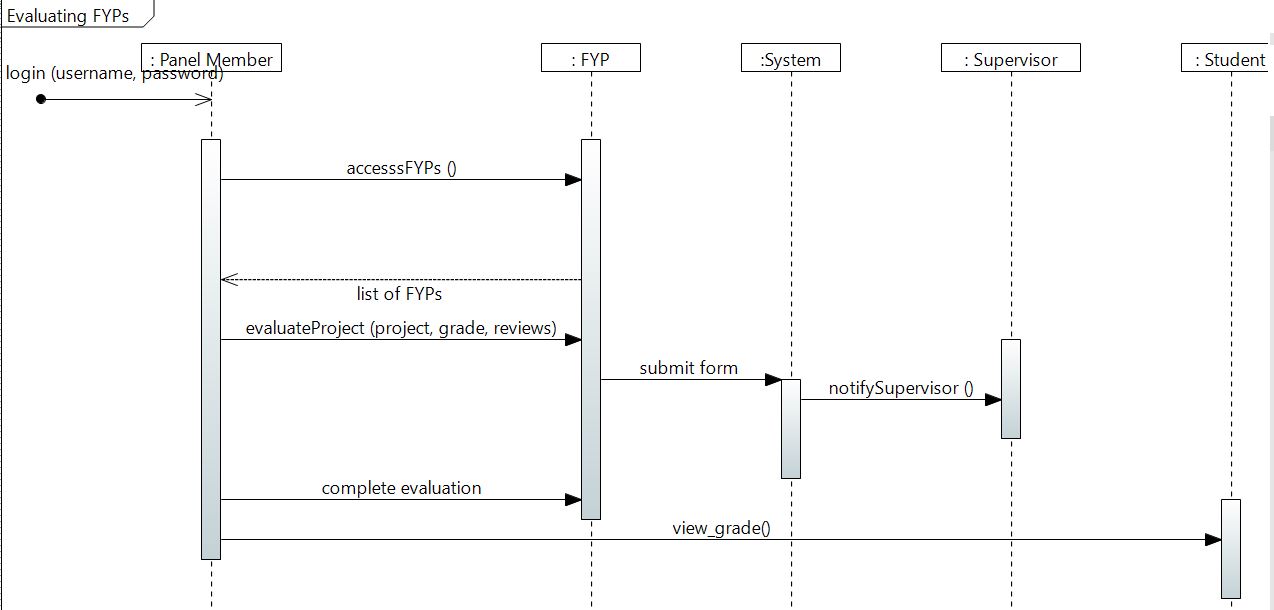
User Story: Uploading Assignments



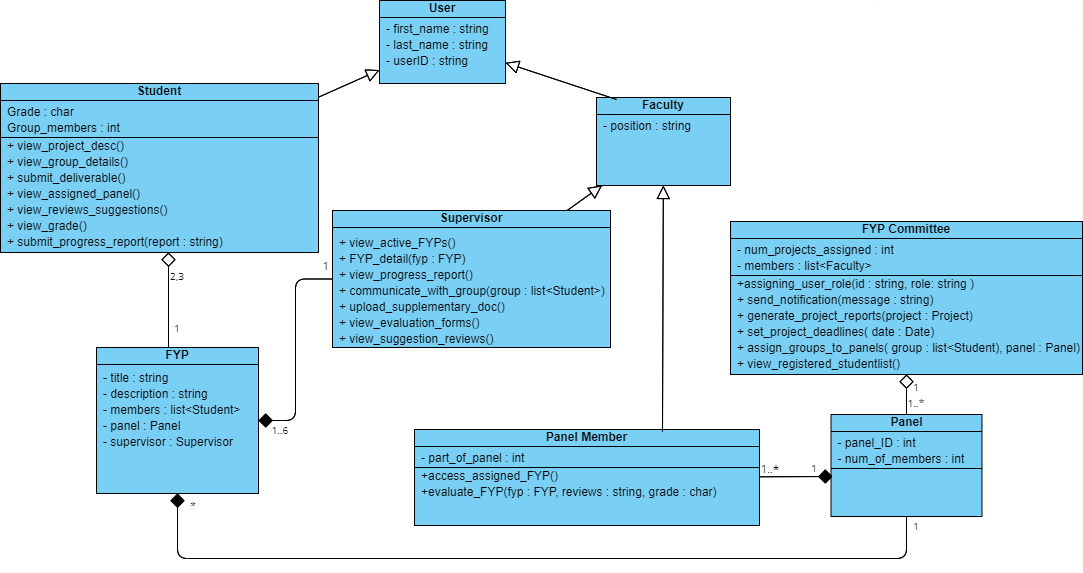
User Story: Communicate with student group



User Story: Evaluating FYPs

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## Class Diagram



**Appendix A: Glossary**

The following terms are defined to aid in the proper interpretation of the Software Requirements Specification (SRS) document:

1. FYP: Final Year Project - An academic project undertaken by students in their final year of study, often as a requirement for graduation.
2. SRS: Software Requirements Specification - A document that describes the intended behavior and functionalities of a software system.
3. Interface: The point of interaction between the user and the software system.
4. User Roles: Different levels of access and permissions assigned to users within the system, such as administrators, supervisors, committee members, and students.
5. Notifications: Automated messages or alerts sent by the system to users for various purposes, such as project deadlines and pending reviews.
6. Reports: Documents generated by the system that provide information on project progress, evaluations, and other relevant data.
7. Panels: Groups of individuals responsible for evaluating or overseeing FYP projects, typically composed of faculty members or industry experts.
8. Deadlines: Specified dates or times by which certain tasks or milestones within a project must be completed.
9. Progress Reports: Updates submitted by students to track the progress of their FYP projects, typically detailing accomplishments, challenges, and future plans.
10. Evaluations: Processes for assessing the quality and outcomes of FYP projects, including grading criteria and feedback mechanisms.
11. Stakeholders: Individuals or groups with an interest in the success and outcomes of the FYP management system, including students, faculty, administrators, and external collaborators.

**Appendix B: Analysis Models**

Activity diagrams depict process flows, aiding in identifying bottlenecks and ensuring shared understanding. Sequence diagrams show component interactions over time, revealing dynamic behavior and potential issues. Class diagrams illustrate system structure, aiding in code organization and design. Overall, they support effective communication and successful project delivery across the development lifecycle.

**Appendix C: To Be Determined List**

1. Integration with Existing Systems: This entails defining specific APIs and protocols to seamlessly connect with the university's current academic and student information systems, enhancing data exchange and system interoperability within the FYP management platform.
2. Enhanced User Authentication: This involves implementing robust security measures, such as multi-factor authentication or integration with existing university credentials, ensuring secure access and protecting sensitive data for students, supervisors, and committee members.
3. Accessibility Standards Integration: We meticulously outline requirements and guidelines to ensure the FYP management system complies with or surpasses prevailing accessibility standards like WCAG 2.1, guaranteeing an inclusive user experience for all stakeholders.
4. Performance Optimization: We establish precise benchmarks for system performance, including load times and concurrent user support, to be finalized, ensuring smooth operations and efficient utilization of resources.
5. Regulatory Compliance Assurance: Additional emphasis is placed on how the system adheres to pertinent legal requirements, safeguarding user privacy and confidentiality while fostering trust and compliance within institutional frameworks