

# SOFTWARE REQUIREMENT SPECIFICATIONS (SRS)

## SRS-FSES-SG-V1.00

For the

## First Stage Evaluation System (FSES)

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**Faculty of Artificial Intelligence**

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	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	1


<b>SIGNATURE.....</b>	<b>6</b>
<b>CHANGE HISTORY.....</b>	<b>7</b>
<b>LIST OF FIGURES.....</b>	<b>8</b>
<b>LIST OF TABLES.....</b>	<b>9</b>
<b>1 INTRODUCTION.....</b>	<b>10</b>
1.1 PURPOSE, SCOPE AND OBJECTIVES.....	10
1.2 DEFINITIONS, ACRONYMS, AND ABBREVIATIONS.....	11
1.3 REFERENCES.....	12
1.4 OVERVIEW OF DOCUMENT.....	13
<b>2 OVERALL DESCRIPTION.....</b>	<b>14</b>
2.1 INTRODUCTION.....	14
2.2 PRODUCT PERSPECTIVE.....	15
2.2.1 PRODUCT INTERFACES.....	15
2.3 PRODUCT FUNCTIONS.....	16
2.4 ASSUMPTIONS AND CONSTRAINTS.....	17
R1: Password's Rule.....	17
R2: Login Reattempt's Rule.....	17
R3: Main supervisor's eligibility.....	17
R4: Co-supervisor's eligibility.....	17
R5: Supervisor's eligibility.....	17
R6: Examiner's eligibility.....	17
R7: Chairperson's eligibility.....	18
R8: Nomination locked.....	18
<b>3 REQUIREMENTS SPECIFICATION.....</b>	<b>19</b>
3.1 CSCI EXTERNAL REQUIREMENTS.....	19
3.1.1 INTERFACE: OFFICE ASSISTANT.....	19
3.1.1.1 IDENTIFICATION.....	19
3.1.1.2 DESCRIPTION.....	19
3.1.1.3 ASSOCIATION.....	19
3.1.2 INTERFACE: RESEARCH SUPERVISOR.....	20
3.1.2.1 IDENTIFICATION.....	20
3.1.2.2 DESCRIPTION.....	20
3.1.2.3 ASSOCIATION.....	20
3.1.3 INTERFACE: PROGRAM COORDINATOR.....	20
3.1.3.1 IDENTIFICATION.....	20
3.1.3.2 DESCRIPTION.....	20

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	2


3.1.3.3 ASSOCIATION.....	20
3.2 FSES CAPABILITY REQUIREMENTS.....	21
3.2.1 LOGIN USE CASE (SRS_REQ_100).....	22
3.2.1.1 Brief Description.....	22
3.2.1.2 Characteristic of Activation.....	22
3.2.1.3 Pre-Condition.....	22
3.2.1.4 Description.....	22
3.2.1.4.1 Basic Flow.....	22
3.2.1.4.2 Alternative Flow.....	23
A1: Change Password.....	23
A2: Reset Password.....	23
3.2.1.4.3 Exception Flow.....	23
E1: Invalid Password.....	23
E2: Login Attempt Exceeds Limit.....	23
3.2.2 PREPARE STUDENT LIST USE CASE (SRS_REQ_200).....	24
3.2.2.1 Brief Description.....	24
3.2.2.2 Characteristic of Activation.....	24
3.2.2.3 Pre-Condition.....	24
3.2.2.4 Description.....	24
3.2.2.4.1 Basic Flow.....	24
3.2.2.4.2 Exception Flow.....	25
E2: Main supervisor is not eligible.....	25
E3: Co-supervisor is not eligible.....	25
3.2.3 MANAGE MASTERLIST USE CASE (SRS_REQ_300).....	25
3.2.3.1 Brief Description.....	25
3.2.3.2 Characteristic of Activation.....	26
3.2.3.3 Pre-Condition.....	26
3.2.3.4 Description.....	26
3.2.3.4.1 Basic Flow.....	26
3.2.3.4.2 Alternative Flow.....	26
A3: Add names into the masterlist.....	26
A4: Update names in the masterlist.....	26
A5: Remove names from the masterlist.....	27
3.2.3.4.3 Exception Flow.....	27
E4: Supervisor is not eligible.....	27
E5: Examiner is not eligible.....	27
E6: Chairperson is not eligible.....	27
3.2.4 NOMINATE EXAMINERS USE CASE (SRS_REQ_400).....	27

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	3

3.2.4.1 Brief Description.....	27
3.2.4.2 Characteristic of Activation.....	27
3.2.4.3 Pre-Condition.....	28
3.2.4.4 Description.....	28
3.2.4.4.1 Basic Flow.....	28
3.2.4.4.2 Alternative Flow.....	28
A6: Select examiner from drop-down list.....	28
A7: Enter examiner's name outside drop-down list.....	28
A8: Modify research title and examiners.....	29
A9: Postpone student's FSE.....	29
A10: View list of students under supervision.....	29
3.2.4.4.3 Exception Flow.....	29
E7: Examiner is not eligible.....	29
3.2.5 ASSIGN CHAIRPERSON USE CASE (SRS_REQ_500).....	29
3.2.5.1 Brief Description.....	29
3.2.5.2 Characteristic of Activation.....	29
3.2.5.3 Pre-Condition.....	30
3.2.5.4 Description.....	30
3.2.5.4.1 Basic Flow.....	30
3.2.5.4.2 Alternative Flow.....	31
A11: Automatically assign chairperson.....	31
A12: Manually assign chairperson.....	31
A13: Lock nomination.....	31
A14: View list of students.....	31
A15: View list of students and their FSE details by program and evaluation type.....	32
A16: View list of students postponing their FSE.....	32
A17: View list of examiners and how many sessions they are examining.....	32
A18: View list of chairpersons and how many sessions they are chairing.....	32
A19: View graph showing a summary of the FSE details.....	32
A20: Change chairperson.....	32
A21: Download list of students and their FSE details by program and evaluation type.....	33
A22: Download list of students postponing their FSE.....	33
A23: Download list of examiners and how many sessions they are examining. 33	
A24: Download list of chairpersons and how many sessions they are chairing. 33	
3.2.5.4.3 Exception Flow.....	33

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	4

E8: Chairperson is not eligible.....	33
3.3 SYSTEM INTERNAL INTERFACE.....	34
3.3.1 CSCI DATA ELEMENT REQUIREMENTS.....	34
3.3.1.1 Boundary Class.....	34
3.3.1.1.1 LoginPage.....	34
3.3.1.1.2 ChangePasswordPage.....	34
3.3.1.1.3 DashboardPage.....	34
3.3.1.1.4 StudentDetailsPage.....	35
3.3.1.1.5 MasterlistPage.....	36
3.3.1.2 Control Class.....	36
3.3.1.2.1 LoginController.....	36
3.3.1.2.2 StudentController.....	37
3.3.1.2.3 EligibilityController.....	37
3.3.1.3 Entity Class.....	38
3.3.1.3.1 UserDB.....	38
3.3.1.3.2 StudentDB.....	38
3.3.1.3.3 LecturerDB.....	38
3.4 OTHER REQUIREMENTS.....	39
3.4.1 RELIABILITY.....	39
3.4.2 MAINTAINABILITY.....	39
3.4.3 PERFORMANCE.....	39
3.4.4 SECURITY.....	39
3.4.5 CAPACITY.....	39
3.4.6 EXPANDABILITY.....	39
3.4.7 TRACEABILITY REQUIREMENTS.....	40
3.4.8 DESIGN CONSTRAINTS.....	43
<b>APPENDICE.....</b>	<b>44</b>

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	5

# SIGNATURE


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	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	6

# CHANGE HISTORY


REVISION	DESCRIPTION
-	
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B	
C	

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	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	7

# LIST OF FIGURES


Figure 1: FSES Product Prospective Diagram.....	15
Figure 2: FSES Context Diagram.....	19
Figure 3: FSES Use Case Diagram.....	21
Figure 4: Login Use Case Diagram.....	22
Figure 5: Prepare Student List Use Case Diagram.....	24
Figure 6: Manage Masterlist Use Case Diagram.....	25
Figure 7: Nominate Examiners Use Case Diagram.....	27
Figure 8: Assign Chairperson Use Case Diagram.....	29

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	8



# LIST OF TABLES

Table 1: List of Acronyms and Abbreviations.....	11
Table 2:Traceability Matrix.....	40

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	9

# 1 INTRODUCTION

## 1.1 PURPOSE, SCOPE AND OBJECTIVES

### Purpose

The purpose of this document is to specify the user requirements for the First Stage Evaluation System (FSES) of the Advanced Informatics Department (AID), Faculty of Technology and Informatics (FTIR).

This document describes the required system facilities and system performance characteristics.

### Objectives

The objectives of this document are to:

1. Establish the User Requirements for the FSES.
2. Determine the scope of the systems needed to meet the user requirements.
3. Identify the system capacity and the requirements for future expansion.
4. Provide the basis for the development of the system.

### Scope

#### Software Interface


The function of this system will be interfacing particularly to:

1. The Office Assistant.
2. The Research Supervisor.
3. The Program Coordinator.

#### Software Documentation

A complete and easily understood documentation of the FSES requirements will be provided to aid in the development of the system. The following deliverables will be produced:

1. Software Requirements Specification (SRS)

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	10

## 1.2 DEFINITIONS, ACRONYMS, AND ABBREVIATIONS

### Definitions of Terms

The following terms have special meanings in this document.

1. The word shall, implies a mandatory requirement.
2. The word should, implies a desirable requirement.
3. The word will, implies a mandatory requirement outside the scope of this document.
4. The word may, implies a desirable requirement outside the scope of this document.

The following terms have been defined for the context of this project:


1. Client: The entity that specifies requirements for and accepts delivery of a new or modified software product and its documentation.
2. Project Deliverable: A work product delivered to the client, including requirements, specifications, design documentation, code, test results, instructions, training aids, manuals, and maintenance documentation.
3. Software Project: The set of activities required to meet the terms of a project agreement, with specific start and end dates, objectives, constraints, responsibilities, budget, and schedule.

### Acronyms and Abbreviations

Table 1 presents the list of acronyms and abbreviations.


**Table 1: List of Acronyms and Abbreviations**

Acronyms	Meaning
AID	Advanced Informatics Department
FSE	First Stage Evaluation
FSES	First Stage Evaluation System
FTIR	Faculty of Technology and Informatics

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	11


## 1.3 REFERENCES

1. SG Inc. (2024), Software Project Management Plan (SPMP-FSES-SG-V1.00)
2. IEEE 830-1998 - IEEE Recommended Practice for Software Requirements Specifications.
3. Object Management Group (2010), Unified Modelling Language (OMG UML 2.3), Superstructure (10-05-05).

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	12

## 1.4 OVERVIEW OF DOCUMENT


The purpose of the FSES SRS is to provide a detailed overview of the software product that should be developed and to guide the SG team about the user requirements during the development of the system. The overall description of the product's interfaces, functions, user characteristics, rules and constraints, assumptions and dependencies will be captured in Chapter 2 of this document. The following Chapter 3 will discuss each specific requirement in detail. The last part of this document would be the appendices where all relevant sequence diagrams are illustrated.

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	13

## 2 OVERALL DESCRIPTION

### 2.1 INTRODUCTION

All research students at Universiti Teknologi Malaysia need to undergo two major evaluations. The first is the First Stage Evaluation, and the second is the Viva. Viva is where students defend their research work in front of a panel of examiners, and First Stage Evaluation is where research students defend their research proposal. The First Stage Evaluation is mandatory for all second-semester Master of Philosophy students, third-semester Doctor of Philosophy students, and Doctor of Software Engineering students who have completed all their taught courses. The process begins with the faculty's Office Assistant preparing a list of students required to do their First Stage Evaluation. Then the students' Supervisor must nominate examiners for the evaluation session. Finally, the Research Program Coordinator will have to assign chairpersons to each evaluation session and generate a list to be endorsed by the academic committee. The process is done manually, making it tedious and prone to error. To assist the Research Program Coordinator, as the developers, your team is required to develop a First Stage Evaluation System (FSES). The main aim of FSES is to make the nomination of examiners and chairpersons for the department's First Stage Evaluation as seamless as possible, with proper checking and validation. The Office Assistant should be able to upload/enter the list of students who must do their First Stage Evaluation, with the names of their supervisors and co-supervisors and other details. The Supervisors should be able to nominate examiners for their students. The Program Coordinator should be able to assign a chairperson for each First Stage Evaluation session and generate a list to be endorsed.

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	14

## 2.2 PRODUCT PERSPECTIVE

EPMS is a web-based system that uses the client-server model. The Figure 1 below outlines the flow of interaction between the client, the various modules within the system and the central database.

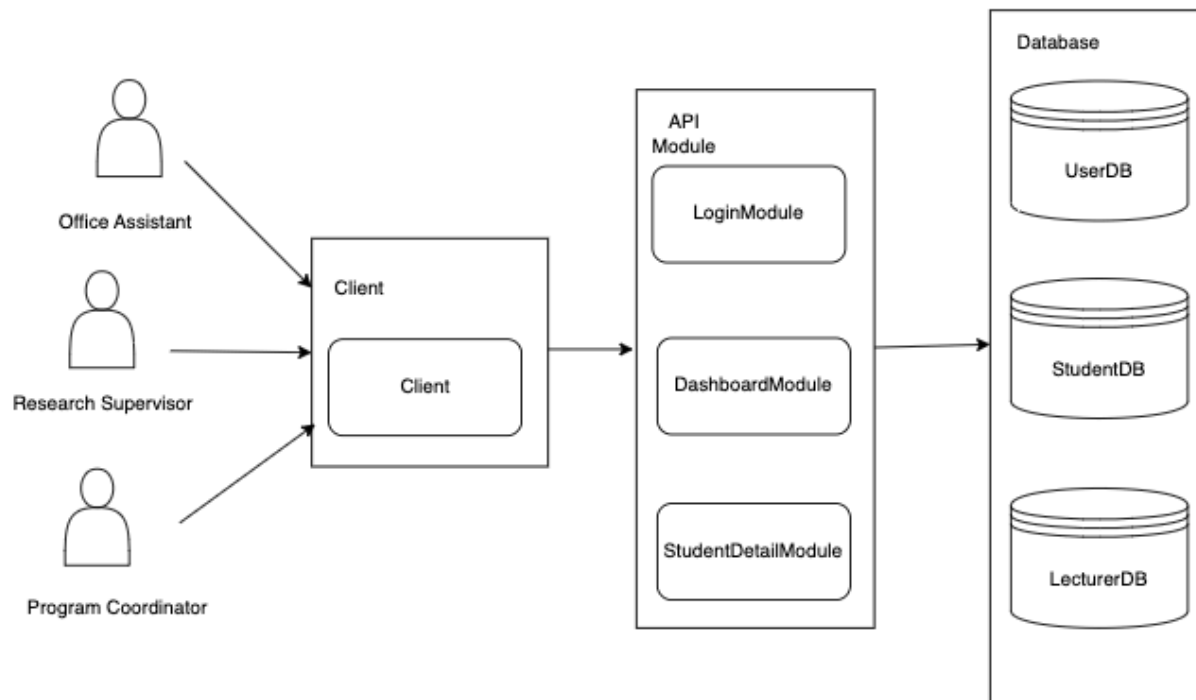



Figure1: FSES Product Prospective Diagram

### 2.2.1 PRODUCT INTERFACES

The system shall interface with


1. The Office Assistant who is responsible for preparing a list of students eligible for First Stage Evaluation.
2. The Research Supervisor who is responsible for nominating examiners based on their student's research title.
3. The Program Coordinator who is responsible for assigning a chairperson for each First Stage Evaluation session and generating a list to be endorsed by the academic committee.

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	15

## 2.3 PRODUCT FUNCTIONS

The system functions to be implemented are:

1. Login function to be used by all users. The password must be composed of alphanumeric characters which should not be less than 8 characters.
2. A function to allow the Office Assistant to enter the list of students, their supervisors and other relevant details.
3. Examiner nomination function to allow the Supervisor to nominate three examiners according to rules prepared by the academic office, based on the student's research title. The Supervisor should also be allowed to decline nominating examiners to a student if the student is postponing the First Stage Evaluation
4. Chairperson assignment function to allow the Program Coordinator to assign chairpersons to each student, according to the rules prepared by the academic office. (It would be best if this function could be automated, rather than the Program Coordinator assigning manually)
5. A function that shows:
  - a. The list of students and their First Stage Evaluation details. The list should also show a graph summarising the students undergoing the First Stage Evaluation and students postponing their First Stage Evaluation.
  - b. The list of examiners and how many sessions they are examining.
  - c. The list of chairpersons and how many sessions they are chairing.

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	16



## 2.4 ASSUMPTIONS AND CONSTRAINTS

### R1: Password's Rule

- Minimum length = 8
- Maximum length = 16
- Combination of alphanumeric characters
- Default value = staff number

### R2: Login Reattempt's Rule

- Number of login attempt cannot exceed 3

### R3: Main supervisor's eligibility

- The main supervisors are lecturers from the Advanced Informatics Department (AID), Razak Faculty of Technology and Informatics.

### R4: Co-supervisor's eligibility


- The co-supervisors may come from other departments, faculties, or universities/organisations.

### R5: Supervisor's eligibility

- The supervisors are lecturers of Universiti Teknologi Malaysia.
- The same person cannot simultaneously be a supervisor, examiner, or chair for a student.
- The names of the lecturers (supervisors, examiners, and chairpersons) are consistent throughout the list.

### R6: Examiner's eligibility

- The examiners are lecturers of Universiti Teknologi Malaysia.
- The examiners are mainly from the AID, but the list may contain lecturers from other departments or faculty.
- Each student will have three examiners.
- The first examiner must be at least an Associate Professor.
- If any of the supervisors or co-supervisors is a Professor, the first examiner must be a Professor.
- The same person cannot simultaneously be a supervisor, examiner, or chair for a student.

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	17


- The names of the lecturers (supervisors, examiners, and chairpersons) are consistent throughout the list.

### R7: Chairperson's eligibility

- The chairpersons are lecturers of Universiti Teknologi Malaysia.
- The chairperson for each session must be at least an Associate Professor. However, there are some exceptions:
  - If the supervisor or co-supervisor is a Professor, the chairperson must be a Professor.
  - If any of the examiners is a Professor, the chairperson must be a Professor.
- A chairperson may only chair at most four First Stage Evaluation sessions per semester, per department.
- The same person cannot simultaneously be a supervisor, examiner, or chair for a student.
- The names of the lecturers (supervisors, examiners, and chairpersons) are consistent throughout the list.

### R8: Nomination locked

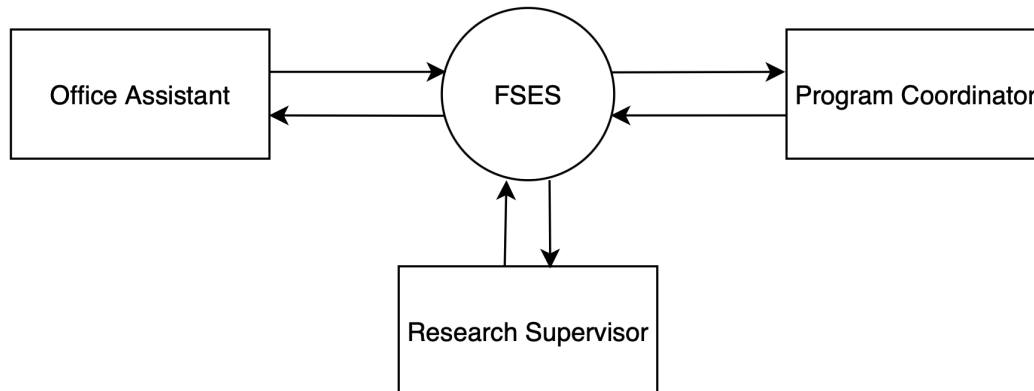
- The Research Supervisor may modify the details until the Program Coordinator locks the nomination.

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	18

## 3 REQUIREMENTS SPECIFICATION

### 3.1 CSCI EXTERNAL REQUIREMENTS

The following diagram explains the external interface requirements of EPMS.



**Figure 2: FSES Context Diagram**

#### 3.1.1 INTERFACE: OFFICE ASSISTANT

##### 3.1.1.1 IDENTIFICATION


1. Interface Identification: Office Assistant
2. Interface Type: Person

##### 3.1.1.2 DESCRIPTION

The Office Assistant is an actor who is required to prepare student list and manage masterlist.

##### 3.1.1.3 ASSOCIATION

This actor communicates with the Login use case, Prepare student list use case and Manage masterlist use case.

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	19

## 3.1.2 INTERFACE: RESEARCH SUPERVISOR

### 3.1.2.1 IDENTIFICATION

1. Interface Identification: Research Supervisor
2. Interface Type: Person

### 3.1.2.2 DESCRIPTION

The Research Supervisor is an actor who is required to nominate examiners.

### 3.1.2.3 ASSOCIATION

This actor communicates with the Login use case and Nominate examiners use case.

## 3.1.3 INTERFACE: PROGRAM COORDINATOR

### 3.1.3.1 IDENTIFICATION


1. Interface Identification: Program Coordinator
2. Interface Type: Person

### 3.1.3.2 DESCRIPTION

The Program Coordinator is an actor who is required to assign a chairperson.

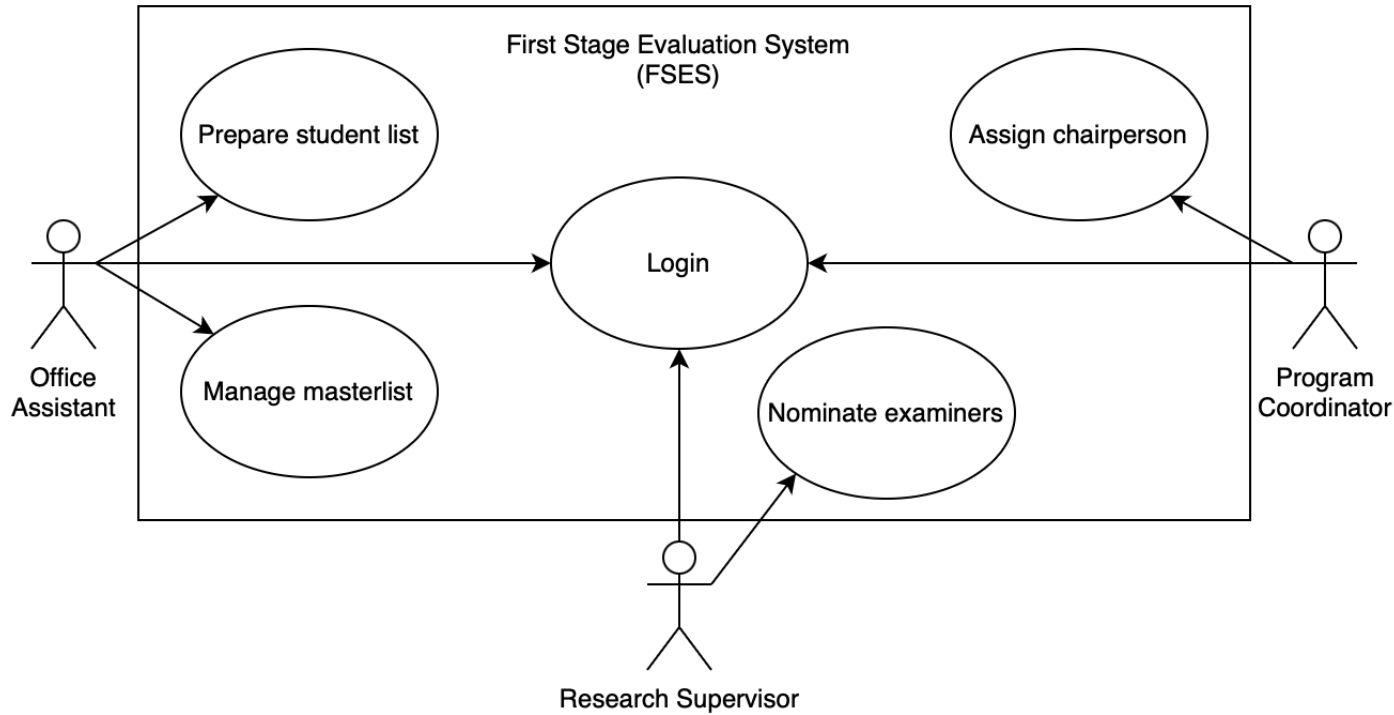
### 3.1.3.3 ASSOCIATION

This actor communicates with the Login use case and Assign chairperson use case.


	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	20

## 3.2 FSES CAPABILITY REQUIREMENTS

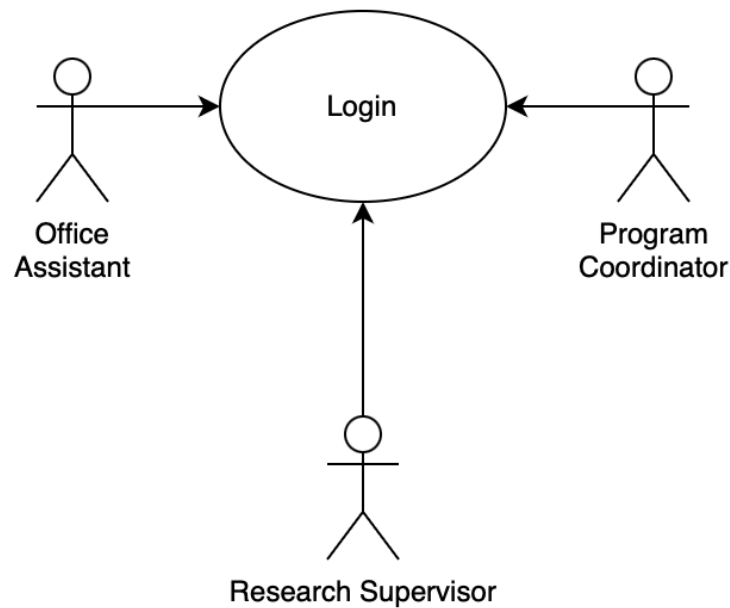
The following diagram explains the whole use cases for FSES with the three actors mentioned in the subsections above.



**Figure 3: FSES Use Case Diagram**

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	21

### 3.2.1 LOGIN USE CASE (SRS\_REQ\_100)



**Figure 4: Login Use Case Diagram**

#### 3.2.1.1 Brief Description

This use case is initiated by Office Assistant, Research Supervisor and Program Coordinator. It provides Office Assistant, Research Supervisor and Program Coordinator to access FSES.

#### 3.2.1.2 Characteristic of Activation

Upon request from Office Assistant, Research Supervisor and Program Coordinator.


#### 3.2.1.3 Pre-Condition

The FSES is operational and accessible online.

#### 3.2.1.4 Description

##### 3.2.1.4.1 Basic Flow

1. This use case begins when Office Assistant, Research Supervisor and Program Coordinator enters ID & password. (SRS\_REQ\_101)
2. FSES verifies the ID & password. (SRS\_REQ\_102)
3. If the password is valid, FSES checks if it is the first login. (SRS\_REQ\_103)
4. If it is the first login, see

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	22

- **A1: Change Password**
- 5. If it is not the first login, FSES displays Dashboard. (SRS\_REQ\_104)
- 6. If password is invalid, see
  - **E1: Invalid Password**
- 7. At any point of time, if Office Assistant, Research Supervisor and Program Coordinator wants to reset password, see
  - **A2: Reset Password**
- 8. This use case ends

#### 3.2.1.4.2 Alternative Flow

##### *A1: Change Password*

1. Office Assistant, Research Supervisor and Program Coordinator enters a new password. (SRS\_REQ\_105)
  - **R1: Password's Rule**
2. This use case continues.

##### *A2: Reset Password*

1. Office Assistant, Research Supervisor and Program Coordinator requests to reset password. (SRS\_REQ\_106)
2. FSES sends reset password link to Office Assistant, Research Supervisor and Program Coordinator via email. (SRS\_REQ\_107)
3. Office Assistant, Research Supervisor and Program Coordinator enters a new password in the link. (SRS\_REQ\_108)
  - **R1: Password's Rule**
4. This use case continues.


#### 3.2.1.4.3 Exception Flow

##### *E1: Invalid Password*

1. FSES displays "PASSWORD IS INVALID" message. (SRS\_REQ\_109)
2. At any point of time, Office Assistant, Research Supervisor and Program Coordinator can reattempt login. (SRS\_REQ\_110)
  - **R2: Login Reattempt's Rule**
3. If number of login attempt exceeds limit, see
  - **E2: Login Attempt Exceeds Limit**
4. This use case continues.

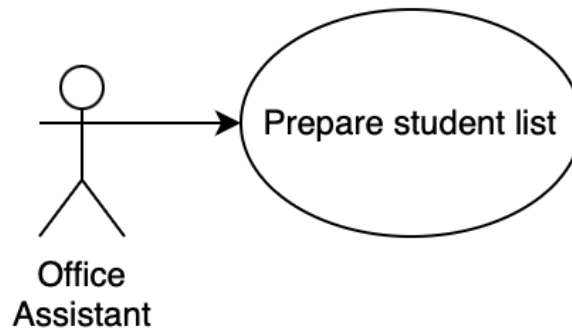
##### *E2: Login Attempt Exceeds Limit*

1. FSES displays "LOGIN ATTEMPT EXCEEDS LIMIT" message. (SRS\_REQ\_111)
2. FSES locks the ID. (SRS\_REQ\_112)

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	23

3. This use case continues.

### 3.2.2 PREPARE STUDENT LIST USE CASE (SRS\_REQ\_200)



**Figure 5: Prepare Student List Use Case Diagram**

#### 3.2.2.1 Brief Description

This use case is initiated by Office Assistant. It provides Office Assistant a capability to prepare student list.

#### 3.2.2.2 Characteristic of Activation

Upon request from the Office Assistant.


#### 3.2.2.3 Pre-Condition

Office Assistant is logged into FSES and the Dashboard is accessible.

#### 3.2.2.4 Description

##### 3.2.2.4.1 Basic Flow

1. This use case begins when Office Assistant initiates preparing student list. (SRS\_REQ\_201)
2. FSES displays the following fields as editable (SRS\_REQ\_202)
  - Student name
  - Program (PhD, MPhil or DSE)
  - Evaluation type (First Evaluation or Re-Evaluation)
  - Student's current semester

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	24



- Main supervisor
  - Co-supervisor
3. Office Assistant fills in all the fields above. (SRS\_REQ\_203)
  4. FSES checks eligibility of Main Supervisor and Co-supervisor. (SRS\_REQ\_204)
    - **R3: Main supervisor's eligibility**
    - **R4: Co-supervisor's eligibility**
  5. If Main Supervisor or Co-supervisor is not eligible, see
    - **E2: Main supervisor is not eligible**
    - **E3: Co-supervisor is not eligible**
  6. This use case ends.

### 3.2.2.4.2 Exception Flow

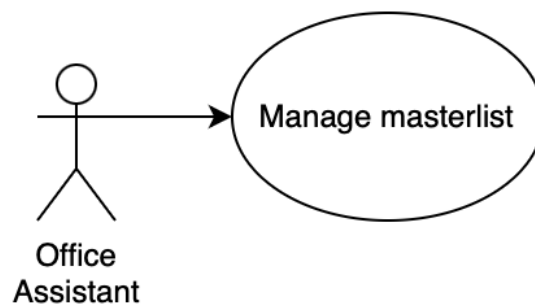
*E2: Main supervisor is not eligible*

1. FSES displays "MAIN SUPERVISOR IS NOT ELIGIBLE" message. (SRS\_REQ\_205)
2. This use case continues.

*E3: Co-supervisor is not eligible*

1. FSES displays "CO-SUPERVISOR IS NOT ELIGIBLE" message. (SRS\_REQ\_206)
2. This use case continues.


## 3.2.3 MANAGE MASTERLIST USE CASE (SRS\_REQ\_300)



**Figure 6: Manage Masterlist Use Case Diagram**

### 3.2.3.1 Brief Description

This use case is initiated by Office Assistant. It provides OA a capability to manage masterlist of supervisors, examiners and chairpersons.

 <b>STARTUP GANG</b> <small>COMPANY</small>	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	25

### 3.2.3.2 Characteristic of Activation

Upon request from the Office Assistant.

### 3.2.3.3 Pre-Condition

Office Assistant is logged into FSES and the Dashboard is accessible.

### 3.2.3.4 Description

#### 3.2.3.4.1 Basic Flow

1. This use case begins when Office Assistant initiates managing masterlist. (SRS\_REQ\_301)
2. FSES displays the masterlist of supervisors, examiners and chairpersons. (SRS\_REQ\_302)
3. At any point of time, if Office Assistant wants to edit the masterlist, see
  - **A3: Add names into the masterlist**
  - **A4: Update names in the masterlist**
  - **A5: Remove names from the masterlist**
4. FSES checks supervisor's, examiner's and chairperson's eligibility. (SRS\_REQ\_306)
5. If supervisors, examiners or chairpersons is not eligible, see
  - **E4: Supervisor is not eligible**
  - **E5: Examiner is not eligible**
  - **E6: Chairperson is not eligible**
6. This use case ends.


#### 3.2.3.4.2 Alternative Flow

##### *A3: Add names into the masterlist*

1. Office Assistant adds names and their respective titles into the masterlist. (SRS\_REQ\_303)
  - **R5: Supervisor's eligibility**
  - **R6: Examiner's eligibility**
  - **R7: Chairperson's eligibility**
2. This use case continues.

##### *A4: Update names in the masterlist*

1. Office Assistant updates names and their respective titles in the masterlist. (SRS\_REQ\_304)
  - **R5: Supervisor's eligibility**
  - **R6: Examiner's eligibility**
  - **R7: Chairperson's eligibility**

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	26

2. This use case continues.

*A5: Remove names from the masterlist*

1. Office Assistant removes names from the masterlist. (SRS\_REQ\_305)
2. This use case continues.

### 3.2.3.4.3 Exception Flow

*E4: Supervisor is not eligible*

1. FSES displays “SUPERVISOR IS NOT ELIGIBLE” message. (SRS\_REQ\_307)
2. This use case ends.

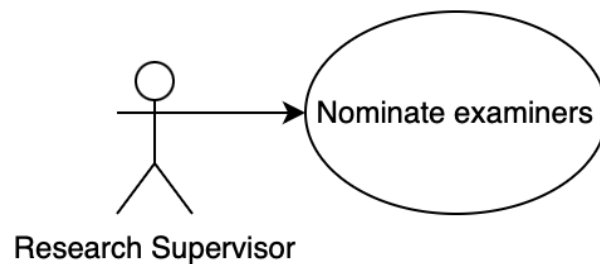
*E5: Examiner is not eligible*

3. FSES displays “EXAMINER IS NOT ELIGIBLE” message. (SRS\_REQ\_308)
4. This use case ends.

*E6: Chairperson is not eligible*

5. FSES displays “CHAIRPERSON IS NOT ELIGIBLE” message. (SRS\_REQ\_309)
6. This use case ends.

## 3.2.4 NOMINATE EXAMINERS USE CASE (SRS\_REQ\_400)




**Figure 7: Nominate Examiners Use Case Diagram**

### 3.2.4.1 Brief Description

This use case is initiated by the Research Supervisor. It provides Research Supervisor a capability to nominate examiners for the students under their supervision.

### 3.2.4.2 Characteristic of Activation

Upon request from the Research Supervisor.

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	27

### 3.2.4.3 Pre-Condition

Research Supervisor is logged into FSES and the Dashboard is accessible.

### 3.2.4.4 Description

#### 3.2.4.4.1 Basic Flow

1. This use case begins when the Research Supervisor initiates nominating examiners. (SRS\_REQ\_401)
2. FSES displays the following fields as editable. (SRS\_REQ\_402)
  - Research Title
  - Examiner 1
  - Examiner 2
  - Examiner 3
3. Research Supervisor enters student's research title. (SRS\_REQ\_403)
4. Research Supervisor fills in the examiner fields using either of these 2 methods
  - **A6: Select examiner from drop-down list**
  - **A7: Enter examiner's name outside drop-down list**
5. FSES checks the examiner's eligibility. (SRS\_REQ\_406)
  - **R6: Examiner's eligibility**
6. If examiner is not eligible, see
  - **E7: Examiner is not eligible**
7. Once completed, if Research Supervisor wants to modify the details, see
  - **A8: Modify research title and examiners**
8. At any point of time, if Research Supervisor wants to postpone FSE, see
  - **A9: Postpone student's FSE**
9. At any point of time, if Research Supervisor wants to view list of students under supervision, see
  - **A10: View list of students under supervision**
10. This use case ends.


#### 3.2.4.4.2 Alternative Flow

##### **A6: Select examiner from drop-down list**

1. Research Supervisor selects examiner from drop-down list. (SRS\_REQ\_404)
2. This use case continues.

##### **A7: Enter examiner's name outside drop-down list**

1. Research Supervisor enters examiner's name outside drop-down list. (SRS\_REQ\_405)
2. This use case continues.

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	28

**A8: Modify research title and examiners**

1. Research Supervisor modifies research title and examiners. (SRS\_REQ\_408)
2. This use case continues.

**A9: Postpone student's FSE**

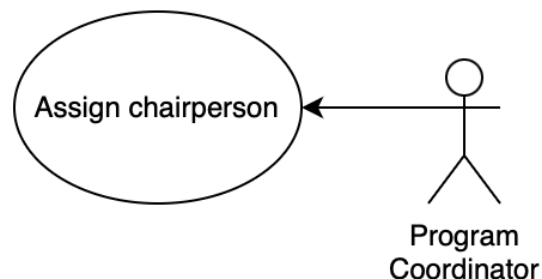
1. Research Supervisor indicates to FSES to postpone student's FSE. (SRS\_REQ\_409)
2. This use case continues.

**A10: View list of students under supervision**

1. FSES displays list of students under supervision. (SRS\_REQ\_410)
2. This use case continues.

**3.2.4.4.3 Exception Flow****E7: Examiner is not eligible**


1. FSES displays "EXAMINER IS NOT ELIGIBLE" message. (SRS\_REQ\_407)
2. This use case continues.

**3.2.5 ASSIGN CHAIRPERSON USE CASE (SRS\_REQ\_500)****Figure 8: Assign Chairperson Use Case Diagram****3.2.5.1 Brief Description**

This use case is initiated by the Program Coordinator. It provides the Program Coordinator a capability to assign chairperson for all sessions.

**3.2.5.2 Characteristic of Activation**

Upon request from the Program Coordinator.

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	29


### 3.2.5.3 Pre-Condition

Program Coordinator is logged into FSES and the Dashboard is accessible.

### 3.2.5.4 Description

#### 3.2.5.4.1 Basic Flow

1. This use case begins when the Program Coordinator initiates assigning chairperson. (SRS\_REQ\_501)
2. FSES displays the following fields as editable. (SRS\_REQ\_502)
  - Chairperson
3. Program Coordinator fills in the chairperson field using either of these 2 methods
  - **A11: Automatically assign chairperson**
  - **A12: Manually assign chairperson**
4. FSES checks the chairperson's eligibility. (SRS\_REQ\_506)
  - **R7: Chairperson's eligibility**
5. If chairperson is not eligible, see
  - **E8: Chairperson is not eligible**
6. At any point of time, if Program Coordinator wants to lock nomination, see
  - **A13: Lock nomination**
7. At any point of time, if Program Coordinator wants to view list of students with the following details,
  - Student name
  - Program (PhD, MPhil or DSE)
  - Evaluation type (First Evaluation or Re-Evaluation)
  - Student's current semester
  - Main supervisor
  - Co-supervisor
  - Research title
  - Examiner 1
  - Examiner 2
  - Examiner 3
 see
  - **A14: View list of students**
8. At any point of time, if Program Coordinator wants to view list of students and their FSE details by program and evaluation type, see
  - **A15: View list of students and their FSE details by program and evaluation type**
9. At any point of time, if Program Coordinator wants to view list of students postponing their FSE, see
  - **A16: View list of students postponing their FSE**

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	30

10. At any point of time, if Program Coordinator wants to view list of examiners and how many sessions they are examining, see
  - **A17: View list of examiners and how many sessions they are examining**
11. At any point of time, if Program Coordinator wants to view list of chairpersons and how many sessions they are chairing, see
  - **A18: View list of chairpersons and how many sessions they are chairing**
12. At any point of time, if Program Coordinator wants to view graph showing a summary of the FSE details, see
  - **A19: View graph showing a summary of the FSE details**
13. This use case ends.

#### 3.2.5.4.2 Alternative Flow

##### *A11: Automatically assign chairperson*

1. Program Coordinator indicates to FSES to automatically assign chairperson. (SRS\_REQ\_503)
2. At any point of time, if Program Coordinator wants to change the assigned chairperson, see
  - **A20: Change chairperson**
3. This use case continues.

##### *A12: Manually assign chairperson*


1. Program Coordinator selects chairperson from drop-down list. (SRS\_REQ\_505)
2. This use case continues.

##### *A13: Lock nomination*

1. Program Coordinator locks nominations. (SRS\_REQ\_508)
  - **R8: Nomination locked**
2. This use case continues.

##### *A14: View list of students*

1. FSES displays list of students with the following details. (SRS\_REQ\_509)
  - Student name
  - Program (PhD, MPhil or DSE)
  - Evaluation type (First Evaluation or Re-Evaluation)
  - Student's current semester
  - Main supervisor
  - Co-supervisor
  - Research title
  - Examiner 1

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	31

- Examiner 2
  - Examiner 3
2. This use case continues.

*A15: View list of students and their FSE details by program and evaluation type*

1. FSES displays list of students and their FSE details by program and evaluation type. (SRS\_REQ\_510)
2. At any point of time, if Program Coordinator wants to download the list, see
  - **A21: Download list of students and their FSE details by program and evaluation type**
3. This use case continues.

*A16: View list of students postponing their FSE*

1. FSES displays a list of students postponing their FSE. (SRS\_REQ\_512)
2. At any point of time, if Program Coordinator wants to download the list, see
  - **A22: Download list of students postponing their FSE**
3. This use case continues.

*A17: View list of examiners and how many sessions they are examining*

1. FSES displays a list of examiners and how many sessions they are examining. (SRS\_REQ\_514)
2. At any point of time, if Program Coordinator wants to download the list, see
  - **A23: Download list of examiners and how many sessions they are examining**
3. This use case continues.

*A18: View list of chairpersons and how many sessions they are chairing*


1. FSES displays a list of chairpersons and how many sessions they are chairing. (SRS\_REQ\_516)
2. At any point of time, if Program Coordinator wants to download the list, see
  - **A24: Download list of chairpersons and how many sessions they are chairing**
3. This use case continues.

*A19: View graph showing a summary of the FSE details*

1. FSES displays a graph showing a summary of the FSE details. (SRS\_REQ\_518)
2. This use case continues.

*A20: Change chairperson*

1. Program Coordinator enters the new chairperson's name. (SRS\_REQ\_504)

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	32



2. This use case continues.

*A21: Download list of students and their FSE details by program and evaluation type*

1. Program Coordinator downloads list of students and their FSE details by program and evaluation type. (SRS\_REQ\_511)
2. This use case continues.

*A22: Download list of students postponing their FSE*

1. Program Coordinator downloads list of students postponing their FSE. (SRS\_REQ\_513)
2. This use case continues.

*A23: Download list of examiners and how many sessions they are examining*

1. Program Coordinator downloads list of examiners and how many sessions they are examining. (SRS\_REQ\_515)
2. This use case continues.


*A24: Download list of chairpersons and how many sessions they are chairing*

1. Program Coordinator downloads a list of chairpersons and how many sessions they are chairing. (SRS\_REQ\_517)
2. This use case continues.

### 3.2.5.4.3 Exception Flow

*E8: Chairperson is not eligible*

1. FSES displays “CHAIRPERSON IS NOT ELIGIBLE” message. (SRS\_REQ\_507)
2. This use case continues.

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	33

## 3.3 SYSTEM INTERNAL INTERFACE

### 3.3.1 CSCI DATA ELEMENT REQUIREMENTS

This paragraph identifies the interfaces between the capabilities mentioned above. In this case, it involves providing the main activity, listing the classes, and detailing the received and sent messages of each class from an object-oriented perspective.

#### 3.3.1.1 Boundary Class

##### 3.3.1.1.1 LoginPage


Responsibility	Allows Office Assistant, Reserach Supervisor and Program Coordinator to log in and have access to the FSES.
Received Events	Office Assistant's, Research Supervisor's and Program Coordinator's ID and password.
Sent Events	Sends the ID and password for authentication.

##### 3.3.1.1.2 ChangePasswordPage

Responsibility	Allows Office Assistant, Research Supervisor and Program Coordinator to change password after the first login.
Received Events	Office Assistant's, Research Supervisor's and Program Coordinator's new password.
Sent Events	Sends the new password to the Login Controller for validation and password update.

##### 3.3.1.1.3 DashboardPage


Responsibility	Provides an interface for: - Office Assistant to view list of students for FSE prepared, navigate to Student Details Page and navigate to Masterlist Page - Research Supervisors to view list of students for FSE under their supervision and navigate to Student Details Page - Program Coordinator to view list of students for FSE with nominated examiners and navigate to Student Details Page
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	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	34

Received Events	<ul style="list-style-type: none"> <li>- Office Assistant's navigation action to Student Details Page</li> <li>- Office Assistant's navigation action to Masterlist Page</li> <li>- Research Supervisor's navigation action to Student Details Page</li> <li>- Program Coordinator's navigation action to Student Details Page</li> </ul>
Sent Events	<ul style="list-style-type: none"> <li>- Navigate Office Assistant to Student Details Page</li> <li>- Navigate Office Assistant to Masterlist Page</li> <li>- Navigate Research Supervisor to Student Details Page</li> <li>- Navigate Program Coordinator to Student Details Page</li> </ul>

#### 3.3.1.1.4 StudentDetailsPage

Responsibility	<p>Provides an interface for Office Assistant, Research Supervisor and Program Coordinator to view the following details for an FSE student:</p> <ul style="list-style-type: none"> <li>- Student name</li> <li>- Program (PhD, MPhil or DSE)</li> <li>- Evaluation type (First Evaluation or Re-Evaluation)</li> <li>- Student's current semester</li> <li>- Main supervisor</li> <li>- Co-supervisor</li> <li>- Research title</li> <li>- Examiner 1</li> <li>- Examiner 2</li> <li>- Examiner 3</li> <li>- Chairperson</li> </ul> <p>Provides an interface for Office Assistant to edit the following details for an FSE student:</p> <ul style="list-style-type: none"> <li>- Student name</li> <li>- Program (PhD, MPhil or DSE)</li> <li>- Evaluation type (First Evaluation or Re-Evaluation)</li> <li>- Student's current semester</li> <li>- Main supervisor</li> <li>- Co-supervisor</li> </ul> <p>Provides an interface for Research Supervisor to edit the following details for an FSE student:</p> <ul style="list-style-type: none"> <li>- Research title</li> <li>- Examiner 1</li> <li>- Examiner 2</li> <li>- Examiner 3</li> </ul> <p>Provides an interface for Program Coordinator to edit the following details for an</p>
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	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	35

	FSE student: - Chairperson
Received Events	<ul style="list-style-type: none"> <li>- Student name</li> <li>- Program (PhD, MPhil or DSE)</li> <li>- Evaluation type (First Evaluation or Re-Evaluation)</li> <li>- Student's current semester</li> <li>- Main supervisor</li> <li>- Co-supervisor</li> <li>- Research title</li> <li>- Examiner 1</li> <li>- Examiner 2</li> <li>- Examiner 3</li> <li>- Chairperson</li> </ul>
Sent Events	<ul style="list-style-type: none"> <li>- Sends all details to the Student Controller</li> <li>- Sends Main Supervisor and Co-supervisor to the Supervisor Controller for validation</li> <li>- Sends Examiner 1, Examiner 2 and Examiner 3 to the Examiner Controller for validation</li> <li>- Sends Chairperson to the Chairperson Controller for validation</li> </ul>


### 3.3.1.1.5 MasterlistPage

Responsibility	Provides an interface for Office Assistant to: <ul style="list-style-type: none"> <li>- View list of supervisors, examiners &amp; chairpersons</li> <li>- Add, remove and update supervisors, examiners &amp; chairpersons</li> </ul>
Received Events	<ul style="list-style-type: none"> <li>- Office Assistant's add supervisor, examiners &amp; chairpersons action</li> <li>- Office Assistant's remove supervisor, examiners &amp; chairpersons action</li> <li>- Office Assistant's update supervisor, examiners &amp; chairpersons action</li> </ul>
Sent Events	Sends the name of the supervisor, examiners & chairpersons to the Eligibility Controller for validation.

### 3.3.1.2 Control Class

#### 3.3.1.2.1 LoginController

Responsibility	Responsible for validating ID and password used to login FSES and for validating login attempts.
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	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	36


Received Events	Office Assistant's, Research Supervisor's and Program Coordinator's ID and password.
Sent Events	Verify Office Assistant's, Research Supervisor's and Program Coordinator's ID and password with the User Database.

### 3.3.1.2.2 StudentController

Responsibility	Responsible for ensuring the following details are not blank: - Student name - Program (PhD, MPhil or DSE) - Evaluation type (First Evaluation or Re-Evaluation) - Student's current semester - Research title
Received Events	- Student name - Program (PhD, MPhil or DSE) - Evaluation type (First Evaluation or Re-Evaluation) - Student's current semester - Research title
Sent Events	Sends the following details to the Student Database: - Student name - Program (PhD, MPhil or DSE) - Evaluation type (First Evaluation or Re-Evaluation) - Student's current semester - Research title

### 3.3.1.2.3 EligibilityController

Responsibility	Responsible for validating the following eligibility: - Supervisor - Examiner - Chairperson
Received Events	- Supervisor - Examiner - Chairperson
Sent Events	Verify eligibility with the Lecturer Database.

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	37

### 3.3.1.3 Entity Class

#### 3.3.1.3.1 UserDB


Responsibility	Stores and manages Office Assistant's, Research Supervisor's and Program Coordinator's ID, password and role.
Received Events	Receives request to validate Office Assistant's, Research Supervisor's and Program Coordinator's ID and password.
Sent Events	Sends validation results back.

#### 3.3.1.3.2 StudentDB

Responsibility	Stores and manages student details for FSE.
Received Events	Student details to be stored in the database.
Sent Events	Sends the student details back to the FSES.

#### 3.3.1.3.3 LecturerDB

Responsibility	Stores and manages the following details of UTM lecturers: - Name - Title - Faculty
Received Events	Receives request to validate supervisor's, examiner's and chairperson's eligibility.
Sent Events	Sends validation results back.

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	38

## 3.4 OTHER REQUIREMENTS

### 3.4.1 RELIABILITY

The FSES system shall be able to access anywhere and anytime.

### 3.4.2 MAINTAINABILITY

The FSES downtime shall not exceed 6 hours (optional).

### 3.4.3 PERFORMANCE

The FSES shall support multiple access from several lecturers and the Office Assistant.

### 3.4.4 SECURITY


Access to operate the functions available to the actors will be restricted by using the correct password.

### 3.4.5 CAPACITY

Initially, the system shall cater to programs belonging to Advanced Informatics Department.

### 3.4.6 EXPANDABILITY

Not applicable.


	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	39

### 3.4.7 TRACEABILITY REQUIREMENTS

Table 2 below presents the requirement traceability matrix.


**Table 2:Traceability Matrix**

No.	Source	Requirement	ID Description	Section
Login Use Case (SRS_REQ_100)				
1	URS	SRS_REQ_101	This use case begins when Office Assistant, Research Supervisor and Program Coordinator enters ID & password.	3.2.1.4.1
2	URS	SRS_REQ_102	FSES verifies the ID & password.	3.2.1.4.1
3	URS	SRS_REQ_103	If the password is valid, FSES checks if it is the first login.	3.2.1.4.1
4	URS	SRS_REQ_104	If it is not the first login, FSES displays Dashboard.	3.2.1.4.1
5	URS	SRS_REQ_105	Office Assistant, Research Supervisor and Program Coordinator enters a new password.	3.2.1.4.2
6	URS	SRS_REQ_106	Office Assistant, Research Supervisor and Program Coordinator requests to reset password.	3.2.1.4.2
7	URS	SRS_REQ_107	FSES sends reset password link to Office Assistant, Research Supervisor and Program Coordinator via email.	3.2.1.4.2
8	URS	SRS_REQ_108	Office Assistant, Research Supervisor and Program Coordinator enters a new password in the link.	3.2.1.4.2
9	URS	SRS_REQ_109	FSES displays "PASSWORD IS INVALID" message.	3.2.1.4.2
10	URS	SRS_REQ_110	At any point of time, Office Assistant, Research Supervisor and Program Coordinator can reattempt login.	3.2.1.4.3
11	URS	SRS_REQ_111	FSES displays "LOGIN ATTEMPT EXCEEDS LIMIT" message.	3.2.1.4.3
12	URS	SRS_REQ_112	FSES locks the ID	3.2.1.4.3
Prepare Student List Use Case (SRS_REQ_200)				
14	URS	SRS_REQ_201	This use case begins when Office Assistant initiates preparing student list.	3.2.2.4.1
15	URS	SRS_REQ_202	FSES displays the following fields as editable - Student name - Program (PhD, MPhil or DSE) - Evaluation type (First Evaluation or Re-Evaluation) - Student's current semester - Main supervisor - Co-supervisor	3.2.2.4.1


	DOCUMENT IDENTIFICATION			
	SYSTEM NAME		FORMAT	VERSION
	FISRT STAGE EVALUATION SYSTEM (FSES)		A4	1.0
				PAGE
				40



16	URS	SRS_REQ_203	Office Assistant fills in all the fields above.	3.2.2.4.1
17	URS	SRS_REQ_204	FSES checks eligibility of Main Supervisor and Co-supervisor.	3.2.2.4.1
18	URS	SRS_REQ_205	FSES displays “MAIN SUPERVISOR IS NOT ELIGIBLE” message.	3.2.2.4.2
19	URS	SRS_REQ_206	FSES displays “CO-SUPERVISOR IS NOT ELIGIBLE” message.	3.2.2.4.2
Manage Masterlist Use Case (SRS_REQ_300)				
20	URS	SRS_REQ_301	This use case begins when Office Assistant initiates managing masterlist.	3.2.3.4.1
21	URS	SRS_REQ_302	FSES displays the masterlist of supervisors, examiners and chairpersons.	3.2.3.4.1
22	URS	SRS_REQ_303	Office Assistant adds names and their respective titles into the masterlist.	3.2.3.4.2
23	URS	SRS_REQ_304	Office Assistant updates names and their respective titles in the masterlist.	3.2.3.4.2
24	URS	SRS_REQ_305	Office Assistant removes names from the masterlist.	3.2.3.4.2
25	URS	SRS_REQ_306	FSES checks supervisor’s, examiner’s and chairperson’s eligibility.	3.2.3.4.1
26	URS	SRS_REQ_307	FSES displays “SUPERVISOR IS NOT ELIGIBLE” message.	3.2.3.4.3
27	URS	SRS_REQ_308	FSES displays “EXAMINER IS NOT ELIGIBLE” message.	3.2.3.4.3
28	URS	SRS_REQ_309	FSES displays “CHAIRPERSON IS NOT ELIGIBLE” message.	3.2.3.4.3
Nominate Examiners Use Case (SRS_REQ_400)				
29	URS	SRS_REQ_401	Research Supervisor initiates nominating examiners.	3.2.4.4.1
30	URS	SRS_REQ_402	FSES displays the following fields as editable. (SRS_REQ_402) - Research Title - Examiner 1 - Examiner 2 - Examiner 3	3.2.4.4.1
31	URS	SRS_REQ_403	Research Supervisor enters student’s research title.	3.2.4.4.1
32	URS	SRS_REQ_404	Research Supervisor selects examiner from drop-down list.	3.2.4.4.2
33	URS	SRS_REQ_405	Research Supervisor enters examiner’s name outside drop-down list.	3.2.4.4.2
34	URS	SRS_REQ_406	FSES checks the examiner’s eligibility.	3.2.4.4.1
35	URS	SRS_REQ_407	FSES displays “EXAMINER IS NOT ELIGIBLE” message.	3.2.4.4.3

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME		FORMAT	VERSION
	FISRT STAGE EVALUATION SYSTEM (FSES)		A4	1.0
				PAGE
				41


36	URS	SRS_REQ_408	Research Supervisor modifies research title and examiners.	3.2.4.4.2
37	URS	SRS_REQ_409	Research Supervisor indicates to FSES to postpone student's FSE	3.2.4.4.2
38	URS	SRS_REQ_410	FSES displays list of students under supervision.	3.2.4.4.2
Assign Chairperson (SRS_REQ_500)				
40	URS	SRS_REQ_501	Program Coordinator initiates assigning chairperson.	3.2.5.4.1
41	URS	SRS_REQ_502	FSES displays the following fields as editable.	3.2.5.4.1
42	URS	SRS_REQ_503	Program Coordinator indicates to FSES to automatically assign chairperson.	3.2.5.4.2
43	URS	SRS_REQ_504		3.2.5.4.2
44	URS	SRS_REQ_505	Program Coordinator selects chairperson from drop-down list.	3.2.5.4.2
45	URS	SRS_REQ_506	FSES checks the chairperson's eligibility.	3.2.5.4.2
46	URS	SRS_REQ_507	FSES displays "CHAIRPERSON IS NOT ELIGIBLE" message	3.2.5.4.3
47	URS	SRS_REQ_508	Program Coordinator locks nominations.	3.2.5.4.2
48	URS	SRS_REQ_509	FSES displays list of students with the following details. - Student name - Program (PhD, MPhil or DSE) - Evaluation type (First Evaluation or Re-Evaluation) - Student's current semester - Main supervisor - Co-supervisor - Research title - Examiner 1 - Examiner 2 - Examiner 3	3.2.5.4.2
49	URS	SRS_REQ_510	FSES displays list of students and their FSE details by program and evaluation type.	3.2.5.4.2
50	URS	SRS_REQ_511	Program Coordinator downloads list of students and their FSE details by program and evaluation type.	3.2.5.4.2
51	URS	SRS_REQ_512	FSES displays a list of students postponing their FSE.	3.2.5.4.2
52	URS	SRS_REQ_513	Program Coordinator downloads list of students postponing their FSE.	3.2.5.4.2
53	URS	SRS_REQ_514	FSES displays a list of examiners and how many sessions they are examining.	3.2.5.4.2
54	URS	SRS_REQ_515	Program Coordinator downloads list of examiners and how many sessions they are examining.	3.2.5.4.2

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME		FORMAT	VERSION
	FISRT STAGE EVALUATION SYSTEM (FSES)		A4	1.0
				42

55	URS	SRS_REQ_516	FSES displays a list of chairpersons and how many sessions they are chairing.	3.2.5.4.2
56	URS	SRS_REQ_517	Program Coordinator downloads a list of chairpersons and how many sessions they are chairing.	3.2.5.4.2
57	URS	SRS_REQ_518	FSES displays a graph showing a summary of the FSE details.	3.2.5.4.2

### 3.4.8 DESIGN CONSTRAINTS

Object-oriented development (OOD) techniques with UML notation shall be applied to the project.

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	43

# APPENDICE

## 3.2.1 LOGIN USE CASE (SRS\_REQ\_100)

### 3.2.1.4.1 Basic Flow

1. This use case begins when Office Assistant, Research Supervisor and Program Coordinator enters ID & password. (SRS\_REQ\_101)
2. FSES verifies the ID & password. (SRS\_REQ\_102)
3. If the password is valid, FSES checks if it is the first login. (SRS\_REQ\_103)
4. If it is the first login, see
  - **A1: Change Password**
5. If it is not the first login, FSES displays Dashboard. (SRS\_REQ\_104)
6. If password is invalid, see
  - **E1: Invalid Password**
7. At any point of time, if Office Assistant, Research Supervisor and Program Coordinator wants to reset password, see
  - **A2: Reset Password**
8. This use case ends

### 3.2.1.4.2 Alternative Flow

#### A1: Change Password

1. Office Assistant, Research Supervisor and Program Coordinator enters a new password. (SRS\_REQ\_105)
  - **R1: Password's Rule**
2. This use case continues.

#### A2: Reset Password

1. Office Assistant, Research Supervisor and Program Coordinator requests to reset password. (SRS\_REQ\_106)
2. FSES sends reset password link to Office Assistant, Research Supervisor and Program Coordinator via email. (SRS\_REQ\_107)
3. Office Assistant, Research Supervisor and Program Coordinator enters a new password in the link. (SRS\_REQ\_108)
  - **R1: Password's Rule**
4. This use case continues.


### 3.2.1.4.3 Exception Flow

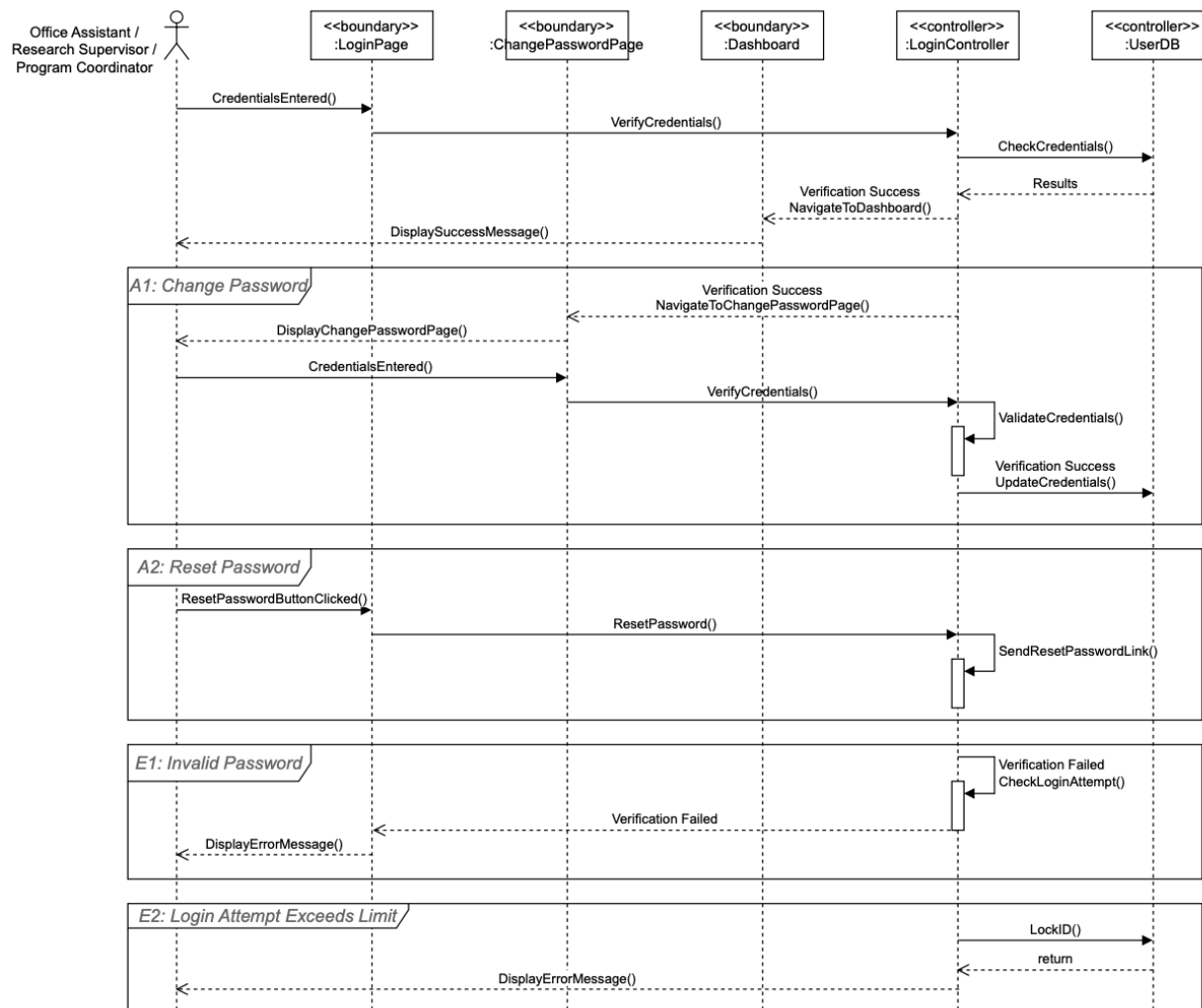
#### E1: Invalid Password

1. FSES displays "PASSWORD IS INVALID" message. (SRS\_REQ\_109)
2. At any point of time, Office Assistant, Research Supervisor and Program Coordinator can reattempt login. (SRS\_REQ\_110)
  - **R2: Login Reattempt's Rule**
3. If number of login attempt exceeds limit, see
  - **E2: Login Attempt Exceeds Limit**
4. This use case continues.

#### E2: Login Attempt Exceeds Limit

1. FSES displays "LOGIN ATTEMPT EXCEEDS LIMIT" message. (SRS\_REQ\_111)
2. FSES locks the ID. (SRS\_REQ\_112)
3. This use case continues.

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	44



### 3.2.2 PREPARE STUDENT LIST USE CASE (SRS\_REQ\_200)

#### 3.2.2.4.1 Basic Flow

1. This use case begins when Office Assistant initiates preparing student list. (SRS\_REQ\_201)
2. FSES displays the following fields as editable (SRS\_REQ\_202)
  - Student name
  - Program (PhD, MPhil or DSE)
  - Evaluation type (First Evaluation or Re-Evaluation)
  - Student's current semester
  - Main supervisor
  - Co-supervisor
3. Office Assistant fills in all the fields above. (SRS\_REQ\_203)
4. FSES checks eligibility of Main Supervisor and Co-supervisor. (SRS\_REQ\_204)
  - **R3: Main supervisor's eligibility**
  - **R4: Co-supervisor's eligibility**
5. If Main Supervisor or Co-supervisor is not eligible, see
  - **E2: Main supervisor is not eligible**
  - **E3: Co-supervisor is not eligible**
6. This use case ends.

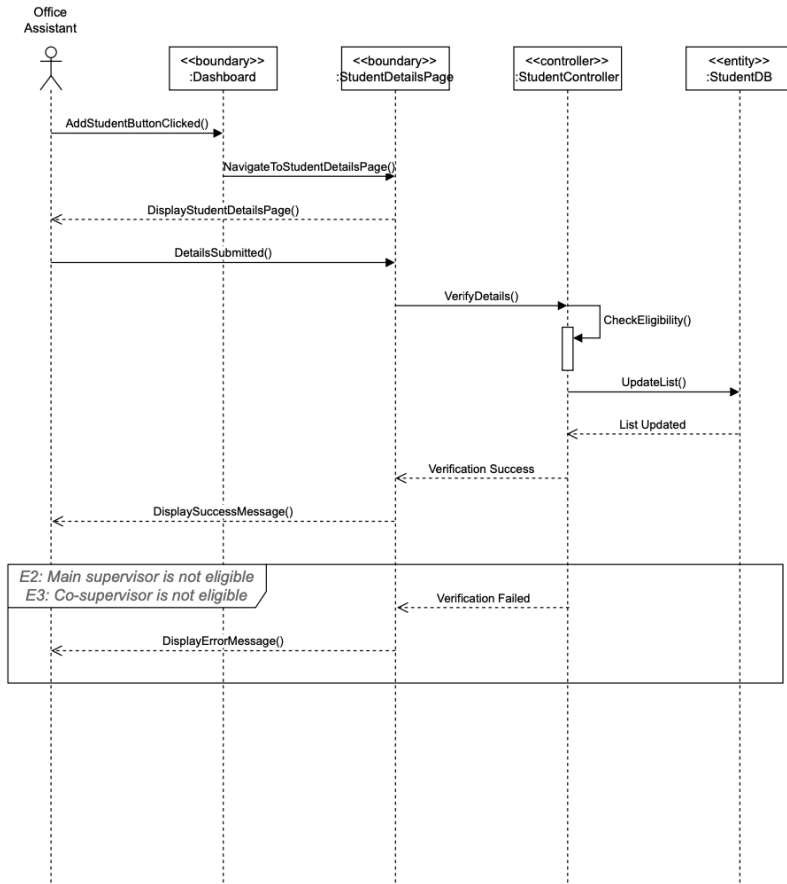
#### 3.2.2.4.2 Exception Flow


*E2: Main supervisor is not eligible*

1. FSES displays "MAIN SUPERVISOR IS NOT ELIGIBLE" message. (SRS\_REQ\_205)
2. This use case continues.

*E3: Co-supervisor is not eligible*

1. FSES displays "CO-SUPERVISOR IS NOT ELIGIBLE" message. (SRS\_REQ\_206)
2. This use case continues.



	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	46

## 3.2.3 MANAGE MASTERLIST USE CASE (SRS\_REQ\_300)

## 3.2.3.4.1 Basic Flow

1. This use case begins when Office Assistant initiates managing masterlist. (SRS\_REQ\_301)
2. FSES displays the masterlist of supervisors, examiners and chairpersons. (SRS\_REQ\_302)
3. At any point of time, if Office Assistant wants to edit the masterlist, see
  - A3: Add names into the masterlist
  - A4: Update names in the masterlist
  - A5: Remove names from the masterlist
4. FSES checks supervisor's, examiner's and chairperson's eligibility. (SRS\_REQ\_306)
5. If supervisors, examiners or chairpersons is not eligible, see
  - E4: Supervisor is not eligible
  - E5: Examiner is not eligible
  - E6: Chairperson is not eligible
6. This use case ends.

## 3.2.3.4.2 Alternative Flow

## A3: Add names into the masterlist

1. Office Assistant adds names and their respective titles into the masterlist. (SRS\_REQ\_303)
  - R5: Supervisor's eligibility
  - R6: Examiner's eligibility
  - R7: Chairperson's eligibility
2. This use case continues.

## A4: Update names in the masterlist

1. Office Assistant updates names and their respective titles in the masterlist. (SRS\_REQ\_304)
  - R5: Supervisor's eligibility
  - R6: Examiner's eligibility
  - R7: Chairperson's eligibility
2. This use case continues.

## A5: Remove names from the masterlist

1. Office Assistant removes names from the masterlist. (SRS\_REQ\_305)
2. This use case continues.

## 3.2.3.4.3 Exception Flow

## E4: Supervisor is not eligible

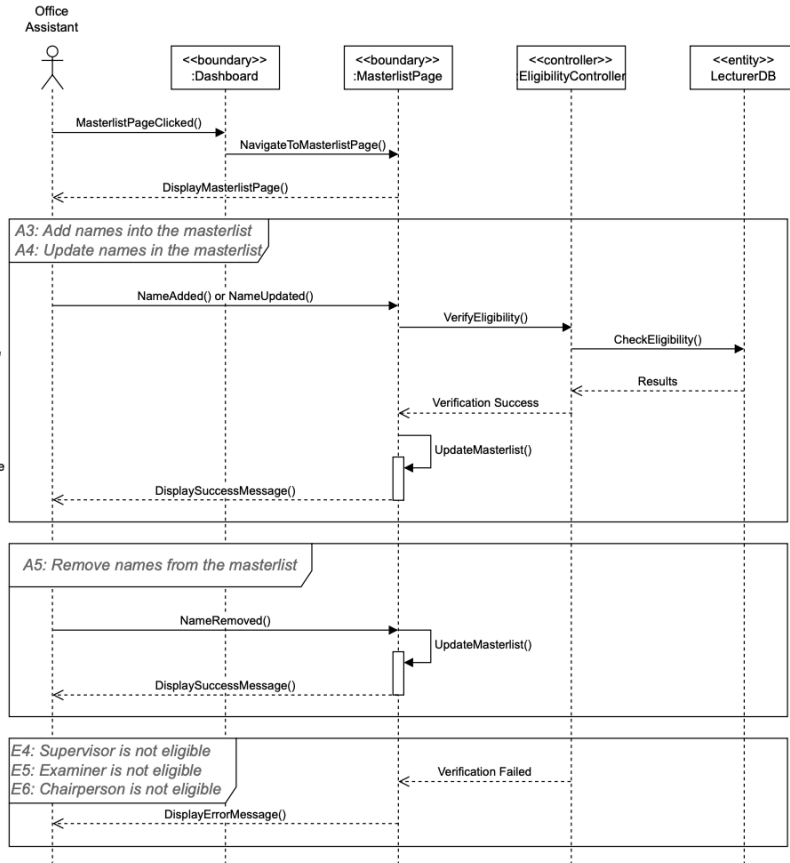
1. FSES displays "SUPERVISOR IS NOT ELIGIBLE" message. (SRS\_REQ\_307)
2. This use case ends.


## E5: Examiner is not eligible

3. FSES displays "EXAMINER IS NOT ELIGIBLE" message. (SRS\_REQ\_308)
4. This use case ends.

## E6: Chairperson is not eligible

5. FSES displays "CHAIRPERSON IS NOT ELIGIBLE" message. (SRS\_REQ\_309)
6. This use case ends.



	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	47

### 3.2.4 NOMINATE EXAMINERS USE CASE (SRS\_REQ\_400)

#### 3.2.4.4.1 Basic Flow

1. This use case begins when Research Supervisor initiates nominating examiners. (SRS\_REQ\_401)
2. FSES displays the following fields as editable. (SRS\_REQ\_402)
  - Research Title
  - Examiner 1
  - Examiner 2
  - Examiner 3
3. Research Supervisor enters student's research title. (SRS\_REQ\_403)
4. Research Supervisor fills in the examiner fields using either of these 2 methods
  - A6: Select examiner from drop-down list
  - A7: Enter examiner's name outside drop-down list
5. FSES checks the examiner's eligibility. (SRS\_REQ\_406)
6. If examiner is not eligible, see
  - E7: Examiner is not eligible
7. Once completed, if Research Supervisor wants to modify the details, see
  - A8: Modify research title and examiners
8. At any point of time, if Research Supervisor wants to postpone FSE, see
  - A9: Postpone student's FSE
9. At any point of time, if Research Supervisor wants to view list of students under supervision, see
  - A10: View list of students under supervision
10. This use case ends.

#### 3.2.4.4.2 Alternative Flow

##### A6: Select examiner from drop-down list

1. Research Supervisor selects examiner from drop-down list. (SRS\_REQ\_404)
2. This use case continues.

##### A7: Enter examiner's name outside drop-down list

1. Research Supervisor enters examiner's name outside drop-down list. (SRS\_REQ\_405)
2. This use case continues.

##### A8: Modify research title and examiners

1. Research Supervisor modifies research title and examiners. (SRS\_REQ\_408)
2. This use case continues.

##### A9: Postpone student's FSE

1. Research Supervisor indicates to FSES to postpone student's FSE. (SRS\_REQ\_409)
2. This use case continues.

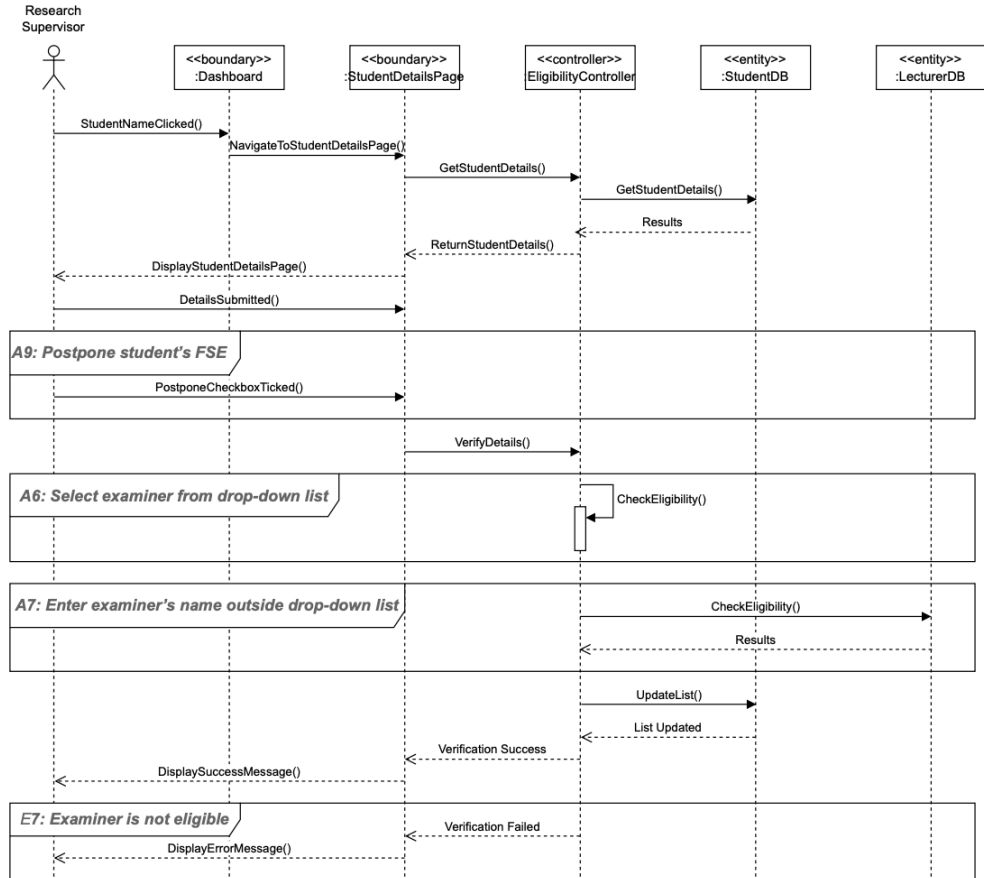
##### A10: View list of students under supervision


1. FSES displays list of students under supervision. (SRS\_REQ\_410)
2. This use case continues.

#### 3.2.4.4.3 Exception Flow

##### E7: Examiner is not eligible

1. FSES displays "EXAMINER IS NOT ELIGIBLE" message. (SRS\_REQ\_407)
2. This use case continues.



	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	48



## 3.2.5 ASSIGN CHAIRPERSON USE CASE (SRS\_REQ\_500)

## 3.2.5.4.1 Basic Flow

1. This use case begins when Program Coordinator initiates assigning chairperson. (SRS\_REQ\_501)
2. FSES displays the following fields as editable. (SRS\_REQ\_502)
  - Chairperson
3. Program Coordinator fills in the chairperson field using either of these 2 methods
  - **A11: Automatically assign chairperson**
  - **A12: Manually assign chairperson**
4. FSES checks the chairperson's eligibility. (SRS\_REQ\_506)
  - **R7: Chairperson's eligibility**
5. If chairperson is not eligible, see
  - **E8: Chairperson is not eligible**
6. At any point of time, if Program Coordinator wants to lock nomination, see
  - **A13: Lock nomination**
7. At any point of time, if Program Coordinator wants to view list of students with the following details,
  - Student name
  - Program (PhD, MPhil or DSE)
  - Evaluation type (First Evaluation or Re-Evaluation)
  - Student's current semester
  - Main supervisor
  - Co-supervisor
  - Research title
  - Examiner 1
  - Examiner 2
  - Examiner 3
 see
  - **A14: View list of students**
8. At any point of time, if Program Coordinator wants to view list of students and their FSE details by program and evaluation type, see
  - **A15: View list of students and their FSE details by program and evaluation type**
9. At any point of time, if Program Coordinator wants to view list of students postponing their FSE, see
  - **A16: View list of students postponing their FSE**
10. At any point of time, if Program Coordinator wants to view list of examiners and how many sessions they are examining, see
  - **A17: View list of examiners and how many sessions they are examining**
11. At any point of time, if Program Coordinator wants to view list of chairpersons and how many sessions they are chairing, see
  - **A18: View list of chairpersons and how many sessions they are chairing**
12. At any point of time, if Program Coordinator wants to view graph showing a summary of the FSE details, see
  - **A19: View graph showing a summary of the FSE details**
13. This use case ends.

## 3.2.5.4.2 Alternative Flow

## A11: Automatically assign chairperson

1. Program Coordinator indicates to FSES to automatically assign chairperson. (SRS\_REQ\_503)
2. At any point of time, if Program Coordinator wants to change the assigned chairperson, see
  - **A20: Change chairperson**
3. This use case continues.

## A12: Manually assign chairperson

1. Program Coordinator selects chairperson from drop-down list. (SRS\_REQ\_505)
2. This use case continues.

## A13: Lock nomination

1. Program Coordinator locks nominations. (SRS\_REQ\_508)
  - **R8: Nomination locked**
2. This use case continues.

## A14: View list of students

1. FSES displays list of students with the following details. (SRS\_REQ\_509)
  - Student name
  - Program (PhD, MPhil or DSE)
  - Evaluation type (First Evaluation or Re-Evaluation)
  - Student's current semester
  - Main supervisor
  - Co-supervisor
  - Research title
  - Examiner 1
  - Examiner 2
  - Examiner 3
2. This use case continues.

## A15: View list of students and their FSE details by program and evaluation type

1. FSES displays list of students and their FSE details by program and evaluation type. (SRS\_REQ\_510)
2. At any point of time, if Program Coordinator wants to download the list, see
  - **A21: Download list of students and their FSE details by program and evaluation type**
3. This use case continues.

## A16: View list of students postponing their FSE

1. FSES displays a list of students postponing their FSE. (SRS\_REQ\_512)
2. At any point of time, if Program Coordinator wants to download the list, see
  - **A22: Download list of students postponing their FSE**
3. This use case continues.

## A17: View list of examiners and how many sessions they are examining

1. FSES displays a list of examiners and how many sessions they are examining. (SRS\_REQ\_514)
2. At any point of time, if Program Coordinator wants to download the list, see
  - **A23: Download list of examiners and how many sessions they are examining**
3. This use case continues.

## A18: View list of chairpersons and how many sessions they are chairing

1. FSES displays a list of chairpersons and how many sessions they are chairing. (SRS\_REQ\_516)
2. At any point of time, if Program Coordinator wants to download the list, see
  - **A24: Download list of chairpersons and how many sessions they are chairing**
3. This use case continues.

## A19: View graph showing a summary of the FSE details

1. FSES displays a graph showing a summary of the FSE details. (SRS\_REQ\_518)
2. This use case continues.

## A20: Change chairperson

1. Program Coordinator enters the new chairperson's name. (SRS\_REQ\_504)
2. This use case continues.

## A21: Download list of students and their FSE details by program and evaluation type

1. Program Coordinator downloads list of students and their FSE details by program and evaluation type. (SRS\_REQ\_511)
2. This use case continues.

## A22: Download list of students postponing their FSE

1. Program Coordinator downloads list of students postponing their FSE. (SRS\_REQ\_513)
2. This use case continues.

## A23: Download list of examiners and how many sessions they are examining

1. Program Coordinator downloads list of examiners and how many sessions they are examining. (SRS\_REQ\_515)
2. This use case continues.


## A24: Download list of chairpersons and how many sessions they are chairing

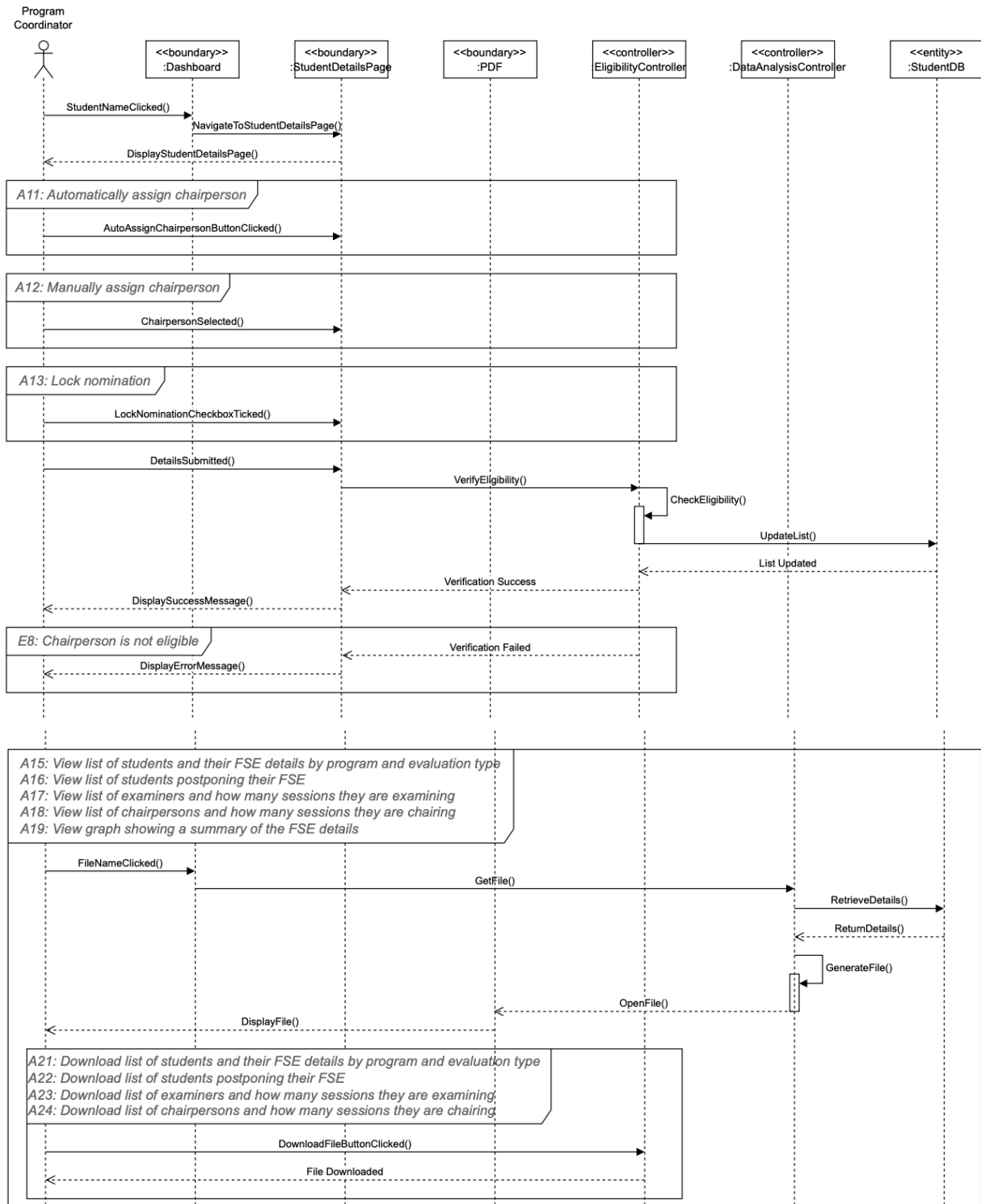
1. Program Coordinator downloads list of chairpersons and how many sessions they are chairing. (SRS\_REQ\_517)
2. This use case continues.


## 3.2.5.4.3 Exception Flow

## E8: Chairperson is not eligible

1. FSES displays "CHAIRPERSON IS NOT ELIGIBLE" message. (SRS\_REQ\_507)
2. This use case continues.

	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	49



	DOCUMENT IDENTIFICATION			
	SYSTEM NAME	FORMAT	VERSION	PAGE
	FISRT STAGE EVALUATION SYSTEM (FSES)	A4	1.0	50