

Functional Requirements

The SSS system should meet the following functional requirements:

Title: Viewing Subject List	
ID: FR 1.1	
Actors: (to be skipped)	
Use Case: (to be skipped)	
Priority: (to be skipped)	
Description: The system shall display a list of all available subjects, including subject names, codes, and lecturers.	
The initial conditions: User must be logged into the system.	
Acceptance criteria: The subject list is correctly displayed with all relevant details.	
Main scenario: 1. Student navigates to the subject list page. 2. The system displays the available subjects.	
Alternative scenarios and extensions: 4. System error occurs: a. Display an error message. b. Prompt the user to retry.	

Title: Viewing Subject Details	
ID: FR 1.2	
Actors: (to be skipped)	
Use Case: (to be skipped)	
Priority: (to be skipped)	
Description: The system shall allow students to view subject details, including name, description, lecturer, schedule, and assessment methods.	
The initial conditions: User selects a subject from the list.	
Acceptance criteria: The system correctly displays all details of the selected subject.	
Main scenario: 1. Student clicks on a subject. 2. The system displays subject details.	
Alternative scenarios and extensions: 4. Subject not found: a. Display a 'not found' error message. b. Redirect back to the subject list.	

Title: Enrolling in a Subject	
ID: FR 2.1	
Actors: (to be skipped)	
Use Case: (to be skipped)	
Priority: (to be skipped)	
Description: The system shall allow students to enroll in subjects available for their program.	
The initial conditions: User must be logged in and within the enrollment period.	
Acceptance criteria: Student successfully enrolls and sees the subject in their list.	
Main scenario: 1. Student selects a subject. 2. The system verifies prerequisites. 3. The system confirms enrollment.	
Alternative scenarios and extensions: 4. Prerequisite not met: a. Display an error message. b. Suggest prerequisite courses.	

Title: Viewing Timetable	
ID: FR 3.1	
Actors: (to be skipped)	
Use Case: (to be skipped)	
Priority: (to be skipped)	
Description: The system shall provide students with a personalized timetable based on their enrolled subjects.	
The initial conditions: User is logged in and has enrolled in at least one subject.	
Acceptance criteria: Timetable correctly displays the enrolled subjects.	
Main scenario: 1. Student navigates to the timetable page. 2. The system displays the timetable.	
Alternative scenarios and extensions: 4. No enrolled subjects: a. Display a message stating no subjects found. b. Provide a link to enroll.	

Title: Viewing Grades	
ID: FR 4.1	
Actors: (to be skipped)	
Use Case: (to be skipped)	
Priority: (to be skipped)	
Description: The system shall allow students to view their grades for enrolled subjects.	
The initial conditions: User is logged in and has received at least one grade.	
Acceptance criteria: Grades are correctly displayed.	
Main scenario: 1. Student navigates to the grades page. 2. The system displays grades.	
Alternative scenarios and extensions: 4. No grades available: a. Display a message stating no grades yet. b. Provide a link to course details.	

Title: Viewing Tuition Payment Status	
ID: FR 5.1	
Actors: (to be skipped)	
Use Case: (to be skipped)	
Priority: (to be skipped)	
Description: The system shall allow students to view their tuition payment history and current balance.	
The initial conditions: User is logged in and has an active student account.	
Acceptance criteria: Payment history and balance are correctly displayed.	
Main scenario: 1. Student navigates to the payment status page. 2. The system displays payment details.	
Alternative scenarios and extensions: 4. No payment records: a. Display a message stating no payments found. b. Provide a link to payment information.	

Title: Viewing Library Borrows / Arrears / Bookings	
ID: FR6.1	
Actors: (to be skipped)	
Use Case: (to be skipped)	
Priority: (to be skipped)	
Description: The system shall allow students to view their borrowed books, arrears, and reservations.	
The initial conditions: User must be logged in and have at least one transaction in the library.	
Acceptance criteria: Library borrowing history, arrears, and bookings are displayed correctly.	
Main scenario: 1. Student navigates to the library section. 2. The system displays the borrowing history and status.	
Alternative scenarios and extensions: 4. No borrowed books: a. Display a message stating no borrowings. b. Provide a link to the library catalog.	

Title: User Account Management	
ID: FR 7.1	
Actors: (to be skipped)	
Use Case: (to be skipped)	
Priority: (to be skipped)	
Description: The system shall allow students to register, log in, edit profiles, and manage security settings.	
The initial conditions: User interacts with the authentication system.	
Acceptance criteria: Account operations function correctly.	
Main scenario: 1. User performs an account operation (register, login, update profile, etc.). 2. The system processes and confirms the action.	
Alternative scenarios and extensions: 4. Invalid login: a. Display an error message. b. Lock account after three failed attempts.	

Non-functional Requirements

The SSS system should meet the following non-functional requirements to ensure efficiency and usability:

ID	Name	Priority	Description
NFR-001	Scalability	High	The system must be able to handle a large number of students accessing the platform simultaneously and support future expansion without major restructuring.
NFR-002	Efficiency	High	The system must load and display content within 3 seconds under normal load and process user requests with minimal latency.
NFR-003	Security	Critical	The system must implement secure authentication mechanisms, encrypt sensitive user data (e.g., passwords), and comply with data protection regulations.
NFR-004	Accessibility & Compatibility	Medium	The system must be accessible from various devices (desktops, tablets, mobile phones), be compatible with modern web browsers, and adhere to web accessibility standards.

Corrected Functional Requirements

Title: Unenroll from a Subject

ID: FR 2.2

Description:

The system shall allow students to unsubscribe from subjects they previously enrolled in.

Initial Conditions:

User is logged in and enrolled in at least one subject.

Acceptance Criteria:

Subject is removed from student's enrolled list.

Main Scenario:

1. User clicks 'Unenroll' next to a subject.
2. System confirms action.
3. Subject is removed.

Alternative Scenarios and Extensions:

If unenrollment fails: Show error message.

Title: List of Tuition Payments

ID: FR 5.1

Description:

The system shall allow students to view a list of their past tuition payments.

Initial Conditions:

User is logged in.

Acceptance Criteria:

List of all past payments is shown.

Main Scenario:

1. User clicks 'Tuition Payment History.'
2. System displays all transactions.

Alternative Scenarios and Extensions:

No transactions found: Show message.

Title: Tuition Payment Details

ID: FR 5.2

Description:

The system shall allow students to view details of each tuition payment.

Initial Conditions:

User selects a payment record.

Acceptance Criteria:

Payment details are shown (amount, date, method, reference).

Main Scenario:

1. User clicks on a payment record.
2. System shows detailed info.

Alternative Scenarios and Extensions:

Invalid record: Show error.

Title: Account Registration

ID: FR 7.1

Description:

The system shall allow new users to create an account by providing required details.

Initial Conditions:

User is not logged in.

Acceptance Criteria:

System creates account and shows confirmation.

Main Scenario:

1. User clicks 'Register'.
2. Enters name, email, password.

Title: Login

ID: FR 7.2

Description:

The system shall allow users to log in using email and password.

Initial Conditions:

User has an account.

Acceptance Criteria:

User is logged in upon correct credentials.

Main Scenario:

1. User enters credentials.
2. System authenticates and logs in.

Alternative Scenarios and Extensions:

Wrong credentials: Show error.

Title: Logout

ID: FR 7.3

Description:

The system shall allow users to log out of their account.

Initial Conditions:

User is logged in.

Acceptance Criteria:

User is logged out and redirected to home.

Main Scenario:

1. User clicks 'Logout'.
2. System ends session.

Alternative Scenarios and Extensions:

Logout fails: Show error.

Title: Edit Profile

ID: FR 7.4

Description:

The system shall allow users to edit personal information.

Initial Conditions:

User is logged in.

Acceptance Criteria:

Changes are saved.

Main Scenario:

1. User clicks 'Edit Profile'.
2. Modifies info.
3. System saves changes.

Alternative Scenarios and Extensions:

Validation fails: Show error.

Title: Edit Email

ID: FR 7.5

Description:

The system shall allow users to update their email address.

Initial Conditions:

User is logged in.

Acceptance Criteria:

New email is saved after validation.

Main Scenario:

1. User edits email.
2. System sends confirmation.
3. Saves update.

Alternative Scenarios and Extensions:

Title: Change Password

ID: FR 7.6

Description:

The system shall allow users to change their password.

Initial Conditions:

User is logged in.

Acceptance Criteria:

Password is securely changed.

Main Scenario:

1. User inputs current and new password.
2. System validates and saves.

Alternative Scenarios and Extensions:

Wrong current password: Show error.

Title: Delete Account

ID: FR 7.7

Description:

The system shall allow users to delete their account permanently.

Initial Conditions:

User is logged in.

Acceptance Criteria:

Account is removed after confirmation.

Main Scenario:

1. User requests deletion.
2. System asks for confirmation.
3. Account is deleted.

Alternative Scenarios and Extensions:

User cancels: Action aborted.

Title: Password Reminder

ID: FR 7.8

Description:

The system shall allow users to request a password reset link.

Initial Conditions:

User is logged out.

Acceptance Criteria:

Reset link is sent to registered email.

Main Scenario:

1. User clicks 'Forgot Password'.
2. Enters email.
3. System sends reset email.

Alternative Scenarios and Extensions:

Email not found: Show error.

Title: Account Blocking

ID: FR 7.9

Description:

The system shall block user's account temporarily after 3 failed login attempts.

Initial Conditions:

User enters wrong password repeatedly.

Acceptance Criteria:

Account is blocked after 3 failures.

Main Scenario:

1. User enters wrong password 3 times.
2. System blocks login.

Alternative Scenarios and Extensions:

Corrected Non-Functional Requirements

ID: NFR-001

Name: Scalability

Priority: High

Description:

System must support up to 10,000 concurrent users and allow horizontal scaling without downtime.

ID: NFR-002

Name: Efficiency

Priority: High

Description:

System responses must occur within 3 seconds under normal load, and no more than 5 seconds under peak load.

ID: NFR-003

Name: Security

Priority: Critical

Description:

Use HTTPS, hash passwords using SHA-256, and ensure GDPR compliance for all personal data.

ID: NFR-004

Name: Accessibility & Compatibility

Priority: Medium

Description:

System must meet WCAG 2.1 AA standards, work on all major browsers, and adapt to screen sizes 320px–1920px.