

**NANYANG
TECHNOLOGICAL
UNIVERSITY**
SINGAPORE

**SC2006 - Software Engineering
Lab 2 Deliverables**

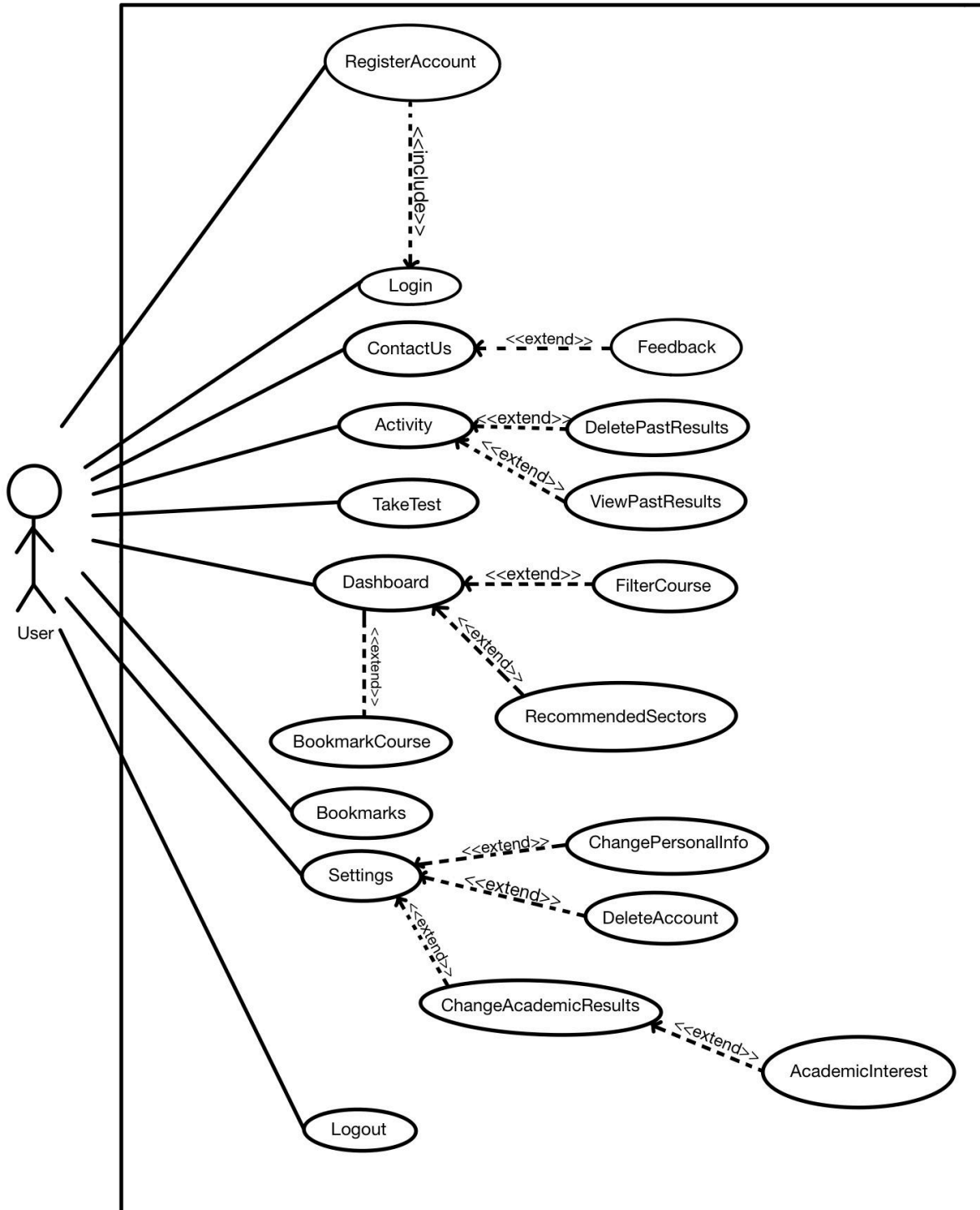
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1. Use Case Model

A. Use Case Diagram



B. Use Case Descriptions

I. Account Registration

I. Register Account

Use Case ID:	#1-1		
Use Case Name:	RegisterAccount		
Created By:	Lam Yan Yee	Last Updated By:	Lam Yan Yee
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

Actor:	User
Description:	The user registers an account using an email / social media account
Preconditions:	The user must already have a valid email / social media account
Postconditions:	There will be a toast message indicating account registration was a success The user will also receive a confirmation email to check the validity of the email
Priority:	High
Frequency of Use:	High
Flow of Events:	<ol style="list-style-type: none">1. The user clicks on "Sign Up" on the initial landing page2. The user enters their email3. The user enters their desired password that meets the minimum security requirement4. The user successfully creates an account
Alternative Flows:	The User opts to sign up using their Social Media Credentials instead: <ol style="list-style-type: none">1. The user clicks on Google/Facebook

	2. The user links their Google/Facebook account 3. (continue to step 3 in the initial flow of events)
Exceptions:	<ul style="list-style-type: none"> • If the user provides an invalid email address, a toast message will appear and the user cannot proceed to register an account. • If the user's password does not meet the minimum security requirement, a toast message will appear and the user cannot proceed to register an account • If the user's Google/Facebook account is invalid, the Google/Facebook third-party API will prompt the user that the account is invalid and they cannot proceed to register an account
Includes:	<ul style="list-style-type: none"> • Login
Special Requirements:	The email address has to be valid and the password has to hit the minimum security criteria before the user can create an account
Assumptions:	The user has a pre-existing email OR The user has a pre-existing Google account OR The user has a pre-existing Facebook account
Notes and Issues:	None

II. Login/Logout

I. Login

Use Case ID:	#2-1		
Use Case Name:	Login		
Created By:	Lam Yan Yee	Last Updated By:	Lam Yan Yee
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

Actor:	User
Description:	The user logs in using an email / social media account
Preconditions:	The user has to have already created an account beforehand. The user is not logged in to the web application
Postconditions:	The user will log into the web application successfully and be redirected to the web application's home page
Priority:	High
Frequency of Use:	High
Flow of Events:	<ol style="list-style-type: none"> 1. The user arrives on the initial "Login to Your Account" landing page 2. The user keys in their email 3. The user keys in their password 4. The user arrives at the main home page of the web application
Alternative Flows:	<ol style="list-style-type: none"> 1. The User can click on the "Continue with Google" button and type in their Google Account details <p>OR</p> <ol style="list-style-type: none"> 1. The User can click on the "Continue with Facebook" button and type in their Facebook Account details 2. The User arrives at the main home page of the web application
Exceptions:	<ul style="list-style-type: none"> • In step 2, If the user provides an unregistered email address, a toast message will prompt the user to register an account and the user cannot proceed to log in • If the user's Google/Facebook account is unregistered, a new account will be registered and the user will be able to proceed and arrive at the home page of the web application.
Includes:	None
Special Requirements:	None
Assumptions:	The user has an existing account stored in the system's database
Notes and Issues:	None

II. Logout

Use Case ID:	#2-2		
Use Case Name:	Logout		
Created By:	Lam Yan Yee	Last Updated By:	Lam Yan Yee
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

Actor:	User
Description:	The user logs out of the web application
Preconditions:	The user is logged into the web application
Postconditions:	The user will successfully log out of the web application, and be redirected to the initial "Login to Your Account" landing page
Priority:	Medium
Frequency of Use:	Medium
Flow of Events:	<ol style="list-style-type: none">1. The user clicks on "Logout" at the bottom left of the NavBar2. The user is logged out of the web application and arrives at the Initial "Login to Your Account" landing page
Alternative Flows:	None
Exceptions:	None
Includes:	None
Special Requirements:	None
Assumptions:	None
Notes and Issues:	None

III. Contact Us

I. Contact Us

Use Case ID:	#3-1		
Use Case Name:	ContactUs		
Created By:	Dallas Ng Zhi Hao	Last Updated By:	Dallas Ng Zhi Hao
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

Actor:	User
Description:	The user can use this feature to send feedback to the web application developers and also find the developers' email address
Preconditions:	The user is logged into the web application.
Postconditions:	The user will be directed to a "Thank you for your feedback" page.
Priority:	Medium
Frequency of Use:	Medium
Flow of Events:	<ol style="list-style-type: none">1. The user clicks on "Contact Us" at the bottom left of the screen2. The system provides the admin's email address3. The user is able to email the admin regarding any inconveniences
Alternative Flows:	None
Exceptions:	None
Includes:	None
Special Requirements:	None
Assumptions:	None
Notes and Issues:	None

II. Providing General Feedback

Use Case ID:	#3-2		
Use Case Name:	Feedback		
Created By:	Jerwin Lee Chu Hao	Last Updated By:	Jerwin Lee Chu Hao
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

Actor:	User
Description:	The user can use this feature to send feedback to the web application developers and also find the developers' email address
Preconditions:	The user is logged into the web application.
Postconditions:	The user will be directed to a "Thank you for your feedback" page.
Priority:	Low
Frequency of Use:	Low
Flow of Events:	<ol style="list-style-type: none">1. The user clicks on "Contact Us" at the bottom left of the screen2. The user will be redirected to the feedback page3. The user answers "User Experience" related feedback questions4. The user answers "Test Quality" related feedback questions5. The user answers "Recommendation Accuracy" related feedback questions6. The user keys in any comments at the end7. Feedback will be sent out successfully
Alternative Flows:	None
Exceptions:	None
Includes:	None

Special Requirements:	None
Assumptions:	The user has feedback to provide
Notes and Issues:	None

IV. Activity

I. Activity

Use Case ID:	#4-1		
Use Case Name:	Activity		
Created By:	Dallas Ng Zhi Hao	Last Updated By:	Dallas Ng Zhi Hao
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

Actor:	User
Description:	The user can access their past activity via this feature
Preconditions:	The user is logged into the web application
Postconditions:	None
Priority:	Medium
Frequency of Use:	Medium
Flow of Events:	<ol style="list-style-type: none"> 1. The user clicks on "Activity" on the NavBar 2. The user is directed to the Activity page 3. The user can see their past test results/delete their past test results on this page
Alternative Flows:	None

Exceptions:	None
Includes:	None
Special Requirements:	None
Assumptions:	None
Notes and Issues:	None

II. View Past Test Results

Use Case ID:	#4-2		
Use Case Name:	ViewPastResults		
Created By:	Jerwin Lee Chu Hao	Last Updated By:	Jerwin Lee Chu Hao
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

Actor:	User
Description:	The user can view their past test results using this feature
Preconditions:	The user must be logged in to the web application.
Postconditions:	None
Priority:	Medium
Frequency of Use:	Medium
Flow of Events:	<ol style="list-style-type: none"> 1. The user clicks on “Activity” on the nav bar on the left-hand side of the screen 2. The user will be redirected to the Activity page 3. The user can view their past test results on that page
Alternative Flows:	None
Exceptions:	If the user has not done a test before, the page will be empty

Includes:	None
Special Requirements:	None
Assumptions:	None
Notes and Issues:	None

III. Delete Past Test Results

Use Case ID:	#4-3		
Use Case Name:	DeletePastResults		
Created By:	Jerwin Lee Chu Hao	Last Updated By:	Jerwin Lee Chu Hao
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

Actor:	User
Description:	The user can delete their past test results using this feature
Preconditions:	The user must be logged in to the web application
Postconditions:	The result that the user have deleted will not be present in the future
Priority:	Low
Frequency of Use:	Medium
Flow of Events:	<ol style="list-style-type: none"> 1. The user clicks on "Activity" on the NavBar 2. The user clicks on the trashcan icon on the top right of the past test result 3. A toast message "Are you sure?" will appear, 4. The user clicks on "Delete Quiz" 5. The selected past test result will be deleted 6. The user will be redirected to the "Activity" page
Alternative Flows:	In step 3, if the user decides they do not want to delete their account:

	<ol style="list-style-type: none"> 1. Continuing from step 3, The user will click on the “X” on the top right of the toast message 2. The user will be redirected to the “Activity” page without any changes to past test results
Exceptions:	None
Includes:	None
Special Requirements:	The user must have taken a test before to access this feature.
Assumptions:	The user has taken a test before.
Notes and Issues:	None

V. Taketest

I. Undertaking of the Test

Use Case ID:	#5-1		
Use Case Name:	TakeTest		
Created By:	Malcolm Fong Cheng Hong	Last Updated By:	Malcolm Fong Cheng Hong
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

Actor:	User
Description:	The user uses the Situational Test which is the main feature of our web application.
Preconditions:	The user must be logged in to the web application.
Postconditions:	The user will be shown a list of Likert Scale questions to answer. Upon Completion, they will be redirected to the results page.
Priority:	High

Frequency of Use:	High
Flow of Events:	<ol style="list-style-type: none"> 1. The user clicks on “Take a Test” on the left-hand side of the screen, 2. The user will be redirected to the test page where they can answer the Likert Scale questions 3. The user will be redirected to the results page, which shows them their recommended courses and the industry sectors they are likely suited for
Alternative Flows:	<p>If the user is taking the test for the first time, they will be able to take the test directly from the dashboard that they are directed to upon logging in for the first time:</p> <ol style="list-style-type: none"> 1. The user logs in for the first time 2. The user is directed to the Dashboard page 3. The user clicks on “Let’s Start” 4. The user needs to input their Academic Results 5. The user needs to choose their Academic Interest 6. Then the user will be able to take the test
Exceptions:	None
Includes:	None
Special Requirements:	<p>If the user is taking the test for the first time:</p> <p>They need to fill in their academic performance + academic interests.</p>
Assumptions:	None
Notes and Issues:	The user will be notified that they can change their Academic Results and Academic Interests in the settings.

VI. Dashboard

I. Dashboard

Use Case ID:	#6-1
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Use Case Name:	Dashboard		
Created By:	Jerwin Lee Chu Hao	Last Updated By:	Jerwin Lee Chu Hao
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

Actor:	User
Description:	Dashboard
Preconditions:	The user must be logged in to the web application
Postconditions:	None
Priority:	High
Frequency of Use:	Medium
Flow of Events:	<p>The user can select the following few options:</p> <ol style="list-style-type: none"> 1. Recommended courses will be shown once the user has entered the “Dashboard” page 2. If the user clicks on the filter icon, the user will then choose which polytechnic to filter out what course that specific polytechnic offers 3. The user can also bookmark the recommended courses that they like by pressing the bookmark icon on the top right of the recommended course
Alternative Flows:	<ol style="list-style-type: none"> 1. By Default, The first time the user logs into the web application, they will arrive at the dashboard 2. Also, They will be able to Take a Test from the Dashboard as a First-time user
Exceptions:	If the user has not taken any test, no recommended course will be shown on the “Dashboard”
Includes:	None
Special Requirements:	None
Assumptions:	The user has already taken a test

Notes and Issues:	None
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II. Filter Course

Use Case ID:	#6-2		
Use Case Name:	FilterCourse		
Created By:	Jerwin Lee Chu Hao	Last Updated By:	Jerwin Lee Chu Hao
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

Actor:	User
Description:	FilterCourse
Preconditions:	The user must be logged in to the web application
Postconditions:	The system will filter accordingly to the polytechnic of the user's choice
Priority:	High
Frequency of Use:	Medium
Flow of Events:	<ol style="list-style-type: none"> 1. The user clicks on the filter icon, the user will then choose which polytechnic to filter out what course that specific polytechnic offers 2. The user will be able to see the recommended courses according to the filter
Alternative Flows:	None
Exceptions:	None
Includes:	None
Special Requirements:	The user must have taken a test before accessing this feature
Assumptions:	The user wants to filter the courses by polytechnics

Notes and Issues:	None
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III. Bookmark Courses

Use Case ID:	#6-3		
Use Case Name:	BookmarkCourses		
Created By:	Jerwin Lee Chu Hao	Last Updated By:	Jerwin Lee Chu Hao
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

Actor:	User
Description:	The user can bookmark courses that they are interested in
Preconditions:	The user must be logged in to the web application
Postconditions:	None
Priority:	High
Frequency of Use:	Medium
Flow of Events:	<ol style="list-style-type: none"> 1. The user clicks on "Dashboard" on the NavBar 2. Once on the "DashBoard" page, the user can see the recommended course that the system has suggested 3. Then, the user can bookmark a course by pressing the bookmark icon on the top right of the recommended course
Alternative Flows:	None
Exceptions:	If the user does not do any test, no recommended course will appear and the user will not be able to bookmark it.
Includes:	None
Special Requirements:	The user must have taken a test before, to access this feature.

Assumptions:	None
Notes and Issues:	None

VII. Bookmarks

Use Case ID:	#7-1		
Use Case Name:	Bookmarks		
Created By:	Dallas Ng Zhi Hao	Last Updated By:	Dallas Ng Zhi Hao
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

Actor:	User
Description:	The user's saved recommended courses will appear here
Preconditions:	The user is logged into the web application
Postconditions:	None
Priority:	High
Frequency of Use:	Medium
Flow of Events:	<ol style="list-style-type: none"> 1. The user clicks on "Bookmarks" on the nav bar 2. The user is directed to the Bookmarks page 3. The user can access the courses that they have bookmarked
Alternative Flows:	None
Exceptions:	None
Includes:	None
Special Requirements:	None
Assumptions:	None

Notes and Issues:	None
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VIII. Settings

I. Settings

Use Case ID:	#8-1		
Use Case Name:	Settings		
Created By:	Yeo, Ruizhi Carwyn	Last Updated By:	Yeo, Ruizhi Carwyn
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

Actor:	User
Description:	The user can either delete their account, change their particulars (Profile Pic & Password), or update their Academic Results and Interests.
Preconditions:	The user has to be logged into the web application.
Postconditions:	The user can choose to delete their account, change personal particulars, or change Academic Results and Interest.
Priority:	High
Frequency of Use:	Low
Flow of Events:	<ol style="list-style-type: none"> 1. The user clicks on "Settings" on the sidebar on the right-hand side of the screen 2. If the user clicks on " Deletion of Account", the user can delete their account 3. If the user clicks on "Personal Info", the user can change their password or profile picture

	4. If the user clicks on “Academic Results and Interest”, the user can edit their Academic result or Interest
Alternative Flows:	None
Exceptions:	None
Includes:	None
Special Requirements:	None
Assumptions:	None
Notes and Issues:	None

II. Deletion of Account

Use Case ID:	#8-2		
Use Case Name:	AccountDeletion		
Created By:	Yeo, Ruizhi Carwyn	Last Updated By:	Yeo, Ruizhi Carwyn
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

Actor:	User
Description:	The user will be able to delete their account via this option.
Preconditions:	The user has to be logged in to the web application.
Postconditions:	The user's account information will be erased and returned to the initial log-in page.
Priority:	Medium
Frequency of Use:	Low
Flow of Events:	1. The user clicks on “Settings”

	<ol style="list-style-type: none"> The user clicks "Delete Account" A toast message will ask the user "Are you sure?" The user clicks "Delete Account" The user's information is erased from the system The system returns the user to the initial starting log-in page
Alternative Flows:	<p>In step 4, if the user does not want to delete their account:</p> <ol style="list-style-type: none"> The user will click on the "X" on the top right of the toast message The system will redirect the user back to the settings page without the user account being deleted
Exceptions:	None
Includes:	None
Special Requirements:	None
Assumptions:	None
Notes and Issues:	None

III. Change Password

Use Case ID:	#8-3		
Use Case Name:	ChangePassword		
Created By:	Yeo, Ruizhi Carwyn	Last Updated By:	Yeo, Ruizhi Carwyn
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

Actor:	User
Description:	The user can change their password using this feature.
Preconditions:	The user has to be logged in to the web application.
Postconditions:	The user's password will be updated to the new password the user has just set.

Priority:	High
Frequency of Use:	Low
Flow of Events:	<ol style="list-style-type: none"> 1. The user clicks on “Settings” 2. The user clicks on “Personal info” 3. The user clicks on ‘Change password” 4. The user inputs a valid new password 5. A toast message will appear “Password has been changed successfully” 6. The user will be redirected to the “Settings” page
Alternative Flows:	None
Exceptions:	If the user types in a password that does not meet the password requirements, it will prompt the user to enter another password
Includes:	None
Special Requirements:	The password keyed in has to meet the minimum security requirement of 8 characters, consisting of 1 uppercase letter, 1 lowercase letter, and 1 symbol
Assumptions:	None
Notes and Issues:	None

IV. Input of Academic Performances (Subjects & Grades)

Use Case ID:	#8-4		
Use Case Name:	ChangeAcademicResults		
Created By:	Malcolm Fong Cheng Hong	Last Updated By:	Malcolm Fong Cheng Hong
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

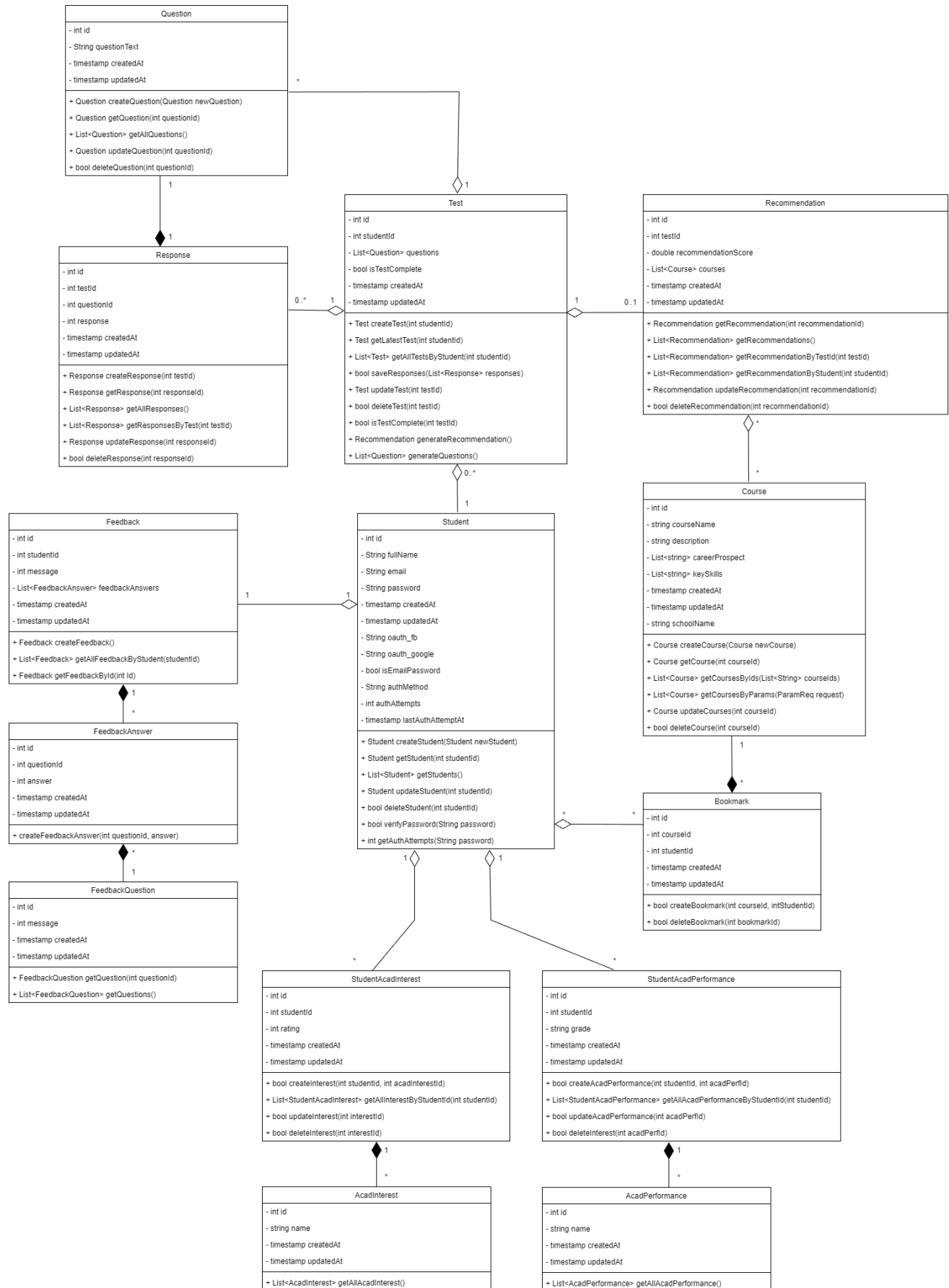
Actor:	User
Description:	The user will input their new academic grades into the system
Preconditions:	The user must be logged into the web application.
Postconditions:	None
Priority:	High
Frequency of Use:	Low
Flow of Events:	<ol style="list-style-type: none"> 1. The user clicks on “Change Academic Results and Interest” 2. The user will then update respective grades for the subjects that the user has scored differently.
Alternative Flows:	None
Exceptions:	At step 2, If the user keys in a grade that is not valid i.e. (Not A1 - F9), then there will be a toast error message prompting the user to enter a letter grade (A1 - F9).
Includes:	None
Special Requirements:	None
Assumptions:	The user is a student and going to take ‘O’ levels.
Notes and Issues:	None

V. Input of Academic Interests

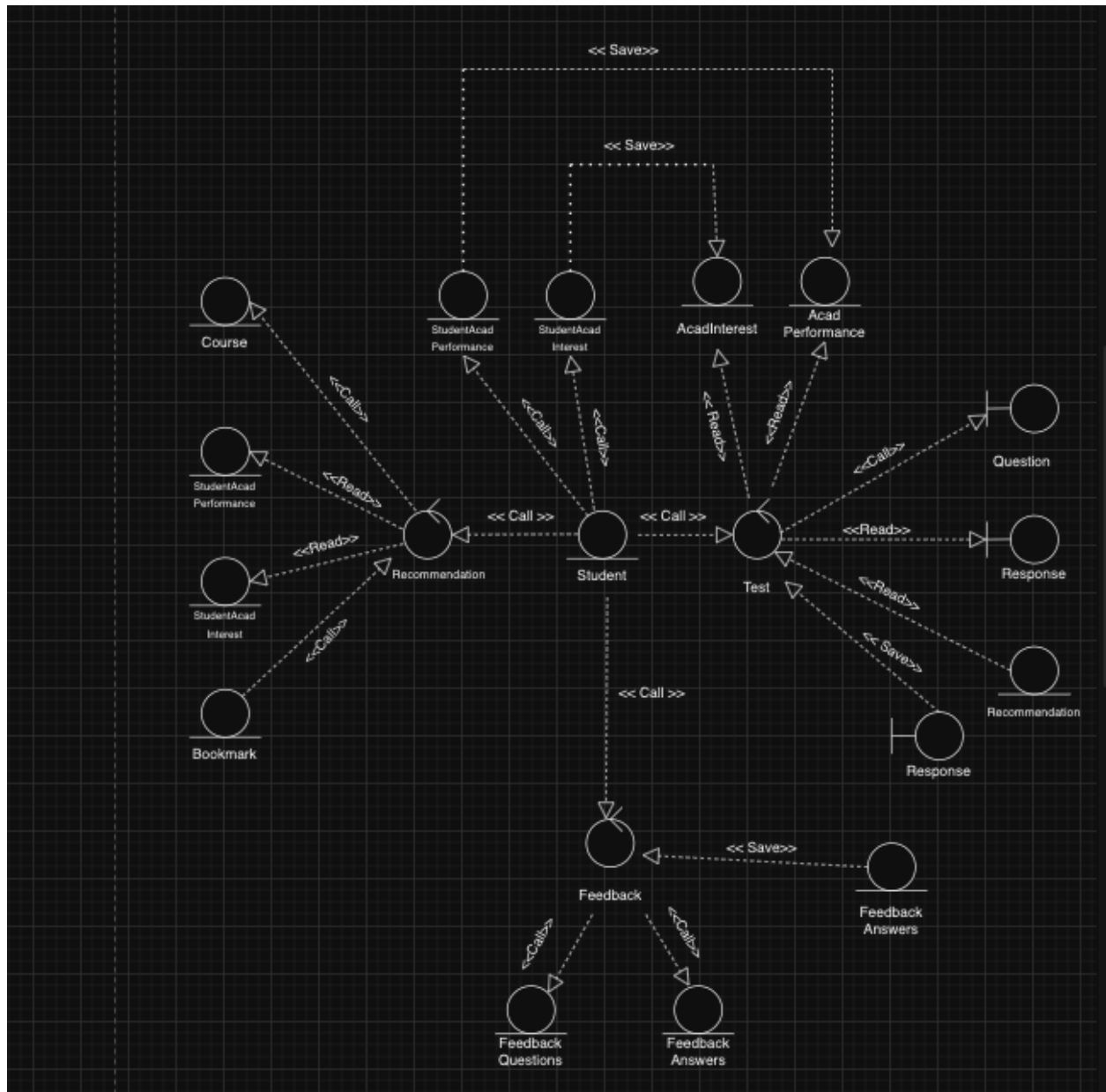
Use Case ID:	#8-5		
Use Case Name:	AcademicInterests		
Created By:	Malcolm Fong Cheng Hong	Last Updated By:	Malcolm Fong Cheng Hong
Date Created:	9th September 2024	Date Last Updated:	9th September 2024

Actor:	User
Description:	The user will input their academic interests into the system.
Preconditions:	The user must be logged in to the web application.
Postconditions:	The system will save their academic interests in the database.
Priority:	High
Frequency of Use:	Low
Flow of Events:	1. The user will choose their academic interests by clicking on the academic subjects they resonate strongly with
Alternative Flows:	None
Exceptions:	None
Includes:	None
Special Requirements:	None
Assumptions:	None
Notes and Issues:	None

2. Class Diagram of Entity Class

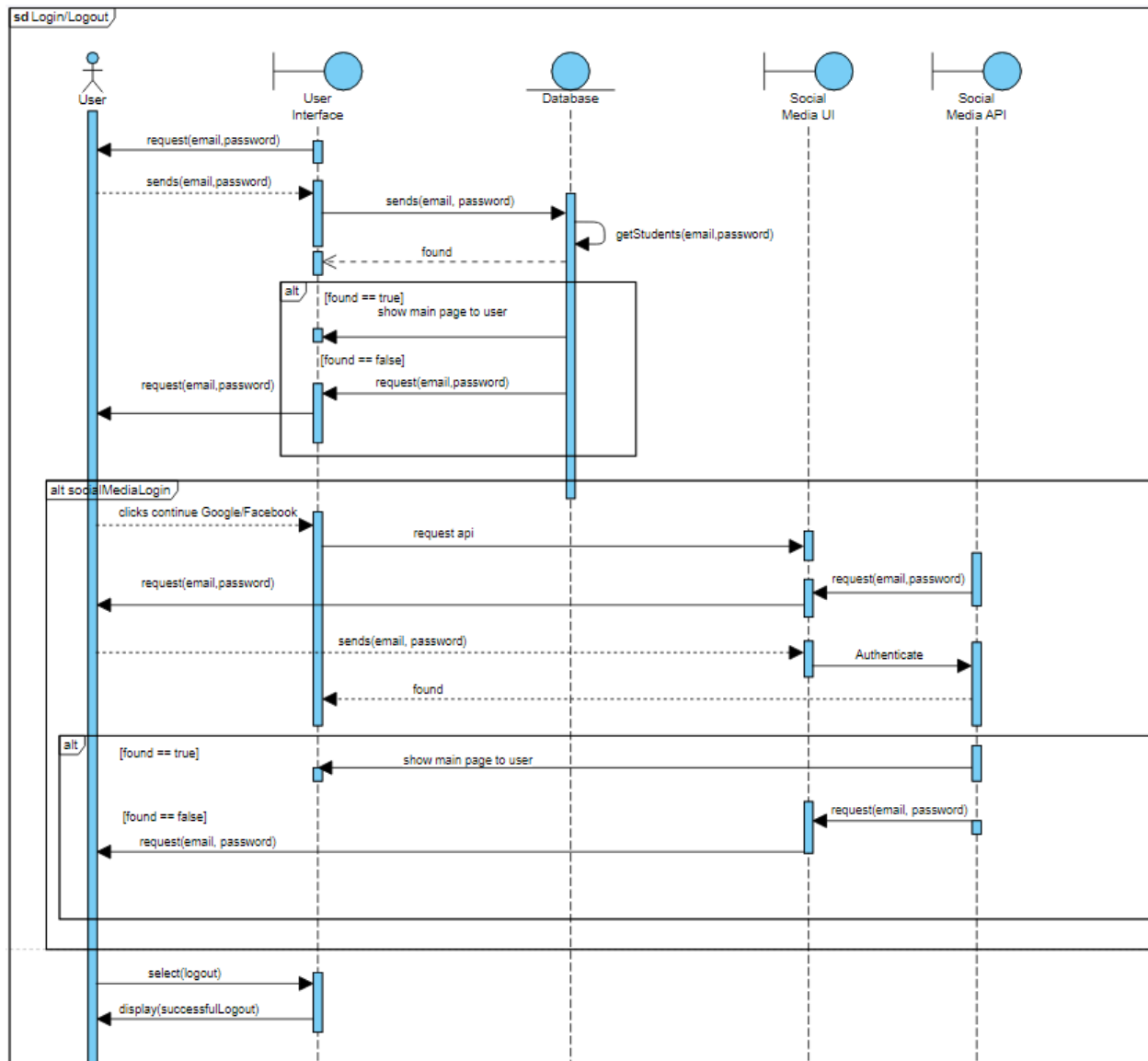


3. Key Boundary Classes and Control Classes

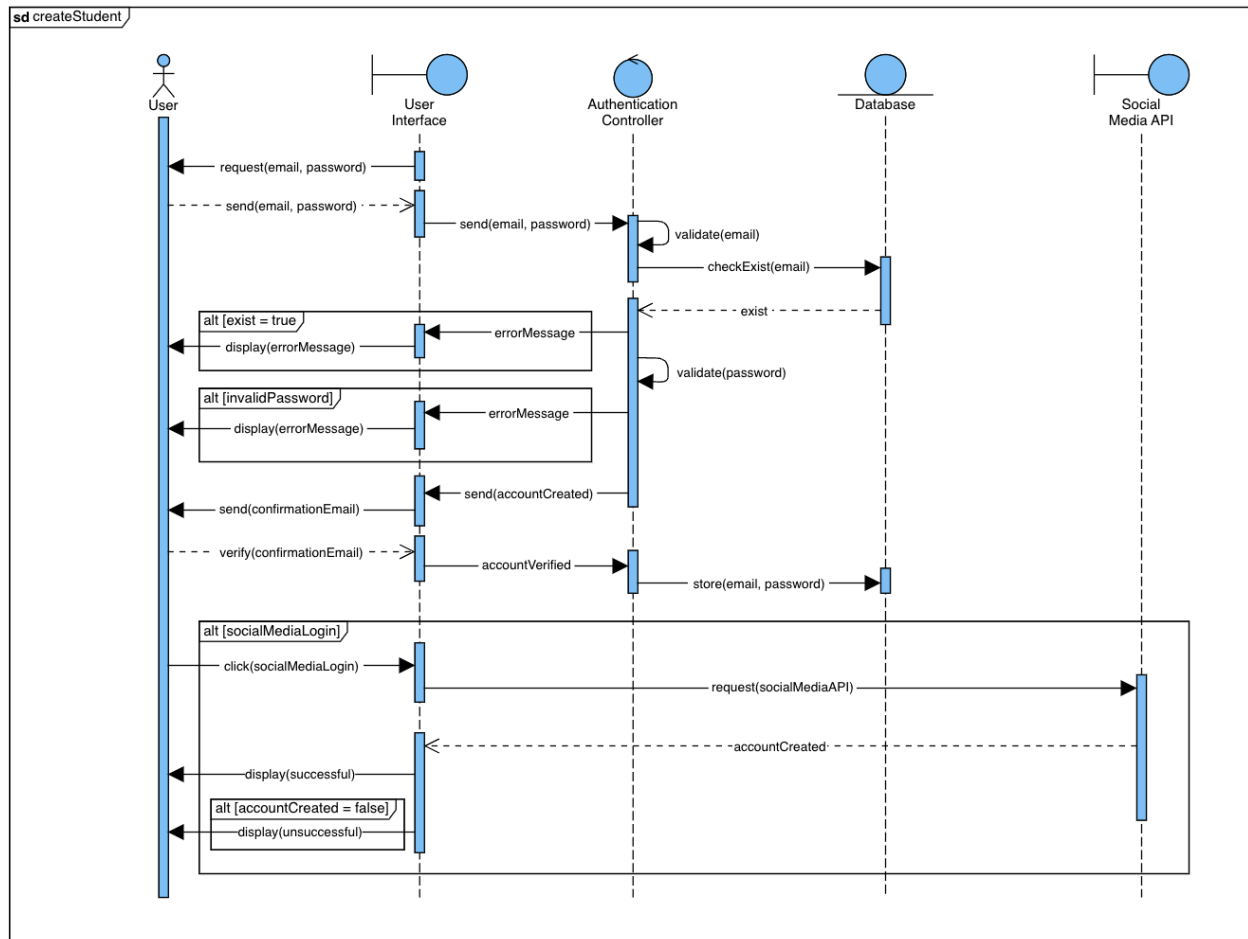


4. Sequence Diagrams of Use Cases

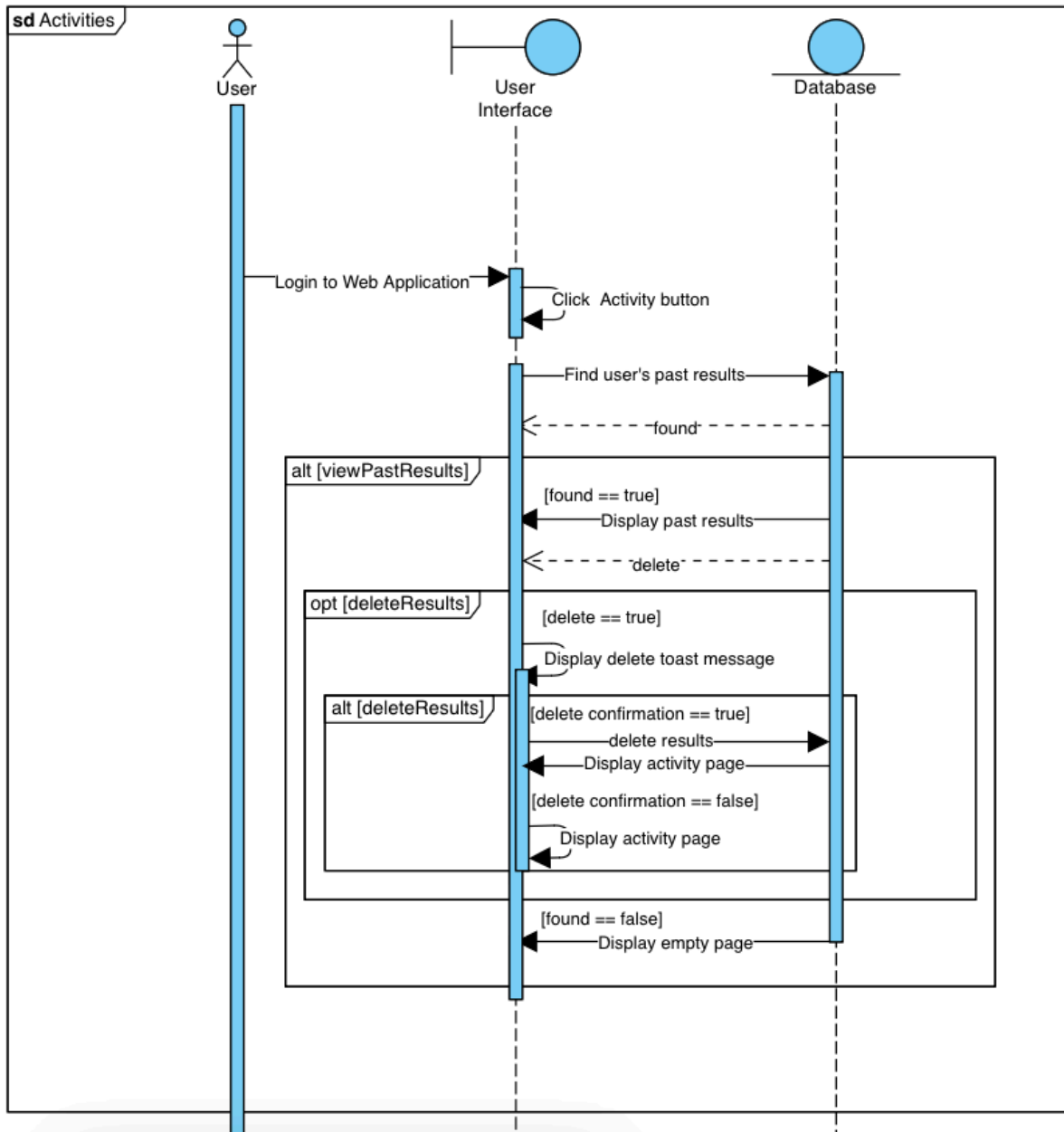
4.1. Login/Logout



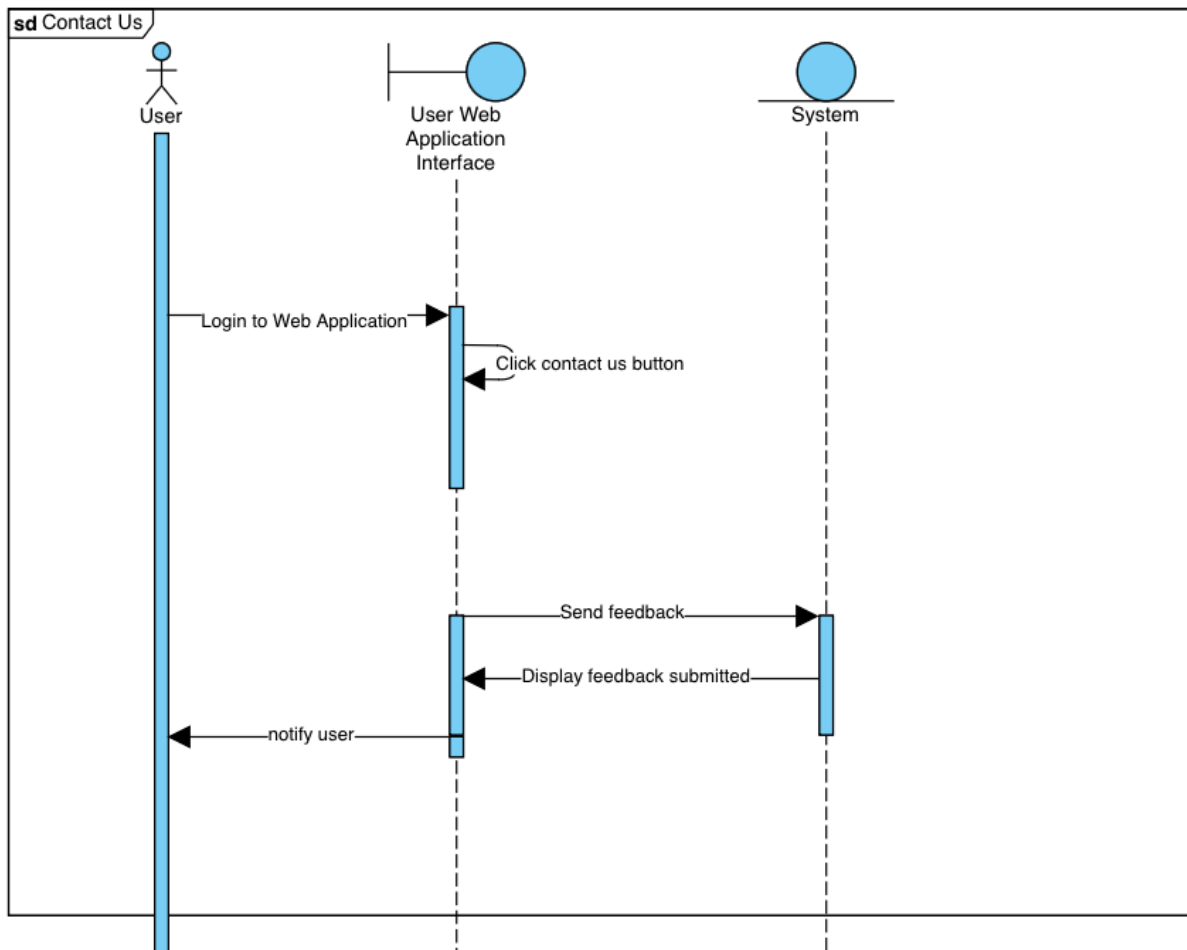
4.2. Account Registration



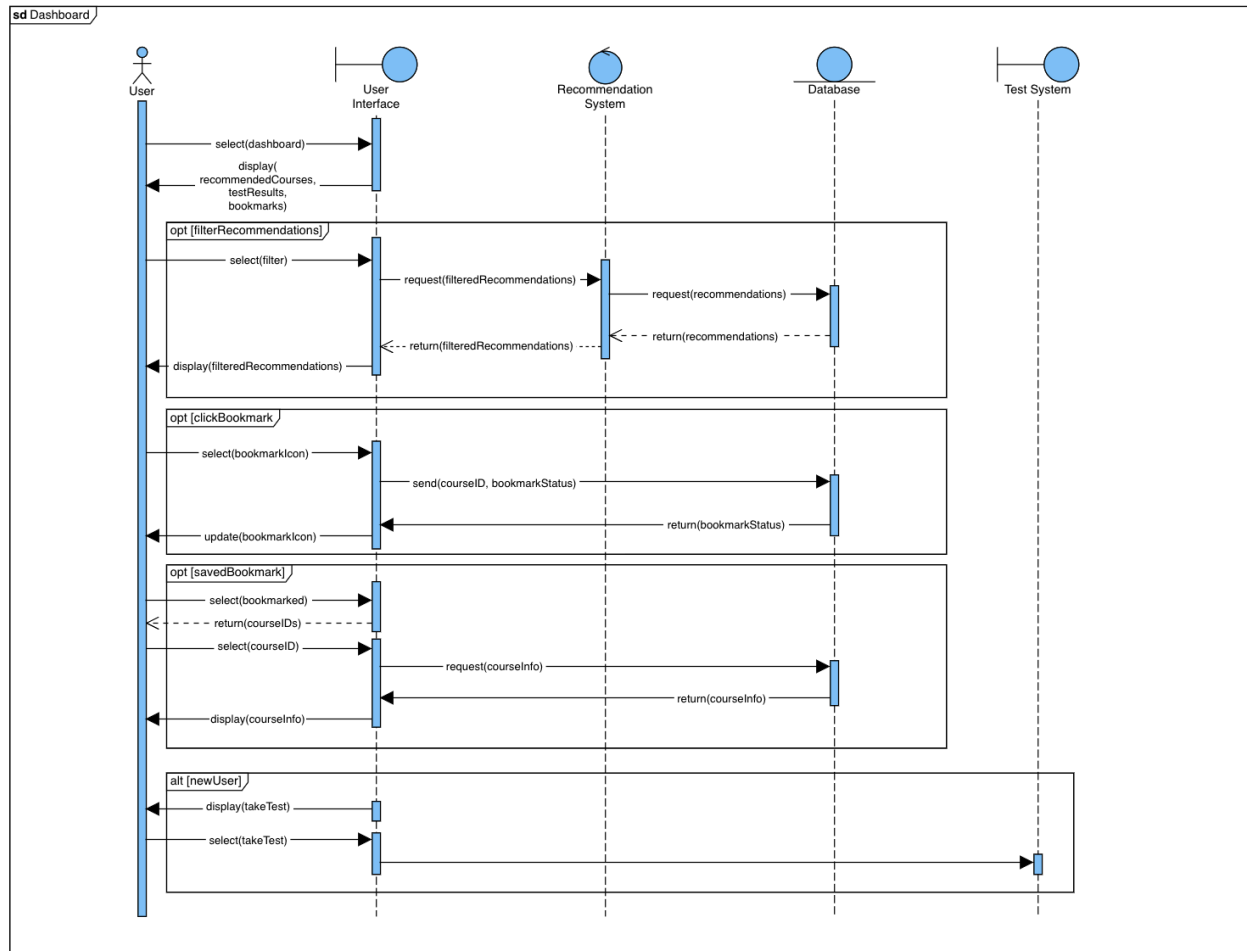
4.3. Activities



4.4. Contact Us

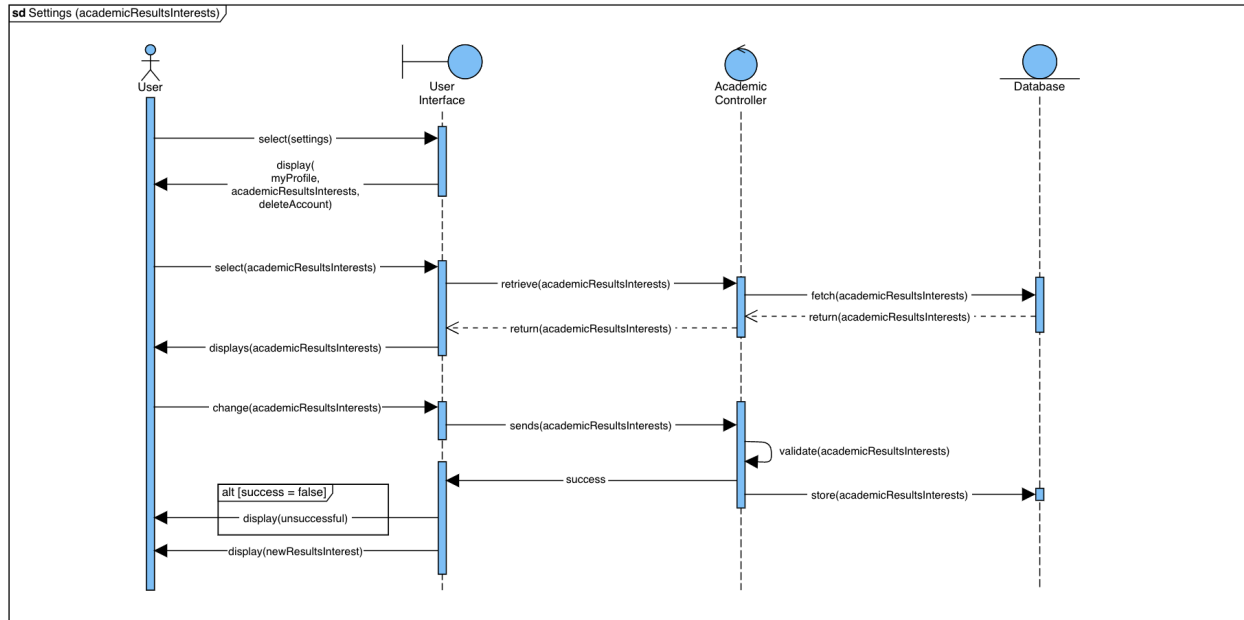


4.5. Dashboard

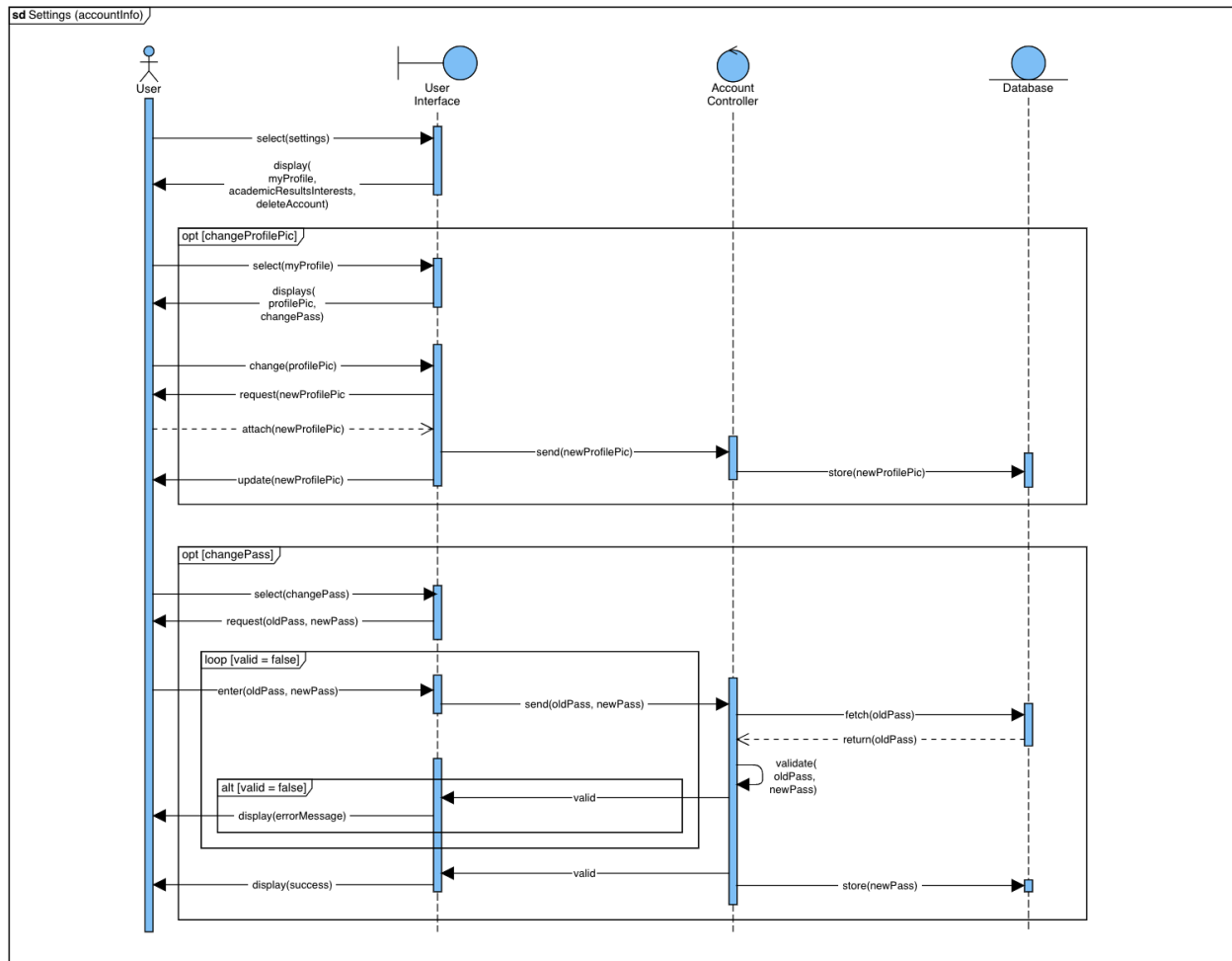


4.6. Settings

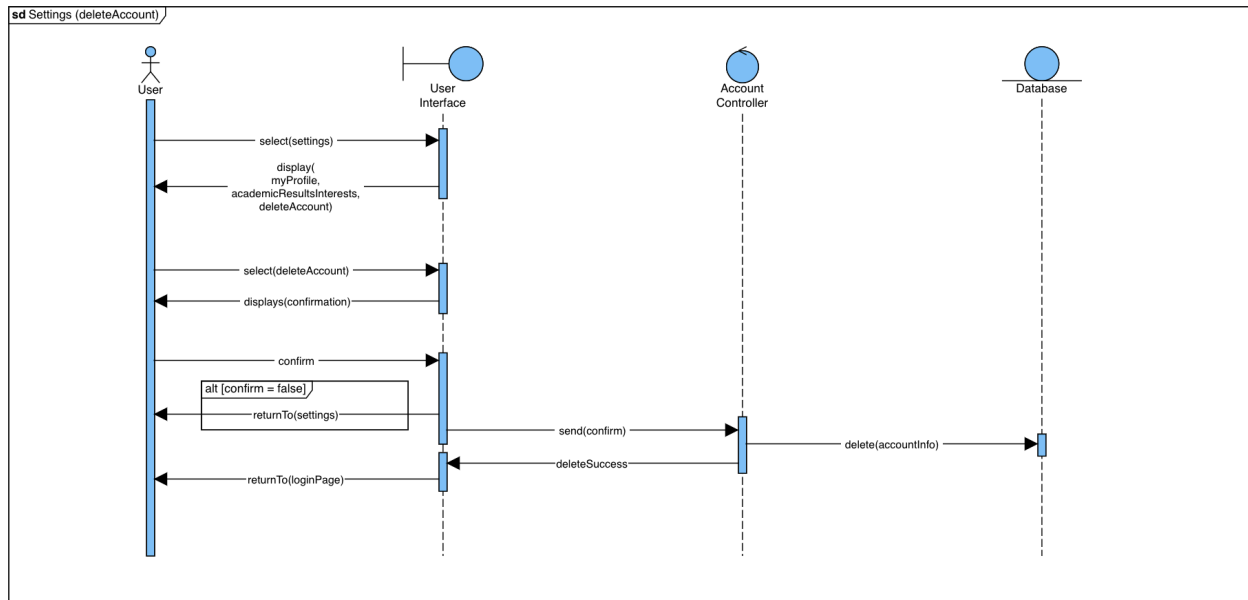
4.6.1. Academic Results & Interests



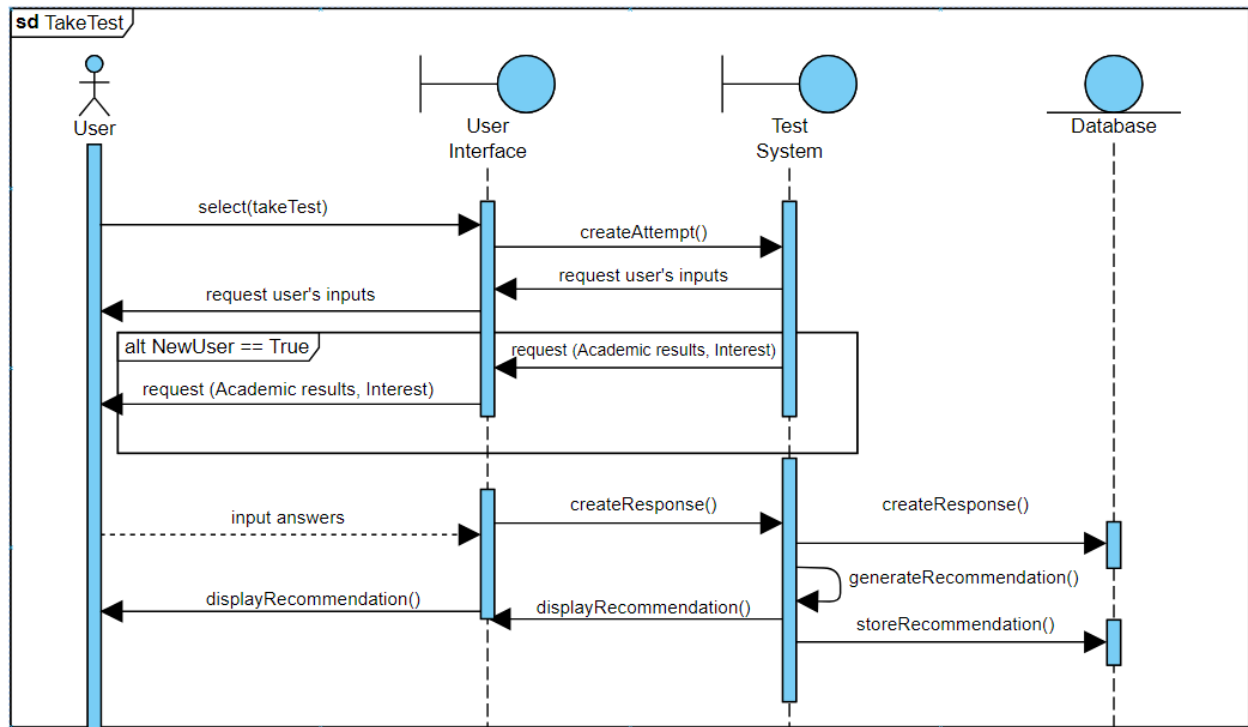
4.6.2. Account Information



4.6.3. Delete Account



4.7. Take Test



5. Initial Dialog Map

