

**University of Roehampton**

# **Software Engineering**



**Sprint2**

**Cyber Security - 2025**

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# Introduction

## Purpose

This report highlights the progress made in our Project, "United Scholars – Study Buddies Web Application." This sprint aims to gather the initial requirements and ensure the specifications are prepared for Sprint 3.



## Deliverables

This Project uses a 'scrum' project management methodology. This means that our group works as a team to deliver the Project iteratively. The following details are deliverables for this sprint 2:

- Features for this application are defined as user stories
- Use case diagram
- Wireframes
- Activity Diagrams
- Other artefacts, such as sequence diagrams or ERD
- Class Diagram
- Design and Colour Scheme

## User Account

- As a new user, I want to sign up for an account by providing my email, password, interests, hobbies, academic information, and available time frames to match suitable study buddies based on shared interests and compatible schedules.
- As a user, I want to update my profile to add or change my interests, courses, and free time windows to keep my buddy suggestions relevant and accurate.
- As a user, I want to delete my profile if I no longer wish to use the app, ensuring my information is removed from the platform.

## Event Scheduling

- As a user, I want to view a calendar of study events to choose which one to join based on my schedule and study needs.
- As a user, I want to join an event directly from the calendar to effectively schedule my study sessions with others.
- As a user, I want to see who else is attending the events to identify potential study partners and prepare for collaborative sessions.
- As a user, I want to connect with other attendees from the event page to discuss and coordinate study topics or sessions beforehand.
- As a user, I want to create study events in the app to invite others to join study sessions.

- As a user, I want to update the details of an event I created in case there are changes in timing, location, or other important aspects.

## Messaging System & Searching

- As a user, I want to search for study buddies based on criteria like interests, study modules, and availability to find the most compatible partners for my study sessions.
- As a user, I want to send messages to my study buddies within the app to discuss study topics, arrange meet-ups, or share quick updates easily.
- As a user, I want to receive messages from other users within the app to stay connected and responsive to my study group's needs.

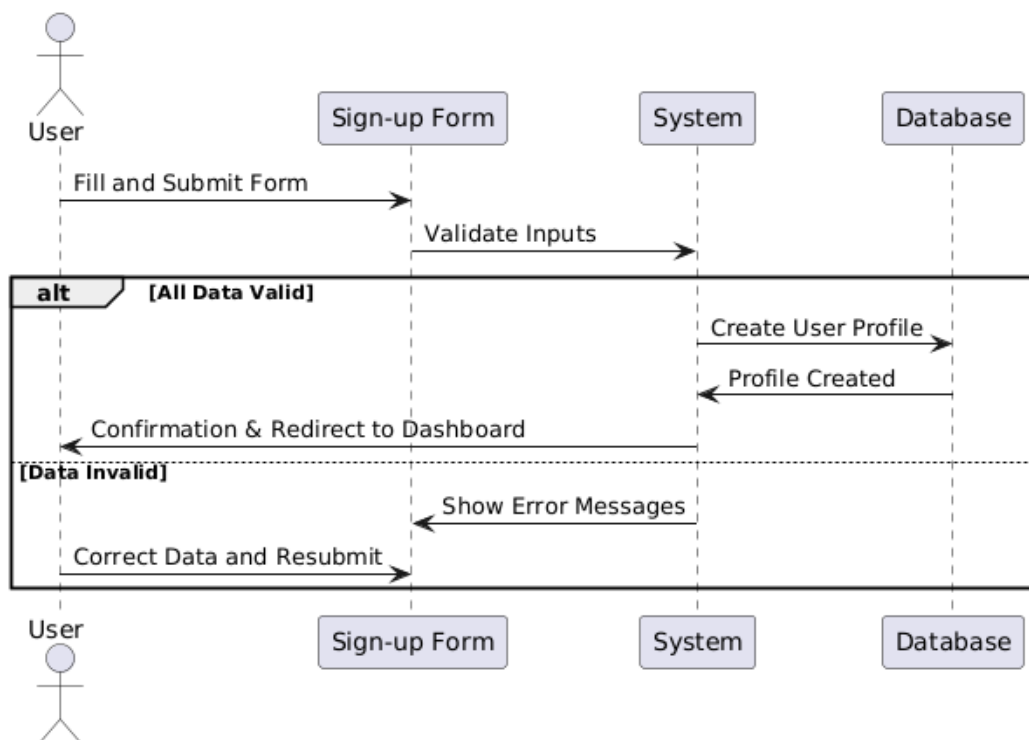
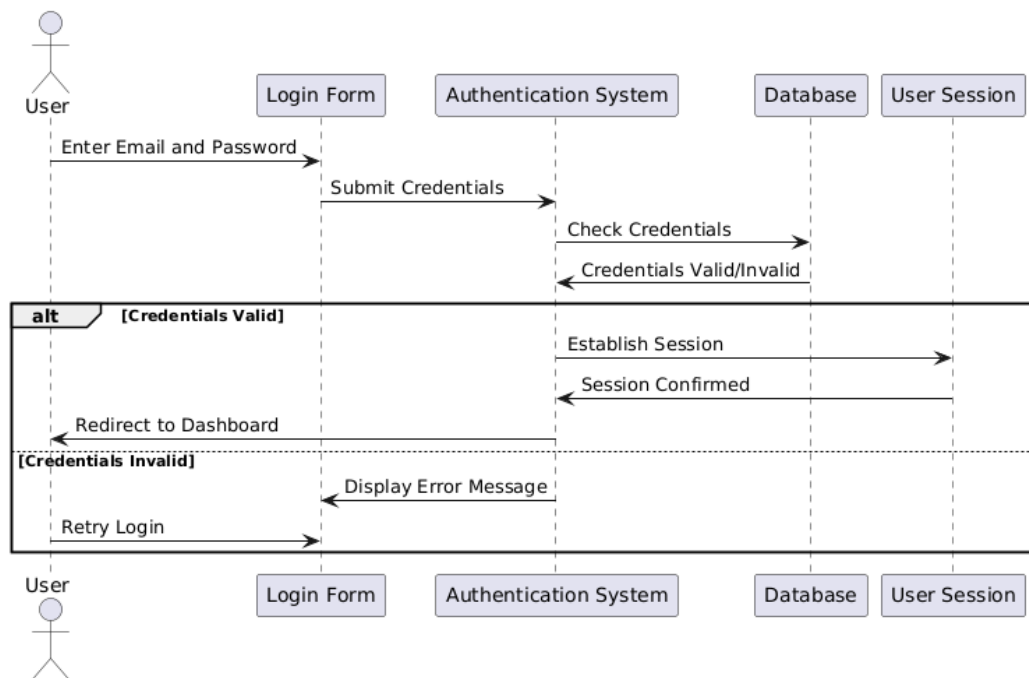
## Personal Dashboard

- As a user, I want a dashboard that shows a countdown to my upcoming events and a to-do list to manage my study schedule efficiently.
- As a user, I want to receive notifications about new study events, messages, and buddy suggestions to stay informed about relevant activities and opportunities.
- As a user, I want to easily navigate through the app's features, such as calendar, messaging, and buddy search, so I can use the app more effectively without needing assistance.

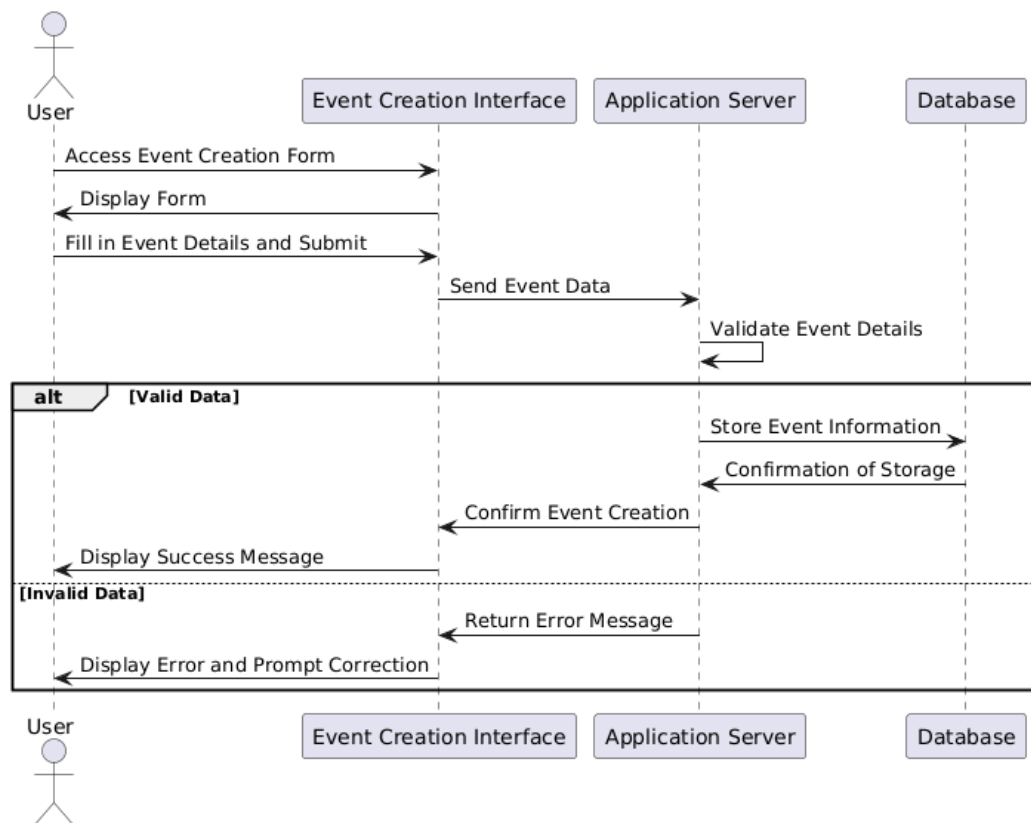
# Sequence Diagrams

5

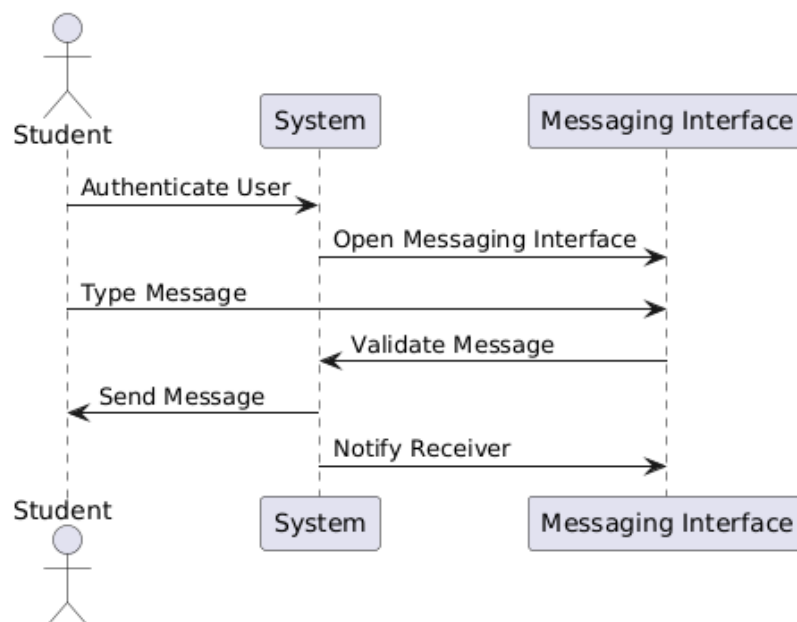
## User Account



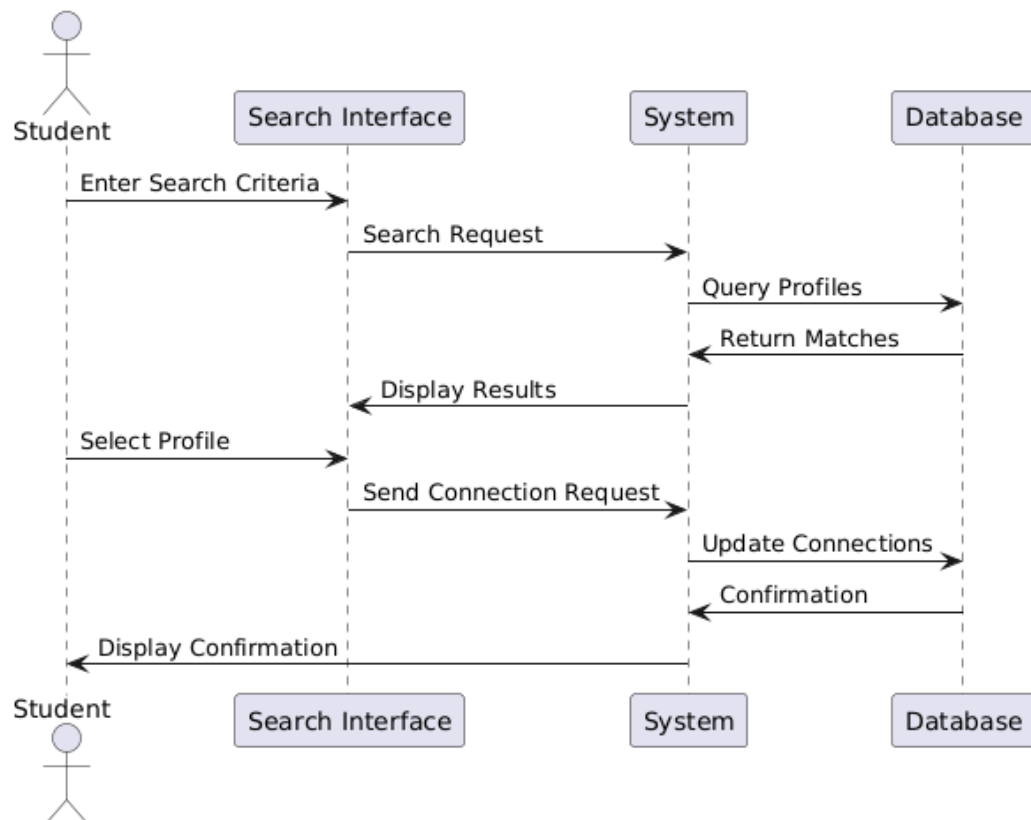
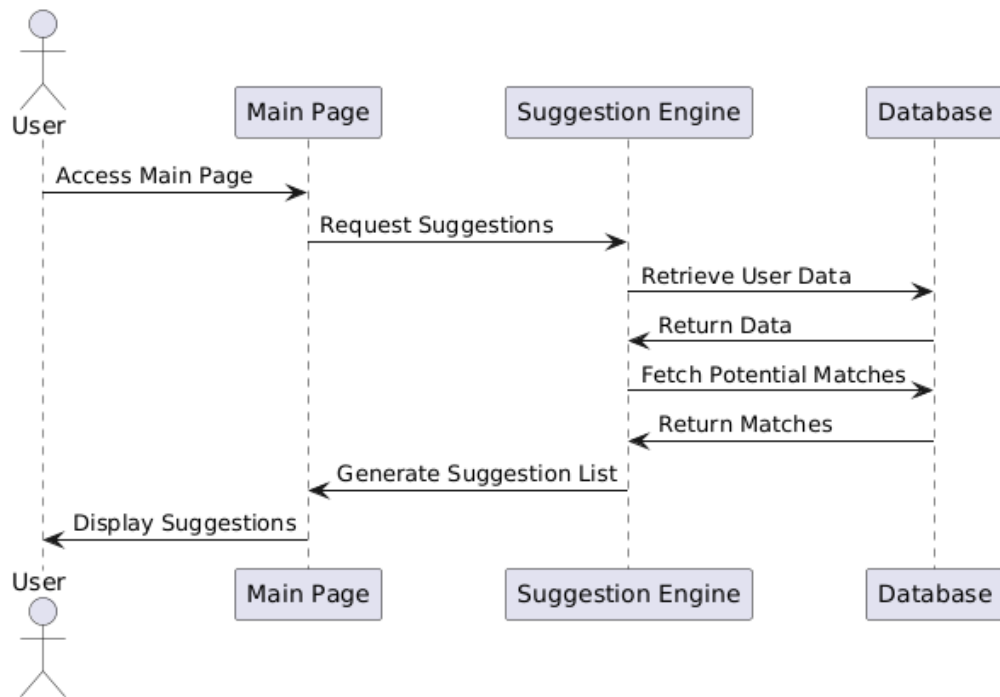
## Event Scheduling



## Messaging and Communication

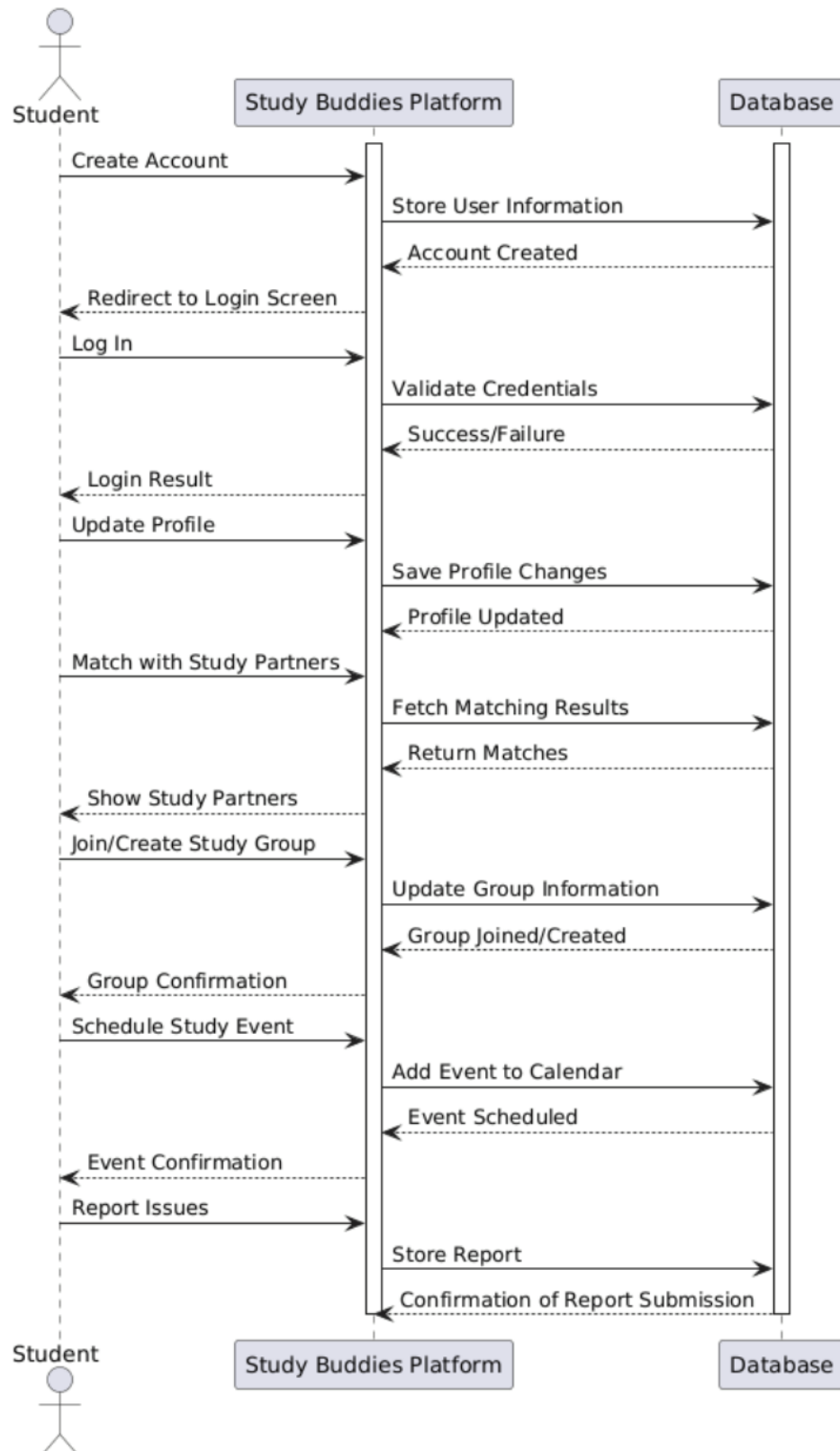


## Others

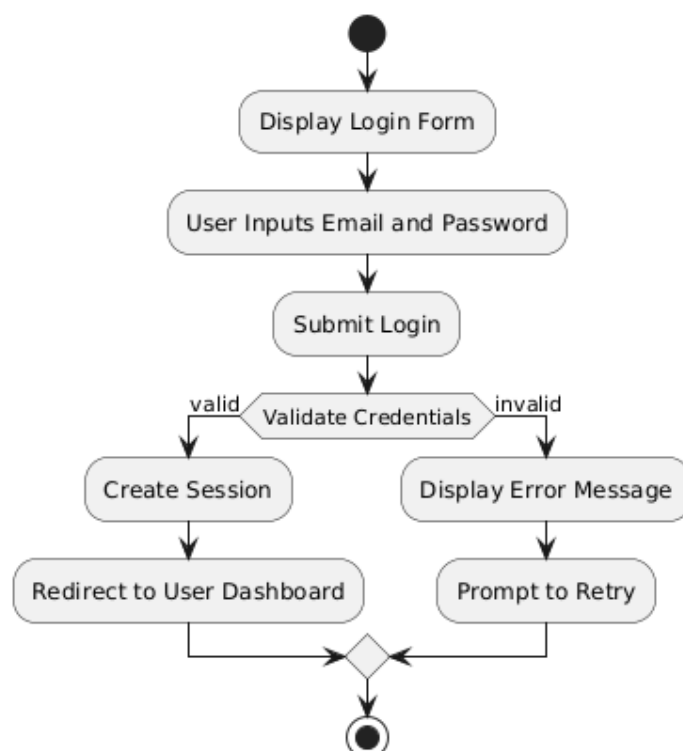
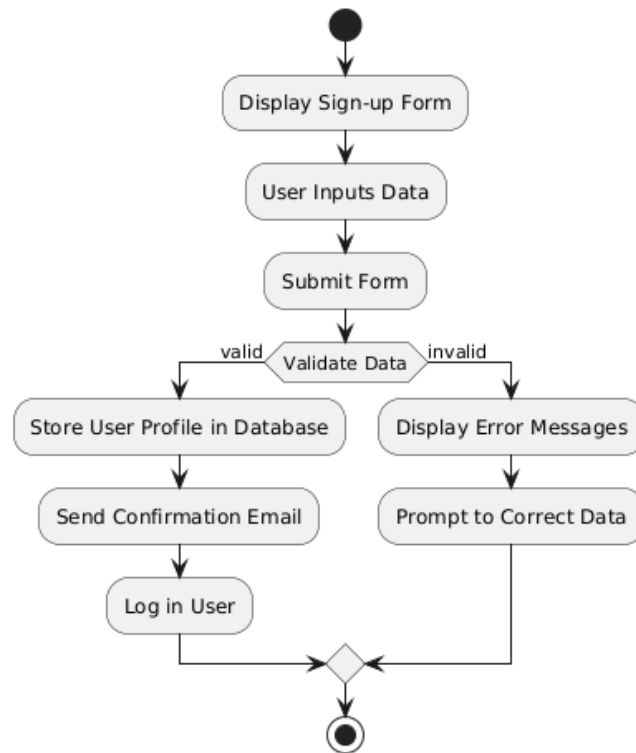




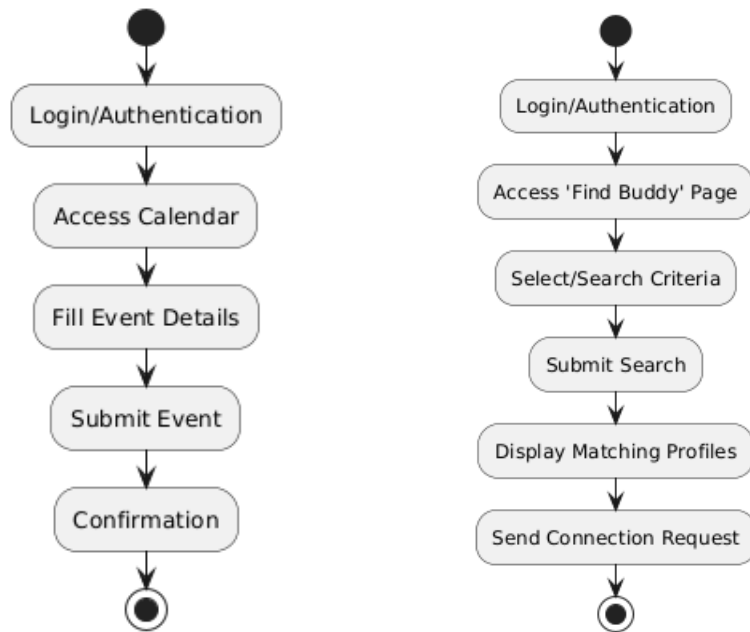
## Overall



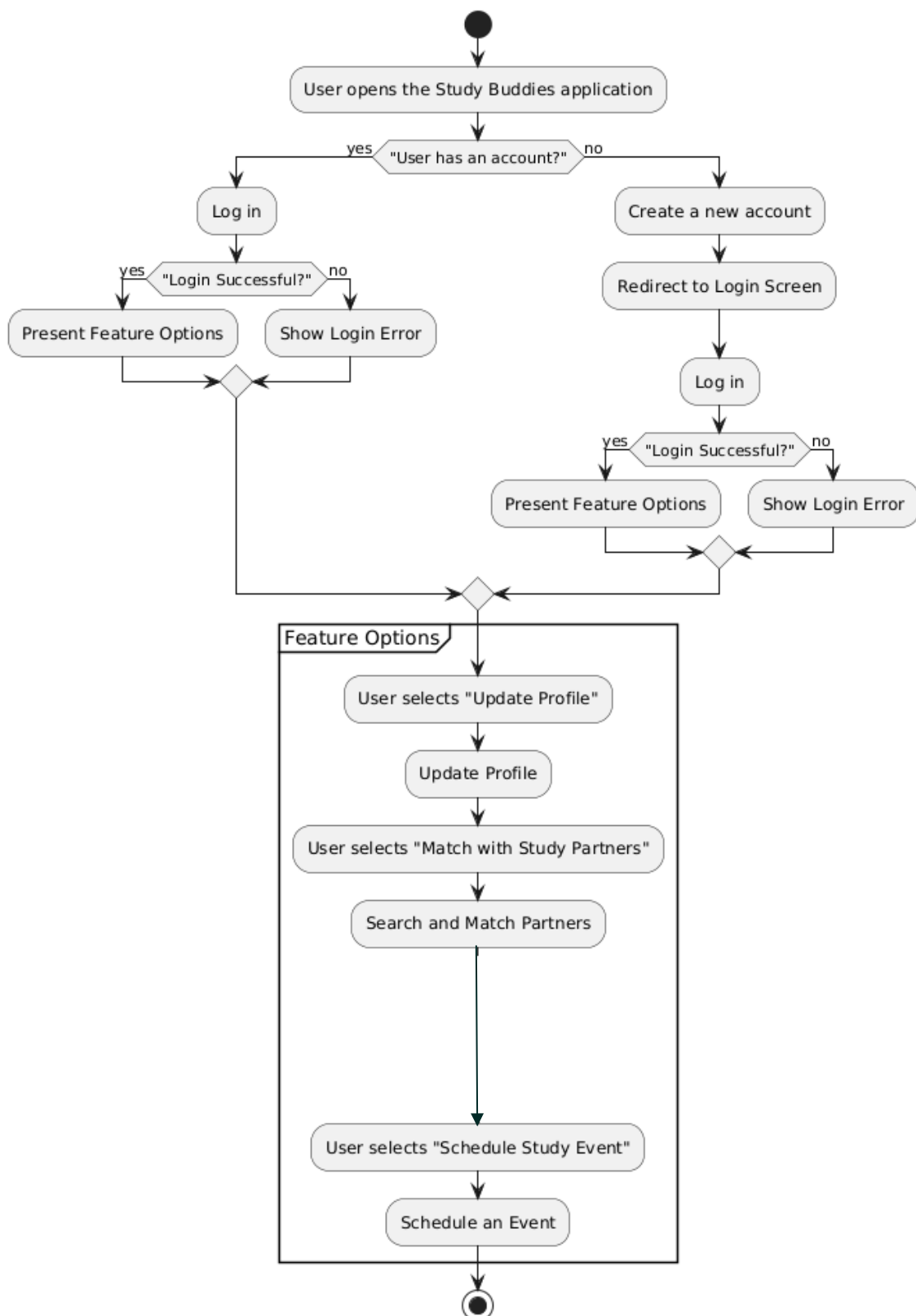
## User Account



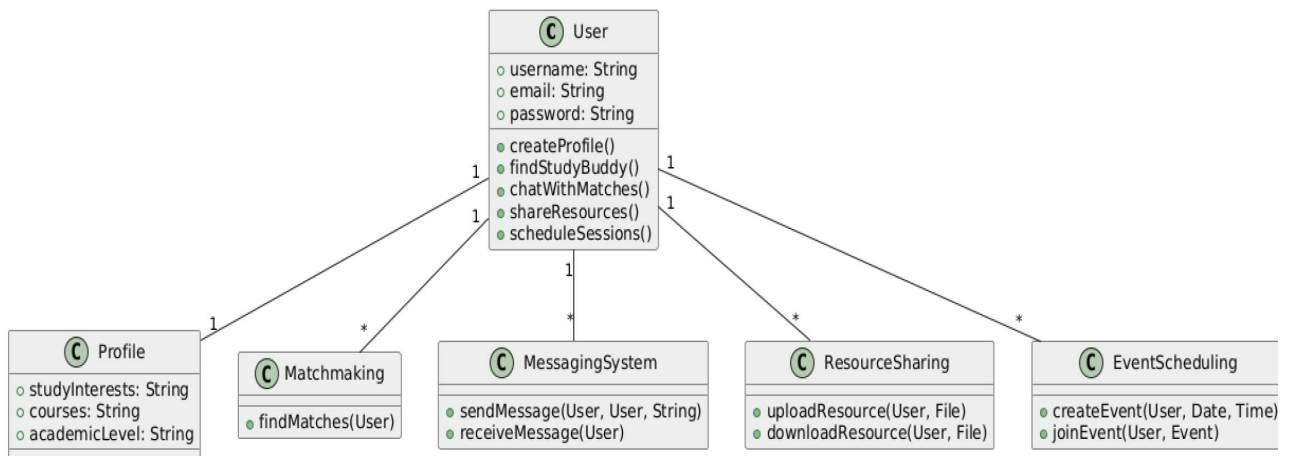
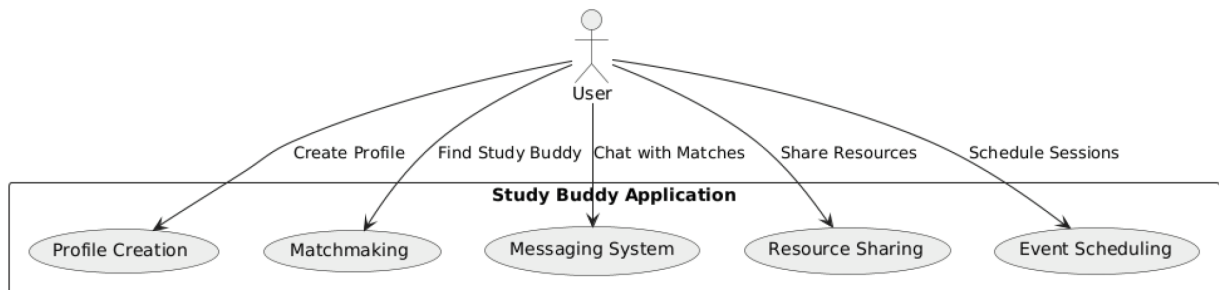
## Event Scheduling and Search



## Overall



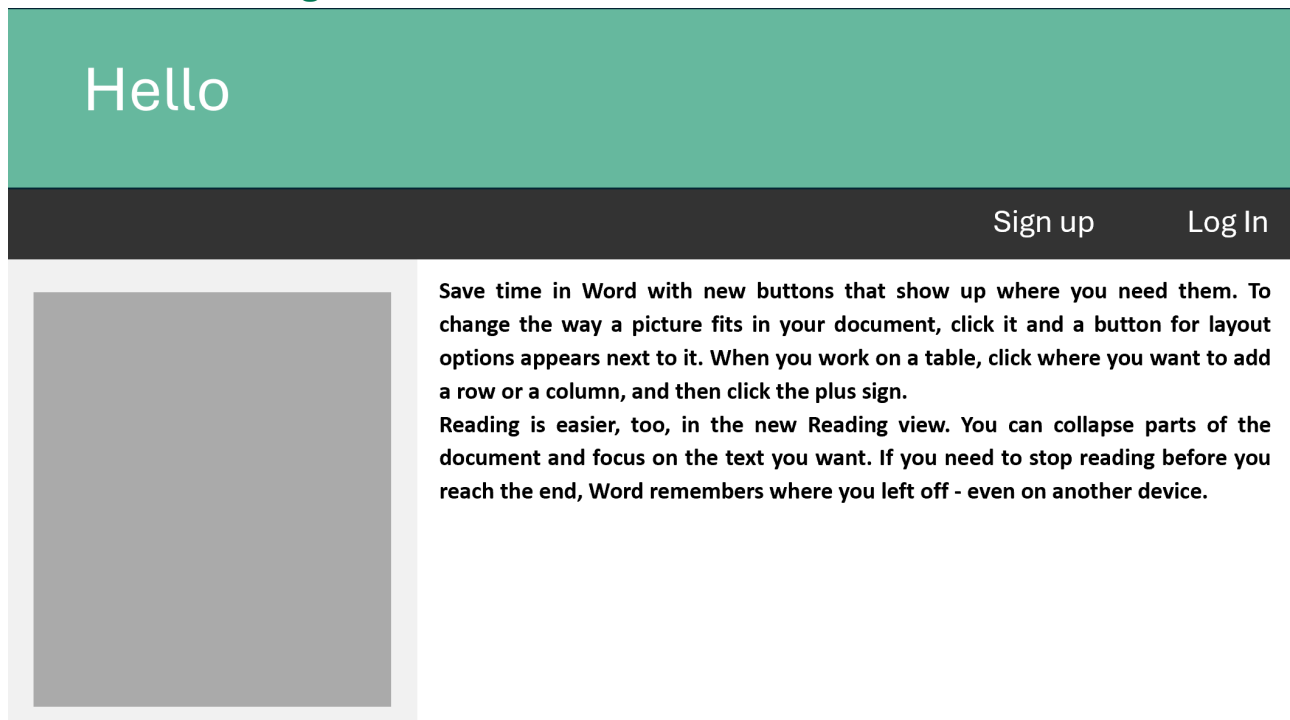
# Use Case and Class Diagram



# Colour Scheme

When designing a web application, it is essential to ensure accessibility and good contrast for usability, readability, and user experience. The design should incorporate thoughtful colour choices that comply with accessibility guidelines.

## I. I Main Design



This design consists of:

- Teal - #66B89E
- Dark Gray - #333333
- White - #F1F1F1
- Light Gray - #AAAAAA

The navigation bar's contrast works effectively with white text, making the navigation links easily visible. The teal header is attractive and complements the text without being overwhelming, fostering a sense of tranquillity and concentration. It could be advantageous for the study-oriented application.

Contrast Ratio

**11.18:1**

[permalink](#)

## Normal Text

WCAG AA: **Pass**

WCAG AAA: **Pass**

The five boxing wizards jump quickly.

## Large Text

WCAG AA: **Pass**

WCAG AAA: **Pass**

The five boxing wizards jump quickly.

## Graphical Objects and User Interface Components

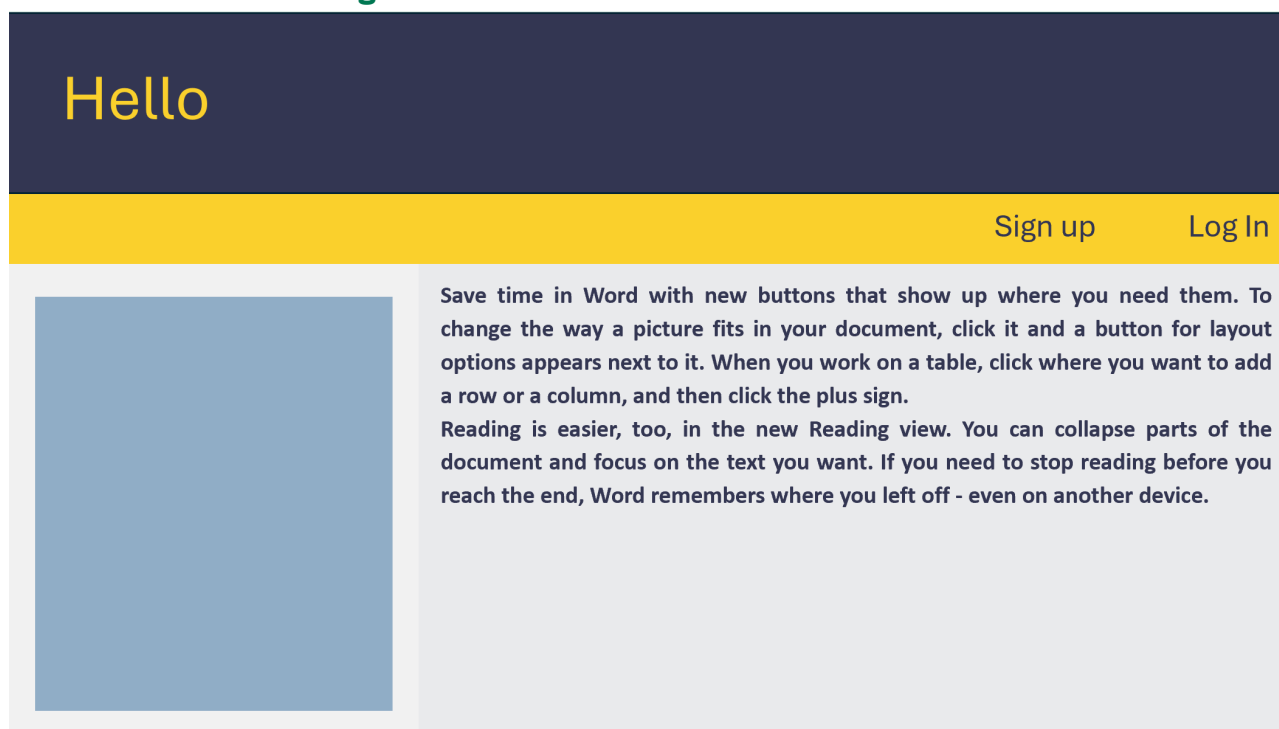
WCAG AA: **Pass**



Text Input

[WebAIM: Contrast Checker](#)

## 2. Alternative design



This design consists of:

- Blue Gray - #90ADC6
- Pewter - #E9EAEC
- Yellow - #FAD02C
- Dark Blue - #333652

The combination of a navy blue background with yellow text offers a high-contrast setup, enhancing the visibility of navigation elements and headings, particularly for individuals with visual impairments. Using dark blue text on a white background achieves an ideal contrast ratio, promoting readability. The gentle blue hue also helps minimise eye strain, providing comfort for users.



Contrast Ratio

**7.88:1**

[permalink](#)

## Normal Text

WCAG AA: **Pass**

WCAG AAA: **Pass**

The five boxing wizards jump quickly.

## Large Text

WCAG AA: **Pass**

WCAG AAA: **Pass**

The five boxing wizards jump quickly.

## Graphical Objects and User Interface Components

WCAG AA: **Pass**



Text Input

### WebAIM: Contrast Checker

Both designs successfully achieve a balance between accessibility and visual appeal. The first design offers a more subdued and relaxing atmosphere, ideal for extended study periods. In contrast, the second design features a more lively and dynamic look, highlighting navigation components distinctly. Ultimately, both colour schemes provide excellent readability, strong contrast, and a user-friendly interface.



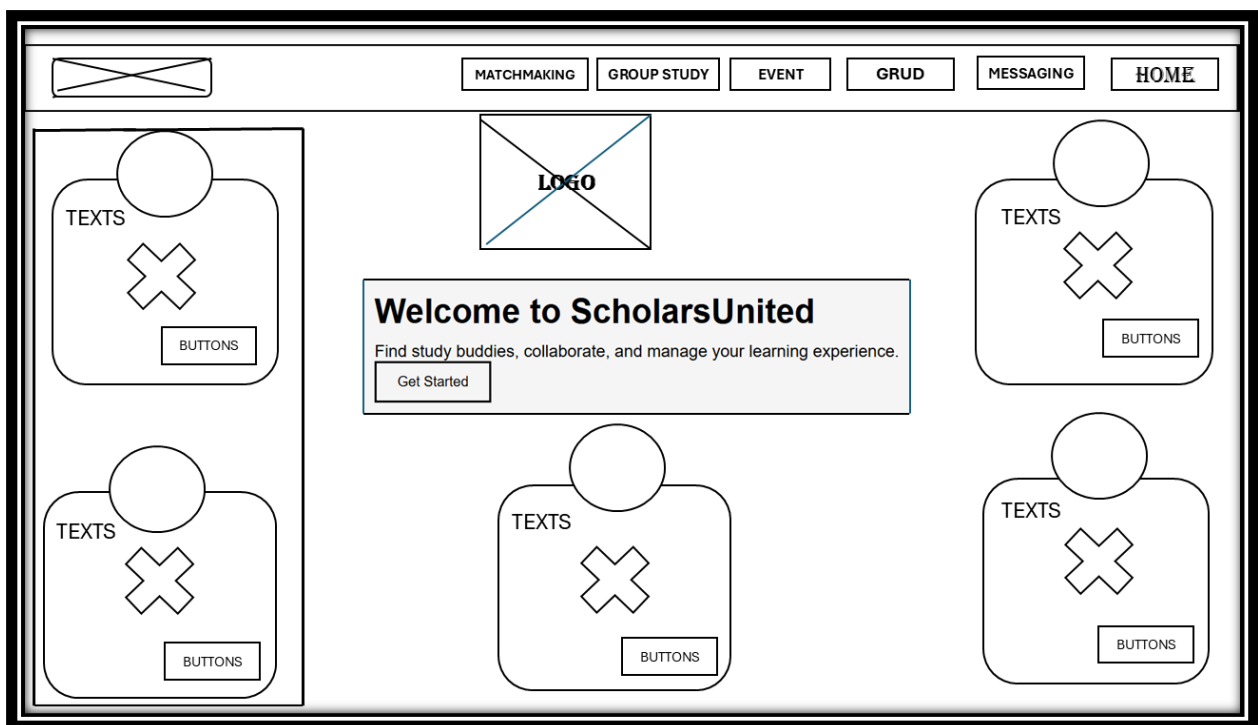
This wireframe depicts a 'Sign In' page. At the top left is a placeholder for a logo, and at the top right is a 'HOME' link. A back arrow is positioned on the left side. The main content area is divided into two sections. The left section contains a 'LOGO' placeholder, a 'SIGN UP' button, and a 'SIGN IN' button. The right section is titled 'Sign In' and includes an 'Email' input field with the placeholder text 'Enter your email', a 'Password' input field with the placeholder text 'Enter your password', and a 'Forgot Password?' link. Below these fields is a 'Sign In' button, followed by a link that says 'Don't have an account? Sign Up'.



This wireframe depicts a 'Sign Up' page. It features a similar layout to the Sign In page, with a logo placeholder, a 'HOME' link, and a back arrow. The left sidebar contains a 'LOGO' placeholder, a 'SIGN UP' button, and a 'SIGN IN' button. The main 'Sign Up' section includes a 'Full Name' input field with the placeholder text 'Enter your full name', an 'Email' input field with 'Enter your email', a 'Password' input field with 'Enter password', and a 'Re-enter Password' input field with 'Re-enter password'. A 'Sign Up' button is located below these fields, followed by a link that says 'Already have an account? Sign In'.



A user registration form layout. At the top right is a 'HOME' button. On the left is a sidebar with a 'LOGO' placeholder, a 'SIGN UP' button, and a 'SIGN IN' button. The main form area contains several input fields: 'Name' (placeholder: 'Enter your name'), 'Password' (placeholder: 'Enter password'), 'Re-enter Password' (placeholder: 'Re-enter password'), 'Academic Interests' (placeholder: 'e.g., Math, Science'), 'Courses' (placeholder: 'e.g., CS101, Math202'), 'Study Preferences' (placeholder: 'e.g., Morning sessions'), and 'Profile Picture (Optional)' with a 'Choose File' button and 'No file chosen' text.



A home page layout for 'ScholarsUnited'. The top navigation bar includes buttons for 'MATCHMAKING', 'GROUP STUDY', 'EVENT', 'GRUD', 'MESSAGING', and 'HOME'. The main content area features a central 'Welcome to ScholarsUnited' banner with the text 'Find study buddies, collaborate, and manage your learning experience.' and a 'Get Started' button. Surrounding the banner are five user profile placeholders, each consisting of a circular profile picture, the word 'TEXTS', a large 'X' icon, and a 'BUTTONS' button.

# Kanban Board

## Kanban Board screenshots from 19/02/2025

The screenshot shows the top section of a Kanban board for '@Epsilon-byte's Scholar's United'. The board has a dark theme. At the top, there's a header with the team name and a 'Add status update' button. Below the header, there's a navigation bar with tabs: 'Backlog', 'Priority board', 'Team items', 'Roadmap', 'In review', 'My items', and '+ New view'. A search bar is located below the navigation bar, labeled 'Filter by keyword or by field'. The main area is divided into three columns: 'No Status' (6 items, Estimate: 0), 'Backlog' (2 / 5 items, Estimate: 0), and 'Ready' (1 item, Estimate: 0). Each column has a description of its state and a list of items. The 'No Status' column contains items like 'Checklist for Sprint 3', 'Users list page', and 'User profile page'. The 'Backlog' column contains 'Checklist Sprint 2' and 'Sprint 2 PDF Deliverable'. The 'Ready' column contains 'Sprint 3 tickets prepared on your Kanban board'. Each column has a '+ Add item' button at the bottom.

@Epsilon-byte's Scholar's United

Backlog | Priority board | Team items | Roadmap | In review | My items | + New view

Filter by keyword or by field

**No Status** 6 Estimate: 0

This item hasn't been started

- ScholarsUnited #22  
Checklist for Sprint 3
- ScholarsUnited #23  
Users list page
- ScholarsUnited #24  
User profile page
- ScholarsUnited #25

+ Add item

**Backlog** 2 / 5 Estimate: 0

This item hasn't been started

- ScholarsUnited #16  
Checklist Sprint 2
- ScholarsUnited #17  
Sprint 2 PDF Deliverable

+ Add item

**Ready** 1 Estimate: 0

This is ready to be picked up

- ScholarsUnited #18  
Sprint 3 tickets prepared on your Kanban board

+ Add item

The screenshot shows the bottom section of the Kanban board. It is divided into three columns: 'In progress' (1 / 3 items, Estimate: 0), 'In review' (6 / 10 items, Estimate: 0), and 'Done' (14 items, Estimate: 0). Each column has a description of its state and a list of items. The 'In progress' column contains 'All students up to date with lab work and ready to start development'. The 'In review' column contains 'Use case Diagram', 'Activity Diagram', and 'Spring 2 Wwereframe and log proposals'. The 'Done' column contains 'Sprint 1 PDF for review', 'Technical setup - Sprint 1', and 'Meeting records completed for Sprint 2'. Each column has a '+ Add item' button at the bottom.

**In progress** 1 / 3 Estimate: 0

This is actively being worked on

- ScholarsUnited #20  
All students up to date with lab work and ready to start development

+ Add item

**In review** 6 / 10 Estimate: 0

This item is in review

- ScholarsUnited #30  
Use case Diagram
- ScholarsUnited #31  
Activity Diagram
- ScholarsUnited #33  
Spring 2 Wwereframe and log proposals

+ Add item

**Done** 14 Estimate: 0

This has been completed

- ScholarsUnited #12  
Sprint 1 PDF for review
- ScholarsUnited #3  
Technical setup - Sprint 1
- ScholarsUnited #21  
Meeting records completed for Sprint 2

+ Add item

## Evidence of Sprint 3 Tickets prepared on Kanban Board from 19/02/2025

### Checklist for Sprint 3 #22

Open

0 / 5

Epsilon-byte/ScholarsUnited Public



Epsilon-byte opened last week · edited by Epsilon-byte

Edits ▾ ...

Here are the initial requirements that **need** to be implemented using MYSQL, Express and PUG, using Docker containers for the team development environment and demonstration. These features need to be included to fulfil the minimum requirements (do keep in mind that these pages **must** use data pulled from the database):

Additionally, we also need to create a **single** PDF document with:

- ☐ The user stories ...
- ☐ Database design ...
- ☐ A breakdown of tasks and developers allocated (from GitHub project) ...
- ☐ GitHub repository and GitHub project links ...
- ☐ A screenshot of metrics from GitHub showing that all team members are participating ...
- ☐ A screenshot of your Kanban board ...
- ☐ Meeting records completed ...

## Team Meeting

14 February / 12:00- 13:10 / Library

### Attendees

Amanda, Michaela, Tosin, Anton

### Agenda

1. Discussion about Sprint2 and who will be assigned the tasks
2. Discussion about Sprint 1 and proposed changes

### Checklist for Sprint 2

- ❖ A PDF document with:
  - User stories - Michaela
  - Use case diagram - Amanda
  - Sprint 3 specifications, any other business such as:
    - Class diagrams - Tosin
    - ERD diagram, designs and colour schemes - Michaela
    - Activity diagrams - Tosin
    - Wireframes - Anton
- ❖ Sprint 3 tickets prepared on your Kanban - Amanda/in progress
- ❖ A screenshot of your Kanban board - done
- ❖ All students are up to date with lab work and ready to start development - done.
- ❖ Meeting records completed - Michaela

### Action Items

We agreed to change and reduce the scope of the project and its functionalities based on the proposed changes. Therefore, the agreed scope

- Event sharing
- Resources sharing
- Matchmaking - we need to look into more resources



# Meeting Minutes

<b>Date and Time</b>	14/02/2025 12:00 – 13:15
<b>Project Name</b>	Scholar's United (Study Buddies: Peer Support for Students)
<b>Meeting Goal</b>	<ul style="list-style-type: none"> <li>• Agree on the application's main functionalities</li> <li>• Agree on Sprint 2 tasks being delegated and assigned</li> </ul>
<b>Facilitator</b>	Amanda Brazauskaite
<b>Note Taker</b>	Michaela Radostova
<b>Attendees</b>	<ul style="list-style-type: none"> <li>• Amanda Brazauskaite</li> <li>• Michaela Radostova</li> <li>• Anton Ivanov</li> <li>• Oluwatosin Wasiu Jimoh</li> </ul>
<b>Roundtable Updates (each group member to contribute)</b>	<p>Everyone played a role in successfully delivering Sprint 1. The assigned tasks have been documented in PDF deliverables for this sprint. We collectively decided to reduce the application's functionalities to ensure we could meet the project deadline. All team members contributed to brainstorming the project design.</p>

## Conclusion

In this sprint, we successfully defined key application features through user stories, developed essential diagrams, and established a clear design direction for the United Scholars – Study Buddies Web Application. Our team utilised scrum methodology to iteratively refine project deliverables, including sequence and activity diagrams, wireframes, and a structured Kanban board to track progress. The selected colour schemes ensure accessibility and enhance user experience. With Sprint 2 completed, we are well-prepared for Sprint 3, where we will further refine and implement the application's core functionalities based on the foundation established in this phase.