University of Roehampton

Software Engineering

Sprint 1

Cyber Security – 2025

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Group Members

Avengers: The Code Edition

Hello, and Welcome to our Software Engineering Coursework – Sprint1.

We are excited to present our team, *Avengers: The Code Edition*. Our group consists of:

- **Amanda Brazauskaite – BRA23579454**
- **Anton Ivanov – IVA21553779**
- **Oluwatosin Wasiu Jimoh – JIM22543612**
- **Michaela Radostova – RAD23587649**

Project Description and links

Overview

Starting university can be a challenging transition for first-year students. Study Buddies is a collaborative web application designed to help students connect with peers for academic and social support. This platform aims to enhance the university experience and support students' academic success and personal growth by fostering collaboration, providing access to resources, and promoting peer mentorship. This Project involves building a CRUD web application from scratch and incorporating modern technologies and project management practices to deliver a robust and user-friendly platform.

Goals

1. Develop a web application that connects students based on shared academic interests and study habits.

2. Facilitate the formation of study groups, enabling students to collaborate on their academic goals.

3. Introduce features like resource sharing, event scheduling, and mentorship opportunities to encourage teamwork and peer support.

4. Ensure the application is user-centred, secure, and accessible for students from diverse backgrounds.

Project links

GitHub link: https://github.com/Epsilon-byte/ScholarsUnited
Task Board link: https://github.com/users/Epsilon-byte/projects/2/views/1

Core Features

"Alone we can do so little; together we can do so much." – Helen Keller

Profile Creation

→ Allow users to create profiles detailing their study interests, courses, and academic levels.

Matchmaking

→ Matching students based on their courses, interests, and study preferences to build connections.

Messaging System

→ Integrated chat feature for users to communicate directly with their matched buddies.

Event Scheduling

→ **Provided an integrated calendar for organising study sessions, meetups and events.**

Resource Sharing

→ **Users sharing study materials like notes, flashcards, and other resources directly with app.**

Group Study

→ **Provided functionality for creating virtual study groups for collaborative learning experiences.**

CRUD Functionality

→ **Allow users to create, read, update, and delete profiles, events, and resources within the platform.**

Code of Conduct

Overview

This code establishes the standards of behavior that must be met by all members. Where these standards are not met, appropriate disciplinary action will be taken. In cases where the breach involves serious misconduct, this may result in a group dismissal. In cases where a breach of the policy involves a breach of any law, then the relevant government authorities or the police may be notified.

Operation

The purpose of this policy is to clarify what is expected to happen whilst working in a group, and members must be familiar with and comply with the terms of this policy at all times. Failure to do so may result in disciplinary action, including potentially being kicked out from the group, depending on the severity of the misconduct.

Standards of Conduct

RESPECT and INCLUSIVITY

- Treat all team members respectfully, regardless of their role, level, or background.

- Encourage and value diverse perspectives and contributions.

- Avoid interrupting or dismissing others during discussions.

- Use inclusive and professional language in all forms of communication.

COLLABORATION and TEAMWORK

- Communicate openly and transparently with the team.

- Offer help to team members who are facing challenges and be willing to ask for help when needed.

- Share knowledge and resources to support team success.

- Work collaboratively to resolve conflicts or disagreements constructively.

ACCOUNTABILITY

- Take ownership of your assigned tasks and deliverables.
- Be punctual for standups, meetings, and deadlines.
- Notify the team promptly if you encounter blockers or cannot complete a task on time.
- Commit only to what you can realistically accomplish within the sprint.

QUALITY and INTEGRITY

- Prioritise writing clean, maintainable, and well-documented (commented) code.
- Adhere to best practices for testing and version control.
- Ensure all code contributions meet agreed-upon standards and guidelines.

FOCUS ON THE GOAL

- Align all activities with the sprint objectives and deliverables.
- Avoid 'scope creep' by staying focused on agreed-upon tasks.

CONSTRUCTIVE FEEDBACK

- Provide feedback that is specific, actionable, and kind.
- Be open to receiving feedback and view it as an opportunity to grow.
- Focus on the work rather than personal criticism.

CONFIDENTIALITY

- **Respect the confidentiality of any proprietary or sensitive information shared during the sprint.**
- **Avoid discussing project details outside the team without proper authorisation.**

HEALTH and WELL-BEING

- **Acknowledge the importance of maintaining a healthy work-life balance.**
- **Support team members in managing stress and workloads.**
- **Encourage breaks and discourage overwork.**

Clarification

Following the policies above will ensure that our group follows the best workflow and practices. However, added clarification will be needed:

- **If you have an issue with a part of the Project and no one is available, you can post it on GitHub as an issue (or sub-issue if it is linked to the main issue) so that when a member is eventually active, they can swiftly respond.**
- **Linking to issue postage, unless it is an actual issue such as bug fixes or help on the part of the Project, under no circumstance should you use issues as a form of social communication. There are other ways to communicate, such as WhatsApp and other communication applications, if you require more thorough explanations or to talk about different topics unrelated to the Project. GitHub has its discussion functionality, enabling the use of having open-ended conversations and asking questions.**

User Personas

Basic information

Sarah Jane

Age	19
Location	London, UK
Occupation	University Student
Status	Single

Bio

Sarah is a first-year cyber security student who is enthusiastic and passion about digital privacy and security. She is always looking for ways to deepen her understanding of network security and encryption. Sarah seeks a reliable platform to connect with peers who share her specific academic interests.

Goals

- Connect with other cybersecurity majors to collaborate on projects and share insights into emerging security challenges.

- Find study groups focused on specific areas like ethical hacking and data protection.

Frustrations

- Difficulty finding peers with a similar focus within her broader IT course, leading to feelings of isolation in her studies.

- Managing the balance between collaborative projects and independent study, particularly when coordinating schedules with other committed students.

User Scenario

Sarah Jane, a cybersecurity student, uses the "Study Buddies" platform to enhance her exam preparation. After logging in, she searches for and joins a study group focused on cybersecurity certification. She participates in scheduled virtual study sessions, shares resources, and collaborates on solving practice problems, all through the app. Her engagement with the group includes giving and receiving feedback to continuously improve the collaborative learning experience.

User Story

Sarah uses "Study Buddies" to create a detailed profile highlighting her interests in various cybersecurity topics. She searches for and joins a virtual study group dedicated to preparing for a cybersecurity certification exam, using the app's resources to schedule and plan intensive review sessions.

Basic information

Liu Chen

Age	35
Location	Bristol
Occupation	Part-Time Univeresity Student and Full-Time IT technician
Status	Married Two Children

Liu returned to university to complete his degree in Computer Science after a decade in the IT industry. Balancing his studies with a full-time job and family responsibilities, he is keen on using technology to streamline his academic efforts and enhance his learning efficiency.

Goals

- Efficiently manage his limited study time around a full-time job and family duties.

- Connect with fellow adult learners who share similar life challenges for mutual support and resource exchange.

Frustrations

- Struggling to find study groups that meet during his available hours, which are often late at night or early in the morning.

- Overwhelmed by the sheer volume of new academic materials and rapid advancements in his field that have emerged since he was last in school.

User Scenario

Liu, a part-time computer science student and full-time IT technician, uses "Study Buddies" to manage his studies around a hectic schedule. He creates a profile indicating his late-evening availability and joins a virtual study group called "Night Owls Coding" that meets at convenient times. Through the group, Liu participates in scheduled late-night sessions, shares resources like coding tutorials and academic papers, and collaborates on projects. This engagement allows him to stay updated with the latest industry trends and effectively balance his educational and professional responsibilities.

User Story

Liu wants to easily join and participate in virtual study sessions with the "Night Owls Coding" group, so that he can collaborate and interact with peers during his available hours, enhancing his learning and staying up-to-date with industry trends.

Ethical Consideration

Privacy and Data Protection

- Ensure users' personal and academic information is securely stored and only shared with explicit consent. Comply with data protection regulations such as GDPR.

Inclusivity and Accessibility

- Design the app to be accessible to all users, including those with disabilities, ensuring everyone can participate fully.

User Safety

- Implement measures to safeguard users from potential harm, including bullying or harassment within the platform.

Transparency

- Be clear about how data is used within the app and who can access it.

Bias and Fairness

- Ensure the matchmaking algorithm does not perpetuate biases based on academic ability, socio-economic status, or other discriminatory factors.

Meeting Record

Date and Time	**31/01/2025** **10:00 – 11:00**
Project Name	**Scholar's United (Study Buddies: Peer Support for Students Proposal)**
Meeting Goal	**Review/Agree on Code of Conduct** **Review of the current Proposal** **Delegating the remaining tasks for Sprint 1**
Facilitator	**Michaela Radostova**
Note taker	**Amanda Brazauskaite**
Attendees	**Amanda Brazauskaite** **Michaela Radostova** **Oluwatosin WasiuJimoh** **Anton Ivanov was unable to attend today's meeting.**

Roundtable Updates (each group member to contribute)	**Amanda Brazauskaite and Michaela Radostova worked together tocreate the Product Backlog and a Kanban board in the GitHub project. Oluwatosin Wasiu Jimoh created the Proposal and posted it on GitHub, so other members could begin building on it.**
	Amanda Brazauskaite created the Code of Conduct, and upon review, the rest of the members agreed that it was acceptable.
Discussion points	**Our main discussion points were clarifying the required features we need in the Project and the structure of the Project (discussing creating wireframes and what the Project is about to have a better understanding of what we need to create).**
Actions (list tasks and assign a group member)	**Amanda Brazauskaite: Add the scaffolding files to GitHub, and the README file will be customised according to the Project.** **All Team Members:** **At least one commit from every group member in the Project repository Each member of the team can run the development environment using Docker** **Michaela Radostova: Will be in charge of assembling the PDF deliverable for Sprint 1.** **Anton Ivanov: Will create the branches for GitFlow workflow; includes 'master', 'develop' and 'release' branches.**

Conclusion

The Study Buddies platform aims to improve students' academic and social experiences by promoting cooperation, mentorship, and resource sharing. The platform offers students an organised yet flexible support system through fundamental features, including profile matching, study group development, and event scheduling.

The Project achieves scalability and efficiency by utilising current web technologies such as Node.js, MySQL, PUG templating, JavaScript, and GitHub Actions for CI/CD and Docker for environment management. Ethical factors such as data privacy, diversity, and user safety underline the platform's dedication to creating a safe and inviting environment.

Finally, Study Buddies is more than a tool; it is a community-driven project designed to assist students navigate university life with confidence and support. This initiative aims to improve student performance via innovation and teamwork.