**2024-S1-Immutable**

**Team charter**

Document version

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| 0.6 | 01/03/2024 |

**1. Team Members and Roles**

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| --- | --- | --- | --- | --- |
| Name | Teams Contact | Location | Role | Weekly Record |
| Nuoxi Qin | [u7527676@anu.edu.au](mailto:u6560914@anu.edu.au) | on-campus | Project Manager, Frontend developer | Weekly Status Report (Code) |
| Linxi Li | [U7095375@anu.edu.au](mailto:U7095375@anu.edu.au) | on-campus | UI designer, Full-stack Developer |  |
| Mitchell  Barker | u7284995@anu.edu.au | on-campus | Quality Assurance | Client Meeting Minutes, Tutorial Log, Team Meeting Minutes, Risk log, Client Meeting Agenda, Weekly tutorial agenda, Weekly Status Report (Documentation and Adminstation) |
| Bohong Sun | bohong.sun@anu.edu.au | on-campus | DevOps engineer, Database developer |  |
| Songxuan Li | u7756861@anu.edu.au | on-campus | Front-end developer, Back-end developer |  |
| Andy Chih | u7574003@anu.edu.au | on-campus | Full-stack developer |  |

**UI Designer:** The UI designer in immutable project is responsible for creating the visual design and user interface of the application. UI designer closely with the development team to ensure the design is technically feasible and meets project needs. They must have a strong understanding of user experience principles.

**Full-stack Developer:** A Full-stack Developer is responsible for developing and maintaining both the front-end and back-end of web applications. This includes designing user interfaces, developing server-side logic, and integrating the two. Full-stack Developers must have knowledge of both client-side and server-side technologies and be able to work with databases.

**Back-end Developer:** Responsible for developing server-side applications, managing databases, designing and building APIs, and ensuring that data is transmitted securely between the front-end and back-end systems. They build the back-end infrastructure that powers web applications and software systems.

**Database Developer:** The role of a Database Developer is to design, create, maintain, and optimize databases. This involves writing SQL queries, optimizing database performance, ensuring database security, implementing backup and recovery procedures, migrating data, and maintaining documentation. A Database Developer plays a critical role in the development and maintenance of databases that are essential for the proper functioning of many applications and organizations.

**2. Development principle**

* All the work needs to be completed via Teams
* All communication needs to be completed via Teams
* Seven hours per week per team member spending on project development

**3. Combined Team Responsibilities**

* It is the responsibility of all project members to actively participate in discussions and to provide input and understanding of the project development
* All project members are expected to complete the required quality of work and tasks on time, and if they encounter difficulties, they should inform other members of the team in advance and seek assistance
* All developers are expected to adhere to the ACS Code of Ethics when participating in projects, for example, by being honest in reporting progress and quality of work.
* All project members are expected to maintain positive, respectful communication with others

**4. Team Charter**

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| --- | --- |
| Initial Approach | Description |
| Team names and contact details | 22-S2-2-C-Immutable |
| Team objective | Achieve maximizing learning outcomes for this project  Strengthen hard and soft skills through project development tasks |
| Team goals – make sure they are measurable | Above 90% attendance at all client meetings  Finish all required tasks prior to the group meeting  Submit all assigned documents on time |
| Communication – how, maximum response time | Using Teams with 24 hours to acknowledge, 48 hours to respond. Allow a constant stream of communication in the Teams group for asynchronously work by setting deadlines and proper workload and task distribution |
| Team meetings – when, where, how long | Every Thursday on campus / Zoom, half hour – Within Team  Every Wednesday on Teams one hour – With Clients |
| Team decision making | By majority /democratic |
| Acceptable behaviour – core values | Take turns speaking and not interrupt each other  Mutual respect  Let the team know in advance if something cannot be done in time so appropriate plans can be formed |
| Ground rules – expectations, rules and consequences, dealing with conflict | Listen respectfully to all opinions and try to understand others’ need  Let the team know if there is any conflict or disagreement so effort can be put toward resolving it before it escalates    Expectations are set by group majority - not meeting these expectations shouldn’t be met with consequences as we expect the failing member to adjust their work/behaviour to the group-elected expectation. |

**5. Motivations**

Nuoxi Qin: As a coder and knowledge seeker, I am eager to pursue opportunities in software engineering. My passion lies in exploring cutting-edge technologies, particularly blockchain, and using them to create solutions that promote hyperlocal resilience, self-sustainability, and dynamism.

Andy Chih: Through this practical project, I aim to not only develop my professional skills in computer science, including front-end and back-end development skills along with the practical experience in managing software projects in a systems context, but also I wish to acquire knowledge of blockchain.

Linxi Li: I am willing to learn more about blockchain and NFT, and work in such advanced and popular field. Also, I believe it will be a great chance to work with a professional team and work in a real industry project.

: I'm excited to work on the backend part of our project because I know it's important. I want to learn about blockchain and NFTs because I think they're interesting and can change how we do things online. I'm ready to work well with our team so we can reach our goals together.

: I'm enthusiastic about crypto with blockchain technology and have been involved in crypto industry for the past two years. This project seems like a perfect opportunity for me to get hands-on experiences on building an interactive NFT protocol that bridges the real-world problem with a blockchain based solution.

: As a coder who is new in this area, I am always willing to learn something new and improve my skill in coding. By doing this project, I wish to gain experience about coding in real life company as well as corporate with other team members.

**6. Github Rules**

1. All members need to use Github as the platform for task assignment.
2. All members can add or change tasks under issues based on actual ability estimation.
3. All members show their efforts and completed work to team leader
4. All task exchange between members should be infomed on Wechat group (i.e., main team members communication platform) at least 24 hours before due date.
5. Establish a clear workflow for contributing to the repository, including the use of feature branches and pull requests.
6. Define coding standards and best practices to ensure consistency across the project.
7. Use clear and descriptive commit messages to provide context for changes.
8. Assign reviewers for pull requests and ensure all changes are thoroughly reviewed and tested before merging to the main branch.
9. Use GitHub Issues or a similar tool to track bugs, feature requests, and other tasks related to the project.
10. Use GitHub's collaboration features, such as inline comments and discussions, to facilitate communication and collaboration among team members.
11. Ensure all team members have the necessary access and permissions to contribute to the repository.
12. Regularly update documentation and ensure it is easily accessible to all team members.
13. Use GitHub's security features, such as vulnerability scanning and dependency analysis, to ensure the project is secure.
14. Respect intellectual property rights and only use open source libraries or third-party code with proper attribution and permission.

## **7. Communication Plan**

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| **W=Weekly**  **D=Daily**  **O=On demand**  **A=As needed** | **Teams Post: Summary Status Report** | **F2F:**  **Summary Status Report** | **Teams Post: Detailed Status** | **F2F: Detailed Status** | **Teams Post: New Release Notify** | **Teams Post: Project Issue** | **F2F: Project Issue** |
| Project Owner | W | O |  |  | O |  | O |
| Project Mentors | W | W |  | A | O | O | A |
| Tutor, Shadow Team | W | W |  |  | O |  | A |
| Examiner | W | A |  |  | A |  | A |
| Immutable Team | W | W | D | D |  | O | A |