Team Structure

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Introduction

To better meet the needs of the client, we adopted an agile software development team structure. Our team structure and role delegation was carefully planned to take into account the skills and abilities of each team member. This allows us to ensure that our team is able to achieve our full potential while working on Vis-CAT.

This page outlines our team structure, and key roles and responsibilities of the team.

Roles and Responsibilities

Our Agile team structure is defined by several key roles and are as follows:

Role	Assigned to	Responsibilities
Scrum Master	Anita	• Facilitate meetings including stand-ups, retrospectives, and sprint planning. • Ensure team follows scrum framework and its values.
Product Owner	Feliks	• Comprehensively define user stories and their respective acceptance criteria. • Organise and maintain product backlog. • Ensure the team's work aligns with client requirements by consistently communicating with client.
Developers (Front-End)	Anita Feliks Fiona Leo Vincent	• Learn JavaScript, HTML, CSS. • Familiarise with Vue Framework. • Implement the software in code. • Ensure that coding standards are properly adhered to, in order to promote code readability and extensibility. • Collaborate with UI/UX designer to ensure seamless integration between design artefacts and software artefacts.
Test Engineer	Vincent	• Establish product testing parameters. • Write relevant and a broad range of test cases for the

		product; consequently detect and address bug issues. • Ensure system meets major architectural requirements, both functional and non-functional.
UI/UX Designer	Fiona	• Learn Figma and familiarise with relevant plugins such as Locofy. • Design user-friendly, child-accessible, and intuitive user interfaces, based on client requirements. • Collaborate with developers to ensure design is feasible and understandable.
Tech Lead	Leo	• Ensure coding standards are practiced and a high code quality level is maintained. • Assist the team with debugging, troubleshooting, and provide solutions to existing problems. • Promote insights to enhance the team's collective expertise and support the development process.
DevOps	Vincent	• Aims to accelerate the delivery of software by automating manual tasks and reducing bottlenecks in the development and deployment pipeline.

Our Agile team structure is designed for adaptability and flexibility.

On one hand, delegating clear and concise roles and responsibilities to each team member allows us to achieve effective workload distribution. It ensures that all members are collectively working towards the project end goal through their respective roles.

However, since agile team structures emphasise more on flexible collaboration - rather than rigid roles, our team has been able to transparently communicate and expand/shift responsibilities to accomodate project challenges. This has allowed us to quickly adjust priorities under evolving business requirements, without affecting the project trajectory (for example, please see week 5 Client Meeting notes).

As we are a group of students, this is our first time using many of the tools and frameworks in this project. Hence, some of our responsibilities may seem unconventional and also involve a comprehensive learning process for each framework/tool we use in the project. This has allowed us to become more confident in the software development process and achieve better outcomes.

In addition, due to client request, software development teams were assigned to implement either the front-end OR back-end. As we chose to implement the front-end, necessarily all developers are front-end developers in this project.

Additional Roles and Responsibilities for Sprint 2

To preface, all group members retained the roles and responsibilities initially delegated at the beginning of Sprint 1. However, advancements in the project and new business requirements resulted in our group members adopting further responsibilities. This has greatly enhanced our group's productivity.

These additional responsibilities assigned in Sprint 2 are listed in blue text, in the role assignment table below, which is a **subsection** of the **table above**:

Role	Assigned to	Responsibilities
Test Engineer	Vincent Fiona Feliks Leo Anita	• Establish product testing parameters. • Ensure system meets major architectural requirements, both functional and non-functional. • Testing for bugs to ensure software runs correctly. • Making recommendations to improve product functionality.
UI/UX Designer	Fiona Vincent Feliks Leo Anita	• Design user-friendly, child-accessible, and intuitive user interfaces, based on client requirements. • Collaborate with developers to ensure design is feasible and understandable.

As noted in this table, all group members took on the role of UI/UX Designer and Test Engineer in Sprint 2. The role of UI/UX Designer became increasingly imperative as many user story tickets required many new webpages to be created as well. Therefore, all group members took part in designing pages (relating to the ticket they were working on), which enhanced the efficiency of this Sprint, since UI design - on top of software development - is quite a laborious process.

In addition, all group members took on the role of test engineer. This was because by the end of sprint 2, much of the webpage implementation had been completed, therefore at this development stage, it was important for all group members to thoroughly test each web page to find potential problems. By delegating all members this responsibility, we were able to find many bugs that would have otherwise gone undetected.

Table text in black represents roles and responsibilities that are unchanged from Sprint 1.

In the previous sprint, we declared specific roles but emphasised that each group member is able to shift/expand responsibilities to accomodate project challenges. However, in the current sprint, we believed it was necessary to establish these additional responsibilities and roles in our documentation. This is because in sprint 2, our group members more greatly adopted these roles and took on more tickets/tasks pertaining to these roles.

Therefore these new roles are listed for transparency and to give recognition 🙂 *.*

Additional Roles and Responsibilities for Sprint 3

All group members retained the same roles and responsibilities initially delegated at the beginning of Sprint 1. However, similarly to Sprint 2, evolving sprint goals caused our group members to take on additional responsibilities to enhance team productivity. These additional

responsibilities assigned in Sprint 3 are listed in blue text below:

Role	Assigned to	Responsibilities
Test Engineer	Vincent Fiona Feliks Leo Anita	• Establish product testing parameters. • Ensure system meets major architectural requirements, both functional and non-functional. • Testing for bugs to ensure software runs correctly. • Making recommendations to improve product functionality.
UX Researcher	Fiona Vincent Feliks Leo Anita	• Recruit participants for research. • Determine best methods for gathering required feedback, and implement said methods. • Communicate research findings to developers, highlighting key insights and recommendations. • Work with developers to iterate on designs based on user feedback.

As noted in this table, all group members took on the role of Test Engineer and UX Researcher in Sprint 3. All group members took on the role of test engineer, because functional requirements were essentially complete at this stage of development, therefore all group members were assigned to thoroughly test each web page to find potential problems.

Additionally, the role of UX Researcher was assigned to all group members to more comprehensively find bugs, runtime errors or any possible edge cases that we may have missed. As part of this role, group members were tasked with the following: determining the best methods for gathering user feedback, and recruiting participants for testing. By assigning everyone this role, we were able to more efficiently find any areas for improvement and gather feedback from the typical user, allowing our product to become more well-rounded and user friendly.

Table text in black represents roles and responsibilities that are unchanged from Sprint 1.

Conclusion

By establishing a clear Agile team structure at the start of Sprint 1, our team has been able to not only meet, but surpass the goals set for the current sprint (please see Group Meeting + Stand-Ups documentations for Sprint milestones). Most importantly, it has fostered a highly communicative and cooperative team dynamic, which has well-equipped us with meeting client needs and exceed client expectations.

Furthermore, by delegating additional roles and responsibilities in subsequent sprints, we are able enhance team efficiency and even out the workload, and as a result enhance the team's overall capacity. In addition, as our project scope has evolved from sprint 1 (as a result of iterative development and new functionalities requested by the client, see Group Meeting + Client Meeting for specifics), new role assignments were necessary to adapt to these changes and ensure a more successful project outcome by the end of each following sprint.