SOEN 390 Sprint 1: The Ups and Downs

# Introduction

Sprint 1 consisted of meeting and familiarizing ourselves with the team, defining the techstack we intend to use, producing software artifacts such as the product vision statement, requirements and user stories backlog, software architecture document, and the risk assessment and risk management plan. Moreover, we produced a running prototype that included functionality for login, signup, and user profile, we implemented testing using Vitest, and developed the release plan, UI prototype, and testing plan for sprint 2.

Our team has decided to use NextJs, Typescript, TailwindCSS, and PostgreSQL for our application. We chose NextJs and Typescript for our backend as they are easy to use, provide server-side rendering for better performance, provide efficient routing, and are relatively familiar technologies to a large portion of our team. We chose TailwindCSS for styling because it will allow us to create beautiful and dynamic UI. PostgresSQL was chosen for our database because it provides us with an easy and efficient database management system that can be deployed and used relatively quickly. For testing, we chose Vitest as it can be easily integrated with NextJs and is one of the most frequently used testing libraries.

# What went wrong

## 1 - Technical Programming Difficulties

As is expected when beginning most projects, we encountered technical difficulties while programming. While a large portion of the team is familiar with the technologies we chose to use, there are still certain aspects we are not well-versed in. As a result, we encountered bugs along the way. This delayed our work and caused us to take a bit longer to complete certain functionalities. We addressed this issue by researching and debugging our code. In the future, more time can be alloted to more unfamiliar functionalities to allow for such delays.

## 2 - Team Management

During the development of Sprint 1, an aspect we were lacking in is the management of the team and team communication. No weekly scrum meeting has yet been set despite having given each of our availability through a software that displays the times when all team members are available. Further, meetings are usually planned last minute and later during the day, and it is not guaranteed that every member will show up. Constant communication is important for bringing all team members up to date on the current state of the system and filling in the gaps of knowledge between technical artifacts. Additionally, as it stands, no team lead has been chosen.

## 3 - Comprehension of Requirements

We had difficulties identifying some of the requirements for the project. A concrete example of this issue would be the fact that we did not know we were expected to build a mobile app alongside a web application. We only discovered this information about halfway through the sprint at which point we were not prepared to tackle the implications of this hefty newfound requirement. This issue arised from a lack of communication between the stakeholders and the team.The impact of this issue is that we are currently still unsure how we will implement the requirement of having a mobile app. The Issue could have been prevented if the requirements provided by the stakeholder were more clear from the beginning, and if we had asked more questions to the stakeholder at the very beginning of the project.

## 4 - Time Management

Some tasks took a lot longer than others however it was difficult to predict the length of time each task would take so the number of people assigned to the various tasks was not well balanced. For example, it would have been better if we had assigned more people than we initially had, to work on the software architecture document, seeing as it ended up taking way more time and effort than we had initially anticipated. The cause of this issue was likely an innocent lack of awareness of how long the SAD document would actually take to work on. The impact of the issue was that we found out in the later half of the sprint that the SAD document was behind on progress. To address the issue, during a check-in meeting with the team, we assessed the state of all our tasks and noticed that the SAD document was not as completed as we had hoped, compared to other tasks, so we assigned more individuals to work on the SAD document.

## 5 - Title

# What went right

## 1 - Producing Software Artifacts

Our team was able to deliver the required software artifacts as per Sprint 1’s deliverables. We produced a product vision statement which outlines the goals and requirements our management system, Anacondo, aims to fulfill. It identifies key elements such as the problem statement, the stakeholders, key users, users’ needs, and product specifications including product features and requirements. We also produced a UI prototype to reflect what we expect our application to look like. While Sprint 1’s deliverable may not be exactly reflective of our UI, we plan to deliver on it in the following sprints. Moreover, we completed a requirements and user stories backlog which will assist us in developing an exhaustive management system that meets users’ needs. Other artifacts such as the risk assessment plan and the release and testing plans for sprint 2 were also produced.

These software artifacts will act as guidelines throughout our sprints and the development process. They will also offer a measure of how correct our implemented product is. No particular improvement is needed when it comes to developing the artifacts.

## 2 - Team Management

Our team was able to equally and fairly divide our deliverables amongst ourselves. This allowed us to work in parallel and communicate when needed. Team management is particularly important as it is the key to high performance, increased efficiency and productivity, and high adaptability.

For future sprints, improvements in this aspect can include more communication between members to ensure an even smoother sprint.

## 3 - Open Communication

Despite our lack of accuracy regarding timeline prediction of certain tasks, we maintained an open communication throughout this sprint within our team. Whenever a member had difficulties or needed clarification, they could send a message in our team messaging channel and expect to receive an answer, helpful or not, regarding their question. This is an important aspect of a big team project as it allows students to heighten their confidence and morale regarding the project which is crucial in regards to performance and efficiency.

## 4 - Coordination and Organisation

As a part of an Agile project team, we were efficient in regards to deciding timelines regarding the deliverable. We were quick to determine internal deadlines would be necessary for the timely completion of our sprint. In fact, we realized that some deliverables depended on others which required a quick decision making.Furthermore, our team was outstanding at organizing the content in groups and clearly defining tasks. Evidently, all the required information to complete our tasks was compiled and organized in a centralized interface. There was no confusion regarding where to find the required documents for specific tasks which increased our efficiency.

These aspects could not have been improved on as they were on par with real-world project coordination and organization.

## 5 - Conclusion

Our team was able to become more proficient in producing artifacts and has become more familiar with the technologies we chose to use. Moreover, we are slowly adapting and learning to work with each other as a team.