CS 462: Senior Software Engineering Project Winter Retrospective

Prototype a web-based tool for creating and executing task-delineated, collaborative, AI-assisted assignments

Group 28

Team Roles

Name	ONID	Role
Oliver Zhou	zhouo	Project Manager
Trent Matsumura	matsumut	Developer - Backend
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1. Introduction

Summary

The team retrospective was conducted at the end of the winter term to reflect on the progress we made as a team this term. This activity was crucial in determining our results, successes and failures, and things to continue working on and improving in the coming terms. In this document, we will walk through the process of conducting this team retrospective, note down our process, and our findings. The end result will allow the team to collect our thoughts and strengthen our resolve to continue doing good work on this project.

Pre-retrospective

We decided to do the opposite method from what we did in the fall term. This means instead of doing the 4Ls method, we were going to try the Stop-Start-Continue method. Additionally, this term, we are conducting the retrospective as a complete team with a closer focus on team reflection than individual reflection. However, members of the team still considered several personal reflection points before starting, such as:

- What did you contribute to the project this term?
- What went well during your role? What went wrong?
- What are things you liked about your contributions in winter more than fall, or fall more than winter?
- What would you do differently in spring?

2. Team Retrospective

Method – Stop-Start-Continue

The Stop-Start-Continue method was the method we ended choosing, to try another method this term instead of doing the 4Ls method again. The Stop-Start-Continue method tries to ask the team what behaviors should be started or stopped, and what is currently being done that the team likes and wants to continue. This helps us think about what practices are helping or hurting the project. The three questions we ask ourselves are:

- **Start:** What new practices or behaviors should the team begin using?
- **Stop:** What practices or habits are not effective and should end?
- **Continue:** What is working well and should be maintained?

Execution

As stated earlier, the team executed the team retrospective over Discord, our digital communication platform of choice. We started by answering the prompts of the team retrospective activity with their questions in mind. The team came together and agreed upon 3 entries for each question.

1) Start

Peer to peer code review sessions: Two people from the team compare work with each other and help each other out on our individual problems. This stimulates communication and collaboration between each other.

Physical team meetings: The team will meet physically more often to make in person communication easier than online communication, and will be an opportunity for us to focus on developing the project instead of on our own time.

Task list improvements: Improve the tasklist by focusing on assignments to specific roles and completing them with timestamps. Task list can further be improved by the key goals provided by the project mentor.

2) Stop

Meeting too infrequently: Sometimes the team would not communicate on exactly what is being done as much as they should have. Communication issues can cause confusion on the progress of where the project is at.

Unclear task prioritization: The priority of tasks changed many times and it would have been better to stay on top of the task list, so that things could be more organized.

Communication with mentor falling through: There was less communication with the project mentor about the progress of the project outside of the sprint meetings sometimes, and more emails would have been nice to be expected.

3) Continue

Mentor based sprint standups: The sprint standups with the project mentor helped both parties gauge where the progress of the project was at, and also helped redirect us in the right direction when things weren't going exactly as planned.

Weekly reviews and standups: The team continues to communicate what they completed by the end of the week around when sprints are completed or assignments are due, giving the team an idea of progress and communicating what changes need to be taken into account.

Clear documentation: Our documentation throughout the project has been concrete and detailed, and it is a good thing to continue to do. Documentation helps people understand comprehensively every detail about the project outside and in, and helps the mentor understand what we worked on and what needs to be done.

3. Key Reflections After Reflection Activity

Successes

The team successfully implemented a comprehensive system that allows instructors to track and analyze student activity, providing insights into their progress and AI utilization through detailed analytic reports. Instructors can now easily create assignments using a web tool, breaking them down into multiple delineated tasks with specific details, submission items, deadlines, and more, which can be assigned to individual students or groups.

Much of the progress we made in this term with development came from good communication and work ethic on the project. Everyone contributed to their role and completed things in time while communicating and documenting the progress. The successes are mainly from execution, and being able to adapt to changes in our plan when things are unclear or loose. BEcause of that, we succeed greatly in meeting project mentor expectations this term.
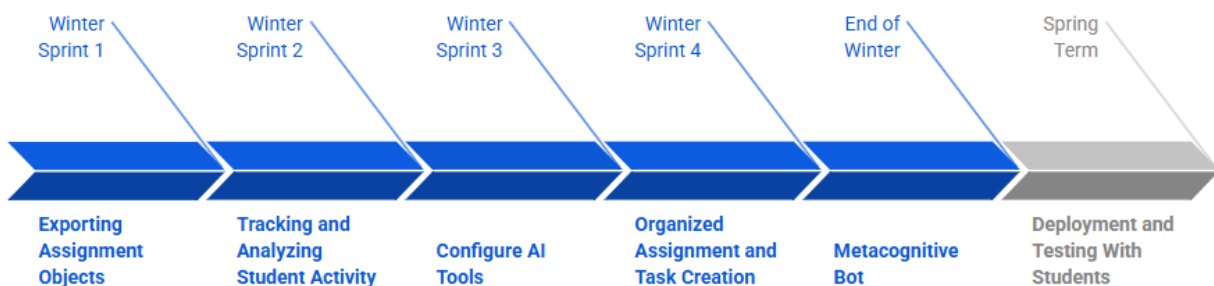
Figure 3.1 – The Project Roadmap from Winter

Continuity

The team has benefited from sprint standups with the project mentor, which helped track progress and adjust direction when needed. Weekly reviews and standups keep the team aligned on completed tasks and necessary changes. Clear and detailed documentation has been crucial in providing comprehensive understanding of the project, both internally and for the mentor. These practices should be continued moving forward.

Challenges

This term, one of the main challenges faced was maintaining consistent and frequent communication with the project mentor. Due to varying schedules, coordinating regular check-ins proved difficult at times, leading to delays in feedback and occasional misalignment on project priorities. This made it harder to quickly address issues and sometimes the project mentor was kept in the dark about certain aspects. We hope that next term the communication about what we are working on is more clear with the project mentor.

Collaboration

Communication within our team was strong this term, with everyone participating in our standups, updates, and discussions. We made sure to keep each other informed on the progress made from each individual. We ensured that documentation and information was clear so that everyone knew what we needed to accomplish. The communication helped the team work smoothly throughout the sprint process. While we understood what we were all working on, it definitely changed in prioritization sometimes which was addressed in our reflection activity.

Improvements

To improve communication with the mentor, we need to focus on making our interactions more consistent and ensuring that feedback is timely and aligned with the project's progress. Additionally, improving how we prioritize tasks will help the team stay focused on what's most important, allowing for more efficient use of time and resources. By improving clarity and structure in both communication and task management, we can ensure smooth communication and collaboration as we work on the website in spring.

Key Goals

We have two key goals for the next term. The first goal is to maintain constant communication with the project mentor while we jointly conduct the testing phase alongside him with his students to further improve the product.

The other key goal we have in spring is to fix task prioritization so that things are clearer and follow a more structured and set path. While development was smooth, the prioritization could use some work in the future.

4. Action Items

Actionable Items

Peer-to-Peer Code Review Sessions

Two people from the team compare work with each other and help each other out on our individual problems. This stimulates communication and collaboration between each other. This can be organized on weekdays depending on our schedules and over discord. Members on discord will plan out on a sheet when appropriate times to do these are.
Enforcer Assignment to ensure follow-up: Oliver

Physical Team Meetings

The team will meet physically more often to make in person communication easier than online communication, and will be an opportunity for us to focus on developing the project instead of on our own time. We can do these on Fridays when some of the team members usually meet, but additional team members can now show up too.
Enforcer Assignment to ensure follow-up: Ethan

Task list Improvements

Improve the tasklist by focusing on assignments to specific roles and completing them with timestamps. Task list can further be improved by the key goals provided by the project mentor. The existing task list will be expanded to include these additional data points to improve its comprehension and organization.
Enforcer Assignment to ensure follow-up: Colin

Documentation Sharing and Communication

Improved communication with the mentor alongside sharing crucial documents on a setup google drive folder that he can access. Giving certain roles and permissions on the project itself will also help with his testing later on.
Enforcer Assignment to ensure follow-up: Trent

Automated Deployments

To end blockers with deploying code at different times, pipelines will be set up and hosting will be transferred online so that testing can be done easier and deployments will happen more automatically.
Enforcer Assignment to ensure follow-up: Sai

Conclusion

With all these action items, we have found solutions for the problem that arose in our winter project perspective. We are overall happy with the progress we made on the project this term as we met our key requirements, but these further improvements will help with our validation and verification phases in the spring term. Maintaining good practices and communication will help us work at the same pace or even better in the future. There are always new behaviors we can start and old ones we can stop, and the Start-Stop-Continue method helped the team understand these behaviors and how we can change them to complete our project as a team more efficiently.

Appendices

A1. Version History

v1.0.0 (March 16th, 2025) – Canvas Submission.
Updated by: The Team, Oliver, Sai

The Start-Stop-Continue method was conducted to drive a discussion about our progress this term. A retrospective for the winter term was completed with key actionable items being recorded and assigned.

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