CS 462: Senior Software Engineering Project
Sprint Report 2

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
Ethan Lu	luet	Developer - AI Integration
Collin Kimball	kimbacol	Developer - Web UI
Sai Meenakshisundaram	meenkass	Documentation

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1. Sprint Overview

Planned for the Sprint

For this sprint, we aimed to expand the functionality of our web-based tool by integrating AI more effectively, improving database interactions, and enhancing user experience. Specifically, Ethan was tasked with enabling AI responses through an API call, Trent planned to establish database interactions with AI, and Collin intended to implement user history saving and author addition functionalities.

Accomplished During the Sprint

During this sprint, Ethan successfully integrated AI into the chatbot using a Gemini API call, allowing the chatbot to generate responses dynamically. Trent worked on improving database interactions with AI, making initial progress in storing and retrieving chatbot-related data. Collin implemented the functionality to add authors and save user chat history, ensuring that user interactions with the chatbot are properly recorded. These advancements significantly improved the functionality and usability of the system.

Issues Faced and How They Were Addressed

One challenge faced was ensuring smooth interaction between the database and AI. Trent encountered difficulties retrieving relevant AI-generated responses and associating them with stored user data. This was addressed by refining the database query structure and enhancing data retrieval logic. Ethan also faced issues with API response handling, which was mitigated through additional debugging and optimizing request formatting. Collin encountered minor UI rendering issues when saving chat history, which were resolved by debugging the state management system.

Planned for the Next Sprint

For the next sprint, we plan to further improve AI interaction by optimizing API call efficiency and refining chatbot response quality. Trent will continue working on strengthening database interactions to ensure seamless AI data retrieval and storage. Collin will focus on additional front-end refinements to enhance user experience. Ethan will work on making the chatbot more contextually aware by improving AI logic. Additionally, we will begin initial testing phases to assess system performance and usability. Documentation efforts will continue to maintain a comprehensive development log.

2. Individual Contributions

Ethan:

- Integrated AI functionality into the chatbot using a Gemini API call.
- Debugged API response handling to improve chatbot interaction.

Trent:

- Worked on enabling database interactions with AI.
- Improved data retrieval for chatbot-generated responses.

Collin:

- Implemented functionality to add authors.
- Developed the ability to save user chat history.
- Resolved UI rendering issues related to state management.

Sai:

- Documented sprint progress and planned the next sprint.
- Assisted in refining project documentation.

Oliver:

- Managed project coordination and task distribution.
- Reviewed and provided feedback on team progress.
- Communicated with the project mentor.

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