Instructions:
Each team must submit a weekly project status form detailing progress, milestones achieved, challenges encountered, and planned next steps. Make sure to include a summary of meetings with the client, summarizing discussions, outcomes, anticipated challenges, and future actions. Also, a detailed project status section captures the accomplishments for the week for technical deliverables and tasks completed. Additionally, please provide any feedback or support that the team may need as the project advances.

Overall Progress:
Provide the overall status of the project, details of discussions, next steps, any challenges and confirm if team members are meeting and contributing.

The project has seen substantial progress, particularly in developing a robust data pipeline for managing and processing both text and audio data. We have begun structuring the pipeline with containerization principles in mind, experimenting with Docker to enable modular components that can be independently scaled and deployed. Following recent discussions with the professor, we have incorporated OpenAI's Whisper to facilitate a text-to-audio transformation, enhancing our ability to simulate real-world environments by generating audio from text and converting it back for sentiment analysis.

Our focus this sprint has been on finalizing the flow for audio-to-text and text-to-audio transitions within the pipeline, ensuring compatibility with the sentiment analysis model. This includes further testing of key performance metrics, including precision and F1 score, and optimizing the pipeline for seamless integration of Whisper and sentiment analysis models. All team members continue to contribute meaningfully toward these developments.

Meeting Summary:
Include the meeting's date and time, summarize key points or outcomes, highlight anticipated challenges, outline the project's next steps, and confirm the attendance of all group members (participants).

The team convened on Sunday (5 PM to 6:30 PM) and Monday (10 PM to 11:30 AM) to finalize the approach for building a modular pipeline, with exploration into containerization methods like Docker. Key discussions focused on enhancing scalability and performance, and we explored Docker’s potential for structuring independent yet interconnected components. Additionally, we reviewed how to best integrate Whisper’s audio-to-text capability with our RoBERTa sentiment analysis model to process both audio and text seamlessly.

We also outlined the next steps for testing end-to-end workflows, especially focusing on performance metrics like latency and accuracy. All members were present, and the meeting concluded with actionable steps for further refining the Docker-based pipeline structure and audio processing components within this sprint.

Detailed Project Status:
Include the details of the work accomplished in terms of the technical/project deliverables (GitHub commits) and process (Sprints/Tasks in Microsoft Teams/Planner). Note, the tasks should correspond with each of the roles of your team (Team Charter).

Release Planning: Detail current release with a summary of significant commits in GitHub since last progress report.

Recent commits focus on the early stages of structuring the data pipeline to accommodate Docker-based modularization. We have initiated work on configuration files and scripts for containerization, setting up an environment where components like Whisper for audio transformation and RoBERTa for sentiment analysis can potentially be deployed independently. These initial setups are in place for testing purposes as we explore the feasibility of Docker-based modularity for each component.

Sprint Planning: Detail current sprint with a summary of task progress (new tasks, completed tasks in Microsoft Teams) since last progress report.

For this sprint, our focus has been on initial exploration of Docker's utility in our pipeline. We are conducting tests with Whisper's text-to-audio and audio-to-text capabilities to see how they might be integrated seamlessly into the sentiment analysis workflow. This includes foundational work on potential data ingestion and output structures while remaining in an exploratory phase, as we assess Docker's role in our setup. Our goal is to evaluate various configurations before finalizing any approach, ensuring that all components interact effectively.

Feedback/Support:
Please list any questions or concerns for the professor or TA, and specify any resources or guidance needed for the project.

No immediate questions for the professor.