Self-Assessment

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Part A – Individual Contribution

Throughout the senior design project, my individual contributions spanned both the frontend and backend of CleverCollab. At the start, I worked with Daksh to set up Clerk authentication for Jira, which was one of the trickiest parts due to various permission and integration issues. I also initially built the data pipeline from Jira using Python to demonstrate a proof of concept, pulling in task-related data we could use to train and test our system. As we later decided to migrate fully to Typescript and Next.js, I transitioned to focus on frontend development. I designed and developed interactive UI components, selected the color theme, created the logo, and styled the overall interface. I also refined the homepage logic to show users a "My Prioritized Tasks" section based on improved task filtering and organization. Alongside frontend design, I contributed to feature integration. I modified the chatbot responses to display in a cleaner, markdown-based format and integrated automatic email generation using the Gmail API. Additionally, I created the final expo poster for our project, summarizing our solution visually and clearly. One of the biggest obstacles I faced was the decision to shift from using Python as our backend to building everything within Next.js. Initially, we had invested time into Python, but integrating the frontend and backend separately would've been too complex and time-consuming. Switching fully to Next.js streamlined our development process, but came with a steep learning curve. Another major challenge was setting up Jira authentication and data retrieval, but once those pieces were in place, the rest of the development went more smoothly. Overall, I definitely built upon the skills I had outlined last fall—especially in full-stack development, UI design, and working with APIs.

Through this project, I strengthened a wide range of competencies. I applied what I learned in previous coursework, like software engineering principles, database structures, and cloud computing (from classes such as CS2028C, CS4092, and CS6065). I built on my ability to manage real-world project challenges, and improved my skills in working with production-level tools. My experience with Azure DevOps and Jira during coops helped with background knowledge for this project. I also developed better debugging strategies and became more comfortable working in a collaborative environment using tools like GitHub, Vercel, and the Vercel AI SDK. One of my biggest takeaways was learning how powerful it is to simplify your tech stack when needed as it saved us time and helped us deliver a functional, integrated system more efficiently. My individual successes included getting Jira integration to work, refining the frontend interface, and ensuring the chatbot and email features ran smoothly. I measured my performance by checking if the AI agent met the technical goals we set: being able to handle project management tasks, integrate with external tools, and improve user efficiency. It felt rewarding to see our AI agent actually making project management easier.

Part B – Team Contribution

As a group, we successfully built CleverCollab into a fully functional web application that automates various aspects of project management using AI. We met all of the key milestones and timelines that we planned during the fall semester. One thing that stood out was how well we helped each other navigate technical and project-related challenges. During our meetings, we often split into smaller focus groups of two, which made us more efficient. For example, I'd pair up with someone to solve a specific frontend or integration issue without slowing the rest of the team down. It became clear that breaking into smaller groups helped reduce confusion and let us make faster decisions. We also learned the value of listening to each other—like when we all agreed to Daksh's suggestion to switch from Python to Next.js, even though it felt daunting at first because of how much progress we had already made in Python.

The most successful aspects of our teamwork were open communication and mutual respect. We listened to each other not just on technical topics but also on small things like meeting times and work distribution. However, because we're all good friends, it was sometimes hard to assign strict deadlines or delegate tasks formally, which led to occasional procrastination. That caused a few crunch moments toward the end when we had a lot to wrap up. But overall, I think we balanced our responsibilities well. Each of us brought something unique to the table: Daksh and Jalin focused on the AI and logic behind skill matching and task allocation, while Varad worked mainly on task automation features. Compared to my teammates, I handled a good mix of design, automation and API-related tasks. I believe everyone contributed meaningfully, but Daksh deserves special recognition for constantly exploring new ideas and tech, like using Forge App, Vercel AI SDK, and driving the decision to use Next.js. His proactiveness really pushed the project forward.