What was your problem statement? *(The challenge you're trying to solve?)*

- When we first looked at the prompts we understood that there are a lot of issues that we sometimes ignore in our daily student life. One of these main issues was room reservation on campus. Unless you are a Recognized Student Organization, you are unable to reserve spaces on campus. Additionally, many classrooms are regularly left underutilized throughout the day. The current form of room reservation, EAS, is a very difficult form to understand. And without training, most would be easily confused. Students usually go to the library to study. Either that, or some buildings have couches in some of their hallways where students can sit and study. However, these are not always the most optimal study areas. On the other hand, there are various classes on campus that are empty yet not utilized. So we thought we can make a system for students to reserve rooms around campus, either to study individually, or to study a similar class with other students. Thus we asked the question: How can we make room reservation a lot easier for students?

What was the plan? (*How much did it change throughout development?*)

- We first brainstormed ideas of what we were going to do to solve this problem. We also searched if there were systems in which solve this issue, if so what can we do to improve them? We broke up the work where 2 would work on the front end and 2 would work on the backend. Simplicity was the aim of the game so we made sure to keep our answer to the problem as simple as possible focusing on important features. We added the necessary building blocks to start off and if there were any issues we would talk about possible solutions as a team. We also reached out to the mentors to see if there was anything we can do to better the project or improve our efficiency.

What do you consider your project's *main feature*?

- We believe the main feature of this project is the ability to find spaces to reserve around campus or find events which are already doing something similar. It is

somewhat similar to the existing website that allows you to reserve study rooms in libraries, but this time extends to classrooms throughout campus. This way, students can find more effective study spaces that fit their preferences better, and more spaces around campus can be utilized more consistently.

What was implemented? (*What tools [like libraries] did you use?)*

- We used Postgresql, Python, Streamlit, and OAuthentication.
- We developed a mobile-friendly web application whose purpose was to give students the ability to reserve different rooms on campus. To ensure students, faculty, and other staff of sdsu are the only ones to be able to access this system we used OAuthentication by google to ensure only people with a sdsu email account can access it. To speed up development we used Streamlit to help us use preexisting api to help us make a mobile friend web application. We also used Postgresql to develop the database that would store reservation information, user information, and classroom details. We used python to program the application and the methods to interact with the database and used SQL to develop the database.

When did you begin prepping for the project?

- We all had different levels of prep and all at least understood what the prompts and grading criteria was. We began first by understanding what issues we face on a daily basis at SDSU. Our discussion led us to understand that reserving rooms is quite difficult so we focused our attention there. We also realized that there are many spaces on campus which are under utilized.

When did you begin implementing the project?

- We started implementing once we felt confident in the plan that we had made. We broke up the work in a way where we had two teammates working on the frontend and the other two on the backend. We started with the database and what kind of data we would need. We made a rough breakdown of it and started the implementation which was followed by having a teammate also working on

the pseudo code for the program to interact with the code. Frontend was a hard task to tackle but we created a rough sketch of what we wanted it to look like and what we needed.

How did you utilize *AI*?

- We utilized AI by helping us understand new softwares that we utilized on this project. We all are at different stages in our education and were using many new technologies which we didn't understand fully. Instead of allowing that to deter our goals we had AI help us fill in the holes in our understanding of databases, frontend development, and more. We utilized AI to make our project look more appealing which we felt our initial design was lacking. We used GPT to create a base design that we further prompted to our liking.