EE/ CprE/ CybE/ SE 492 – sdmay23-43
Feederal Reserve
Week 11 Report
25 Mar 2023 - 07 Apr 2023
Client: Campus Organizations Accounting
Faculty Advisor: Nicholas Fila, PhD.

Team Members:

Jack Croghan – Backend Software
Sarah Degen – Circuit Design/ Note-taking
Melanie Fuhrmann – Frontend Application Development/ Client Contact
Isabella Leicht – Cyber Security
Adan Maher – Cyber Security/ Organization
Brandon Mauss – Component Design
Nathan Paskach – Firmware Design

Past Week Summary and Accomplishments

Over the past few weeks, we have had a couple of meetings with our advisor and clients. We also ordered and received some new parts for the hardware team to continue development on the mechanism. The continuation from a hardware perspective included putting together circuit boards, updating the 3D modeling of the food casing with some testing of the prototypes, and further developing the firmware to ensure proper functionality. From a software perspective, we were able to begin setting up a Raspberry Pi for server usage, adding Python packaging and modules for the backend, and updating frontend pages and menus. Administratively, we were able to update documentation, the team website, and notes for all meetings.

Pending Issues

Currently, in the hardware realm, we are working to finalize a fully functional prototype to begin setup with the application established by the software team. On the software team, we are working to get complete functionality of the frontend, connecting the frontend and the backend, and connecting the backend to the server on the Raspberry Pi.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Jack	Worked on packaging the backend into a python module to be run on the final server hardware. Helped set up the pi with ssh and such to allow it to easily be modified by multiple people.	6	56.5
Sarah	Helped put together the circuit boards. Recorded the current status and testing in the design document	3	42.5
Melanie	Edited and improved Create/Edit menus and added more settings to setting page	4	63
Bella	Worked on setting up a test server for packaged software to run on. Worked on implementing various facets of the server – from usability to security.	5	39
Adan	Worked on Flutter install to help develop frontend, Docketed meeting notes, Updated team website	3.5	46
Brandon	Helped assemble circuit boards. Worked on 3D modeling of case and began testing prototypes.	5	68
Nathan	3D printed more case iterations, kept developing firmware to be more robust.	5	45

Summary of Advisor Meeting

Over the past couple of weeks, we have had two meetings with our advisor, one of which included our clients. In the client meeting, we demonstrated the updates we had with the feeding mechanism and the new pieces of the application visually. Then, in the sole advisor meeting, we discussed our plans moving forward about getting the server situated, finishing off some plans for the hardware side, and preparing for the final presentation.

Plans for the Upcoming Week

In the upcoming weeks, we are going to attempt to address the issues we mentioned in the Pending Issues section of the document, which includes working on finishing prototyping for the hardware, finalizing the software side, and connecting the pieces of the frontend and backend. Another matter we need to address is our plan for the final presentation. While we have started discussing, we need to conduct research on our target market for comparison and develop a way to set our product apart.