EE/ CprE/ CybE/ SE 492 – sdmay23-43
Feederal Reserve
Week 7 Report
17 Jan 2023 - 18 Feb 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 course of the past couple of weeks our team has made steps in both the mechanical device development as well as the application development. We have also begun looking into the practices being used to verify the best security practices are being utilized. For the mechanical side, we have begun finalizing the design of a prototype case, began development in SolidWorks, and put finalizing touches on the circuit design. For the application side, we have added a few more pages, begun integrating the frontend and the back end, and began combing through code to ensure proper security practices are in use.

Pending Issues

Some of the current issues that we are working on are on both the hardware and software sides of our project. For the hardware, we are currently waiting for the parts we have ordered, and are building the aspects of our protective case and the dispensing mechanism for the food dispenser. As for the software, we are currently working on connecting the frontend to the backend, as well as beginning work on the security practices we plan to implement.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Jack	Worked on connecting the backend to the frontend with Melanie	4	44.5
Sarah	Worked with Brandon and Nathan on finalizing the design for the prototype case, started an instruction manual, continued updating design docs	3	33.5
Melanie	Added Settings Page and Create/Edit Schedules widget. Began integration with backend.	10	57
Bella	Began static analysis of backend codebase. Implementing best practices.	10	30
Adan	Weekly team, client, and advisor meeting notes. Formatting and drafting reports. Updating team website. Began analysis of frontend code	7.5	37
Brandon	Worked with hardware team to finalize case prototype and looked over circuit design. Built the first prototype case design in solidworks as well as the dispensing mechanism.	15	60
Nathan	Finalized circuit design and put together parts order	6	36

Summary of Advisor Meeting

The first meeting we had was with Dr. Fila and our clients to go over the progress we have made from our previous meeting. In our second meeting with only Dr. Fila, we discussed planning for the next meeting with the clients, such as what we are planning on showing them, painting a picture of where we want this project to go, and thinking about what we need to work on to provide a full product to our client. Our second meeting also left us with a few design questions which we need to address before continuing on with the project.

Plans for the Upcoming Week

Our plans for the upcoming week include addressing the concerns we have brought up in the pending issues section. We also plan deciding on the outcomes of many of the questions brought up by Dr. Fila. For the software side, the decisions we are making in regards to Dr. Fila's questions are for in relation to the notifications, connecting the backend to the device, and how we are going to set up the server. Similarly, for the hardware side, we are making decisions about how we may modify the sensors, design aspects of the feeding mechanism, and the lid layout of the fish tank with our device attached.