Senior Design 492 Bi-Weekly Report 01
February 3 - February 17, 2023
Group sdmay23-18
Senior Design Server/Client Development for Project Matching Phase 2

Advisors/Clients:
Akhilesh Tyagi
Jacob Grundmeier

Team Members:
Haylee Lawrence – Lead UI Designer, Frontend Development
MyTien Kien – Client Interaction, Backend Development
Sanjana Amatya – Frontend Research, Frontend Development
Alec Elesbernd – Lead Researcher, Backend Development

Bi-Weekly Summary

Over the past 2 weeks the main goal for our team has been to get our application up and running. This has meant that we have spent a lot of our time creating and deploying our backend as well as working on each component of the application communicating with each other. We have successfully gotten our backend to communicate with the server and spent a lot of time more recently working to get the frontend and backend to communicate. We have also spent time working on each component individually. We have also completed 14/22 screens for the frontend. Lastly we have also all spent time trying to perfect our algorithm.

Past Weeks' Accomplishments

Throughout the semester, as a group we have focused on solidifying our algorithm and the heuristics we would like to use on our project. We have been meeting up once or twice every week to talk through different ideas we have had for the algorithm and have met up with our advisor Tyagi to ensure we are on the right track as we finalize it. We have completed most of the frontend and created and initialized a Laravel server. We are continually working on getting the frontend pages, backend server and database set up and plan on getting the frontend connected to the backend as soon as possible.

For each team member…

- **Haylee Lawrence:** Since week one I have been focusing on trying to get the frontend views coded as soon as possible. I have coded 14 of the 22 pages that we need for the site. The backend connections still need to be coded for each page, but the buttons/routing is all functional. I have also brainstormed a sample algorithm and written a step-by step walkthrough of the algorithm in our algorithms document. I am planning to finish the remaining pages before the end of the week next week, and then after that I will focus on the algorithm.

- **MyTien Kien:** For the past few weeks, I focused on setting up the backend. I have our Linux server and database set up, as well as integrating React with our Laravel backend. I've started creating controllers for our project and have been writing out certain CRUD statements for each model/controller so I can implement these later. I researched a bit about bi-partite matching for our algorithm and tried to somewhat create a heuristic for our problem; this is still a work in progress.
- **Sanjana Amatya:** SInce the start of the semester, I have been focusing on researching how to get Laravel connected to React. By going through what the past team 44 did and finding different videos online to help me test different methods to try to get it working, I am working with Mytien to get the backend to connect to the frontend so that we can start working more on the functionality of the website and implement the algorithm as soon as possible.
- **Alec Elsbernd:** During the last couple of weeks I have spent a significant amount of time researching Laravel and trying to figure out how to implement this knowledge. I have also spent time looking at past teams projects and trying to see how we can implement parts of their backend. I also took some time to brainstorm algorithms and come up with a step by step walkthrough of one algorithm.

Pending Issues
For each team member…
- **Haylee Lawrence:** I just have general confusion about the algorithm. That is an issue for after next week, however, as I am trying not to multitask and just focus on completing the frontend before putting all my attention into the algorithm.
- **MyTien Kien:** The issue I'm having is creating an algorithm/heuristic that solves are assignment problem within Senior Design. I don't have much algorithms experience and have been focusing more on backend stuff. Another thing I'm having trouble with is integrating the frontend with the backend - I don't have much experience with Laravel/PHP as well as React, so this is a bit complicated for me.
- **Sanjana Amatya:** One of the biggest issues I am having is finding different solutions for an algorithm that will work for our project. I do not have much experience with algorithms or heuristics so I've been trying to focus on how to connect the front and the back since I have only done this with React and Sprinboot instead of Laravel.
- **Alec Elsbernd:** One major problem that we are all focusing on is the algorithm and how we are going to implement it. Another issue I am having is just trying to figure out laravel and how to start with creating different components of the backend.

Individual Contributions

Name	Hours Past 2 Weeks	Hours Cumulative
Haylee Lawrence	14	48
MyTien Kien	15	50
Sanjana Amatya	12	45

Alec Elsbernd	10	40

Comments & Extended Discussion

We (the team) had a meeting discussing issues about communication and lack of work within our group. We want everyone to put in an equal amount of work into this project and initiate work without being told so. This would put less stress on everybody as it would speed up the progress of our project.

Plans for Upcoming Week

For each team member…
- **Haylee Lawrence:** I am planning to complete all of the frontend pages that we need for our website, so complete 8 pages in the next 1 week.
- **MyTien Kien:** I plan on finishing integrating React with our Laravel backend this next week as well as setting up our routing/CRUD requests. I'll be starting on creating route, controller, and model pages.
- **Sanjana Amatya:** I plan on getting the Frontend connected to the backend and making sure that we are able to properly communicate between both sides.
- **Alec Elsbernd:** I am planning to start creating various backend components when the frontend and backend are connected

Summary of Weekly Advisor Meetings

We have not met the past week due to midterms and illness. In the past few meetings, we summarized our progress on the frontend/backend, we asked questions about the Laravel setup process, and we asked for clarification on algorithms/heuristics. We plan to meet this next week to discuss our intent to delay thinking about the algorithm until we can focus our undivided attention on it.