EE/CprE/SE 491
Iowa State A.I. Schedule Companion
Weekly Report #5
Wednesday, February 28 – Tuesday, March 5, 2024

Group number: ssdec24-08
Client: Koby Fowler
Faculty Advisor: Abraham Aldaco
Team Members:

Koby Fowler - Overall Application Leader
Chandrashekar Tirunagiri - Frontend Design Leader
Raghuram Guddati - Backend Design Leader
Jacob Paustian - Artificial Intelligence Research Leader
Christian Deam - Meeting Manager
Anna Huggins - Team Manager/Communicator

Weekly Summary

The calm before yet another calm week; the week was rather uneventful. Progress has been made for the back end and front end, although there has been mostly silence in the chat as both sides worked quietly. Frontend-wise, teammates were able to see visual progress with the website. The only planned thing on the agenda is a meeting on Thursday evening. That meeting will allow us all to breathe and determine the next action.
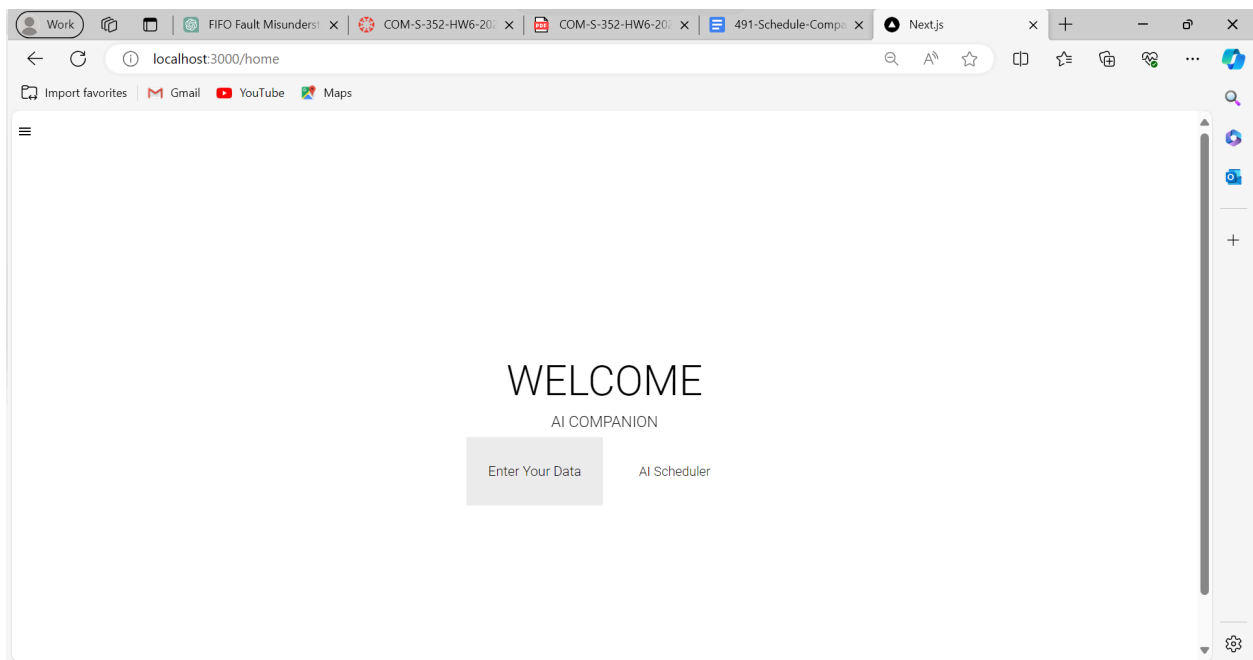
Past Week Accomplishments

Migration to new AWS account, Authentication, Okta Wrapper - Koby Fowler

Last week's achievements include initiating the migration to new AWS accounts, exploring authentication ideas, investigating an Okta wrapper, and refining frontend concepts.

Created Additional Front End Pages - Chandrashekar Tirunagiri

- Last week, I was tasked to make the home screen more futuristic
- I also added the "Enter your data" page and A.I. Scheduler buttons

Figure 1: Home Screen.

Backend - Raghuram Guddati

- Finally got the chance to learn more about Terraform last week. It was helpful to understand how it works. This has helped me learn more about EC2 and how it works with AWS, which was my main goal. I also had a good chat with Matt where we agreed on clear deadlines and what was expected of each other. This made the work go more smoothly.
- I also know a lot more about how the UI and backend talk to each other. I learned more about full-stack development from this study because it showed me how these different parts talk to each other in very complicated ways.

Team Discussions, Ideation, Midterms - Jacob Paustian

- Unfortunately, this week was quite a difficult week. All of my midterms and projects were piled into this past week, so contributions to this project had to be put on hold.
- The only thing I did outside of the class work was discussions with team members regarding some future direction ideas for the project.
- We also received our OpenAPI key from Iowa State, which I did some basic research into.

Lightning Talk 2, Weekly Summary - Christian Deam

- Created Lightning Talk 2. I took longer to improve it, and I like where it turned out.
- Created Weekly Summary

Qualtrics Survey Finalization & Distribution - Anna Huggins

- Qualtrics Student Survey
  - Design finalization
    - Obtained feedback on survey questions from a small sample of peers
      - Added additional background information in the header paragraph
      - Added two additional questions that allow users to skip or continue to the following questions based on their answers
    - Verified the wording and question style
  - Distribution
    - Contacted CprE 491 professors Nick Fila & Shannon regarding the distribution of the survey in class
      - Dr. Fila reported back that we would be able to distribute our survey via Canvas announcements and announce it in person at the beginning or end of one of our upcoming classes
      - Dr. Fila also provided some additional feedback on the survey
        - I will be making some additional changes based on this feedback before publishing the link

Individual Contribution Tracker

Name	Individual Contributions	Hours this Week	Hours Cumulative
Raghuram Guddati	- Learned a bit about AWS and Terraform	2	24.0
Christian Deam	- Weekly Summary - Lightning Talk 2, took longer for better quality (was satisfied). - Helped with the second half of the Design Document Introduction	3	17.0
Jake Paustian	- Met with others regarding the future direction of the project	2.0	27.0
Anna Huggins	- Updated Qualtrics survey (final draft) - Contacted 491 professors regarding the distribution of the survey - Created Developed Design Document	2.5	22.0
Chandrashekar Tirunagiri	- Created additional front end webpages	2.0	20.0
Koby Fowler	- Initiating the migration to new AWS accounts - Exploring authentication ideas - Investigating an Okta wrapper	5.0	40.0

Pending Issues

Issue #1 - Confirming Funding for ChatGPT API and Amazon Web Services (AWS)

- **Anna Huggins**
  - Status: Resolved (3/3)
    - We have the funding we need through our senior design account with Iowa State. However, this opens up an additional issue.

Issue #2 - Integration of Authentication System

- **Koby Fowler**
  - Status: Pending (3/5)
    - Revolves around the seamless integration of the new authentication system with the front end.
      - While authentication ideas have been explored, further work is needed to ensure a smooth implementation and user experience. Additionally, addressing potential challenges or compatibility issues during the AWS account migration remains an ongoing concern. It is crucial to thoroughly assess and resolve these pending issues to guarantee the successful continuation of the project.

Plans for the Upcoming Week

Koby Fowler

- Continue and finalize the migration process to new AWS accounts, ensuring a thorough review of all configurations and settings.
- Implement the chosen authentication solution, addressing potential challenges and ensuring compatibility with the front end.
- Evaluate and integrate the Okta wrapper into the system, optimizing its functionality and ensuring a seamless user experience.
- Conduct thorough testing on the authentication system and front end to identify and address potential issues or bugs.
- Collaborate with the team to brainstorm and refine additional features or improvements to enhance the overall project.
- Consider looking into Kanbans (Teams).

Chandrashekar Tirunagiri

- Making the home screen better and working on the "enter data" and "Ai scheduler" pages.
- Will be working on writing terraform scripts for the backend

Raghuram Guddati

- I'm going to work on improving my Terraform skills this week, especially by making more tables. I will also work with Koby, Chan, and Jacob to improve the backend system even more.
- I'd also like to set up roundtrips between the server tables and the frontend that Chan built. This will let us test the POST and GET ways properly and make sure that the two parts can talk to each other without any problems.

Jacob Paustian

- We will meet on Thursday to re-evaluate our next few steps for the project. As I understand it, everyone has been pretty busy with midterms, and with Spring Break around the corner, this next few week's sprint looks unclear.
- I think Koby and I will evaluate the next steps for the AI service. We will need a more efficient way to parse information for storing AI context as well as AI training.

Christian Deam

- Await for further instructions on the backend situation
- Created Lightning Talk 3
- Attend meeting on Thursday
- Enjoy Spring Break

Anna Huggins

- Update Qualtric student survey based on Dr. Fila's feedback
- Begin distribution of the survey
- Meet with Chan by the end of day Friday, 3/8, to discuss front-end efforts and designs