EE/CprE/SE 491 WEEKLY REPORT 4

10/3-10/10

Group number: sdmay25-24

Project title: IINSPIRE Survey System for STEM Undergraduate Research

Client &/Advisor: Dr. Diane Rover

Team Members/Role:

- Max Strater: Frontend
- Nick Pinnello: Backend
- Alex Moeller: Project Management/Misc.
- Charlie Moreland: Backend
- Matthew Bennett: Cloud
- Landon Gulotta: Cloud
- Isabelle Raghavan: Frontend

Weekly Summary

The overall objective for this week was to continue to look more into our specific parts of the project. The frontend team is creating designs using figma for the final product. The backend team is researching ways to make backend code more efficient and easier to use. The cloud team is working on finalizing a Cloud architecture flow diagram and getting the AWS side of the project up and running.

Past Week Accomplishments
- Alex Moeller: Decided on "Project Manager" Role and defined our 4 user types. Helped Max create and share Figma with "Dev Mode" enabled for all members. Created and shared a Teams folder for easier file sharing. Edited and reviewed Report 4 and Lightning Talk 2: Problems and Users.

- Max Strater: Worked with Isabelle to begin Figma design and reviewed legacy code for future UI/UX improvements. Took note of these improvements and compiled a list in the team Discord.

- Nick Pinnello: Talked with Charlie on how we can update the backend services to make everything run more efficiently. Researched ways to update current code into a more react based application.

- Charlie Moreland: Met with Nick to analyze the previous group's backend architecture. Researched new technologies for easy integration with the previous project's existing backend technology stack. We compiled a "Backend Improvement" document and shared it in the Discord. Continued research on NodeJS and developing simple server applications.

- Matthew Bennett: Met with Landon to finalize cloud plan(see discord for flow diagram), picked Next auth for user authentication, Switched to ECS for combined server and DB and scalability, Chose github actions for automatic CI/CD to our node Server. Worked with Team to define different user classes and their needs.

- Landon Gulotta: Met with Matthew to discuss how we want our AWS cloud for our project to look and what programs we would like to use. Made up a new diagram of the new apps and products we want to use for our web app. Also met with the group as a whole to discuss what products we will be using. Additionally, I worked with the team to discuss our users, the permissions they will have, and their needs for the app.

- Isabelle Raghavan: Contributed to frontend notes, researched next.js framework which we plan to implement for frontend.

<u>Pending Issues</u> (If Applicable)

- Matthew Bennett: Need to make sure that we can use github actions with our new setup, need IAM password for AWS

- Landon Gulotta: Need the AWS Account ID to go along with AWS username/password

Individual Contributions

NAME	Individual Contributions	Hours this week	HOURS cumulative
Alex Moeller	Defined 4 user types. Assumed "Project Manager" role and determined associated responsibilities. Helped Max create shared Figma with access to "Dev Mode". Reviewed Report 4 and Lightning Talk 2.	5	29
Nick Pinnello	Researched new Backend technologies to improve outstanding backend code and/or define new schemas.	6	30
Matthew Bennett	Worked with Landon to finalize cloud plans. Set up new channels for weekly reports in Discord. Defined different users/needs. Created Cloud diagram (AWS, etc.)	4	28
Landon Gulotta	Worked with Matthew to get a Cloud diagram. Looked into AWS for login and previous use. Started looking into Figma.	6	30
Max Strater	Worked with Isabelle on what improvements we could make to all aspects of the frontend. Created and shared Figma with the team and began planning design aspects.	6	30
Charlie Moreland	Researched backend technologies to improve the current architecture. Looked into different API testing applications. Set up a teams page to host files. Continued learning NodeJS and reviewing legacy code.	5	29
Isabelle Raghavan	Contributed to frontend notes. Researched the Next.JS framework with the intention to use it in the new Frontend design.	4	28

Plans for the Upcoming Week

- Alex Moeller: Assist Max and Isabelle with Figma design to begin creating components for the Frontend. Create a new Weekly Report template with better formatting and more professional look/feel. Help Charlie with repository creation and documentation.

- Max Strater: Dive deep into the Figma redesign and work on creating designs for components. As well as start planning how we are going to set up the API calls with the backend using Next.js

- Nick Pinnello: Download the repo and run the application and see how each function is being utilized in the backend. Create a document for backend improvements/ideas.

- Matthew Bennett: working on figma with the team/design document, further diving into figuring out how to implement CI/CD.

- Landon Gulotta: Work with the rest of the group to get initial frontend designs for the app. Gain access to AWS IAM after getting Account ID and overview of the previous code (will be changed to our new products). Work with Kevin to talk more about our next actions with the cloud.

- Isabelle Raghavan: experiment with dev mode on figma and create some screen designs, determine what the different screens will look like for our different users

- Charlie Moreland: Download the Repository and set up a local sandbox server environment to start editing existing code and troubleshooting adding different API Calls in Postman. Start developing a document planning out the database schemas as well as a document listing different API calls and formatting.

Summary of Weekly Advisor Meeting

● **User Engagement**: Set up meetings with both the current users of the product and students from last year's project to gather feedback and insights.

● **Team Coordination**: Upload our weekly reports and assignments to Discord to so that Dr. Rover can better visualize our weekly progress.

● **University Collaboration**: We are working on coordinating a meeting with representatives from the University of Iowa to discuss potential collaborations and gather further input for development.

● **Technical Decisions**: On the technical side, we decided to establish a completely separate AWS account for the new version of the app to maintain a clear separation between environments. This will be paired with the creation of a new repository to streamline development and ensure a clean slate for the updated architecture.