

CPRE 491 Weekly Report 10

Date:

04/03/2017

Project Title:

Performance Livestock Analytics

Group Number:

DEC1708

Team Members & Roles:

Jacob Johnson - Key Idea Holder

Jeffrey Murray - Key Idea Holder

Michael Rhodas - Team Leader

Rachel Hartman - Communication Leader

Ken Kohl - Webmaster

Client & Advisor:

Dustin Balsley & Prof. Daji Qiao

Weekly Summary

The team developed an iOS app that will interact with our Firebase database to show our medications list. We have user authentication so that individual users of the app can interact with the database. We also have the beginnings to a barcode scanner to implement into the app for users to scan in medications to locate them potentially on our list. The meeting we had scheduled with the client was pushed back until Friday. This delayed getting our database connected with the client to further our developmentation. However, we are able to use this extra time to research more options to connecting a database to the SQL server he has, most likely through a web service we will create. We will also work on adding more features to the UI such as a search bar for the user to narrow the list.

Past Week Accomplishments

- Jacob: Merged Ken and Rachel's contributions for DB retrieval and Auth and built out the minimum viable product design including scenes, viewControllers, and data control systems. This included several hours of research and going back through some Swift demo's to familiarize myself with the systems of navigation and UI control at the heart of iOS development. Low surface area on the project was giving us some trouble but should be resolved now.
- Jeffrey: Worked on finding an API that is usable for barcode lookups that we can utilize for our application. Almost every available API costs a significant amount of money for barcode lookups, but I was able to find a temporary service that allows 100 lookups per day per device, which is plenty for our needs. I set up the application I have for scanning barcodes to send requests to the API, and am now receiving an XML response with information about the barcode.

- Michael: Researched options to connect SQL databases to an iOS app. It seems the best way is to use a web service. There are many pre-existing ones, but most have a fee. We are able to create our phpSQL backend that is hosted at a URL. We would be able to host this at ISU for the time being, but the hope is to have it hosted by the client.

- Rachel: Worked on figuring out asynchronous vs. synchronous implementation of functions. Firebase is asynchronous and needs to be implemented correctly so that it works the way you wanted to. Worked on better flow and transitions for the login in viewcontroller to the main page. Read tutorials about iOS design

- Ken: refactored code from creating table view of data. Researched making table data selectable along with researching how to create a search bar for the table view.

Pending Issues (if applicable)

- Jacob: Feeling much better about things now. I feel far more confident with iOS development now and should hopefully be able to serve as a resource for other team members.

- Jeffrey: I would like to actually test some of the barcode lookups with some of the medications that the application will be utilized for. Currently I have only tested it with commonly found things, but I am skeptical that the database the API is using has every medication we could need.

- Michael: Getting information on the back-end of the client and getting our hands on his database. He is busy this week, but on Friday our connection to his database should be back on track.

- Rachel: Waiting for Jacob to finish his work, so I can then add my stuff to master due to different viewcontrollers.

- Ken: Work on implementing the ability to select and get data from the table view. Create a search bar for table.

Individual Contributions

Name	Contributions	Weekly Hours	Cumulative Hours
Jacob	Merged previous contributions, cleaned code, commented code, and finished the minimum viable product build as a way of demoing initial build as well as increasing project surface area.	13	45

Jeffrey	Research and testing with various barcode scanning APIs. Addition of API calls to barcode scanning application.	4	33.5
Michael	Research the creation of a web service and connecting it to an iOS app.	4	33
Rachel	Commented & cleaned up code, worked on making login in and authentication work correctly	4	32.5
Ken	Refactored code of table and db pulling methods. Researched possible implementations for further table improvements.	4	33

Comments

Place extended discussion here.

Plan for Coming Week

- Jacob: Spend some time looking ahead and setting up Trello tickets. Also continue to comment code so that the rest of the team has an easier time adapting and expanding different things. Will likely step back a bit and let some other people jump into development now that we have a little more stable project to expand.

- Jeffrey: Plan to finish up barcode scanning application and potentially add some quality of life type features to it, as well as test it using actual medication barcodes, though I am not sure where to obtain those.

- Michael: At the very least, I would like to create a demo app that connects to a free web service I find or create. This will show the feasibility of connecting our app to the client's database. The best option would be to start working with the client's configuration.

- Rachel: Pull master. Merge everything I have been working on. Continue to design and add more view controllers. Fix existing view controllers. Add more design implementation. Work on fixing storyboard.

- Ken: Make data selectable and make it possible to pass that data between screens. Possibly implement search bar.

Summary of Advisor Meeting (if applicable)

This week we discussed screen sketches and UI design and navigation control flow. Set a hard goal of alpha build by this coming Friday.