

EE/CprE/SE 491 WEEKLY REPORT 4 2/28 – 3/12

Group number: sdmay20-19

Project title: To Online Shop, or to Not Online Shop

Client &/Advisor: Goce Trajcevski

Team Members/Role:

Amiah Gooding - Electrical Engineer

Matthew Martin - Report Manager/Scrum Master

Max Minard - Software Manager

Smruthi Sandhanam - Meeting Manager

Travis Stanger - Test Engineer

Yana Aleksandrova - Meeting Facilitator

o Weekly Summary - Software team has finished the frontend product for our participation in the PerCom Conference in Austin, TX. Frontend has developed all necessary screens with functionality and navigation. These UI components are now integrated with the backend database through API calls. The hardware side has finished all work regarding the Raspberry Pi and Barcode Scanner. We are able to scan barcodes and store it in the database under the appropriate user. The poster has also been completed as well.

o Past week accomplishments - Software views are integrated with the AWS database, and functionality has been completed. The frontend has been tested as well. The python script has been completed and we are able to scan the barcodes of items and store them in the database.

Yana: Finished API calls for checking authentication, registering a user, and setting up hardware. These components have been tested as well, and further features have been added as necessary.

Matthew Martin: Created the application in spring boot and initialized all repository and controller files. Began creating the basic functionality that would be needed by the iOS application with calls for logging into the application and basic user information. Created classes of objects for the database to return objects to the application that contained only necessary information.

Max Minard: Decided to stick with iOS MapKit. Restructured the front end code to Solve the issue of async calls to location services for gaining current location and surrounding food market locations. Implemented background processing to update surrounding food

market locations as the user's location is moving. Got annotations to dynamically render with surrounding locations within a specific radius.

Smruthi Sandhanam: Finished writing python script for barcode scanner. Ran into issues with the barcode requiring the user to scan an item twice. Also issues with the API calls. However all issues with this have been resolved and the hardware portion is complete.

Amiah Gooding: Finished constructing the python script for the raspberry pi to be able to post to the phone application. However an error has been found where the user would have to scan the barcode twice to get it to trigger the Api call. There had also been error where the api call was not able to be completed but has now been fixed.

Travis Stanger: Helped Yana with debugging several issues on the frontend. Finished preparations for PerCom conference, including EDAS bio. Updated senior design website.

o Pending issues

Max Minard: Testing Location Services

o Individual contributions

Name	Individual Contributions	Hours this week	Hours cumulative
Amiah Gooding	Picked up keyboard and mouse. that came in. Finished set up of raspberry pi. Reviewed barcode scanner instructions and connected it with pi. Started Python script. Got more information about poster requirements.	12	45
Matthew Martin	Created the algorithm that would be used by the front end application. This algorithm would be an endpoint called by the front end to get the needed store to travel to and all the users items to buy. Multiple calls to the database were created that would compare prices to all stores and compile the list of items that would most benefit the user. Additionally created final API endpoints for last	13	51

	functionality needed by the application. Assisted with hardware team to get python script calling the database.		
Max Minard	Completed notifications that activate through background threads when the user is near a prime store location for their needed items. This involved asynchronously calling the backend algorithm when new stores pop up to determine where to buy the needed items. Made a lot of bug fixes and smaller feature improvements as well as restructuring the code to perform better. Made the list dynamically load information from the database. Performed a lot of unit and integration testing for location services, dynamic loading of lists, and notifications.	14	52
Smruthi Sandhanam	Worked and completed the python script. Created script for barcode scanner script to run on boot so that a GUI/raspbian interface would not be required. Helped with troubleshooting bugs on the software side.	12	47
Travis Stanger	Met with team, discussed plan for next few weeks. Assisted Yana with frontend issues. Made sure everything is good for the PerCom conference. Updated senior design website.	12	44
Yana Aleksandrova	Finished API calls for checking authentication, registering a user, and setting up hardware. These components have been tested as well, and further features have been added as necessary.	12	48

o Plans for the upcoming weeks

Yana Aleksandrova: Finish up all components, see if there is anything that needs to be ironed out before the conference. Help with completion of poster for conference. As well as wrapping up peer evaluation video for the class and making sure everything is good to go for our team to go to the PerCom conference

Max Minard: Make further improvements on the current algorithm as well as prepare for the upcoming PerCom conference that we will be presenting at. After the conference, we have plans to address stretch goals and continue implementing other features of the mobile application.

Matthew Martin: Have project ready for presentation at the Percom conference. Additionally any fine tuning with the API calls will be made as needed by frontend. Lastly, add more attributes to the algorithm to continue to save the user the most money.

Smruthi Sandhanam: Continue to test and fine tune details regarding the hardware side. Also practice presenting demo with Max and Travis for PerCom 2020.

Amiah Gooding: Meeting with Smruthi to continue testing and putting finishing touches on the poster.

Travis Stanger: Continue to make improvements and fix small details in preparation for PerCom 2020 conference with Max and Smruthi.

o Summary of weekly advisor meeting

Professor Trajcevski gave us insight to the Percom Conference and what to expect with the situation arising at the school. He gave us tips for creating the senior design poster that will be complete in time for the conference. Lastly, told us to take the few weeks after spring break off since we finished the whole project before break in addition to the poster for final presentation. He wanted to see a final demo before leaving for spring break and the conference.