sdmay18-18: Fleet monitoring system
Week 10 Report
November 13 - December 3

Team Members

Tyler Hartsock — *Web Manager*
Anthony Guss — *Technical Lead*
William Fuhrmann — *Test Engineer*
Kendall Berner — *Project Manager*
Matthew Fuhrmann — *Report Manager*
Venecia Alvarez — *Point of Contact*

Summary of Progress this Report

We have successfully created prototypes for the front-end, server, and Raspberry Pi Python application that works with GPS and OBD-II simulator. We integrated these prototypes so that data can be displayed that was taken from the OBD-II simulator or GPS on our fleet manager dashboard. We also updated our Project Plan and Design Document to reflect the substantial changes to the project that have occurred since we last worked on those documents.

Pending Issues

None.

Plans for Upcoming Reporting Period

We do not plan to work on any more functionality this semester: next semester, we plan to start by updating the Python application to retrieve more data using different PIDs, get the server to ingest that data, and the website will work on views to interpret that data.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Tyler Hartsock	Worked on some requests for front end. Played around with test data and website to run some tests. Spent some time working on Design document and Project Plan. Practiced presentation and worked on slides.	15	34.5
Anthony Guss	Worked on various server changes to be ready for the demo. Worked with both the micro controller and website teams to integrate with the server. Created Swagger documentation for our api that will be added onto our team website. Fixed various issues brought up while integrating the three systems together. Added and edited to both	15	58.25

	the design document and project plan.		
William Fuhrmann	This week I worked with Matt on converting our android code to Python, getting the GPS working on the Raspberry Pi, getting the speed from the Can-Bus and sending the data to the server. I also worked on learning to program in Python since that is what we are using to program on our new hardware. We now have a working prototype of the microcontroller. The Raspberry Pi pulls speed and gas usage from the ODB-II port and sends that data along with GPS location to the server via wifi.	14	53.25
Kendall Berner	Set up charts to run with client side mock data, or with data pulled live from database via server call. Merged code with Venecia. Reorganized file structure to be a little cleaner. Created line chart that corresponds to an individual vehicle. Displayed charts now update upon change of selected vehicle. Set up interval to call server and update charts every half second. Worked on project plan and design document. Kept website up to date with relevant files.	19.5	52
Matthew Fuhrmann	I created a Python module that reads the GPS information from the Adafruit Ultimate GPS breakout board and provides it to the server. Unfortunately, when indoors, the reception on the GPS is not very good and it often cannot get a fix. This means that for the final demo we will not be able to demonstrate it. I also worked on making the Python script start on boot-up to prepare for our demo, which required some changes to make sure that all of the resources we needed to begin operating were available. I also worked on the project plan and design document, and particularly looked at changing old information that was for the Android board to reflect the change to the Raspberry Pi. I worked with AJ to make sure that all of the server APIs that I was using were working and that the data ingestion of the server was working.	20	71
Venecia Alvarez	I have been working on the requests from the front end to the server. This involved	17	51

	research on Node.js, setting up test data, working a little bit on the server api, and parsing the data on the front end. Most of the time spent has been handling the issue of asynchronous requests not returning data before elements are rendering on the page. I then spent time integrating Kendall's charts to be on the same page with my updated map code. I have also spent time working on and practicing my portion of the presentation, and then updating our documents.		