sdmay18-18: Fleet monitoring system

Week 7 Report
October 23 - October 30

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

All: We completed the Project Plan v2, adding sections that were not fully elaborated for v1 and changing sections to meet the rubric.

For the front-end: The website now supports multiple vehicles and toggling through them to focus on one of them. They also investigated the possibility of integrating Google Road API so that the path of the vehicle can be charted by road and we can check whether they were speeding.

For the micro controller: We worked to get a GPS and a OBD-II or serial 16-pin cable that would work with the hardware and to resolve our issues with the library source code and documentation not being provided. Because of continuous difficulty working with the vendor of the micro controller on getting the materials and information we need, we have moved to a different hardware, a Raspberry Pi.

Pending Issues

Need to get the Raspberry Pi, and the connectors between Pi and OBD-II port.

Plans for Upcoming Reporting Period

For the front-end: We will continue investigating the use of the Google Road API, and we will work on the final design of the front-end dashboard.

For the micro controller: We will investigate the Python libraries we can use with the hardware we are getting to implement the same functionality we were trying to make with the Android micro controller. We will develop the JSON interfaces for the micro controller, and we will find a suitable GPS to use with the Raspberry Pi. The members of the micro controller group who are not familiar with Python will work on learning the basics of the language. If the Raspberry Pi arrives, we will begin setting it up for use.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Tyler Hartsock	I have worked on researching Google Road API for getting speed limits for our webiste. I have started implementing a test case for it	2	14.5

	as well. Next week i will continue to work on the Google Road API and any CAN BUS tests we need done.		
Anthony Guss	I worked on attempting to find a solution to our hardware issue by trying to find a cable that would work. I also spent time trying to learn the code to the can network. We have had many discussions with our client on issues with the device and ultimately, we decided to switch to using a raspberry pi system. I also spent time working on various fixes within our project plan v2.	5	30.75
William Fuhrmann	I worked on learning the android API for interfacing with the Can network provided along with our micro-controller. Then after our meeting I started working to learn Python since we will be switching out the micro-controller for a Raspberry Pi and the client wants us to write our micro-controller code in Python. After spending some time learning Python, I worked on converting our Android code for the previous micro-controller into Python.	4.5	32.25
Kendall Berner	I spent some time working on our website, giving us a nice looking front page with a description of our project. Next week, I will be working with Venecia to sketch out the design of the front-end and begin development on it	1	27
Matthew Fuhrmann	I tried to find a GPS device that would work with the old hardware. This was somewhat difficult because of our hardware not interfacing with several potential GPS devices. I also tried to resolve the hardware issues with the library and the cable, but ultimately, after discussing our challenges with using the device, he decided to pivot to using a Raspberry Pi. Also worked on adding our market research to the Project Plan v2.	5	42
Venecia Alvarez	I worked on improving Project Plan v2 sections 3.3 and 3.4 based off of the feedback given. I have been developing the front end using static data, so this week I finished setting it up so that it will work with a variable amount of vehicles based off of	2.5	29

	whatever is returned from the server. Next week, I plan to create screen sketches of what we want the first version of the dashboard to look like for the end of semester demo.		