EE/CprE/SE 491 - sdmay18-18

Fleet Monitoring System

Week 11-12 Report

3/22 - 4/4

Client/Faculty Advisor: Lotfi Ben-Othmane

Team Members:

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

Past Two Week Accomplishments

- Resolved Git Issues and Refactored Website to Reduce API Calls - Venecia
    - Worked with Kendall to resolve Git issues that occured.
    - Refactored to use less API calls.
- Resolved Git Issues and Worked on Engine Heat Chart- Kendall
    - Worked with Venecia to resolve Git issues that occured.
    - Began creating the engine heat graph.
- Deployment of Server Google Cloud- Anthony
    - Worked to prepare the updated server code for upload on to the Google Cloud.
- MongoDB Access From R Code - Will
    - Worked on adding MongoDB calls from R code.
- Edit View Page and Stats Page- Tyler
    - Worked on implementing the Edit View and Stats page.
- Raspberry Pi Testing - Matt
    - Prepared the Raspberry Pi for testing with an actual vehicle (not normal execution).
    - Tested the Raspberry Pi with a U-Haul van. Tests successfully showed that our GPS device and OBD-II interface work in real-world conditions.

Individual Contributions

Team Member	Contribution	Hours for Current Report	Total Hours
Venecia Alvarez	Resolved Git Issues and Refactored Website to Reduce API Calls	3.5	86.5
Kendall Berner	Resolved Git Issues and Worked on Engine Heat Chart	3	84
Matthew Fuhrmann	Raspberry Pi Testing	6	116
William Fuhrmann	Deployment of R Code	4	84.25
Anthony Guss	Deployment of Server Google Cloud	3	96.25
Tyler Hartsock	Edit View Page and Stats Page	3	58.5

Plans for Next Two Weeks

Our plan is to complete all development of the project for final testing on April 15. This should leave sufficient time for updating our documentation and preparing for our final presentation.

- Raspberry Pi - Matt
    - Add testing capability for mocking hardware elements.
    - Complete installation and start-up process.
    - Add server statistics (at least engine coolant temperature).
    - Final Raspberry Pi testing.
- Server - Will, AJ, Matt
    - Work to develop API for choosing which statistics the fleet managers want and connecting that to PID requests.
    - If time allows, add R statistics calculation
    - Deploy Google Cloud server.
    - Final server testing.

- Front-end - Tyler, Kendall, Venecia
    - Finalize website code.
    - Work with server team for developing API for statistics selection.
    - Update to work with new statistics.
    - Final front-end testing.
- All
    - Full integration testing of all functionality with the U-Haul van sending data to the server being processed and shown on the front-end.
    - Begin creating final poster, report.