Project Proposal

Team info
Team #2
Team Name: Code Hawks
Team Members: Travis Cochran, Fallyn Logan, Avra Saslow, Brett Schneider, Andrew Weller, Will Walker

Application info
Application Name: PocketOBD

Description

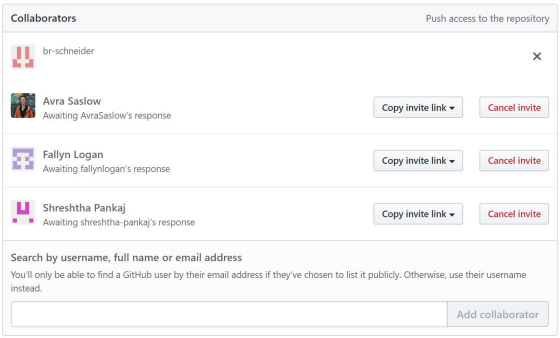
OBD-II is a standard communication protocol that most automobile manufacturers use to troubleshoot and read data from their vehicles. It has been the standard protocol since 1996 and is used by dealerships and technicians to read data from the onboard computer. OBD-II scanners are quite expensive, ranging anywhere from $60 to $400. While the specifications are not open-source, there are online resources that have enough information about the standard that it should be possible to reverse engineer the signals. We plan on creating a home-brew scanner from a Raspberry Pi, that hosts its information on a local server that can be accessed with its built-in WiFi module from any device. This scanner should be able to read common signals from theOBD-II port, and translate that to a graphical interface that is accessible from an internet browser.

Vision Statement

For automotive tinkers who need a flexible OBD-II scanner for unique use cases.The Raspberry Pi OBD-II scanner is a OBD-II scanner that is customizable and open-source. Unlike most others on the market, the firmware is open-source and the overall cost is much less.

GitHub
Meeting Logs:
https://github.com/codetrav/3308MeetingLogs.git
Milestone Submissions:
https://github.com/codetrav/3308MilestoneSubs.git
Project code:
https://github.com/codetrav/3308project.git

Shared with all but new members(don't have their git names yet):



Planning

Development method:

We will be implementing the waterfall method because it is simple and easy to follow. We also need to make sure that the hardware works before we move onto software for this project.

Communication plan:

We'll be using Slack for all communications.

Architecture plan:

Raspberry pi will run a web server and some sort of script that polls information from the sensors, which updates a database and the website.

Meeting Plan:

We will be meeting after lab every Thursday in the evening.