EE/CprE/SE 491 WEEKLY REPORT XY

September 12 – Sep 19

Group number: 44

Project title: Fix N Go

Client &/Advisor: ***Berk Gulmezoglu***

Team Members/Role: ***Benjamin Muslic, Jonathan Duron, William Griner, Mohmmed Elaagip***

(All the above information should be there in each weekly report. The format/color scheme etc need not be the same. However, please remove everything that is in a bracket from your final submission. These are just part of the template and need not be a part of the report.)

Weekly Summary *(Short summary about what the group did for the week. This should be about a paragraph in length. These are just a few questions to help you get started. What was the overall objective for the week? In general, what tasks were completed? Were there any changes made to the project?)*

We have met three times officially as a team before the first report assignment has been released. In combination, our meetings main area of focus was heavy brainstorming about our project and how we will execute it. General housekeeping things such as agreeing on how we will communicate and agreeing on an official time to meet with our advisor as well. A main topic regarding the project specifically has to do with not being overly ambitious with what we want. We realized some ideas we did what to implement are very challenging to do for a project like this.

Specifically:

- **Since our requirements are very niche, it is extremely hard to obtain a desired dataset to meet our needs and train our model for accuracy**
- **We may need to utilize preexisting models and tailor it towards what we want**

We discussed if we want an app or a website. We have not officially decided yet, but we came to a consensus with our advisor that a website is easier. The issue is however is that we can't imagine the common user bringing a laptop to their vehicle. A mobile app may make more sense, but we can utilize tools like React-Native which can help with portability across multiple platforms.

Past week accomplishments *(Please describe/summarize as to what was done, by whom, when and, collectively as a group. This should be about a paragraph or two in length. Bulleted points are acceptable as well. Please keep only your technical details related to your project. Figures, schematics, flow diagrams, pseudocode, and project related results are acceptable, but please ensure that they are legible (clear enough to read) and to provide an explanation. If researching a topic, please add a few details about what was learned and how it is relevant to the project. If two or more people worked on a single task, be sure to distinguish how each member contributed to the task. Specific details relating to the assistance provided to other members may be included here.* ***Do not include classwork, such as individual reflection assignments, and group meetings as part of your duties.)*** Team

Benjamin Muslic:

- Worked on proposing the project idea and explaining the real-life problem it can solve.
- Introduced what OBD is in a car and how we can use its DTC codes to help us understand what is wrong with the car.
- Set up discord server for communication with the team.
- Talked about real life scenarios where our product would come in handy
- Found an advisor/client for our project and set up weekly meetings in accordance to everyone's availability

Jonathan Duron

- Setup notion for our team to be able to upload any notes or files that need to be saved whenever we have meetings or research that has been done
- Attempted to find other faculty advisors that would help advise us through this project.
- Created a rough draft on how our final product should look like.

Mohamed Elaagip

- Research tech stacks that are viable for our purposes like React or React Native for a web app or phone app front end as well as Python or Javascript for the backend.
- Research UI and options when it comes to designing what our interface is going to look like
- Researched common issues mechanics and car owners alike face in order to cater our app towards solving those problems

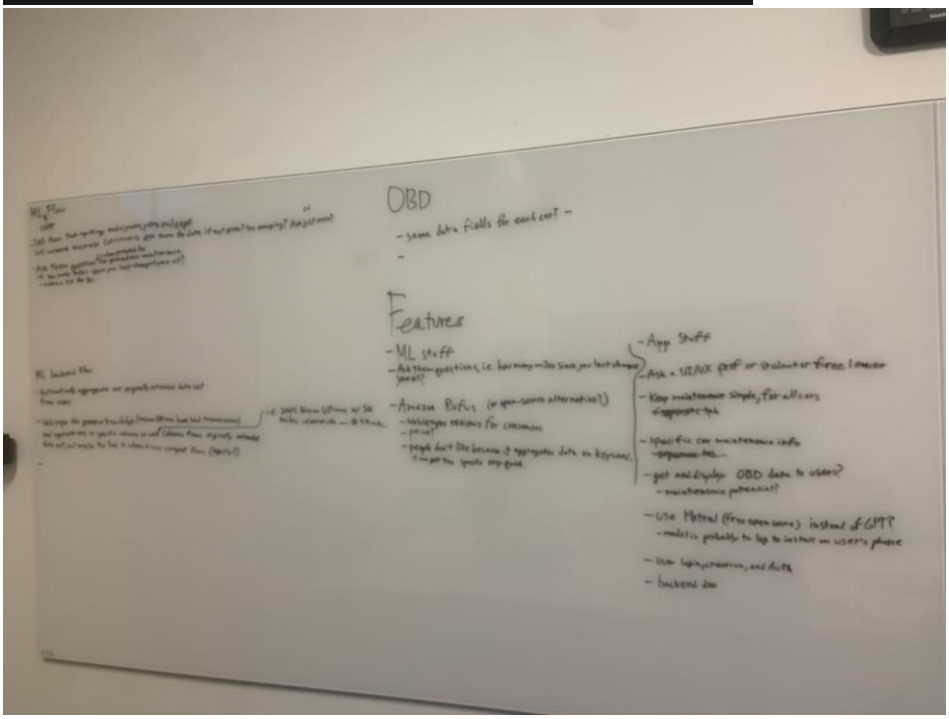
William Griner

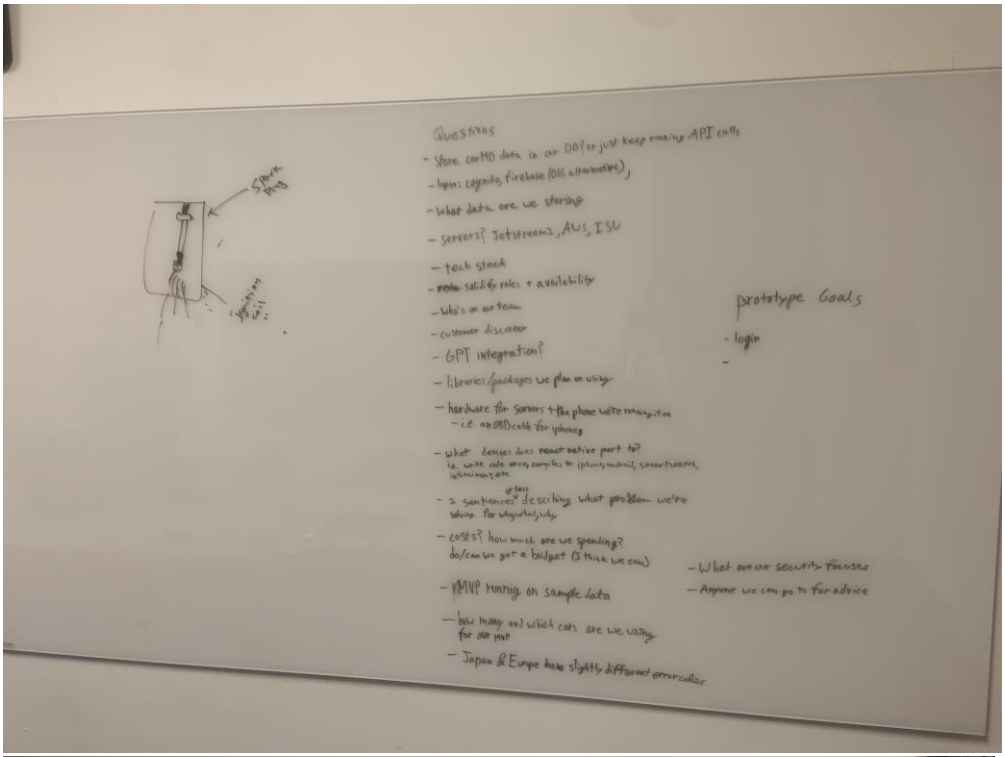
- Researched tech stacks, particularly researching if Python would be a viable backend language for our project.
- Set up Github Project board, where we can organize specific goals and what needs to change in the code for those goals to be realized.
- Set up the Github repository.
- researched further into our orignal ML model plan, and explained to our team why the original plan would not work (the data sets that were initially mentioned for training the ML model were not adequate).
- Continued planning for:
    - data flow for the preprompting of our ML model
    - database structure
    - webscraping

As a team we split up into teams and decided how we should split up the work. We decided to split the team in two, two in frontend and two in the backend. Then we came up with a rough plan on how the final product should be and consist of.

Plan

- frontend needs to come up with a UI
- Our MVP should prompt the user to ask what is wrong with the vehicle or allow it to plug in the OBD tool right away. Once the OBD tool is plugged in the software will display the translated error codes, display visualization of OBD data and compare them to normal OBD data for that make and model of vehicle.
  - UI Design
- Backend MVP goals:
  - GPT integration
    - Can make calls to GPT API
    - can pre prompt GPT with custom data
  - OBD integration
    - Can gather OBD error codes and data
      - Can send this data to the frontend
      - Can include this data in GPT prompts
      - (optional / lower priority) can create visualizations of this data
        - (optional / lower priority) can compare visualizations of the current OBD data to what is normal for that make and model
    - create graphs and visualizations of OBD data
  - (optional / lower priority)Users can create accounts and login
  - (optional? or not optional?) utilize webscraping to aggregate our own data set to pre-prompt GPT with
- Create API endpoints to communicate with the frontend





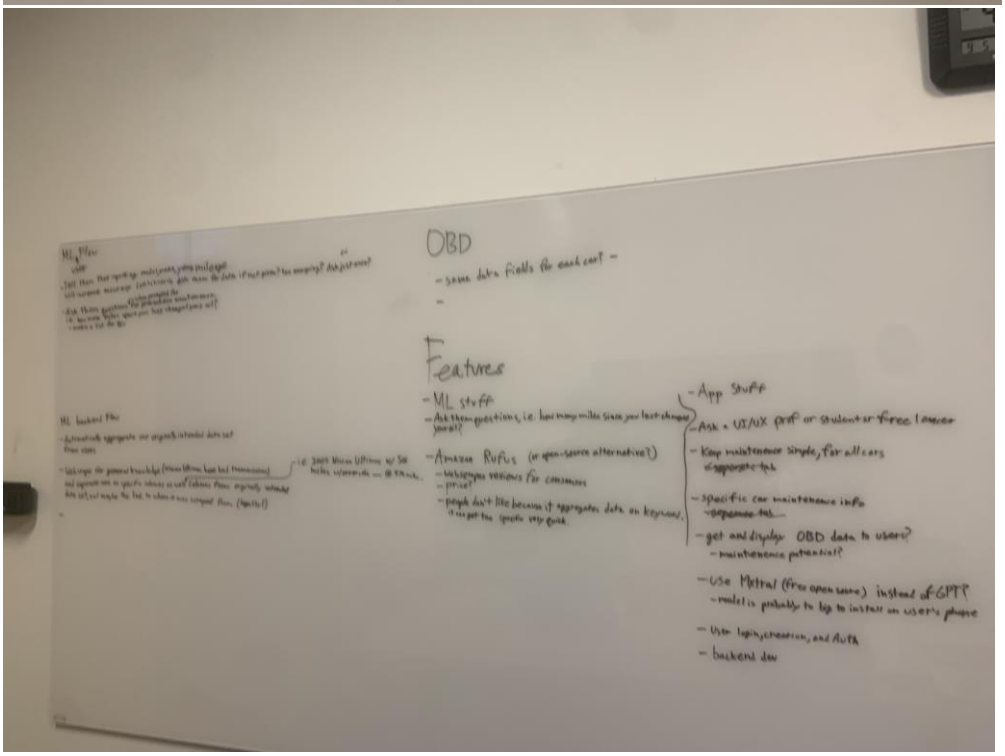
Questions

- Store carMD data in our DB? or just keep making API calls
- login: cognito, firebase (OR alternative)
- what data are we storing?
- servers? Jetstream2, AWS, ISU
- tech stack
- ~~role~~ skills, roles + availability
- who's on our team
- customer discovery
- GPT integration?
- libraries/packages we plan on using
- hardware for servers + the phone we're running it on
  - i.e. an OBD cable for iphone
- what devices does react native port to?
  ie. write code once, compiles to iphone, android, smartwatch, whatever, etc.
- 2 sentences (or less) describing what problem we're solving for ourselves, why
- costs? how much are we spending?
  do/can we get a budget (I think we can)
- MVP running on sample data
- how many and which cars are we using for our MVP
- Japan & Europe have slightly different error codes

prototype Goals

- login
-

- What are our security focuses
- Anyone we can go to for advice



- **Pending issues** *(If applicable: Were there any unexpected complications? Please elaborate.)*
  - Team Member 1: Worked on…
  - Team Member 2:
  - Team Member 3:
  - Team Member 4:

- **Individual contributions** *(Creating this section is optional, but it is **Required to include the "Hours Worked for the Week" and their "Total Cumulative Hours" for the project for each member somewhere relevant in your report. Your individual weekly hours should be at a minimum of 6-8 hours for this course. So please manage your time well. Also, ensure that individual contributions support your claim to the weekly hours. Be honest with the reports.**)*

NAME	Individual Contributions *(Quick list of contributions. This should be short.)*	Hours this week	HOURS cumulative
Member 1	Mohamed Elaagip	6	18
Member 2	Benjamin Muslic	7	18
Member 3	Jonathan Duron	6	19
Member 4	William Griner	6	20

- **Comments and extended discussion** *(Optional)*
  Feel free to discuss non-technical issues related to your project.

  Mohamed- I think we are doing well for our prototyping phase. We do need more research into implementation and especially UI. It needs to look professional and purposeful.

- **Plans for the upcoming week** *(Please describe duties for the upcoming week for each member. What is(are) the task(s)?, Who will contribute to it? Be as concise as possible.)*
  Team Member 1: Work on… Team Member 2:
  - Jonathan will start to sketch out layouts on how the screens should look like.
  - Mohamed will further research UI and Tech stacks
  - William will implement a basic form of GPT integration, backend API endpoints, and data storage.
  - Benjamin will do more research regarding OBD and respective libraries. Also find out what information is useful or is not.

- **Summary of weekly advisor meeting** (*If applicable/optional)*
  (Provide a concise summary on the contents and progress made during the advisor meeting.)

Grading criteria

Each weekly report is worth 10 points. Scores will be awarded as follows:

- **8 – 10**: Progress for your project seems to be suitable. Documentation and hours reported by team members are adequate.
- **6 – 8**: There is scope of improvement both in your report and your project progress. Can consult with instructor/TA after class for further inputs.
- **< 6**: Please talk to instructors/TA after class hours about any difficulties that you/your team is facing.

Each weekly report should be unique in that they have a unique set of supporting details for your contributions. So please do not just copy your reports from the previous week. In addition, please avoid any personal pronouns (he, she, I, you). Try to keep your reports as neat as possible.