

***EE/CprE/SE 4920 WEEKLY REPORT 4***  
***number: 44***

***Project title: FixIt***

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

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

## **Weekly Summary**

Lots of major progress has been made for the FixIt project. There have been many updates in the hardware, frontend, and backend.

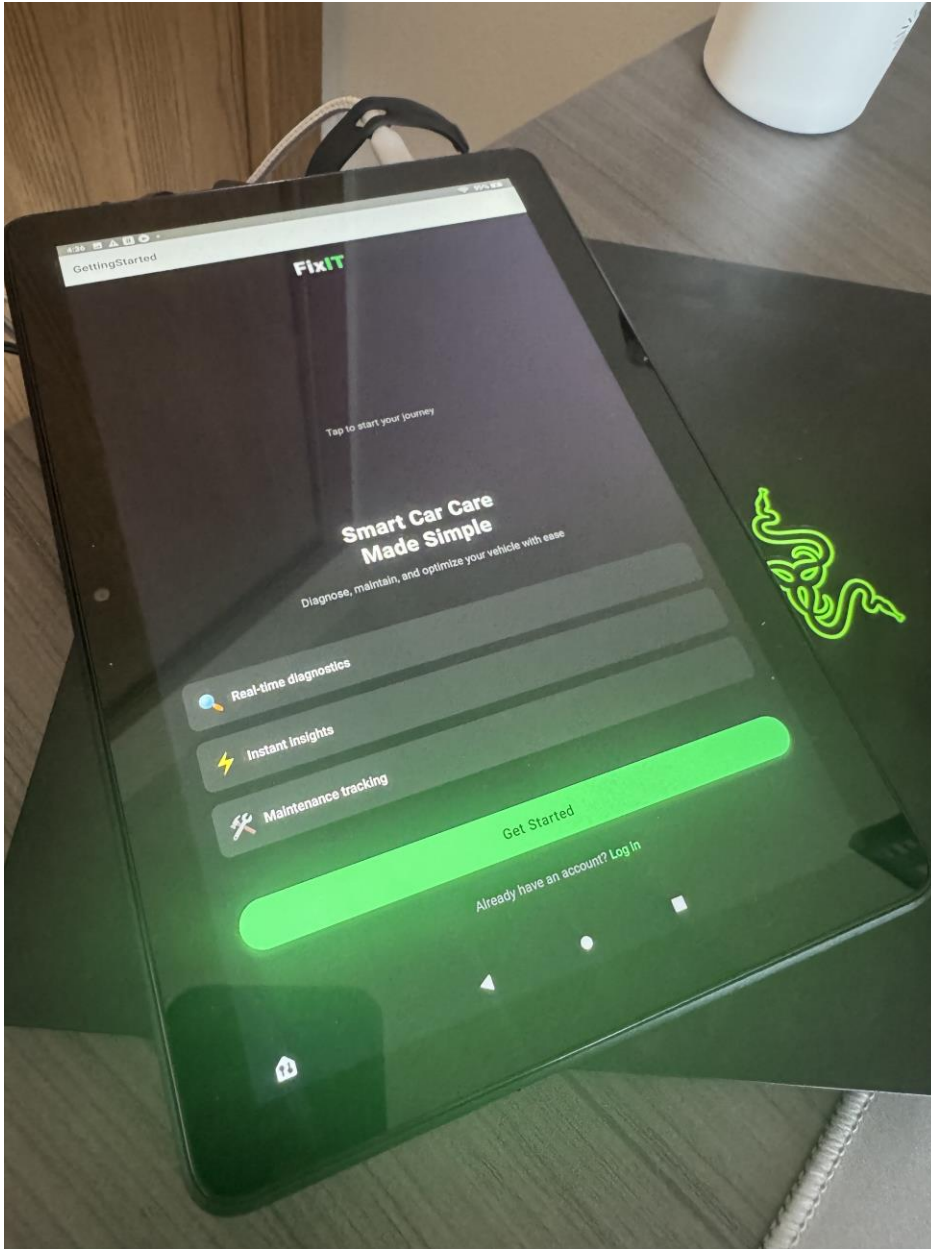
## **Past week accomplishments**

### **Benjamin Muslic**

- Secured additional ECU sim for the team
- Secured additional esp32 and OBD Wi-Fi reader for the team
- Debugged previous issue of Ubuntu Linux android studio not picking up physical device
- Figured out how to extract engine temperature from ECU sim.

```
COM7
Received char: 0
Received char: 9
Received char: 2
Received char: 3
Received char: 4
Received char: \r
Received char: \r
Received char: >
Delimiter found.
All chars received: 430201009234
ELMduino: Found code: P0100
Current DTCs found:
P0100
DTC Data sent via BLE: P0100
Clearing input serial buffer
Sending the following command/query: 0105
Received char: 4
Received char: 1
Received char: 0
Received char: 5
Received char: 6
Received char: 1
Received char: \r
Received char: \r
Received char: >
Delimiter found.
All chars received: 410561
Raw payload for coolant: 410561
Coolant Temp (Manual Parse): 57.00 °C
DTC Data sent via BLE: Coolant (manual) = 57.00 °C
Autoscroll Show timestamp Newline 115200 baud Clear output
```

- Ran app on physical Android Tablet and verified that scaling across screens works correctly



### Jonathan Duron

- Implemented the frontend for the user to input any other vehicles they have
- Connected the database to accept users' new vehicles.

The image displays two side-by-side mobile app screens for an application named 'FixIT'. Both screens feature a dark theme with green accents for section headers and buttons.

**Left Screen:**

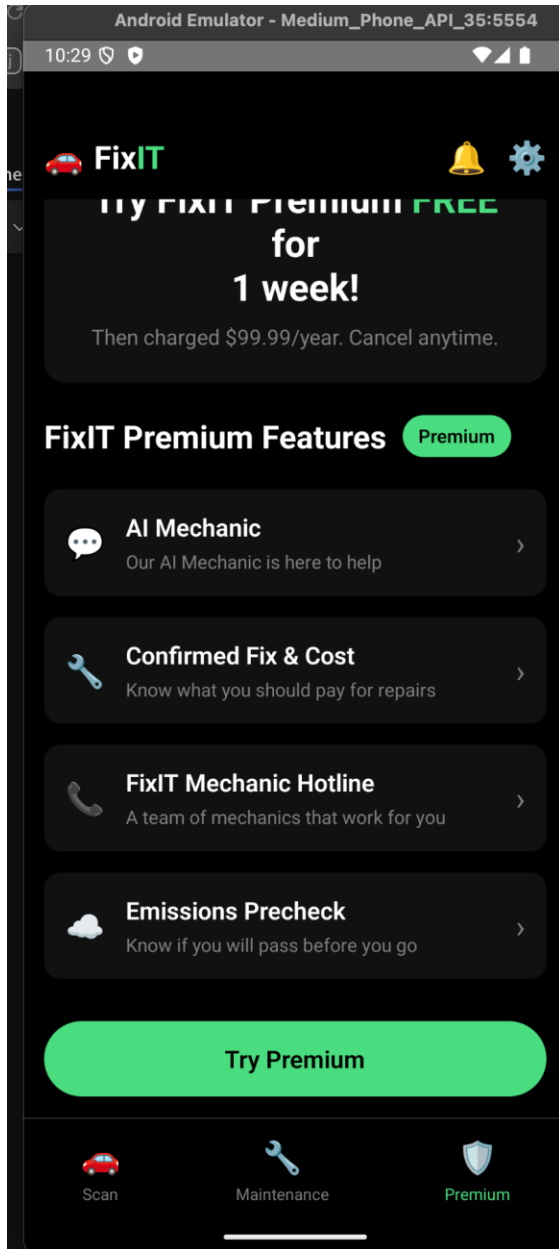
- Header:** Status bar at 9:09, signal strength, Wi-Fi, and battery icons. Below is the 'FixIT' logo with a car icon and a green 'Save' button.
- Odometer Section:** Titled 'Odometer' in green. It contains a 'Current Mileage' label and a text input field with the placeholder 'e.g. 45000'.
- Maintenance History Section:** Titled 'Maintenance History' in green. It contains a 'Last Oil Change' label and a date selection input field with the placeholder 'Select date'.
- Purchase Information Section:** Titled 'Purchase Information' in green. It contains a 'Purchase Date' label with a date selection input field, and a 'Purchase Price (Optional)' label with a text input field containing '\$ e.g 2500'.

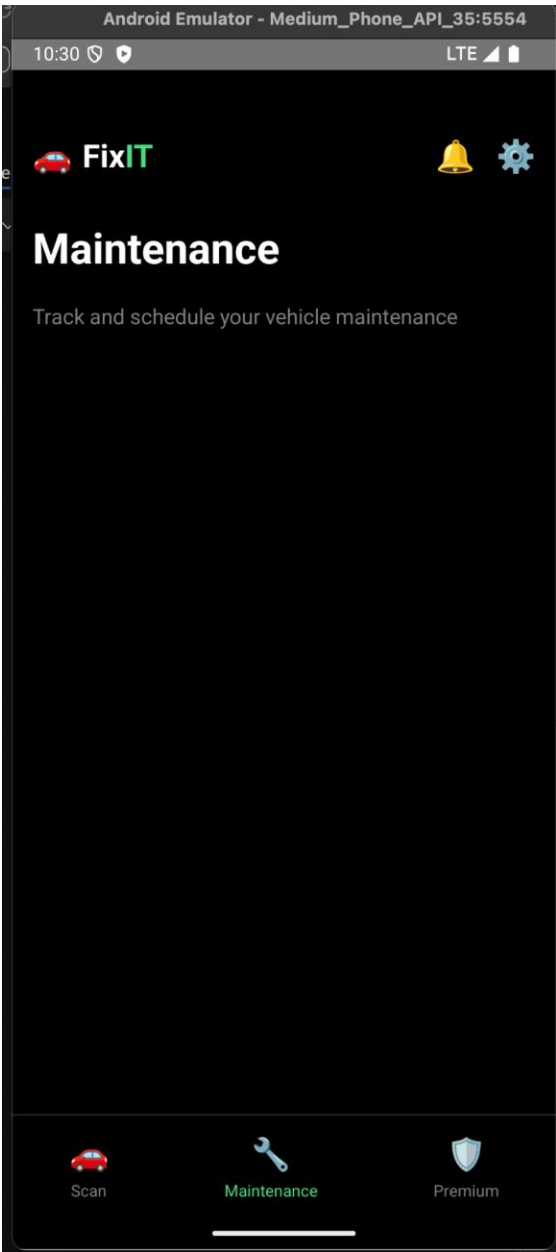
**Right Screen:**

- Header:** Identical to the left screen, showing the 'FixIT' logo and a green 'Save' button.
- Add Vehicle Information Section:** Titled 'Add Vehicle Information' in white. It contains several sub-sections:
  - Basic Information:** Titled in green, it includes 'Year' and 'Make' labels with corresponding input fields (e.g., '2023' and 'e.g. Honda, Toyota').
  - Model:** A label with an input field containing 'e.g. Camry, Civic, F-150'.
  - Nickname (Optional):** A label with an input field containing 'Give your car a name'.
  - Odometer:** Titled in green, it includes a 'Current Mileage' label and an input field with 'e.g. 45000'. A white curved line is drawn over this section.
  - Maintenance History:** Titled in green, it includes a 'Last Oil Change' label.

## Mohamed Elaagip

- Added Maintenance page
- Added premium page
- Fix navigation bug





### William Griner

- refactored AWS architecture to use lambda instead of ec2
- deleted old terraform code for unneeded security groups
- implemented a postgresSQL database to store user and car data
- created new API routes to interact with data from our database
- created a new lambda that runs dockerized code to interact with our API, to get user and car data from our database

### Pending issues

- Have not tested if temp is sent via BLE as DTCs were previously (could be broken)

### ○ Individual contributions

<u>NAME</u>	<u>Individual Contributions</u> <i>(Quick list of contributions. This should be short.)</i>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Benjamin Muslic	<ul style="list-style-type: none"><li>• More equipment</li><li>• temperature tracking feature</li><li>• Large screen test</li></ul>	8	80
Jonathan Duron	<ul style="list-style-type: none"><li>• Frontend development</li><li>• Connecting frontend with backend</li></ul>	7	80
Mohamed Elaagip	<ul style="list-style-type: none"><li>• Added Premium page</li><li>• Added Maintenance page</li></ul>	8	80
William Griner	<ul style="list-style-type: none"><li>• Continued working on backed</li><li>• Implemented database layer</li></ul>	15	80

## **Plans for the upcoming week**

### **Benjamin Muslic**

- Test what data is sent via BLE with temp feature added
- Figure out how to utilize ESP32 full CPU power for minimal delay
- Figure how to extract/set battery voltage from ECU sim and have it display in battery voltage tile on the homepage
- Communicate with SW guys on how to best send the data for them to process

### **Mohamed Elaagip:**

- Continue adding the needed pages
- Work with Jon on the AI chatbot
- Refine UI interactions

### **Jonathan Duron**

- Going to start creating an AI chatbot so the user can talk to the chat bot about any inquires their vehicles and get a good response based off what information they are given
- Design chatbot
- Develop design and get the chatbot up and running

### **William Griner**

- Test the database layer
- Continue adding business logic
- Test APIs