MECH ON SPOT

TEAM-13

Team Members

1. Yaswanth Paruchuri - 16326618
2. Tej Deep Parvatha Reddy - 16326613
3. Eeshwara Sai Tota - 16320001
4. Sarath Kolisetty - 16322286

Project Git Hub Link:

https://github.com/Yaswanthypfm7/MechOnSpot

Project Demo Link:

https://youtu.be/hdax6P_BNJY

Project Presentation Link:

https://github.com/Yaswanthypfm7/MechOnSpot/tree/87e9fa8cfb0509bc12ef26cb0fcfa616f503f439/PPT

Git Hub Links:

1. https://github.com/Yaswanthypfm7/WebDevCourse/
2. https://github.com/SaiKicks/WebMobile-Spring2022
3. https://github.com/TejdeepP/WebProgrammingSpring2022
4. https://github.com/sarath98-lab/spring-2022

Introduction

Web apps are the most efficient way to communicate with clients right now. They engage with people and respond to their messages. This is a web application that extends the user car repair module by raising a request online. Customers may make requests for vehicle repairs over the internet. On a webpage with login sections, the customer may log in and select their requirements from a list of features. The web application makes use of the Firebase database which helps the admin track and work on the requests. Treating car emergencies right then had been especially important these days in the current unstoppable world. It would be great if users could initiate a car repair through a web application. So that users can get their car repaired in minutes and continue their ride.

Background/Related work

What can a person do if in the middle of their journey and the car breaks or the person is aware of the problem that they may not be able to fix it? Will the car need to be fixed on the spot or taken to the garage and worked on it for days to fix it? This wastes their time and spoils their journey plan.

Proposed Idea

With this problem mentioned above why a user should suffer and spoil his journey plan. Our proposed design provides users to get their vehicle repaired during their journey time. Our technicians have a wide range of accessories, tools, equipment, and machinery that can be operated via mobile and can resolve the issue within time based on the problem. We support all kinds of SUVs, Sedans, MUVs, Hatchbacks & Premium cars. Once the user logins to the system

Users can raise a request by providing the vehicle information and user info, and location and can log the request. A request ID will be generated and can be tracked for the user.

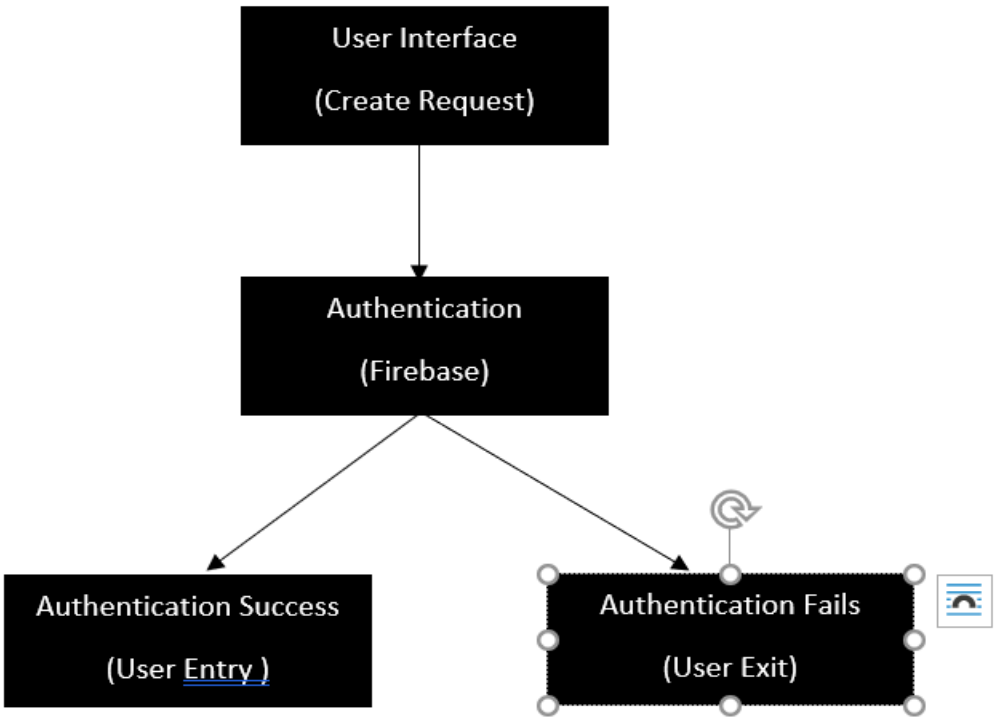


Fig. Data flow Diagram of Designed System

Approach

By surveying about the most frustrated/common problems a rider faces and situations when he needs an expert to inspect and repair the car. By analyzing these situations, we list the services our mechanics can provide and train them with additional skills if required. Designing a web application that can be more interactive and user-friendly and a browser capable will help users to help in this situation.

Features

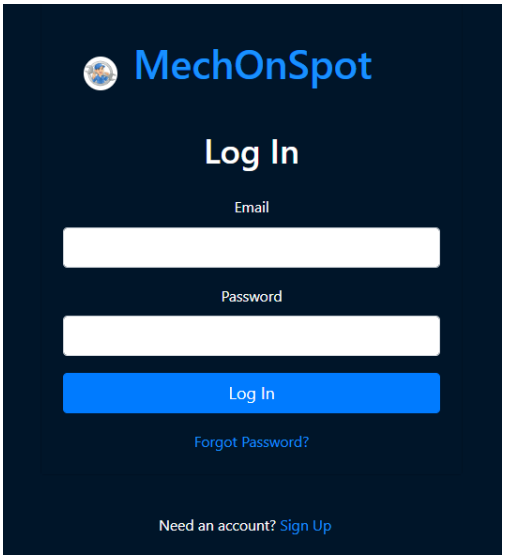
Below are the features of our Web application **"MECH ON SPOT"**

- Login
- Signup
- Raise Request
- Track Request
- Add Vehicles
- Image Upload

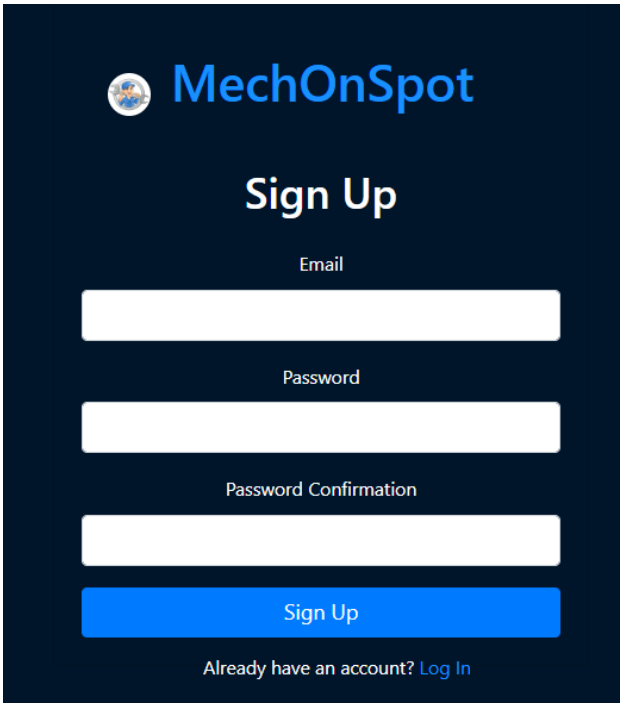
Working Screens

Below are our project working screens.

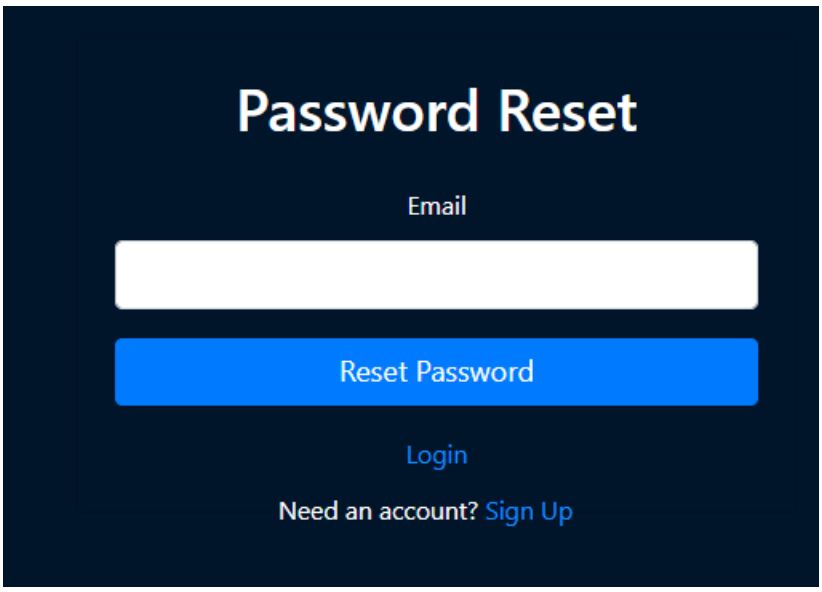
Login Page: User can login to the portal with Email and Password and can click on Login.



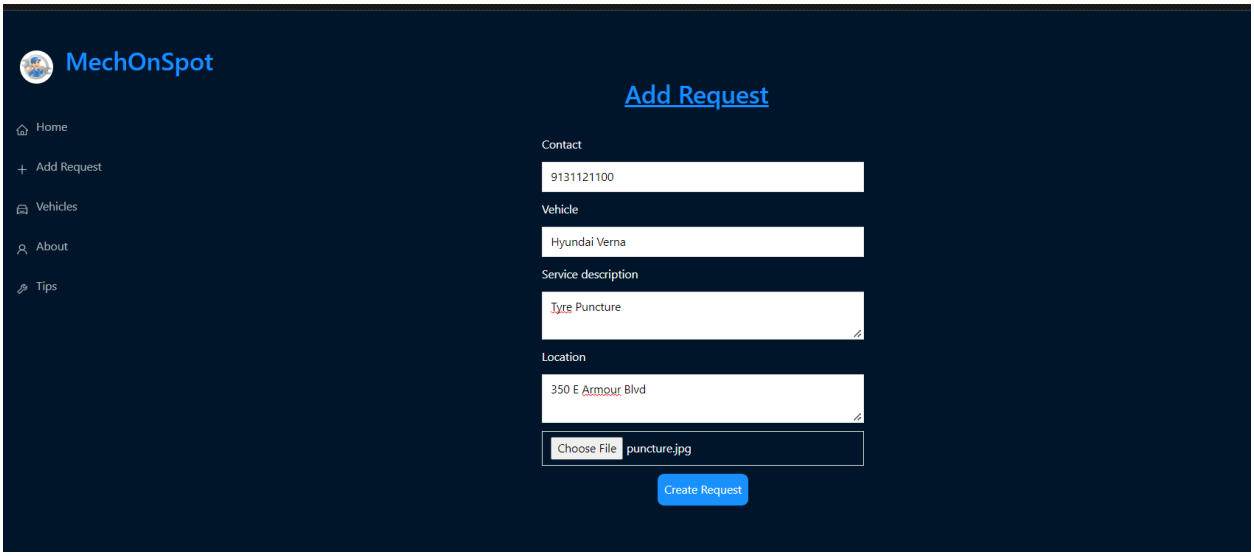
Sign Up: User can create an Account if it doesn't exist. User can provide his/her Email, Password and Confirmation Password and can click on Signup button. Once Sign up is done an account will be created for user.



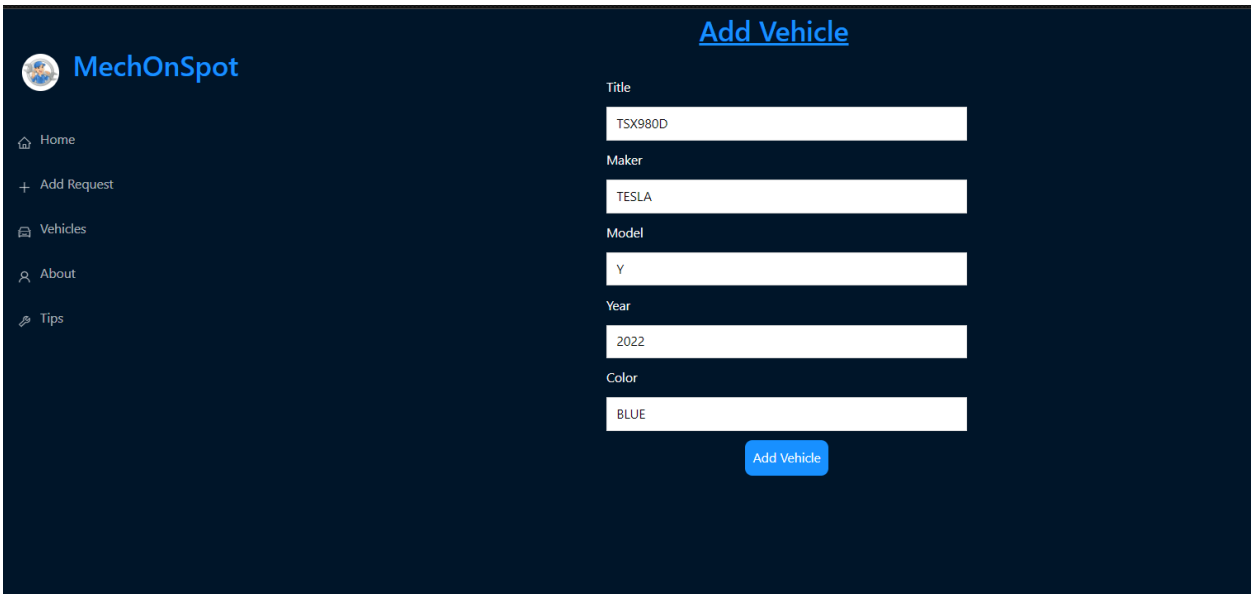
Forgot Password: User can provide their email if they have forgot their password by clicking on Forgot password. Once it is clicked system will ask user to provide the email address so that reset link will be shared in email for password reset.



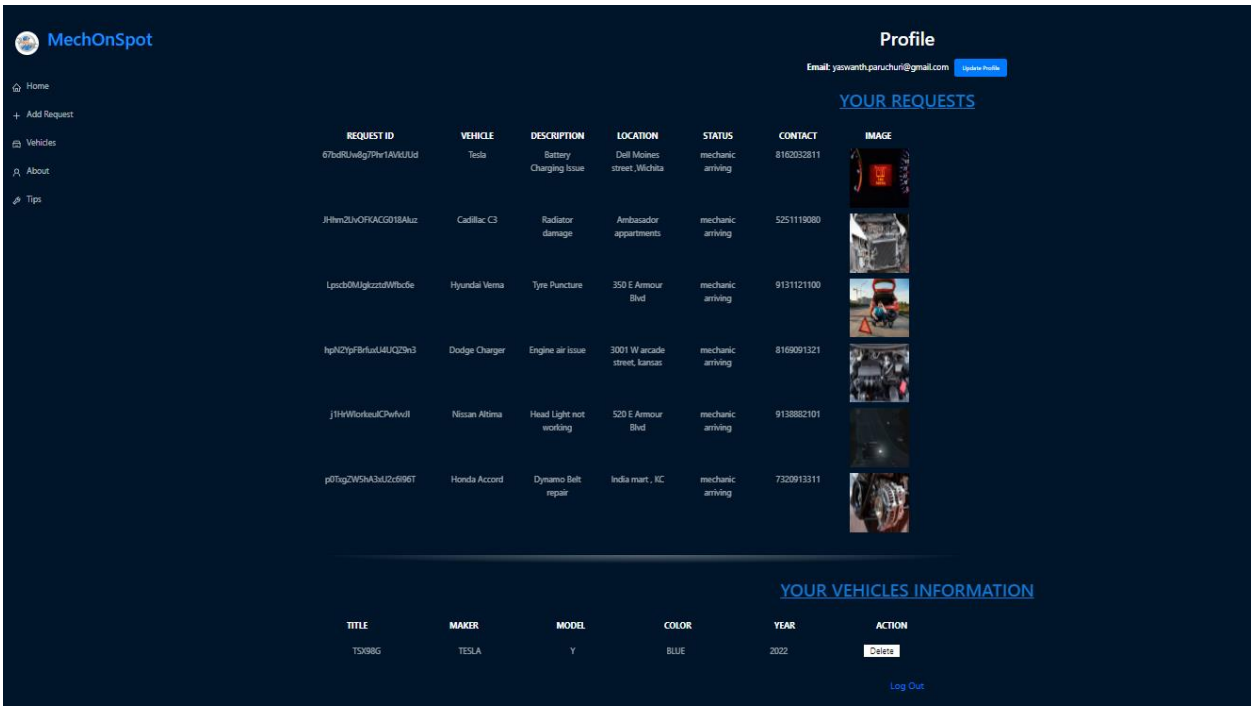
Add Request: Here user can add their problem they are facing with vehicle by providing the Contact, Vehicle, Service description and location details. In additional to that we have provided the upload capability where they can capture image and upload it.A request ID will be generated once user clicks on Create Request button and the request can be tracked.



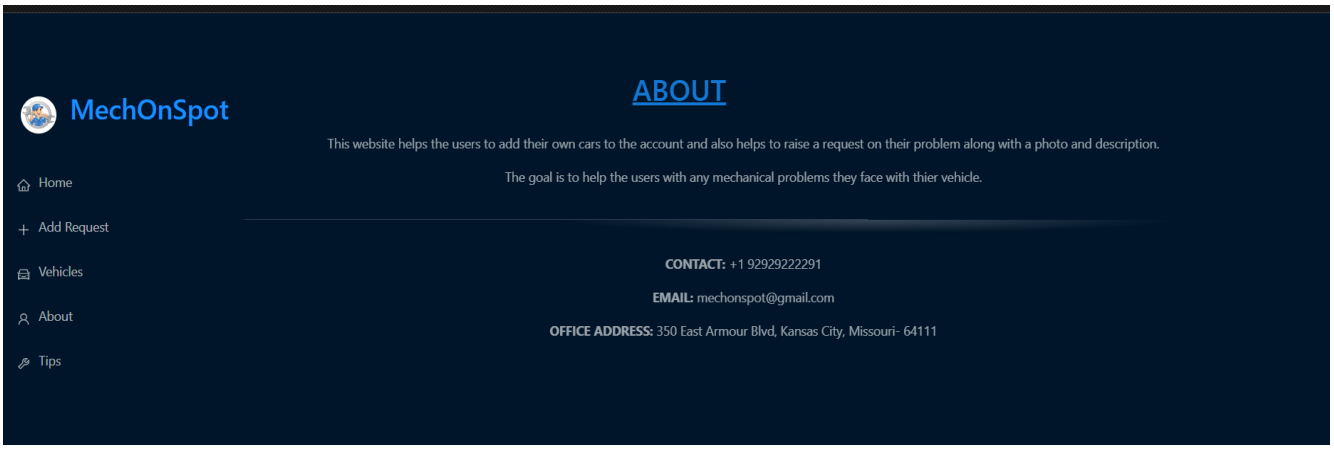
Add Vehicle: User can add his vehicles information. By this we can send them latest updates and tips to their email.



Home Page: Home Page displays the Request information and Vehicles information with Request ID, Vehicle Name , Description of the problem of Vehicle , Location , Contact details and Image which user Uploads showcasing the problem.

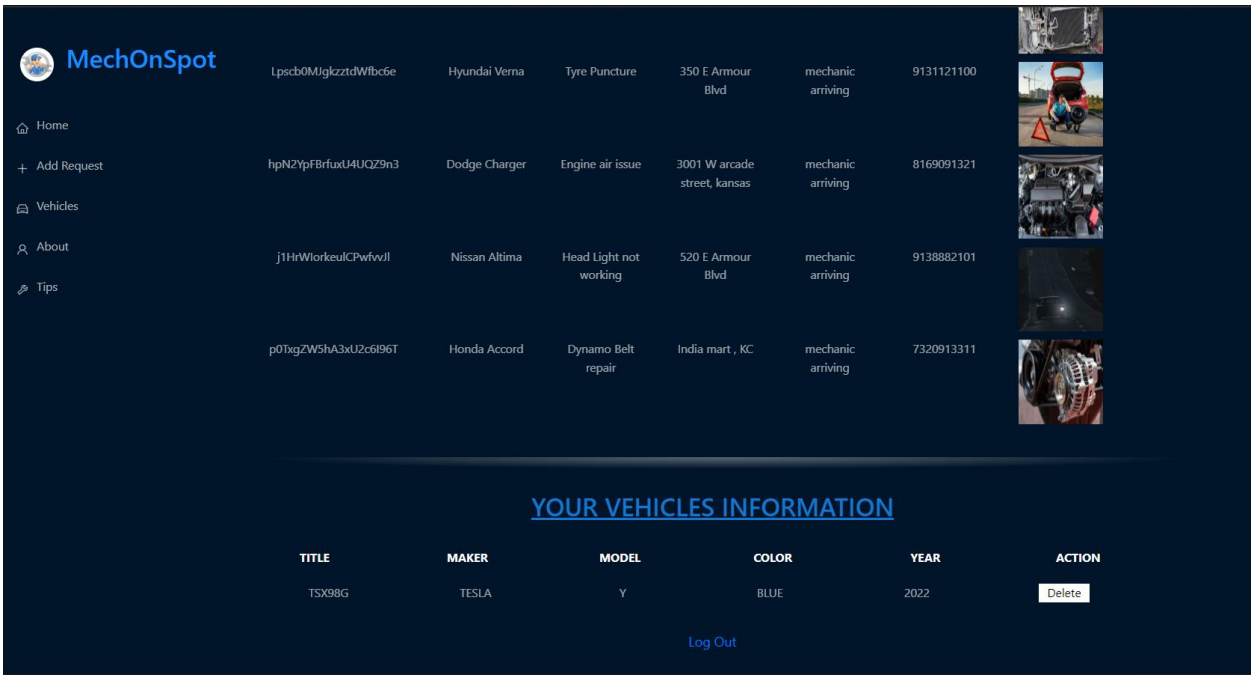


About: This is about our webpage we showcase to the user upon their usage to the site.



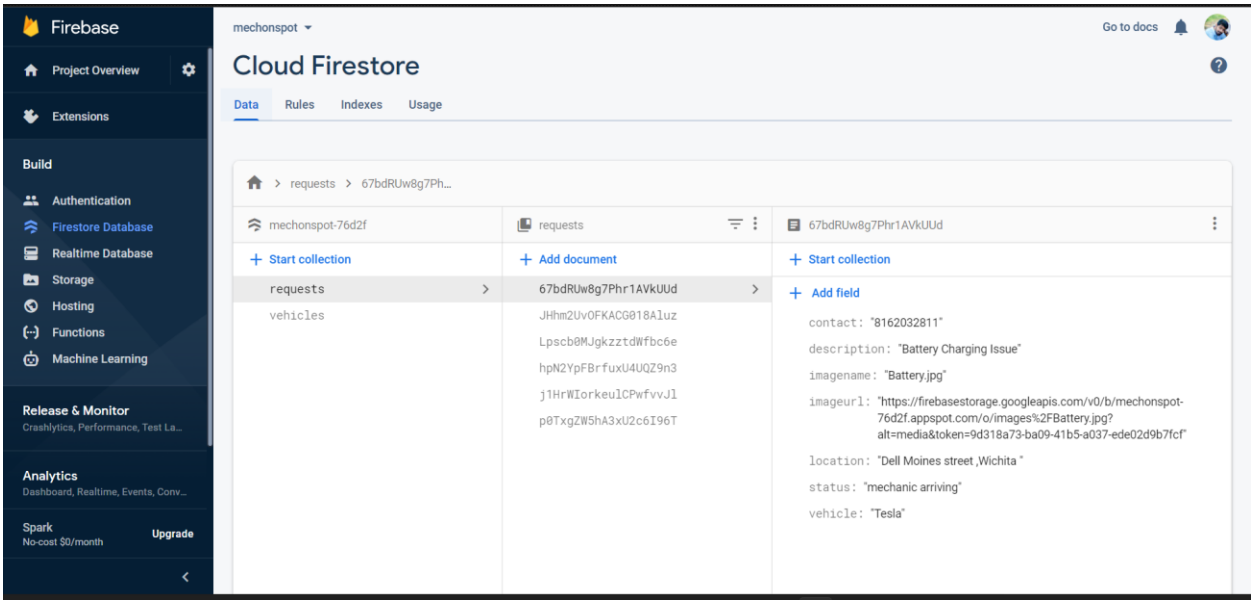
Tips: We provide user with the general tips that help them realize when they need an Auto service.

Logout: Logout will make the user logs off from the system and redirects to login page.

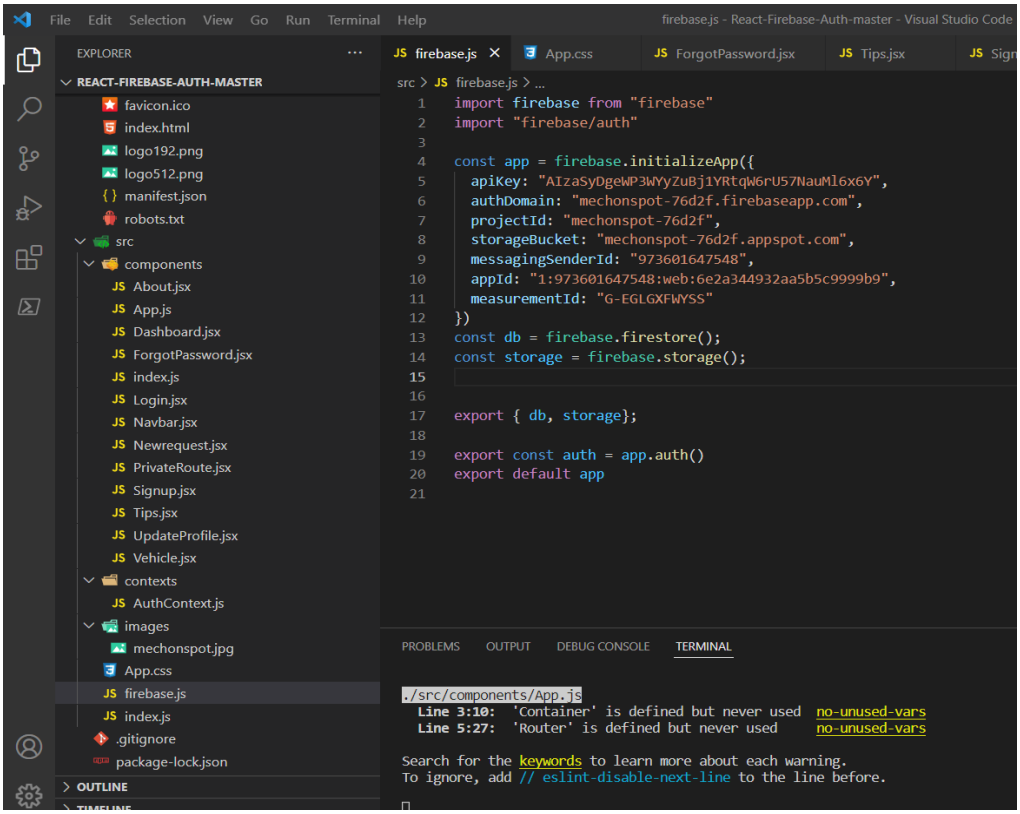


Authentication

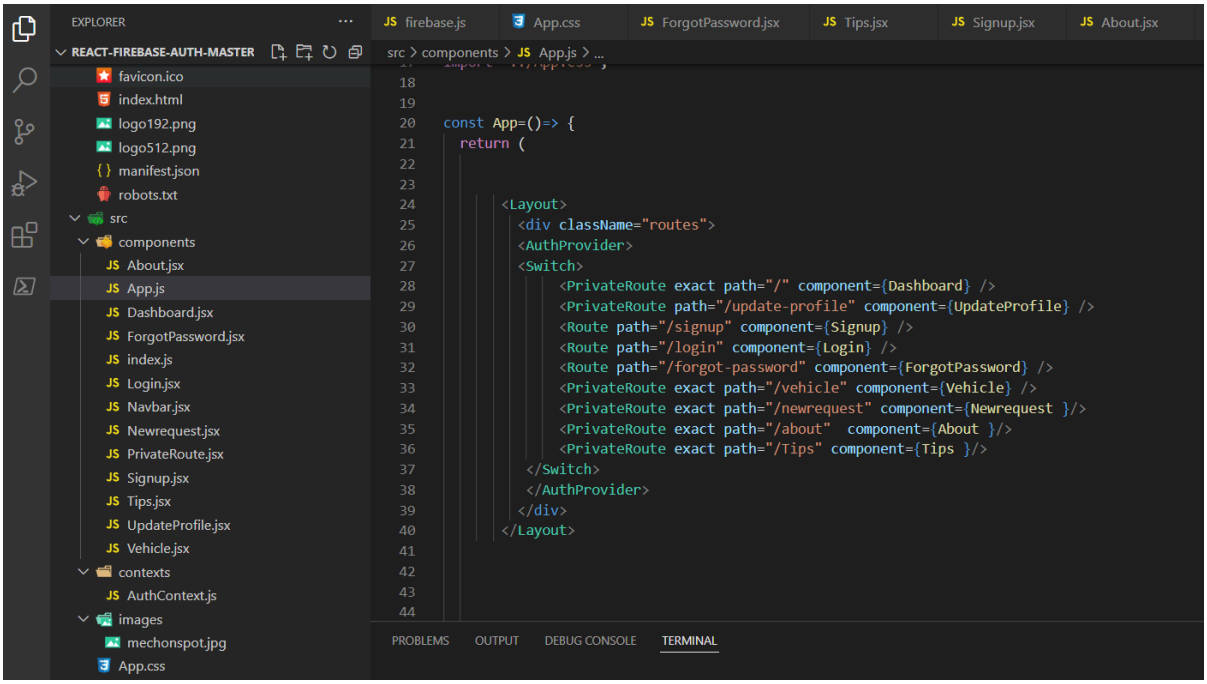
Any action/request that is being created is first authenticated in the Firebase. Below shows the project Add vehicle and Add Request.



Firebase authentication details are configured in "**firebase.js**" as shown below.



App.js – Captured the information of Routing .



Conclusion

With our interactive and user-friendly Web application “MECH ON SPOT” the User raises requests via web application and that can be tracked and served on time via mobile equipment. With this user can save time on the going journey and can enjoy the rest without spoiling his itinerary for the day. With the increasing population and demand for cars due to chip shortage these days, getting a car repaired on time with our application can be a solution to this problem.

Improvement From increment2/Hack-a-Roo

- Delete Capability for Vehicle.
- Upload Capability for Vehicle image breakdown.
- Implementation of Authentication System with Firebase.
- Addition of Tips and About screens to the Web application.

Work sharing between teammates

Eeshwara Sai Tota – API Integration

Sarath Kolisetty – UI design and frontend

Yaswanth Paruchuri – Frontend & Backend Implementation

Tej Deep Parvatha Reddy – UI Design and Idea.

Issues, blockages

There might be a situation where the weather is snowy or rainy, in such bad weather conditions towing the car to the nearest garage is best to approach. Web applications need to be updated to handle such situations where we need to integrate with third-party services.

References

[1] https://www.ijeast.com/papers/782-784,Tesma501,IJEAST.pdf

[2]https://www.researchgate.net/publication/342659726_Design_and_Development_of_Automotive_Workshop_Application_Based_on_Android_and_IOS_Using_Dart_Programming_Language

[3] https://ieeexplore.ieee.org/document/8529124