

MECH ON SPOT

TEAM-13

Team Members

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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/PT>

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 logs in 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.

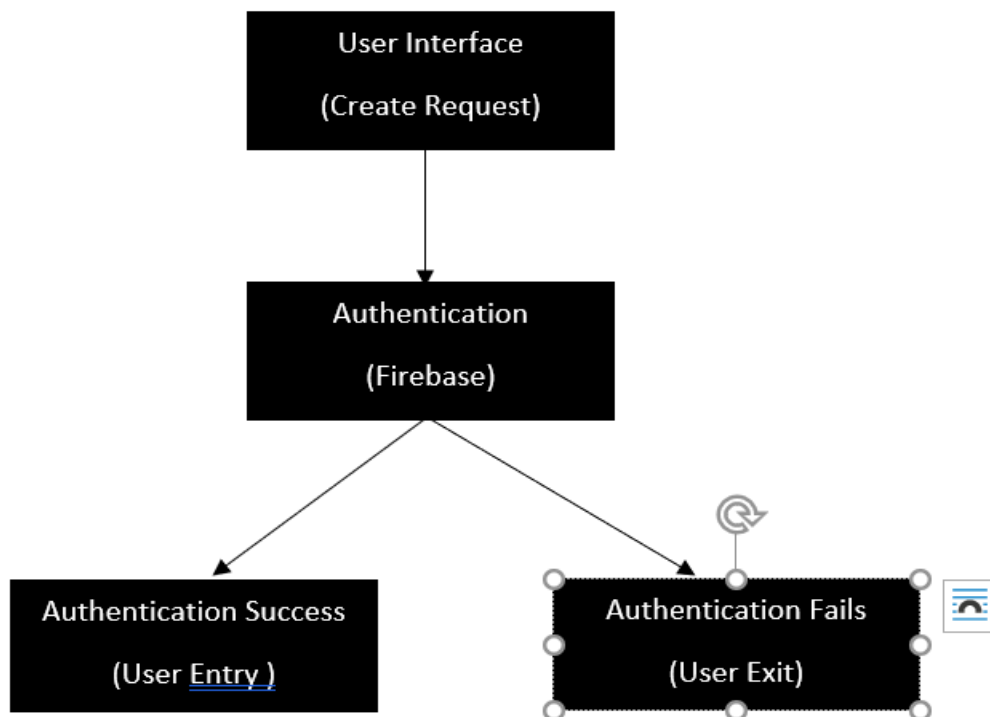


Fig. Data flow Diagram of Designed System

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

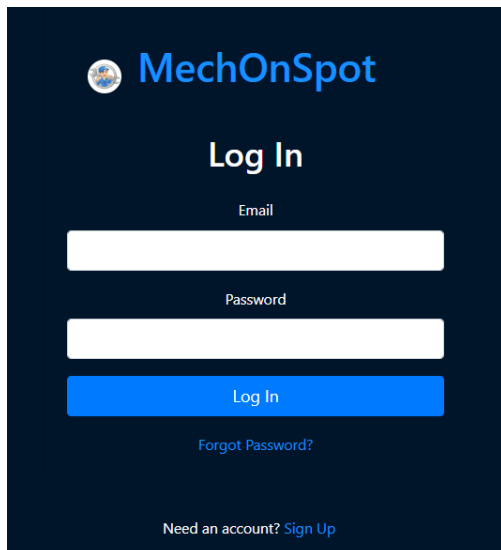
Below are the features of our Web application “**MECH ON SPOT**”

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

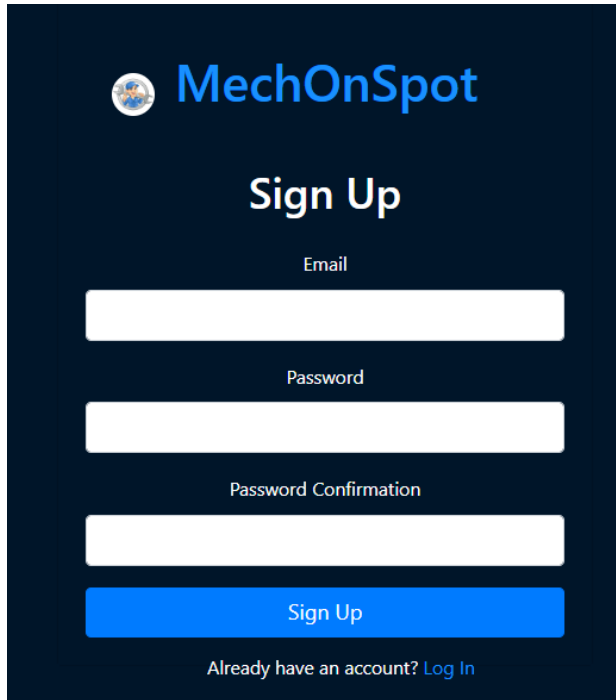
Working Screens

Below are our project working screens.

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

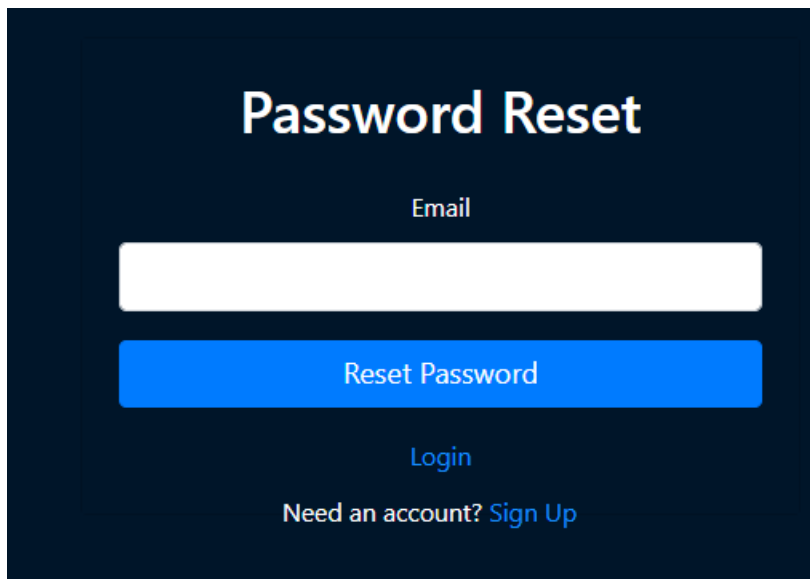
The image shows a login page for 'MechOnSpot'. At the top left is a circular logo with a car icon, followed by the text 'MechOnSpot' in blue. Below this is the heading 'Log In' in white. There are two white input fields: the first is labeled 'Email' and the second is labeled 'Password'. Below the password field is a blue button with the text 'Log In' in white. Underneath the button is a link that says 'Forgot Password?'. At the bottom of the page, there is a link that says 'Need an account? Sign Up'.

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.



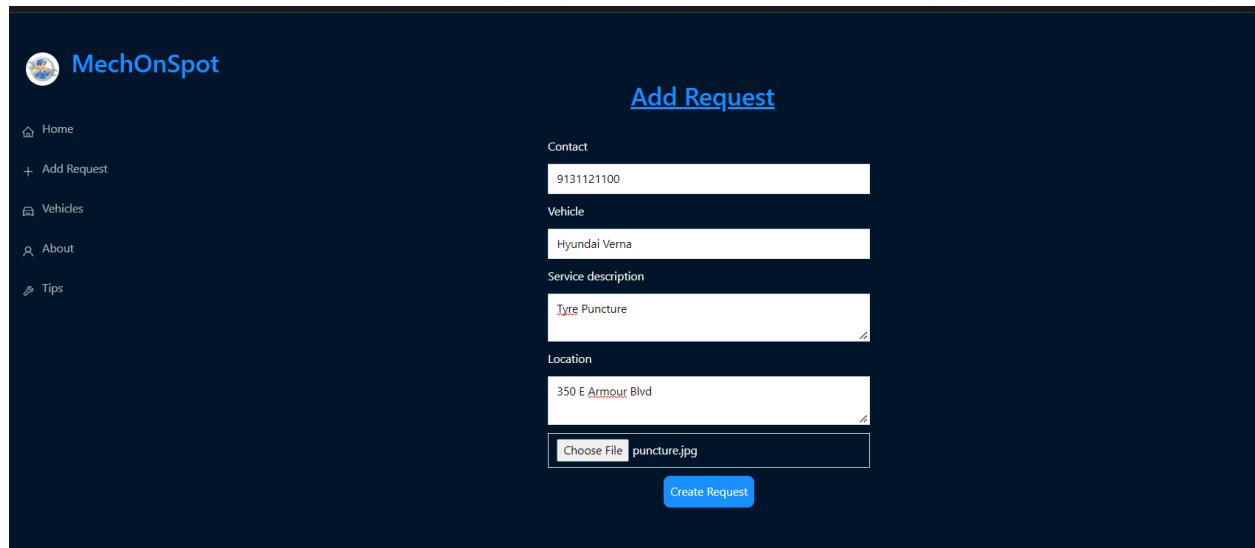
The image shows a 'Sign Up' form for 'MechOnSpot'. The form is set against a dark blue background. At the top left is the 'MechOnSpot' logo, which consists of a circular icon with a gear and a person, followed by the text 'MechOnSpot' in a light blue font. Below the logo, the title 'Sign Up' is centered in a large, white, sans-serif font. Underneath the title are three white input fields, each with a label above it: 'Email', 'Password', and 'Password Confirmation'. The labels are in a small, white, sans-serif font. Below the input fields is a prominent blue button with the text 'Sign Up' in white. At the bottom of the form, there is a link that says 'Already have an account? Log In' in a small, white, sans-serif font.

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.



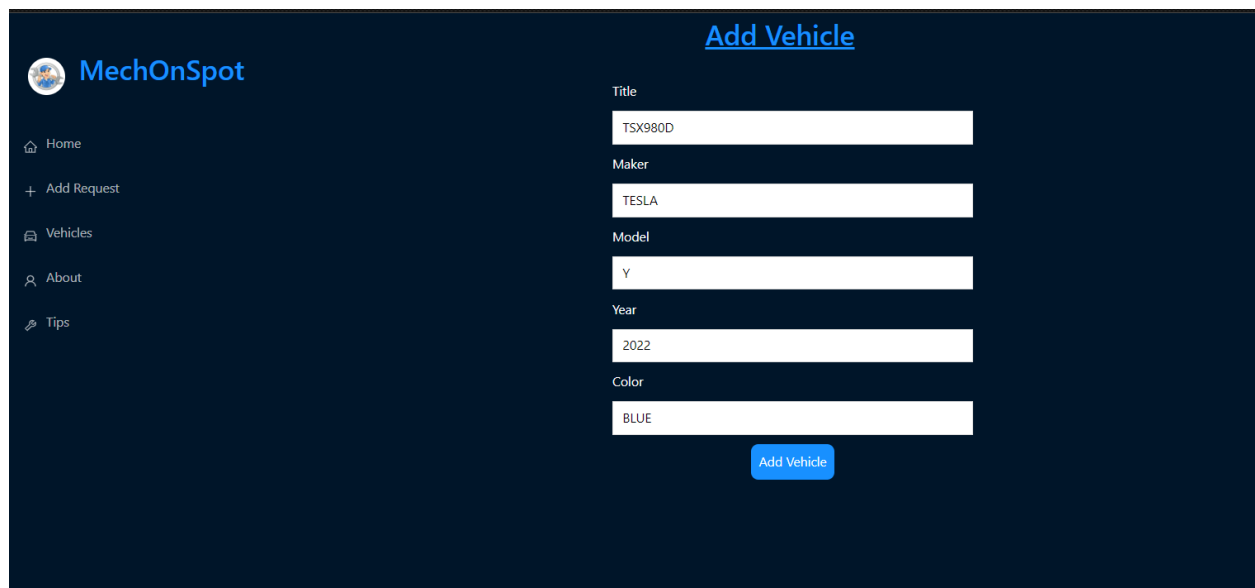
The image shows a 'Password Reset' form. The form is set against a dark blue background. At the top, the title 'Password Reset' is centered in a large, white, sans-serif font. Below the title is a white input field with the label 'Email' centered above it in a small, white, sans-serif font. Underneath the input field is a prominent blue button with the text 'Reset Password' in white. Below the button is a link that says 'Login' in a small, white, sans-serif font. At the bottom of the form, there is a link that says 'Need an account? Sign Up' in a small, white, sans-serif font.

Add Request: Here user can add their problem they are facing with vehicle by providing the Contact, Vehicle, Service description and location details. In addition 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.



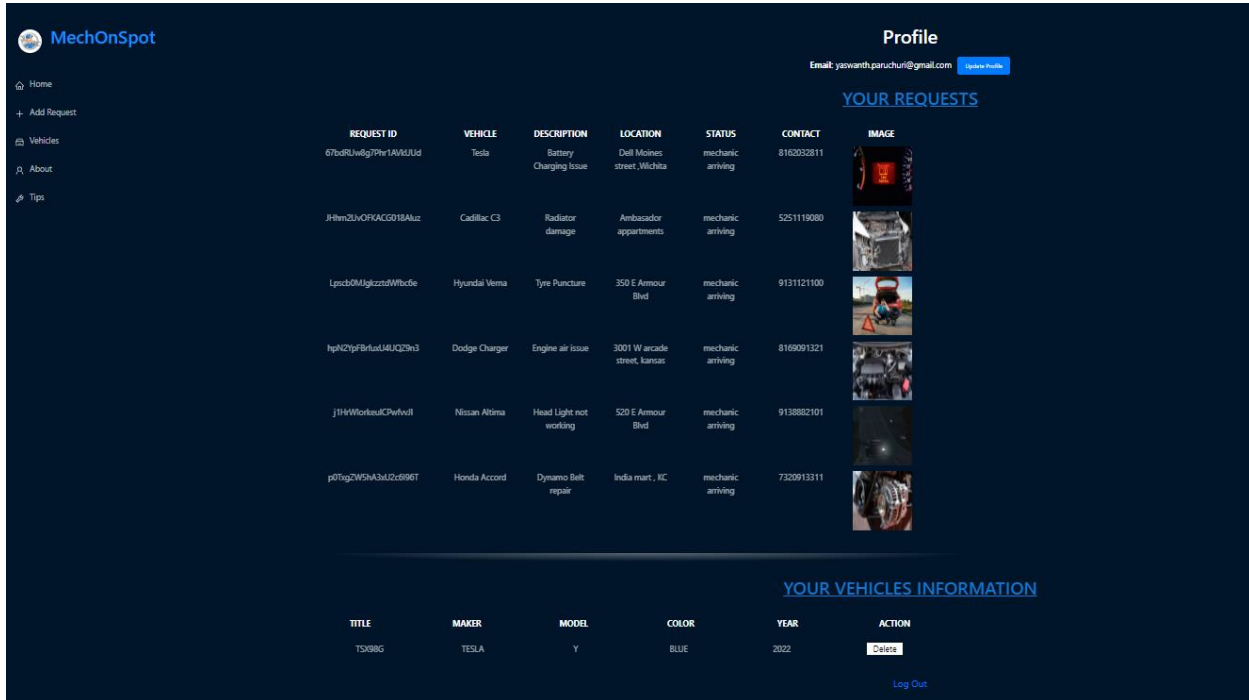
The screenshot shows the 'Add Request' form on the MechOnSpot website. The form is titled 'Add Request' in blue text. It contains several input fields: 'Contact' with the value '9131121100', 'Vehicle' with the value 'Hyundai Verna', 'Service description' with the value 'Type Puncture', and 'Location' with the value '350 E Armour Blvd'. Below these fields is a file upload section with a 'Choose File' button and the filename 'puncture.jpg'. At the bottom of the form is a blue 'Create Request' button. The left sidebar of the website is visible, showing navigation links: Home, Add Request, Vehicles, About, and Tips.

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



The screenshot shows the 'Add Vehicle' form on the MechOnSpot website. The form is titled 'Add Vehicle' in blue text. It contains several input fields: 'Title' with the value 'TSX980D', 'Maker' with the value 'TESLA', 'Model' with the value 'Y', 'Year' with the value '2022', and 'Color' with the value 'BLUE'. At the bottom of the form is a blue 'Add Vehicle' button. The left sidebar of the website is visible, showing navigation links: Home, Add Request, Vehicles, About, and Tips.







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.



The screenshot shows the MechOnSpot Home Page. The header includes the MechOnSpot logo and a navigation menu with links to Home, Add Request, Vehicles, About, and Tips. The main content area is divided into two sections: 'YOUR REQUESTS' and 'YOUR VEHICLES INFORMATION'.

Profile
Email: yaswanth.panchuri@gmail.com [Update Profile](#)

YOUR REQUESTS

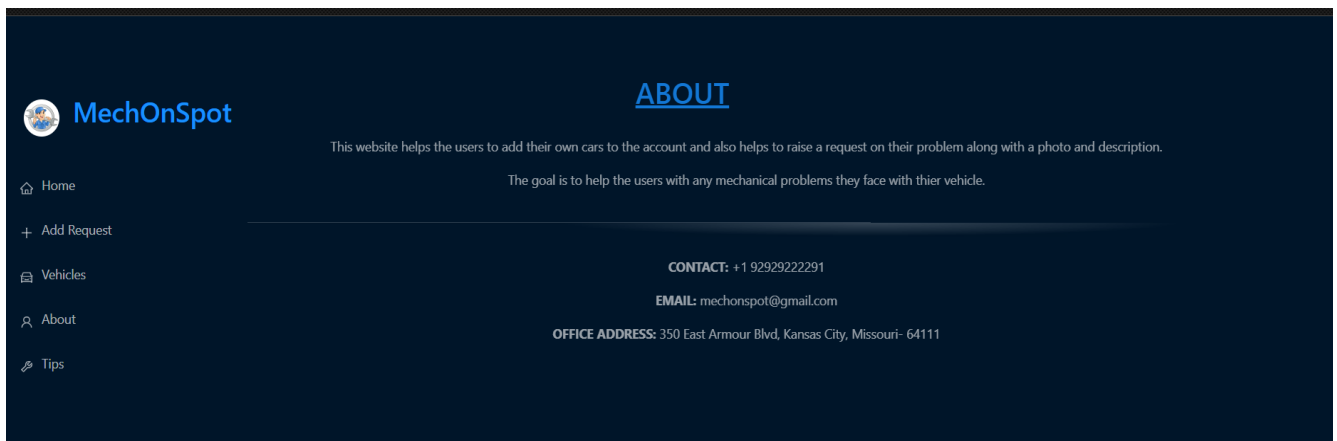
REQUEST ID	VEHICLE	DESCRIPTION	LOCATION	STATUS	CONTACT	IMAGE
67bdRhds7PwTAVKULd	Tesla	Battery Charging Issue	Dell Moines street, Wichita	mechanic arriving	8162023811	
JHm2UvOFACG01BAuz	Cadillac C3	Radiator damage	Ambassador apartments	mechanic arriving	5251119080	
LpscdMjgzstfWbdc6	Hyundai Verna	Tyre Puncture	350 E Armour Blvd	mechanic arriving	9131121100	
hphK2pFBrusU4UQ29n3	Dodge Charger	Engine air issue	3001 W arcade street, Kansas	mechanic arriving	8169091321	
J1H4WtorkauJCpwfvuJl	Nissan Altima	Head Light not working	520 E Armour Blvd	mechanic arriving	913882101	
p07tgZw5hA3dU2cd896T	Honda Accord	Dynamo Belt repair	Inda mart, KC	mechanic arriving	7320913311	

YOUR VEHICLES INFORMATION

TITLE	MAKER	MODEL	COLOR	YEAR	ACTION
TSXB8G	TESLA	Y	BLUE	2022	Delete

[Log Out](#)

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



The screenshot shows the MechOnSpot About Page. The header includes the MechOnSpot logo and a navigation menu with links to Home, Add Request, Vehicles, About, and Tips. The main content area is titled 'ABOUT' and contains the following text:

This website helps the users to add their own cars to the account and also helps to raise a request on their problem along with a photo and description.

The goal is to help the users with any mechanical problems they face with thier vehide.

CONTACT: +1 92929222291

EMAIL: mechonspot@gmail.com

OFFICE ADDRESS: 350 East Armour Blvd, Kansas City, Missouri- 64111

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

**MechOnSpot**

[Home](#)
[+ Add Request](#)
[Vehicles](#)
[About](#)
[Tips](#)

Do You Need Immediate Auto Service?

As a car owner, you need to be able to recognize when something is amiss with your vehicle. Some issues that occur with your car are relatively minor annoyances that don't necessarily require professional auto repair. The items on the following list are not in that category. If you experience any of the following signs with your car, then you need immediate auto service.

1. Smoke Blowing from Under the Hood

Something is seriously wrong if your car has smoke coming from under the hood. It could be a sign that the engine is overheating. Continuing to drive at that point will cause serious damage. If you are in the middle of the road, pull over and wait for the engine to cool down. Call for a tow truck to take your car to a repair shop right away.

2. Check Engine Light is Flashing

If the light is illuminated, it's a sign to take your car to the nearest shop. It's impossible to know exactly what the problem is simply because the light is on. However, if the light is flashing, you need to have a mechanic check your car right away. It may be a sign that there is a problem with your emissions system.

3. Transmission Problems (Sudden or Recurring)

Pay close attention to how your car is operating on a regular basis. If you notice that it has surges or is sluggish reaching certain speeds, you'll want to take it to a mechanic for immediate auto service.

4. Noises While Driving


If your car is making grinding or squealing sounds while driving, it may indicate faulty brakes. A dragging or droning sound could be linked to an issue with your wheel bearings. Either way, you need a licensed technician to check it out.

5. Leaks Under your Car





Don't ignore fluid leaks under your car where you usually park. Bright green fluid is from anti-freeze. Dark red or brown fluid could be engine oil, brake fluid, or transmission fluid. Your mechanic can determine the cause of the leak and make the necessary repair for you before it leads to further damage.

If you need auto service immediately or would like to schedule any type of auto repair work for your car, contact MechOnSpot. We perform repairs on all vehicles, including RVs and classic cars.

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

**MechOnSpot**

[Home](#)
[+ Add Request](#)
[Vehicles](#)
[About](#)
[Tips](#)

LpscB0MjgkztdWlbc6e	Hyundai Verna	Tyre Puncture	350 E Armour Blvd	mechanic arriving	9131121100	
hpN2YpF8rfuxU4UQZ9n3	Dodge Charger	Engine air issue	3001 W arcade street, kansas	mechanic arriving	8169091321	
j1HrWlorkeulCPwfvvJl	Nissan Altima	Head Light not working	520 E Armour Blvd	mechanic arriving	9138882101	
p0TbgZW5hA3xU2c6I96T	Honda Accord	Dynamo Belt repair	India mart , KC	mechanic arriving	7320913311	

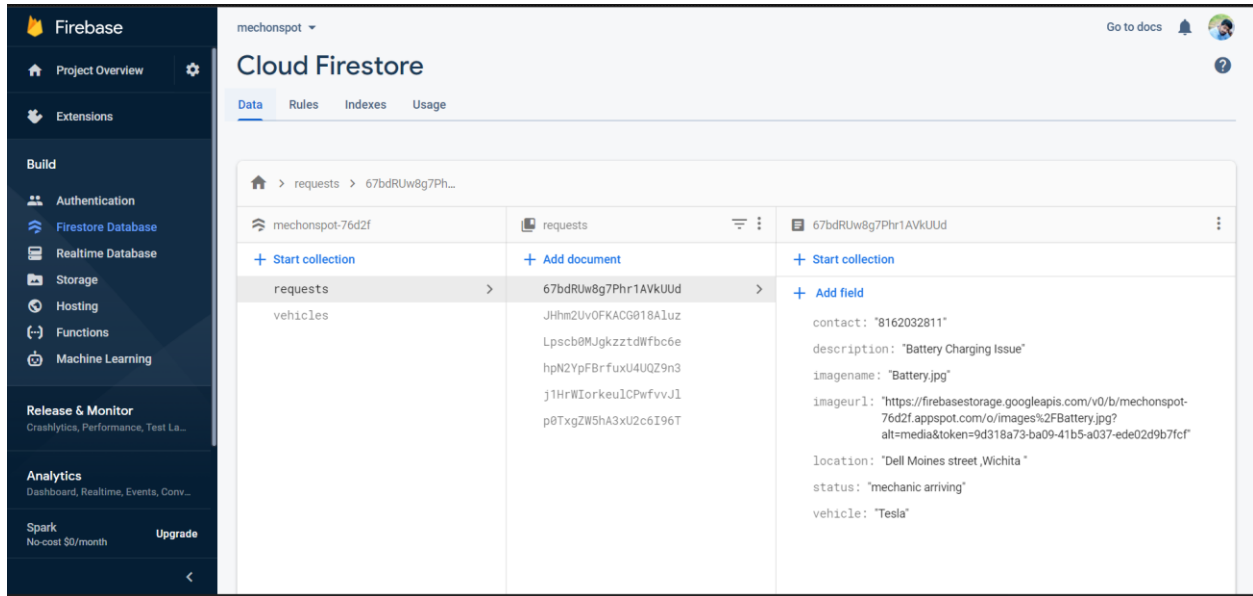
YOUR VEHICLES INFORMATION

TITLE	MAKER	MODEL	COLOR	YEAR	ACTION
TSX98G	TESLA	Y	BLUE	2022	<button>Delete</button>

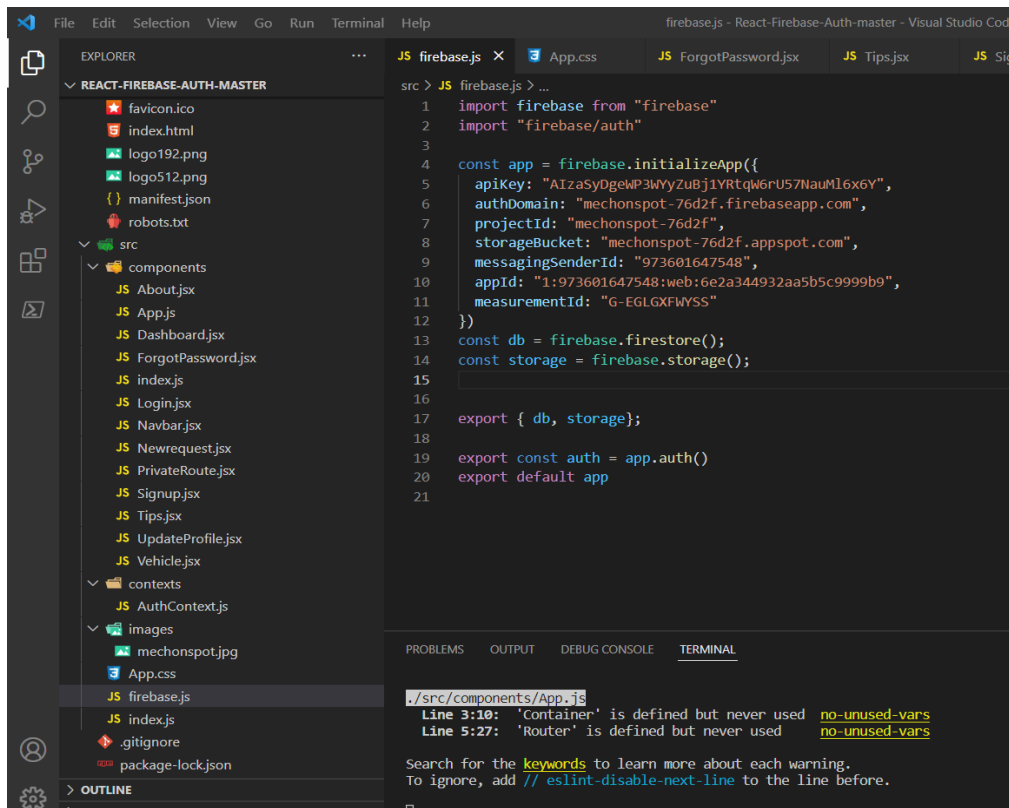
[Log Out](#)

Authentication

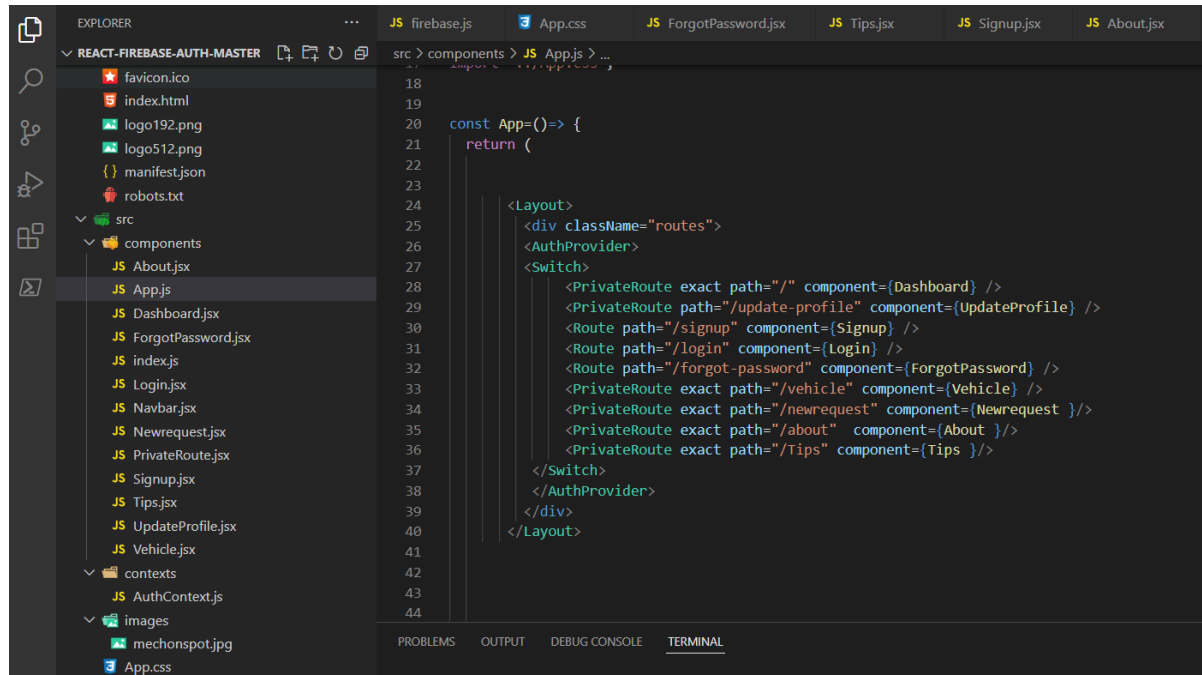
Any action/request that is being created is first authenticated in the Firebase. Below shows the project Add vehicle and Add Request.



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



App.js – Captured the information of Routing .



```
18
19
20 const App=()=> {
21   return (
22
23     <Layout>
24       <div className="routes">
25         <AuthProvider>
26           <Switch>
27             <PrivateRoute exact path="/" component={Dashboard} />
28             <PrivateRoute path="/update-profile" component={UpdateProfile} />
29             <Route path="/signup" component={Signup} />
30             <Route path="/login" component={Login} />
31             <Route path="/forgot-password" component={ForgotPassword} />
32             <PrivateRoute exact path="/vehicle" component={Vehicle} />
33             <PrivateRoute exact path="/newrequest" component={Newrequest} />
34             <PrivateRoute exact path="/about" component={About} />
35             <PrivateRoute exact path="/tips" component={Tips} />
36           </Switch>
37         </AuthProvider>
38       </div>
39     </Layout>
40
41
42
43
44
```

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>