

# DevSoc Hackathon

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Project Problem Statement: How can you improve navigation?

How we can improve doctor to patient communication?

# Problem?

The COVID-19 pandemic has once again called for upgradation of the existing healthcare sector. Although timely provision of medical help is crucial for successful treatment, there is always a significant delay in reaching the hospital through an ambulance due to the traffic congestion.

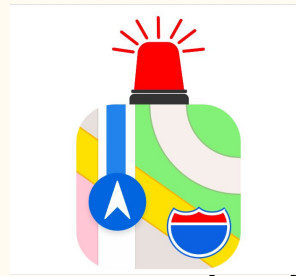


Also, healthcare systems are already burdened with the COVID-19 patients resulting in need for an online communication system for patients with other illnesses.

In India, **more than 50% of the lives are lost only because the patient could not reach the hospital in time** and unavailability of proper guidance by doctors according to government data of 2019.



# Meet Solution - EmerNav

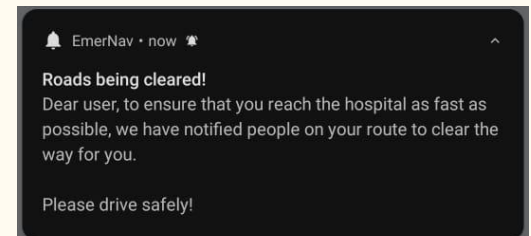
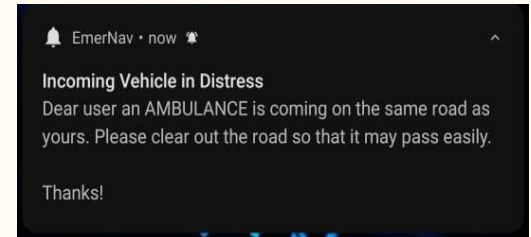
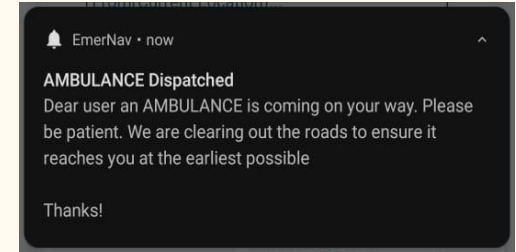


- A service that helps **Ambulance drivers or an individual** to **easily navigate through busy city traffic**.
- Improves relations between Hospitals and patients.
- A Service that notifies drivers on the road that an Ambulance or vehicle in distress is coming their way.
- Advice them to clear the road to let them easily pass. Both to and fro the hospital for the ambulance.
- An easy way for the user to book an ambulance to the hospital of their choice.
- An easy way to choose between a list of nearest hospitals.

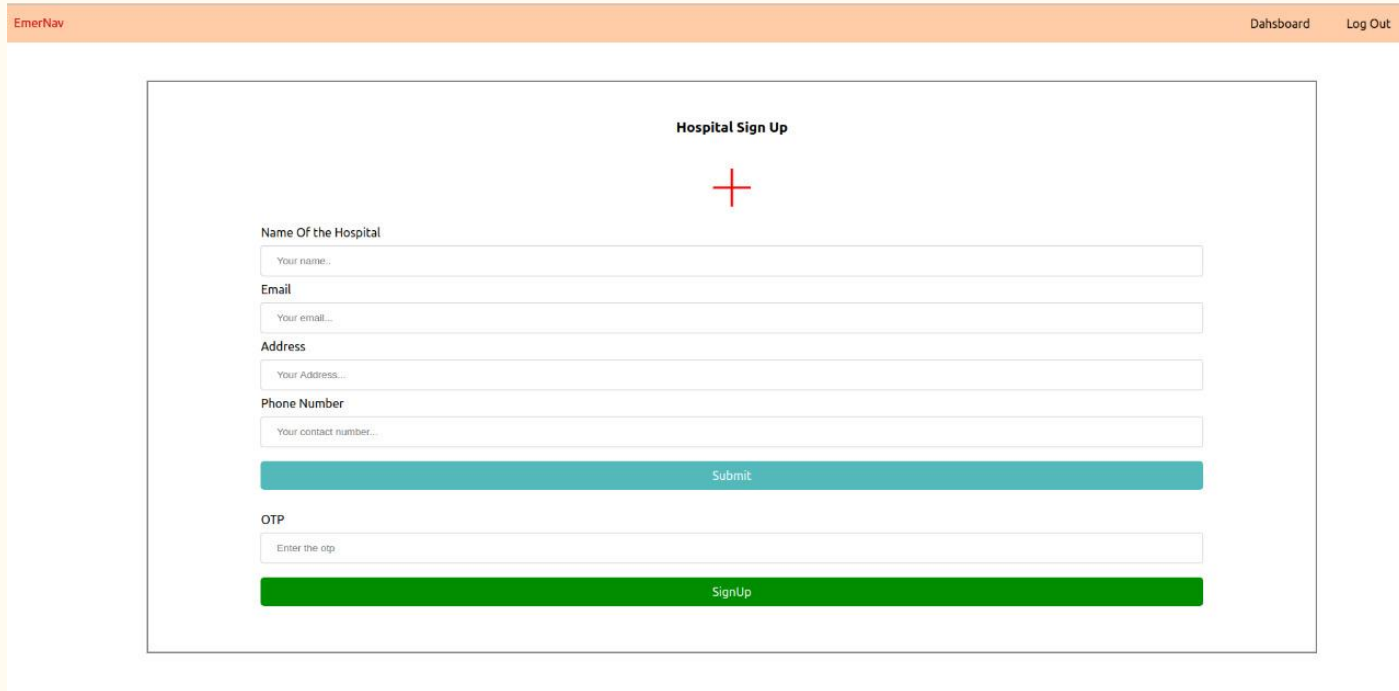
# Use Case



- In the unfortunate event a person falls severely sick or encounters an accident it is of utmost importance that emergency services are alerted at the earliest.
- Using our App a user can call in an ambulance.
- Also all other users on the road using our app will get a notification to clear out the way for the vehicle.
- It is the moral duty of every citizen of the country to assist in times of such emergencies so that a life is saved.



# App and Web interface Walkthrough

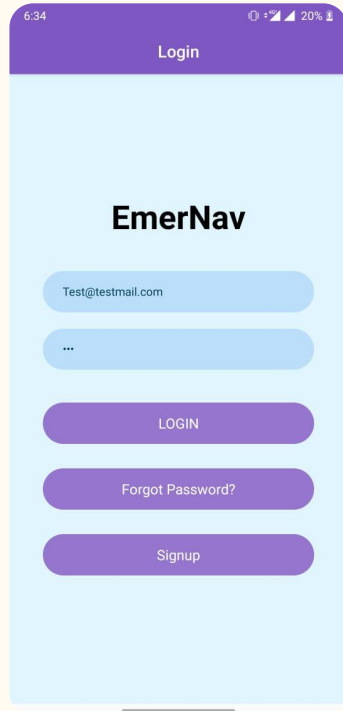


The screenshot displays a web interface for hospital registration. At the top, an orange header bar contains the 'EmerNav' logo on the left and 'Dahsboard' and 'Log Out' links on the right. The main content area is titled 'Hospital Sign Up' and features a red plus icon. Below the title, there are four input fields: 'Name Of the Hospital' (placeholder: 'Your name...'), 'Email' (placeholder: 'Your email...'), 'Address' (placeholder: 'Your Address...'), and 'Phone Number' (placeholder: 'Your contact number...'). A teal 'Submit' button is positioned below these fields. Underneath the 'Submit' button is an 'OTP' section with an input field (placeholder: 'Enter the otp') and a green 'SignUp' button.

The Hospital will primarily use the our web interface. Each hospital will register with our service by providing info such as Hospital name, Email, Contact number etc. Once Registered they'll be added to our Firebase Realtime Database.

The image shows a mobile application interface for a registration form. At the top, there is a purple header bar with a back arrow on the left and the title 'Register' in the center. Below the header, the form is set against a light blue background. It contains six text input fields, each with a label in teal text above it: 'First Name', 'Last Name', 'Email', 'Mobile Number', 'Address', and 'Password'. Each label is positioned to the left of its corresponding input field. At the bottom of the form, there is a teal-colored rounded rectangular button with the word 'Save' in white text. The top of the screen shows a status bar with the time '10:47', a location icon, a battery icon, and the battery level '38%'.

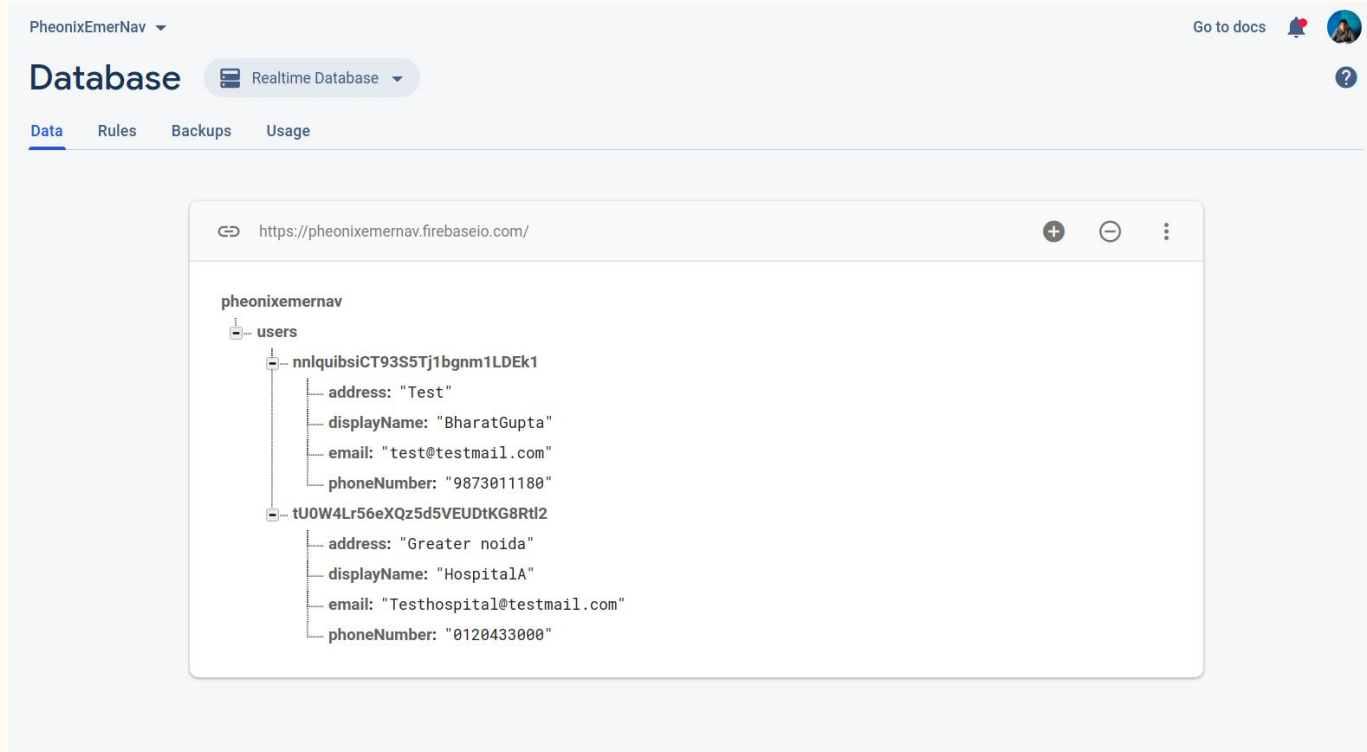
- Individual users will be using the mobile app.
- To register they'll provide the relevant information which will be added to the Firebase realtime Database.

A web portal interface for 'Hospital Sign In'. The top header is orange and contains the text 'EmerNav' on the left and 'Log In' and 'SignUp' on the right. The main content area is white and contains a form titled 'Hospital Sign In'. The form includes a red plus sign icon, an 'Email' label, a text input field with placeholder text 'Your email...', a 'Password' label, a text input field with placeholder text 'Your Password...', a teal 'Submit' button, and a red 'Forgot Password' button.

- The hospital admins will sign up using the web portal.
- The individual users will use the mobile app.

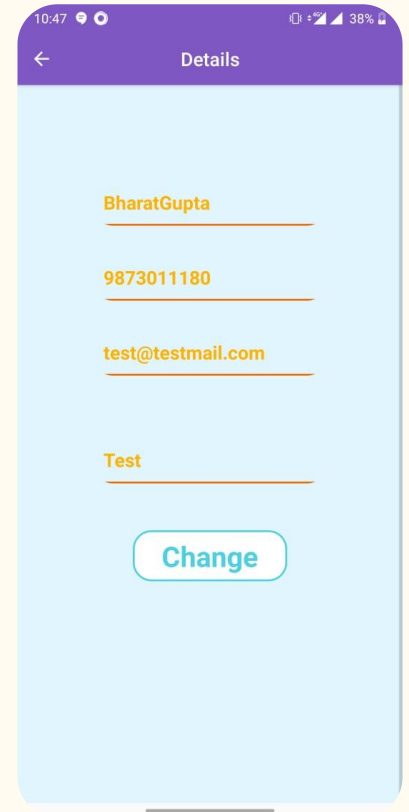
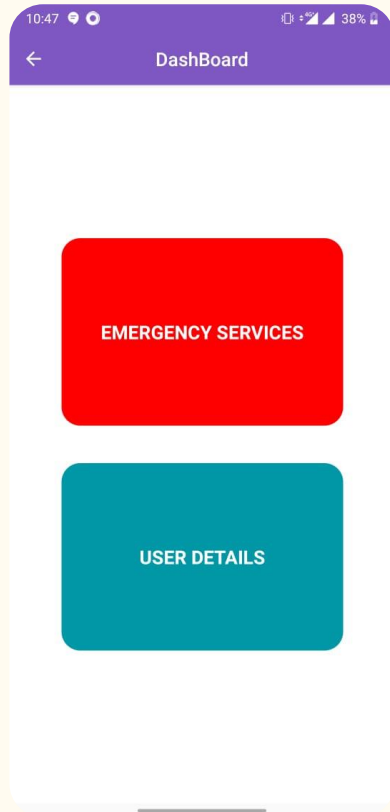


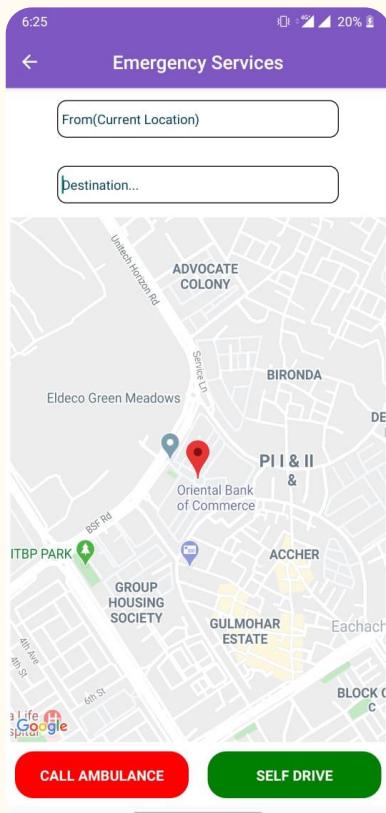
# Firestore Database



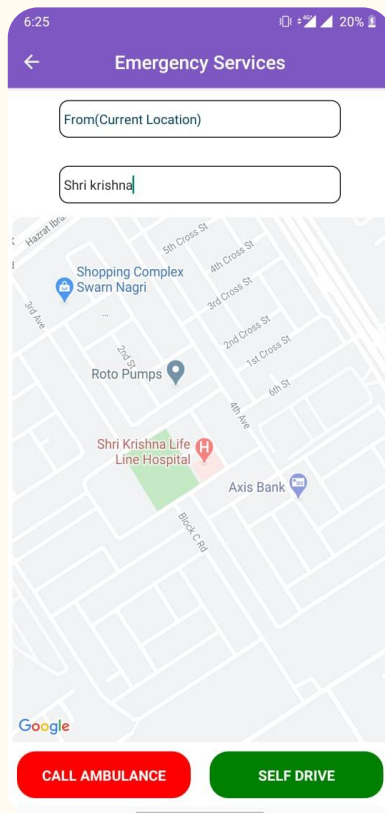
- User and Hospitals information saved in Firestore

# Screens for the user

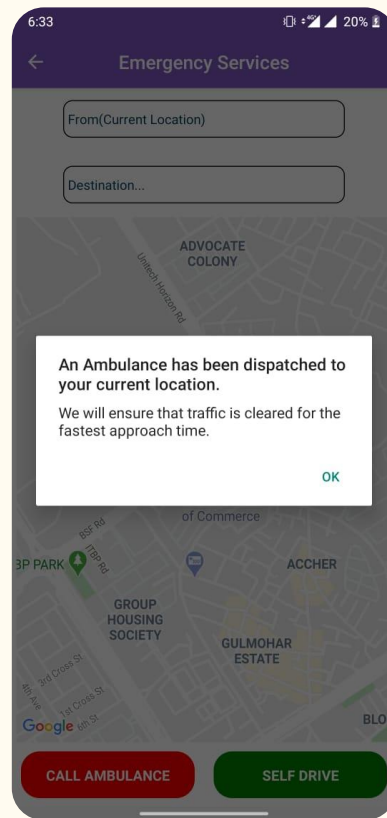




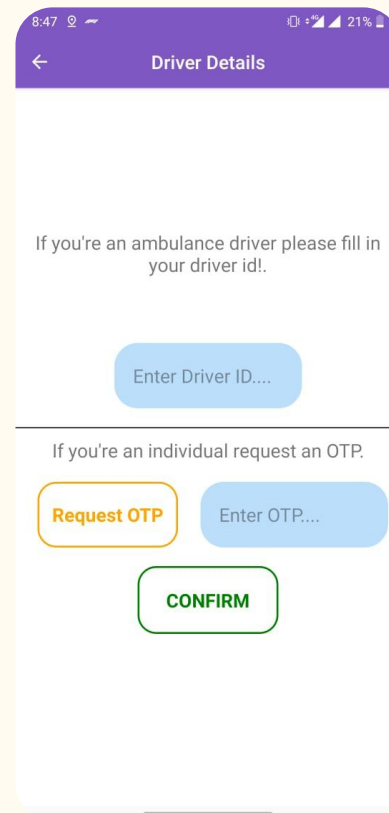
Current destination



Nearest Hospital



Using the Call Ambulance Feature



Using the Self Drive option (explained more further)

8:47 21%

### Driver Details

If you're an ambulance driver please fill in your driver id!

Enter Driver ID....

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If you're an individual request an OTP.

**Request OTP** Enter OTP....

**CONFIRM**

EmerNav Dashboard Log Out

Kindly fill the following details

Ambulance Vehicle Number

Ambulance vehicle number...

Driver ID

Driver's ID...

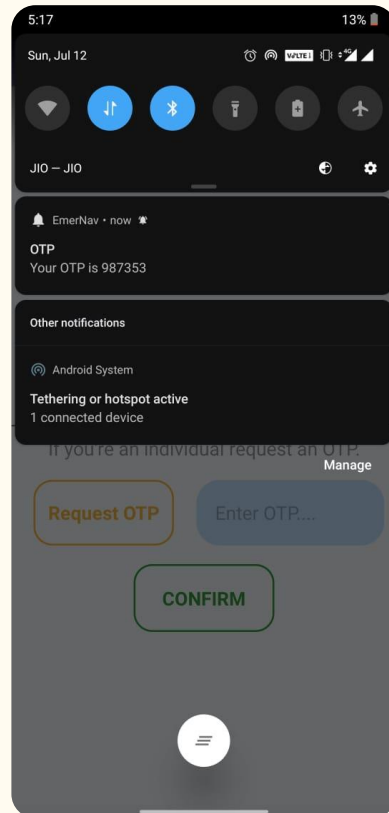
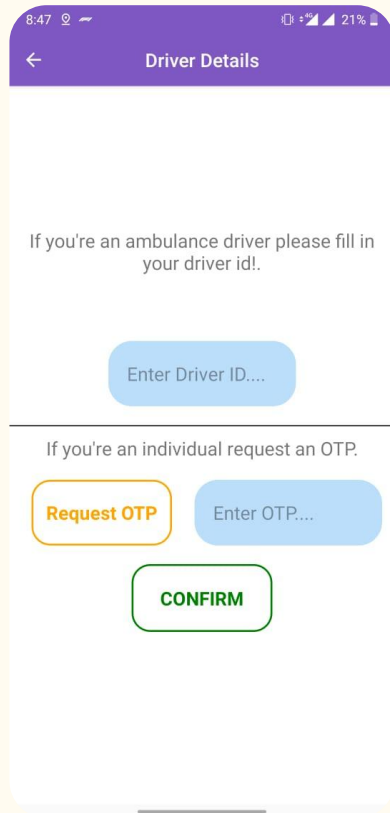
Submit

Close

Date
10 July 2020
10 July 2020
10 July 2020
10 July 2020
10 July 2020

Driver ID
5
4
6
1
5

- If an ambulance is being dispatched the hospital staff will update ambulance and driver details.
- The driver will use the app to start the process of sending notifications to clear out the road.



- In case an individual decides not to wait for the ambulance and drive on his own, after the hospital approves the user, an OTP is sent and again the process of sending the notification to clear out roads starts.
- The OTP system is kept so that the user's contact number is confirmed and tabbed if they use it irresponsibly.

## Latest Calls

User Name:  
Address:  
Phone Number:

XYZZ  
asf asidf asodif  
2384729834

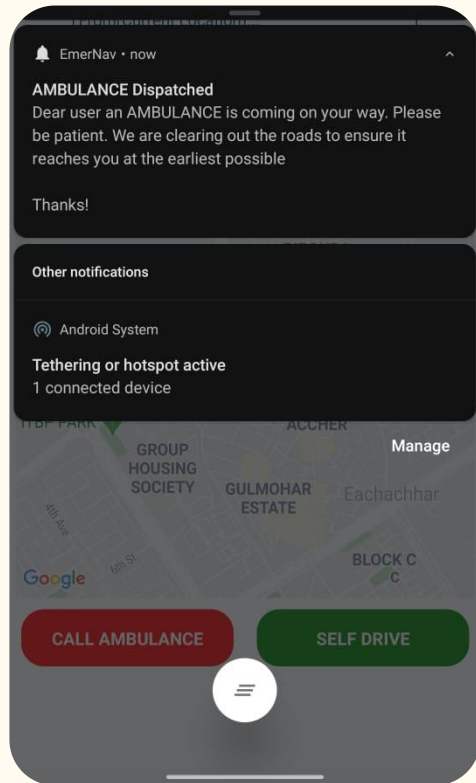
Accept

Reject

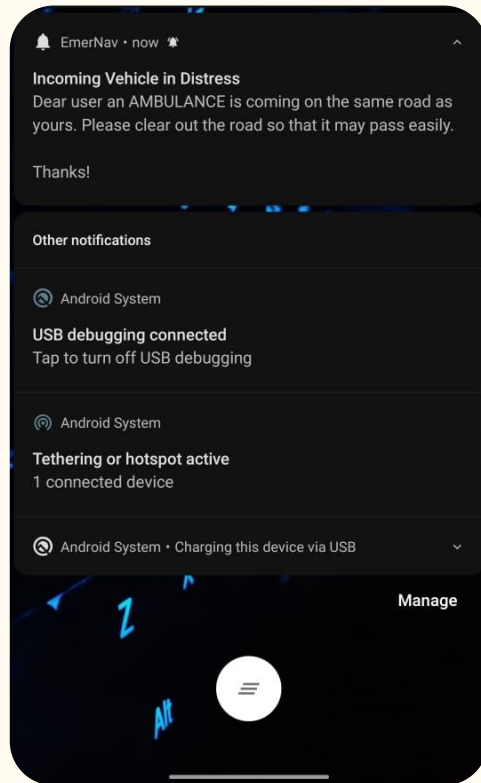
Date	Name	Location	Number	Driver ID
10 July 2020	Bharat	ABC XYZ	1923481247	5
10 July 2020	Bharat	ABC XYZ	1923481247	4
10 July 2020	Bharat	ABC XYZ	1923481247	6
10 July 2020	Bharat	ABC XYZ	1923481247	1
10 July 2020	Bharat	ABC XYZ	1923481247	5

Show All

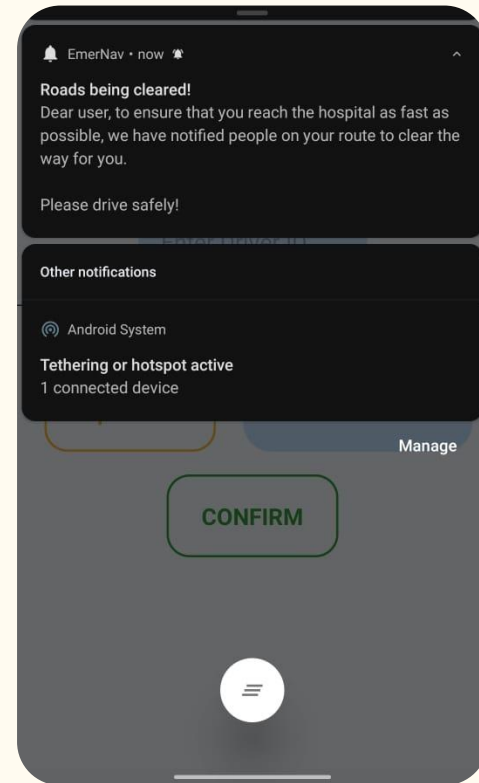
- The Hospital web portal where user requests appears. On approving the OTP is sent to driver to confirm.
- The Hospital may choose to reject the request in case sufficient number of beds are not available or if they are experiencing more than expected cases.



Notification on confirmed Ambulance Booking.

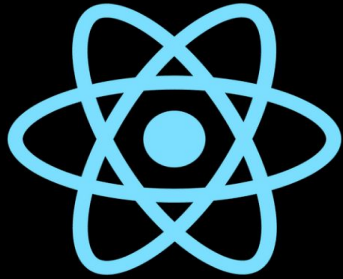


Notification to users on the road to clear out the road.



Notification after hospital confirms your request and road clearance notifications are sent.

# Tech Stack



**React JS**



**Firebase**



**OneSignal**



# Impact on Users

- Using the service can significantly help ease in navigation of an ambulance or vehicle in distress, which can go a long way in saving somebody's life by easing the traffic congestion for quicker transportation.
- It can help in hospitals being able to get more patients and save more lives.
- It will save the hassle of finding nearby hospitals and their contact informations. Ambulances can be dispatched in a matter of minutes and request can be sent to multiple hospitals to ensure better response times.
- It provides a user friendly technology in the hands of every person with a smartphone so that he and his family can get quicker healthcare.

# Future Features

- At many places smart boards are being installed on road intersections, a collaboration with city authorities can enable us to relay our notification messages on to these boards to insure roads are cleared properly.
- This collaboration can also mean that we can notify the traffic police before hand so that they may initiate the process of clearing out the roads.
- The app can be used in other disaster situations where blocking off roads may take place and the app can notify users of blocked and usable roads.

# Team Members

- Bharat Gupta
- Adarsh Narayan Pandey
- Anshul Jhamb
- M Jai Sidharth

# CodeBase

- <https://github.com/bharat787/DevsocHackathon> - Mobile Application
- <https://github.com/Adarsh-NP/EmerNav> - Web Application