
## Idea: Acci-Safe

It has been observed over and over again that the roads have become really unsafe. Total number of accidents in India over the last 5 years is 23,63,031. Taking into account these are the number of accidents that were actually reported. Hence we got an idea of AcciSafe is a react native mobile application that enables the user to report accidents to the nearest hospitals. The main aim is to create an ecosystem of all users registered on the app so that it is easy to identify, contact emergency people and report. We may have noticed many times people just walk past from the accident scene to avoid inconvenience. Due to this a lot of time is wasted to inform the ambulance to arrive. Using our application anyone can just click an image of the accident, put in the vehicle number plate text and report it.

**The system planned has following components:**

### 1. Client Side

Our system will be capable of getting the emergency contact of the user who has met with the accident, since every user while registering fill's his/her data. Apart from this it also identifies the users location and searches the nearest hospitals and notifies the selected hospital.

Features and Details

- Secure and Fast Access
- Easy to Use
- Validation of the Image uploaded by User
- Interactable through Whatsapp
- Reward Based System for encouraging users to report
- Displays Maps and navigates user to the nearest hospital

### 2. Hospital Side

Here in the hospital side, the major features are to accept or reject the reports made by users a Onnd to send their ambulance's to the accident location by using the location provided in the report. Once the hospital has validated the accident report, they need to accept the request after which the reported user gets his/her credits.

Features and Details

- Simple and Easy to Use UI.
- Extra validation of accident reports to avoid fake reports and free credits.
- Can be accessed by any hospital authority easily and is easy to understand, no learning curve involved.

### 3. Accident and Non Accident Image Classification

FlaskAccidentAPI is an easy to use API used for identifying whether an image contains a vehicle accident scenario or not. The API uses Deep Learning techniques to process the image.

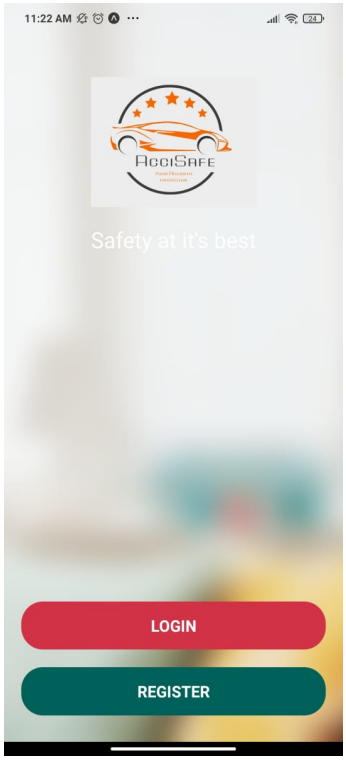
Apart from the Accident Detection, it also processes the block of text to identify whether the text is related to any precautions from accidents.

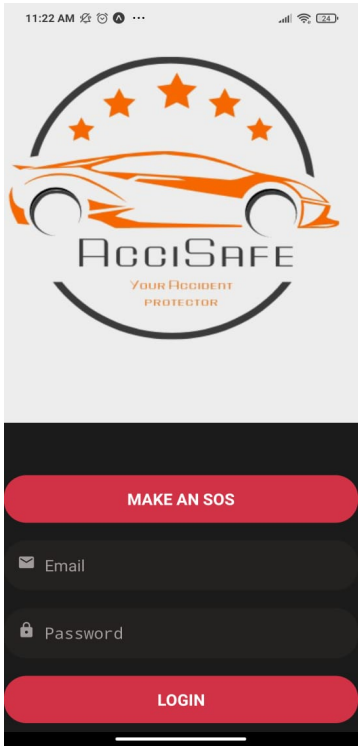
Features and Details

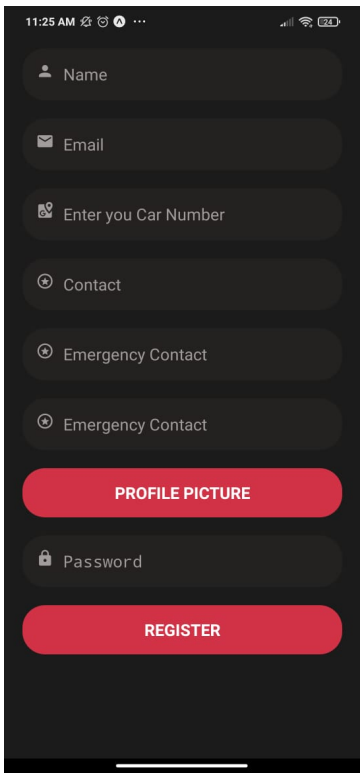
- CNN Model with an accuracy of 93.4% on test data.
- The Dataset used for training the CNN model can be found here
- The trained model can be found in the /models directory.
- /identifyAccident route of the API accepts a JSON which contains the firebase image URI of the image and responds with a JSON packet with status : 1 if the image is a vehicle accident and status : 0 if not.
- /verifyText route of the API accepts a JSON which contains the text and responds with a JSON packet with status : 1 if it is not a precaution from accidents and status : 0 if not.

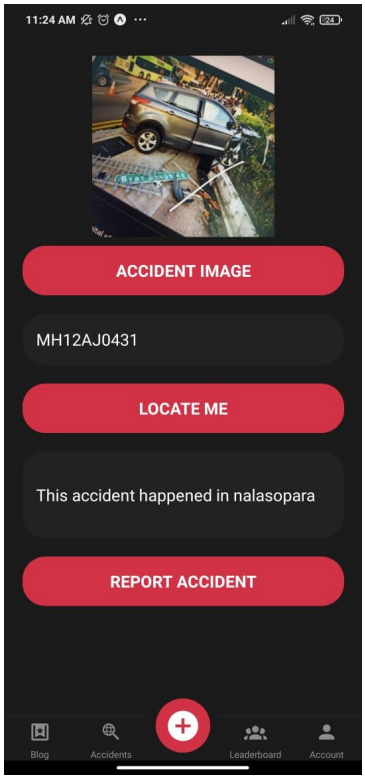
**Screen Shots :**

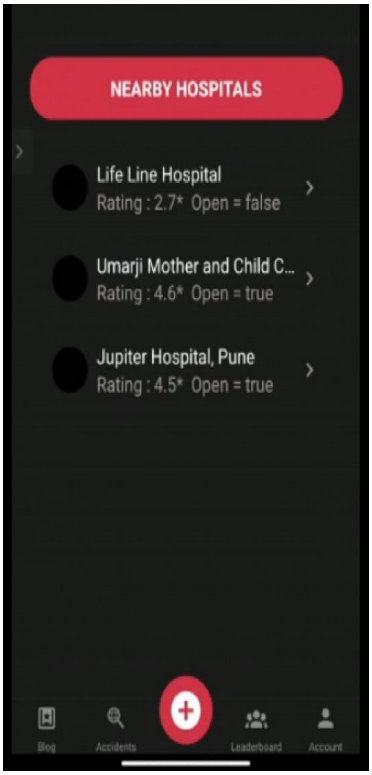
1. **React Native Application (Application for User)**

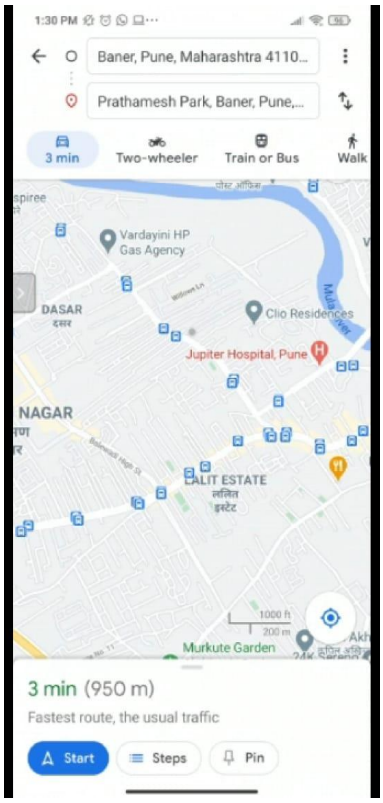

11:22 AM
AcciSafe
Safety at it's best
LOGIN
REGISTER

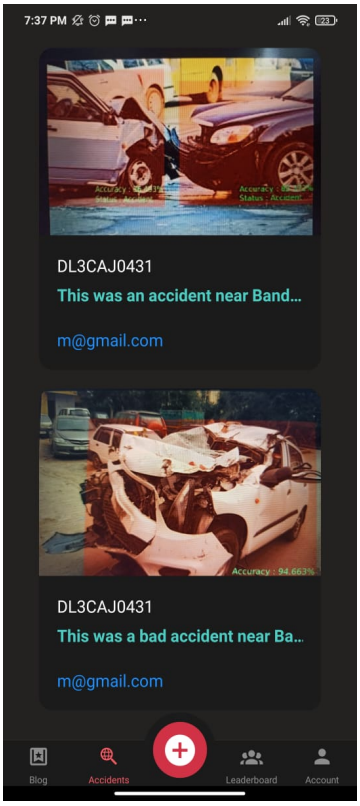

11:22 AM
AcciSafe
Your Accident Protector
MAKE AN SOS
Email
Password
LOGIN


11:25 AM
Name
Email
Enter you Car Number
Contact
Emergency Contact
Emergency Contact
PROFILE PICTURE
Password
REGISTER

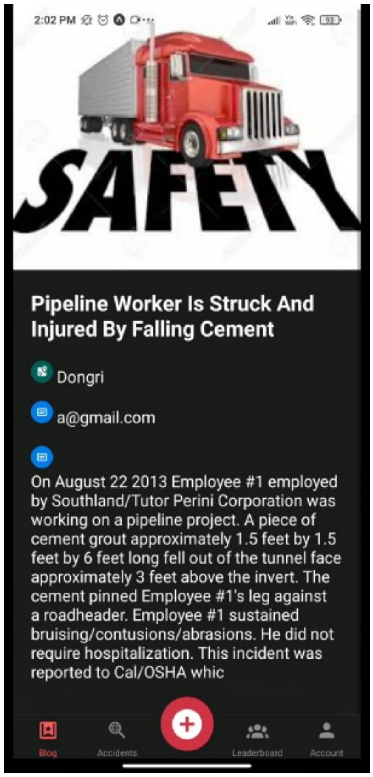

11:24 AM
ACCIDENT IMAGE
MH12AJ0431
LOCATE ME
This accident happened in nalasopara
REPORT ACCIDENT
Blog
Accidents
Leaderboard
Account


NEARBY HOSPITALS
Life Line Hospital
Rating : 2.7* Open = false
Umarji Mother and Child C...
Rating : 4.6* Open = true
Jupiter Hospital, Pune
Rating : 4.5* Open = true
Blog
Accidents
Leaderboard
Account

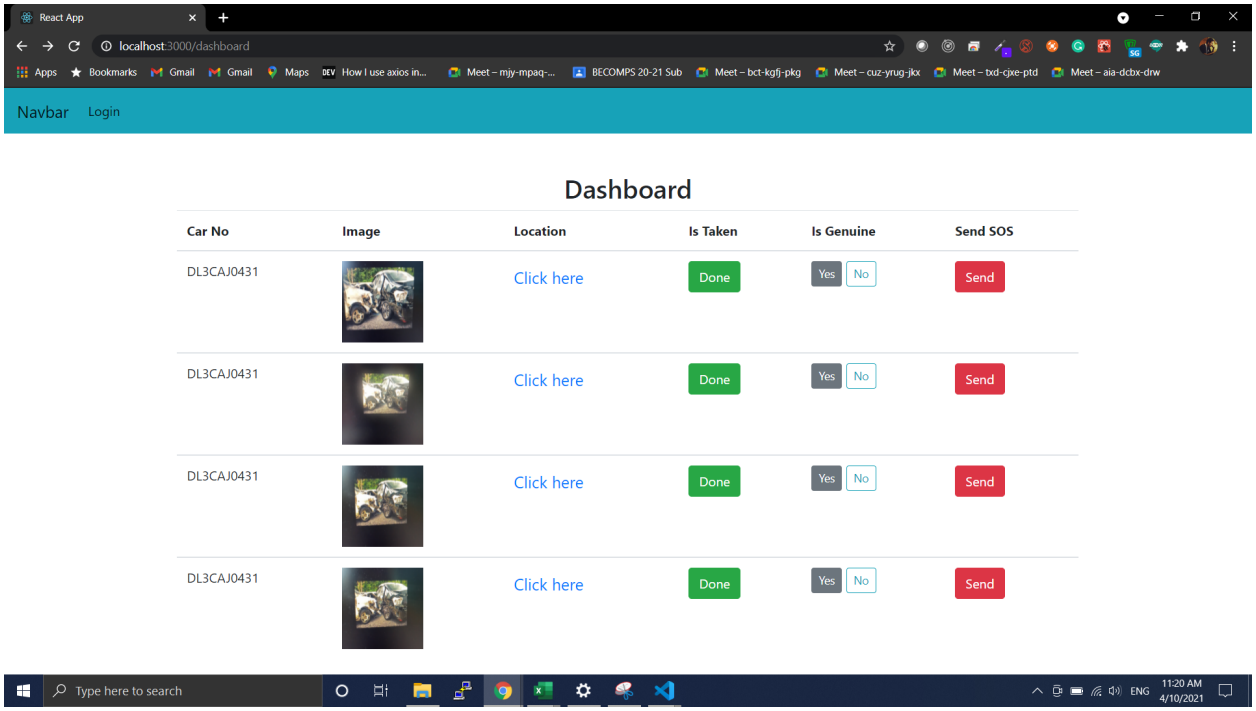


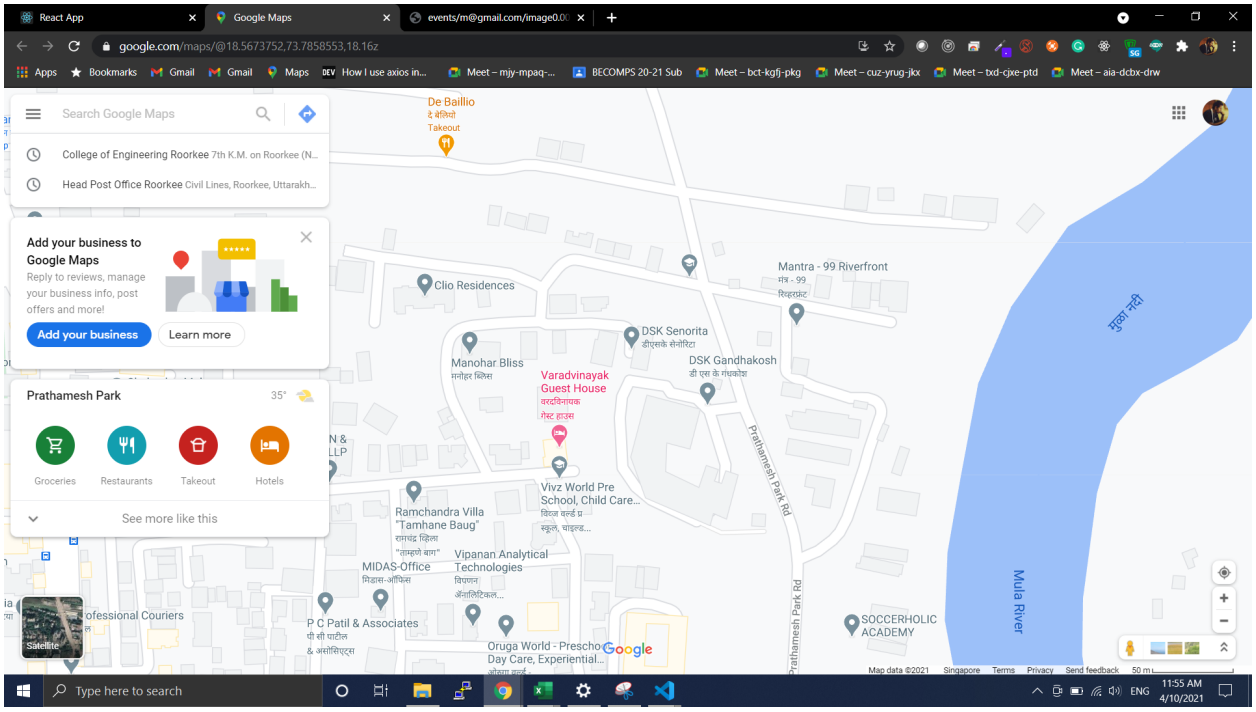





## 2. React Web-App (Website for Hospitals)




Once a hospital admin clicks on location click here button. They get redirected to maps showing the location of the restaurant.



3. **<u>Integrating whole system into Whatsapp</u>** -
    a) In real world, not every person has the sanity of mind to download an application for the betterment of the society
    b) Thus it was a necessity to integrate the entire application to something a user uses on a daily basis
    c) Thus we integrated our entire system into Whatsapp using the Twilio API along with integrating a Chatbot created via DialogueFlow for easy use.
    d) Through this, we made sure to develop our application into something which is very practical to use in real life.