



SIH Hackathon 2020

Team Name:

Cluster Champ

Team Members:

T. Ashwin (1631008)

C.N. Harish Kumar (1631018)

P. Karthick (1631020)

S. Sanjay Kumar(1631044)

P. Kavya (1833022)

S. Swetha (1833054)



Problem statement

- Cities in India are growing fast. Cities have safety issues. We often come across news and available data, which indicate a particular area being more unsafe than others
- To develop a software solution for ensuring the safety of citizens in these unsafe areas.
- It must imply Safety measures, Warning messages, Asking for help, etc are be features.



Proposal

- The system aims to provide a solution to get away from unsafe areas and to survive in them.
- Cities major crimes are not getting reported at a proper time, this system aims in collecting information at the right time and provide solution as soon as possible.



Features / Modules

- Emergency Warning Message
- Ask for help
- Chatbot IVR
- Safety measures
- Survey about the happenings
- Security guard
- Glitches around you
- Hotspot Areas

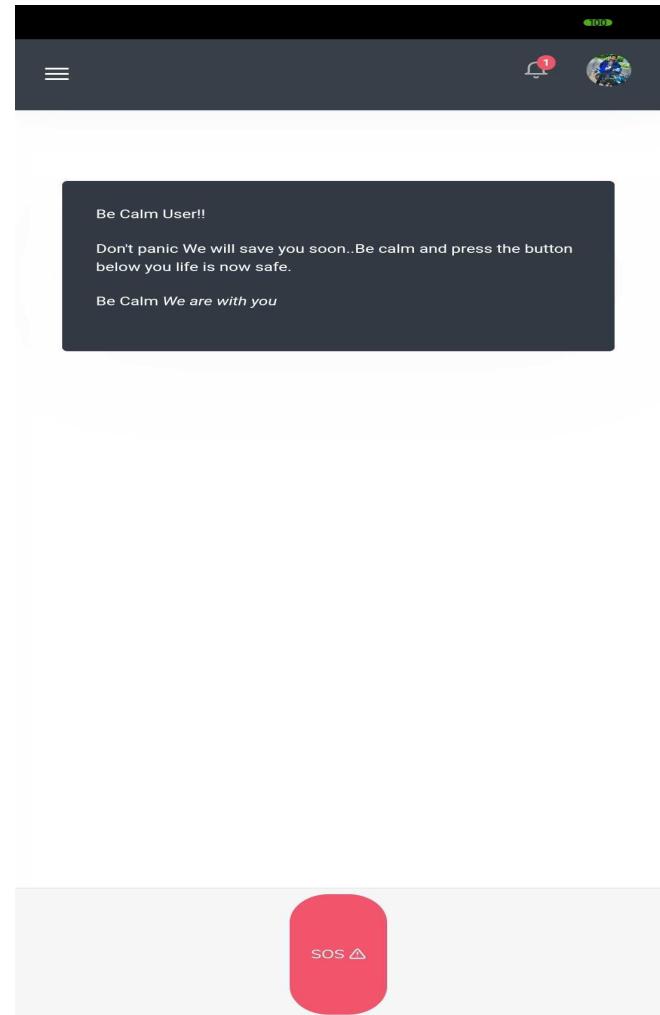


Technology bucket

- Ionic Angular
- Typescript
- NodeJS
- SCSS
- JQuery
- Firebase
- Glitch
- Github

Emergency / Warning message

- The warning messages sends user location when they are in problem and inform their guardians.
- The user and the guardian are prompted through SMS/Call/Push Notification/Email.



2:54 | 3.2KB/s

100%



Kolakkk kolakkk 🌟
9003376605 India

Oii

Train la poitu iruken athan

Na reach aitu kooopdaren da

Received

kk

12-12-2019 14:39

Hi



Hi

Hii

I'll call you right back.

2:53

Received

I'm in a trouble, please help me out.
I'm in this current location
<https://www.google.com/maps/@11.0369797,77.0321583,17z>



Mi Message



3:38 | 0.2KB/s

100%



Protection 360° Inbox



Harish Kumar 03:13

to me



Hi,

Your son Ashwin has reported an emergency through Protection 360 degree SOS. Please help him out.

Details:

Name: Ashwin is in Danger

Latitude: 11.0369797

Longitude: 77.0321583

Address: Un-named road, Codisia, Nehru nagar west, Coimbatore-641014.

Location: [https://www.google.com/maps/place/11°2'13.13"N,77°1'55.77"E](https://www.google.com/maps/place/11°2'13.13)

Thanks,
Protection 360°

Thanks for the mail.

Please look into this.

Thank you for your mail.

Reply

Reply all

Forward

Available add-ons:







Ask for help

- The ask for help functionality in this software helps us to capture the exact location of the user and provide help using the sources around that neighbourhood with a pooled connection.



Write something...

    Post



Ashwin

about 1 hour ago

“ I'm new to coimbatore can someone help me to find the easiest transportation to Isha Yoga



HarishKUMARRR 3 hours ago

Hi Ashwin, You can find buses frequently at Ghandipuram town bus stand. Have a great day 😊



Ashwin 3 hours ago

thanks brother



Add comment

Post



HarishKUMARRR

about 1 hour ago

“ karhithch chargereee



HarishKUMARRR 3 hours ago

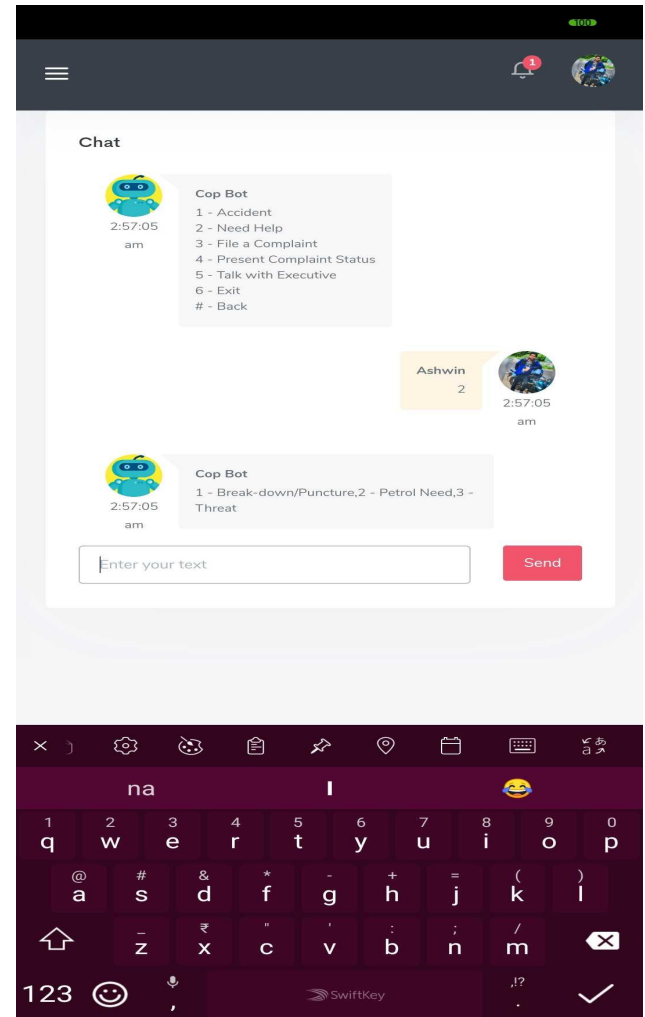
ok got it



HarishKUMARRR 3 hours ago

Chatbot IVR

- The chatbot IVR facility is used to provide help round the clock service such as getting help from a customer executive official.



Safety measures

- The safety measures provided the general instructions to stay safe as well as personalised, pertaining to staying safe in certain unsafe places.





Survey about happening

- The application can regularly take a survey by conducting a poll regarding the safety at a certain location, like the validation of an incident at that location by people at the location.
- It constantly collects data from such polls to ascertain the safety of that location.



Security guard

- Security guard manage all the complaint, track it status and post a safety tip .
- Security guard can also view all the city statistics data and speed up the enquiry process with remainder services.



Glitches around you

- The Glitches around you functionality helps the users to identify localities with complaints and is marked as a hotspot on the map until it is rectified so as to prevent users entering that place.



Hotspot Areas

We aim to locate the hotspot areas of crime using GIS and analyse them by creating a heatmap.

- Database created with all spatial and non-spatial attributes like FIR No., Time of crime, etc.
- Heatmap plotted based on temporal and spatial analysis such as Query and Kernel Density Estimation using QGIS and GPS software.

The analysis shows areas of crime, security-deficit areas which will help us in notifying the users in prior about dangers lurking in such areas.



Working Prototype - Mobile app

- Git Repo: <https://github.com/ashwin1111/sih2020>
- Apk for android link:
<https://drive.google.com/open?id=1BjltmRA7AdRlrhF9IOsLC6H39Hlst6A>
- Website: <https://citysafe-cef35.firebaseio.com/>



Conclusion

Thus, the system's ultimate aim is to ensure users' safety in unsafe places by providing many more features similar to this.

Thank you!!!