

SafeHaven

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-Manthan Sumbhe

Overview

SafeHaven is a personal safety app designed to provide real-time location sharing and live audio and video feeds during emergencies or dangerous situations. With just a simple press of the SOS button, SafeHaven instantly notifies a trusted contact with your exact location and a live feed of the surrounding environment, ensuring they can assess the situation without you needing to make a sound.

This discreet yet powerful tool is ideal for personal safety, especially for children, elderly individuals, or anyone who may find themselves in vulnerable situations. By offering live location tracking and streaming, SafeHaven helps users feel more secure, knowing that help is just a button press away. Whether for everyday safety or emergency preparedness, SafeHaven is the reliable companion you can count on.

TechStack

Mobile Application

- React Native
- Node 18
- JDK 17
- TypeScript

Backend

- Firebase Core
- Firebase Live Database
- FCM Notification
- Firebase Messaging
- WebRTC

How it works?

- As soon as the SOS button is pressed a notification is sent to the selected contact using FCM Notification and every 5 seconds the current location of the user is updated into Firebase Live Database in the form of Latitude and Longitude



Firestore

ClarkHackathon ▾

Realtime Database

[Need help with Realtime Database? Ask Gemini](#)

[Data](#) [Rules](#) [Backups](#) [Usage](#) [Extensions](#)

Project shortcuts

- Realtime Database**

What's new

- Genkit **NEW**
- Vertex AI **NEW**

Product categories

- Build ▾
- Run ▾
- Analytics ▾
- AI ▾

All products

Related development tools

- [IDX](#) [🔗](#) [🔗](#)
- [Checks](#) [🔗](#) [🔗](#)

Spark
No cost (\$0/month) [Upgrade](#)

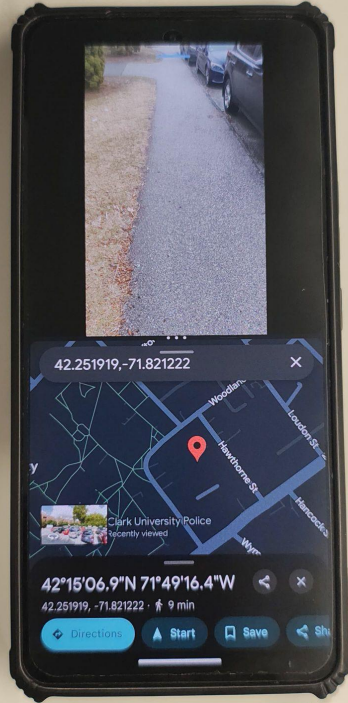
[https://clarkhackathon-default-rtdb.firebaseio.com/](#)

```
https://clarkhackathon-default-rtdb.firebaseio.com/  
└─ live_location  
  └─ latitude: 42.2519189  
    └─ longitude: -71.8212221
```

Database location: United States (us-central1)

- It also starts a feed for audio and video using the WebRTC peer to peer connection whose details like session_id, signaling_data are updated in the Firebase Live Database

- On the receivers end the location is fetched from the Firebase Live Database every 5 seconds and the exact location is pinpointed using Google Maps API which shows the location based on the latitude and longitude



- Also using WebRTC the live feed of the video and audio is shown in a split screen view

Challenges I Faced

Challenges

- New to React Native
- Dependency Issues
- WebRTC Connection Issues

Future Scope

1. Integration with Emergency Services eg. 911
2. Background Mode Support
3. Lockdown Mode
4. Geofencing For kids
5. Integration with Wearable Devices eg. Smart-watches, Smart-rings
6. Introduction Of AI
7. Offline Support

The Team



Manthan Sumbhe, MSCS

-Full Stack Developer

THANK YOU