WIRELESS AND MOBILE COMPUTING PROJECT

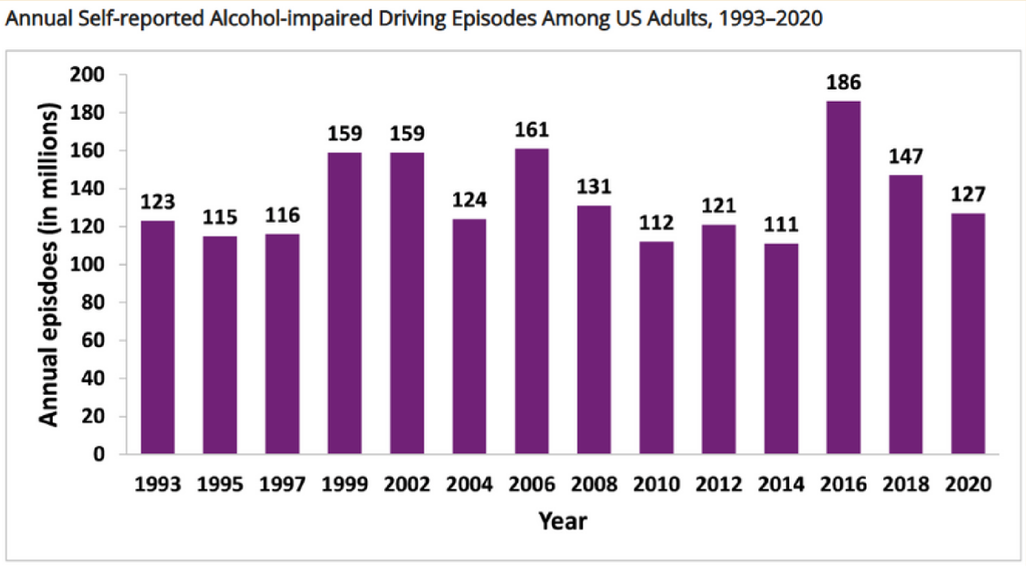
SAFEDRUNK

INTRODUCTION

***Too drunk to drive?* Maybe you should have more self-control next time, shouldn't you?**

Just kidding! With SafeDrive, you don't have to worry about fumbling with your phone or searching for a taxi number. Our app uses GPS tracking to locate your current location and send an email to your loved one to get you back safely!

SAFEDRIVE



reference: Impaired Driving: Get the Facts | Transportation Safety | Injury Center | CDC

MOTIVATION

From a statistic impaired driving impacts thousands of people in the United States each year. Ninety Two percent of people died in car accidents involving alcohol in 2020. The amount of alcohol in blood most states have set a limit for driving less than 0.08 grams of alcohol per deciliter (g/dL) in the United States. However, sometimes people don’t know how much alcohol is in their blood and they think it is not effective for driving a car, so the car accident happened. Therefore, we would like to solve these problems by making a pocket-sized blood alcohol meter so users know if they're okay to drive. However, if the limit is exceeded, you can call a taxi service within our app. By using our service, it may reduce the number of car accidents and save more lives.

PROBLEM STATEMENT

Lack of reliable and intuitive location sharing for intoxicated individuals, increasing transportation-related risks.

Insufficient availability of transportation services tailored to the needs of intoxicated individuals, resulting in unreliable options.

Absence of an efficient and user-friendly method for quick location communication, causing delays in receiving timely assistance and increasing vulnerability.

SAFEDRIVE

OBJECTIVE

To motivate people who are drunk to call other people instead of driving themselves

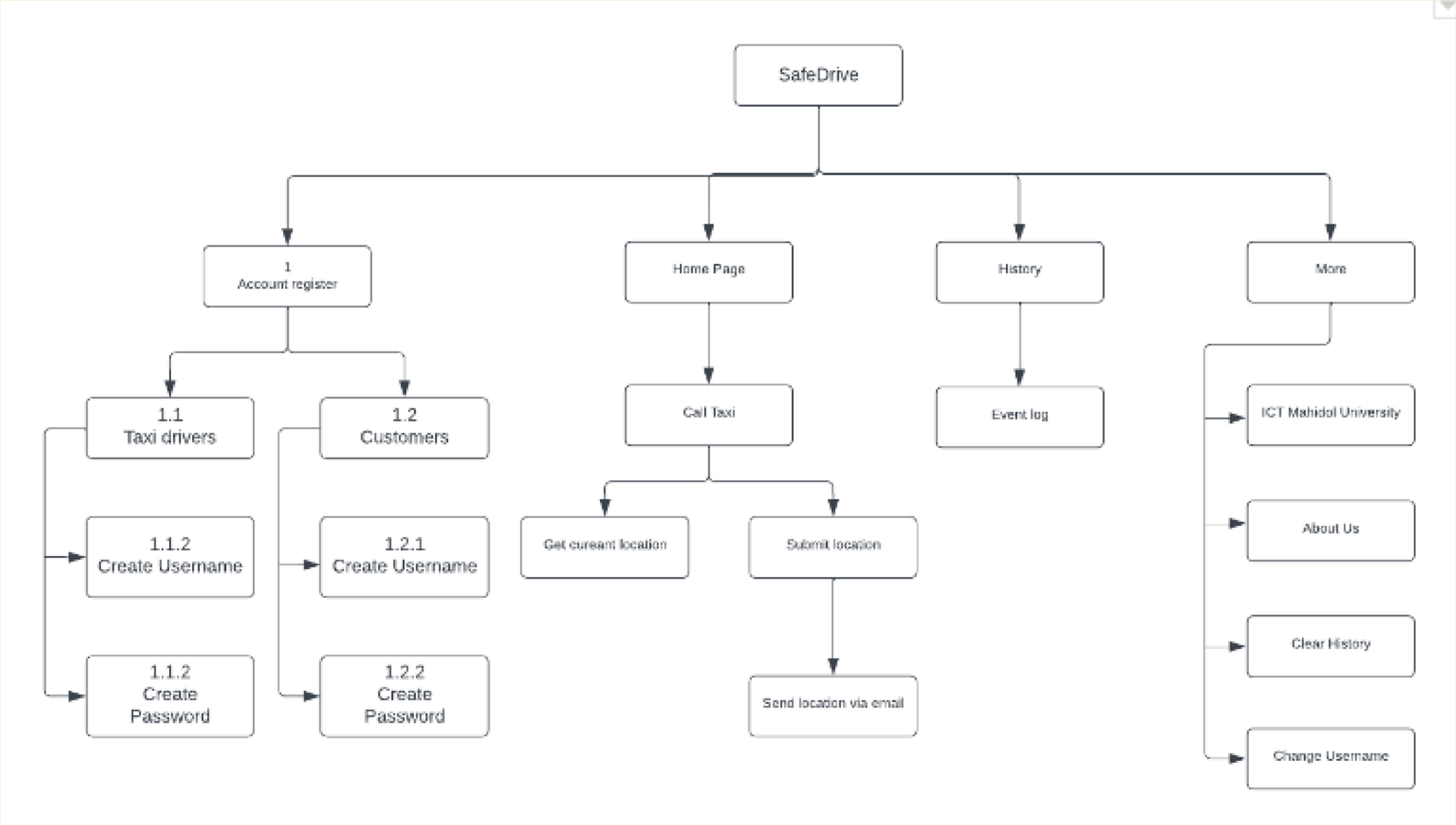
To provide the simplest method to notify user's loved one about the whereabouts of the user

to at the very least be a conscience choice for the individual who is intoxicated and is contemplating whether to drive or not

SCOPE OF THE PROJECT

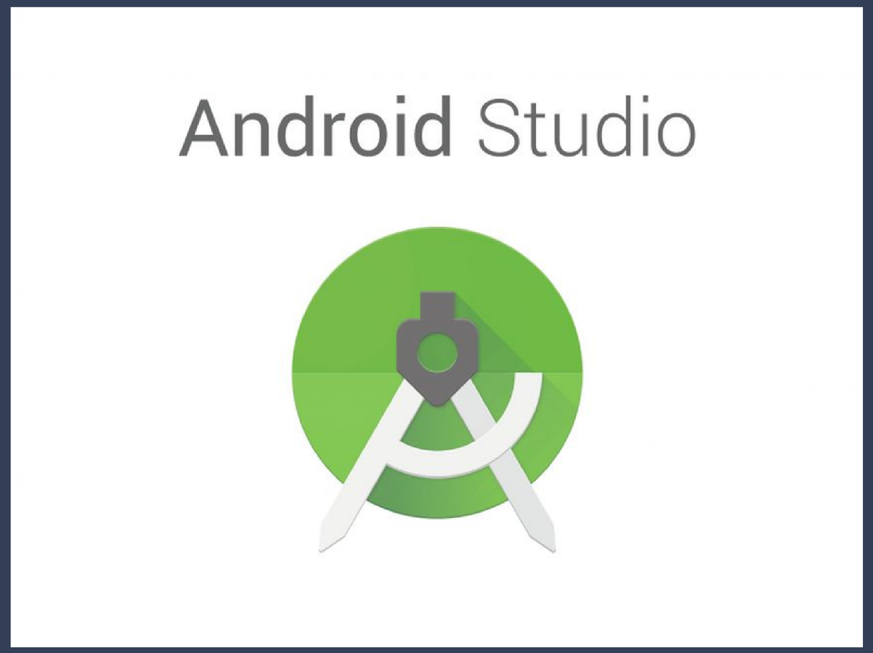
To develop a user-friendly and intuitive application that allows intoxicated individuals to share their location with a trusted loved one. The key features and functionalities within the scope of the project are as follows:

DESIGN STRUCTURE

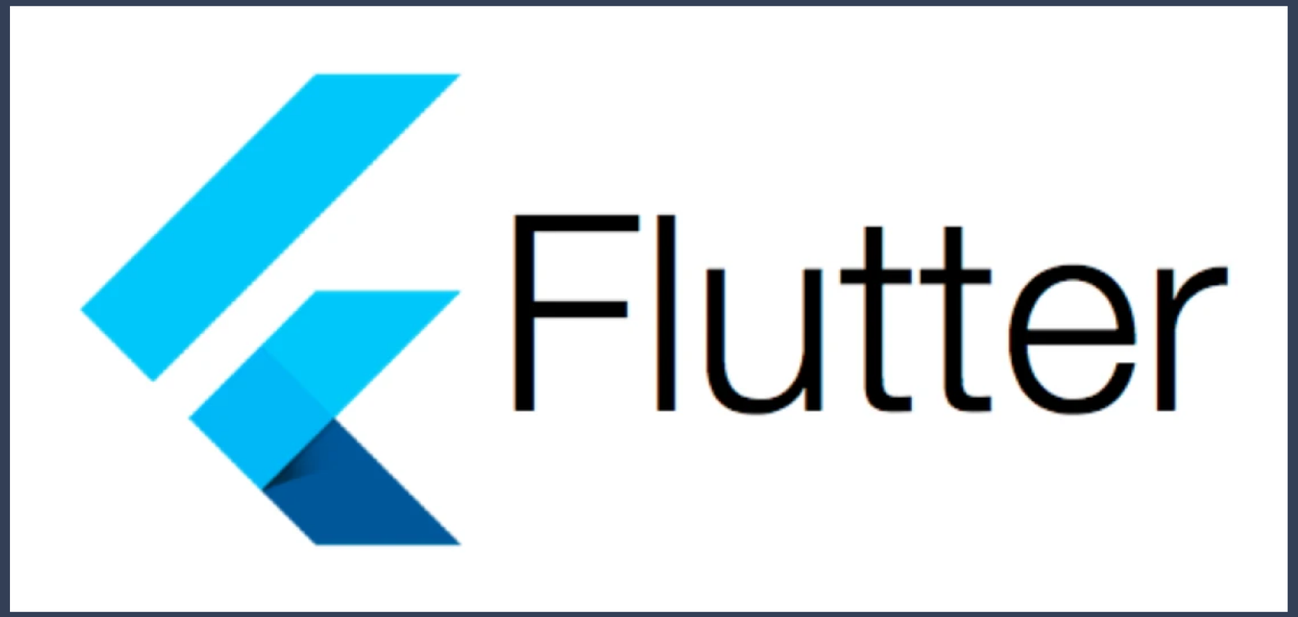


IMPLEMENTATION

Android Studio is used for device virtualization



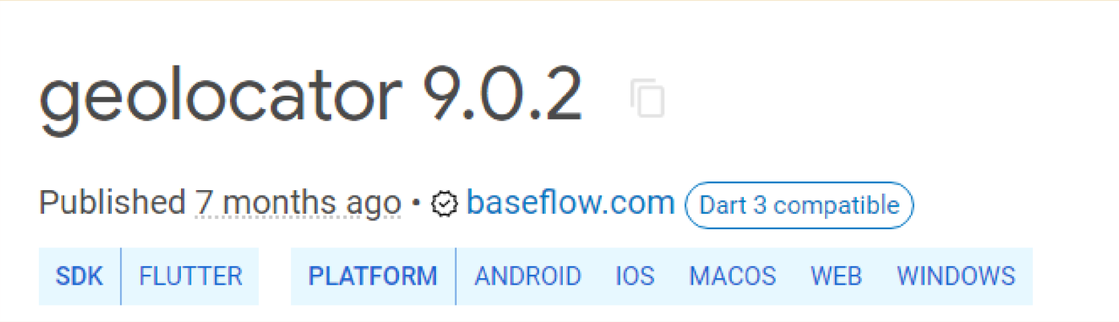
Flutter on VS code is the main framework for application development with ***extra dependencies being:***
flutter_lints: ^2.0.0
bottom_navy_bar: ^6.0.0
geolocator: ^9.0.0



TESTING

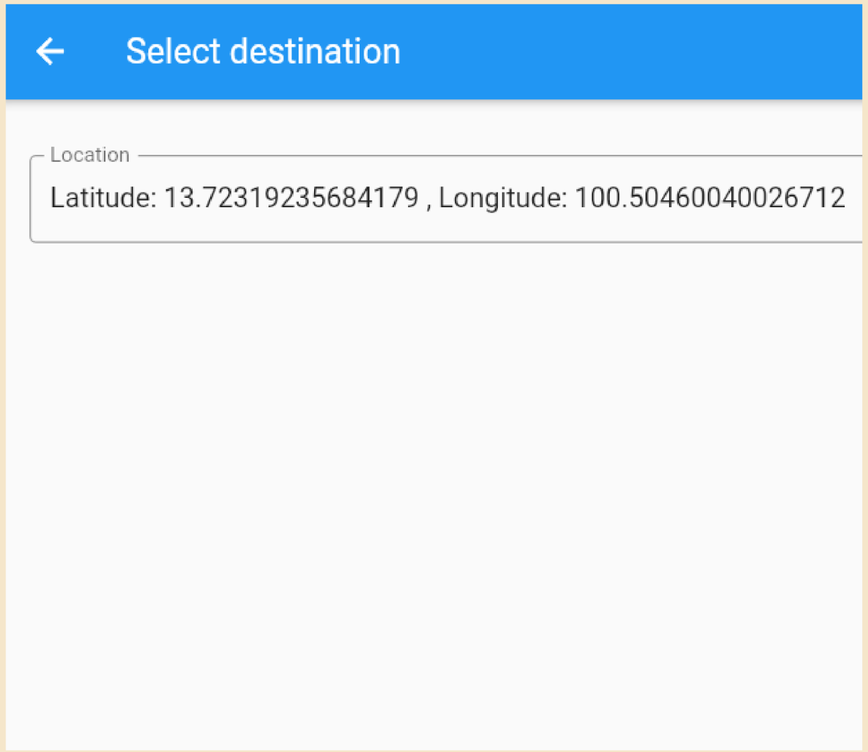
GEOLOCATION SERVICE

the geolocation service must be able to initiate and provide the location of the device



LOCATION HISTORY

The application must be able to get the current location



CONCLUSION

SAFEDRUNK

Conclusion/Contribution/NextToDo

Conclusion:

The application provides a simple and effective solution for individuals to quickly and safely call a ride from their loved ones, potentially reducing the number of impaired driving incidents and improving public safety.

Contribution:

The application contributes to reducing impaired driving incidents by offering a user-friendly solution for individuals to call a ride, helping to prevent accidents, injuries, and fatalities caused by impaired driving.

Next steps/To-Do:

Future improvements for the application could include adding a safety mechanism such as a breathalyzer to ensure that users are not over the legal limit before calling a ride.

THANK YOU

Check out our GitHub repository at:

https://github.com/jaochoo/SafeDrunk

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