CSCE4930 01 - Mobile Applications Development (2021 Winter)

## GetSafe

Your personal body guard





## Mile Stones

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## Mile Stone 1

Idea Proposal

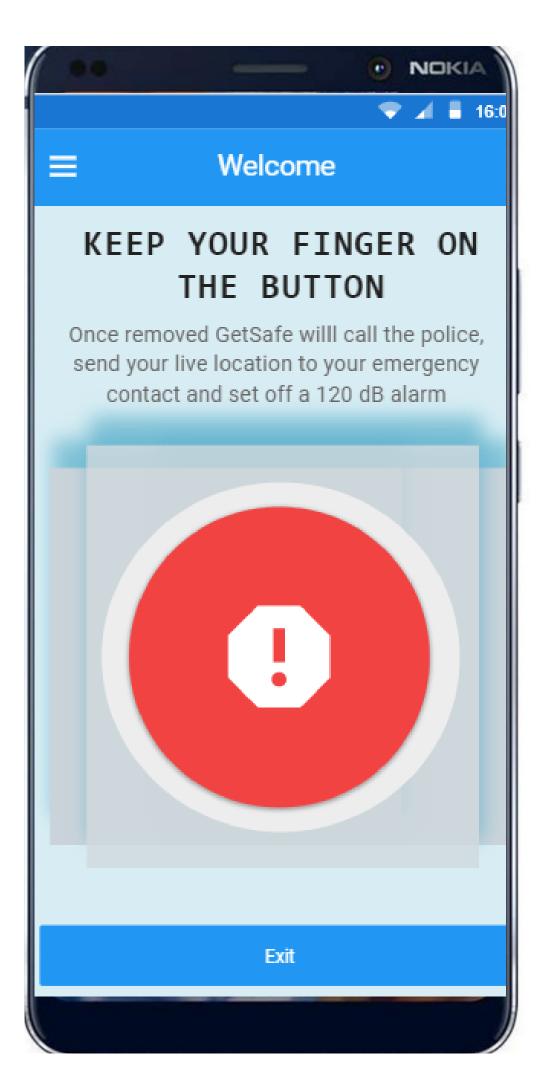
Main Activites

System Overview



# 99.3% of Women in Egypt Have Experienced Sexual Harassment

Physical Assault rates have grown by 53.6% in recent years



## GetSafe's Main Features

Call the police

Send Live Location to Emergency Contact

Set a Loud 120 dB Alarm Start Recording Video & Sound

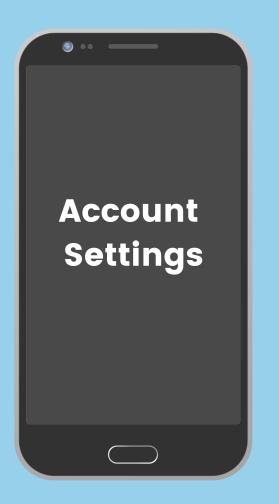
## GetSafe's Main Activites



User can login to an existing account or create a new account



User can enter personal information such as emergency contact



User can choose the actions s/he want to be executed when button is triggered

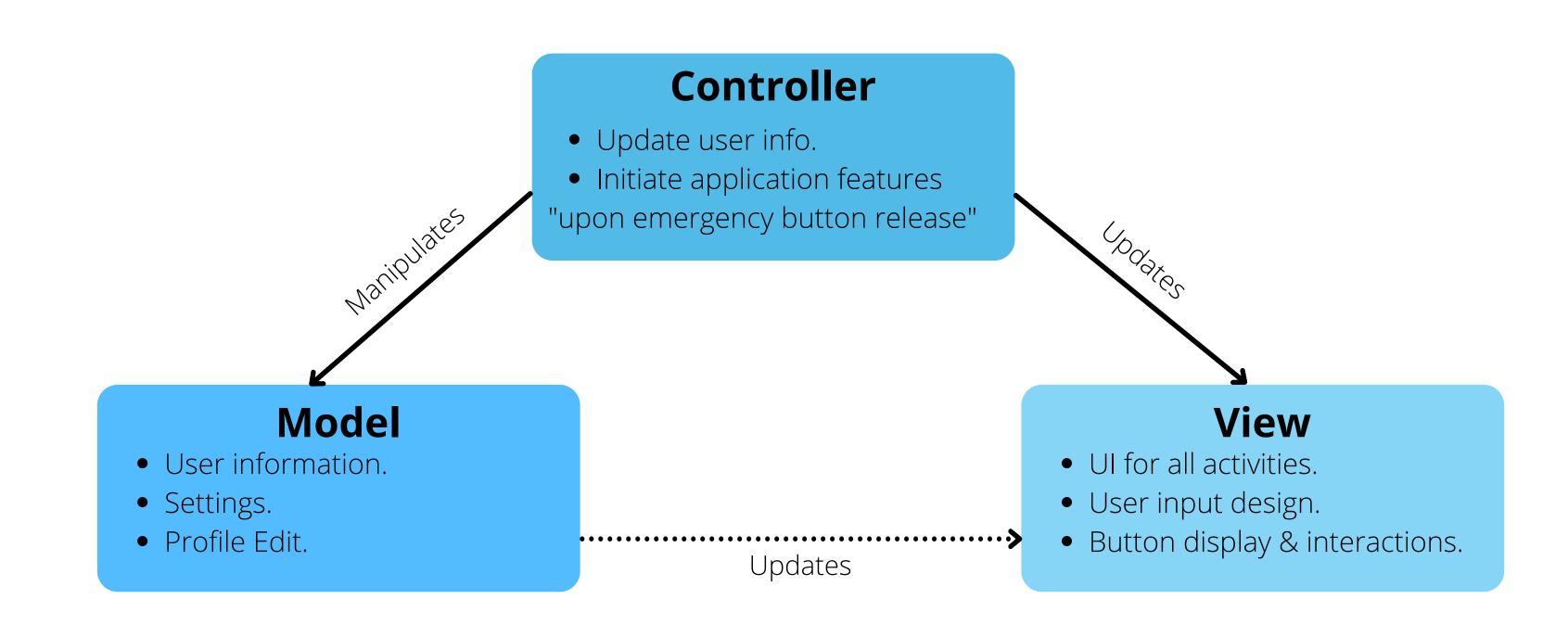


Main activity where the user can deploy the button when in danger



Service provider that gives insight about harassment hotspots

## MVC System Design



## GetSafe's Service Providers



#### **Phone**

Call police & emergency contacts



#### Whatsapp

Send live location & alerts



#### HarassMap

View & alert when entering danger zones





#### Speaker

High dB sirens

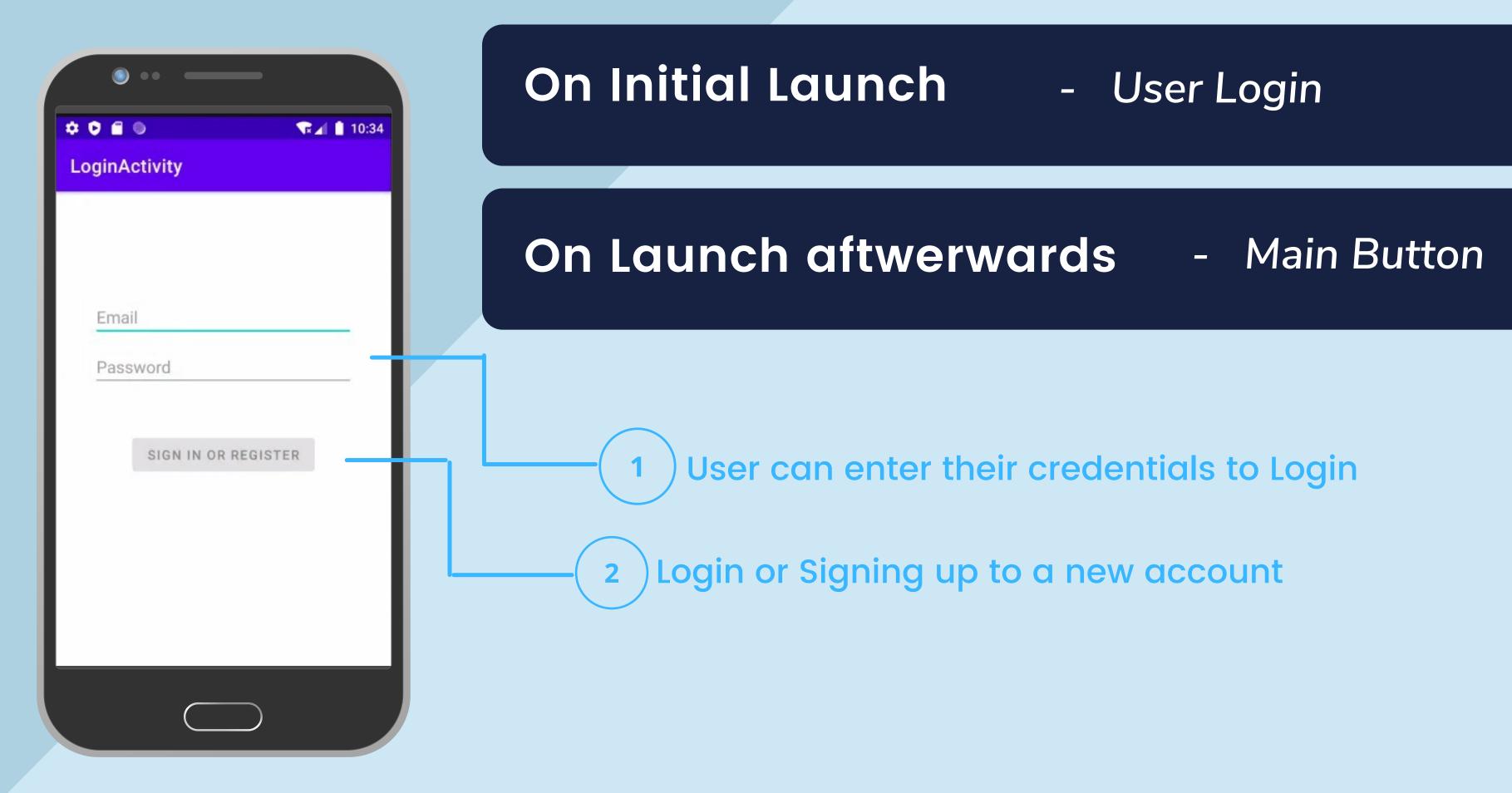


## Mile Stone 2

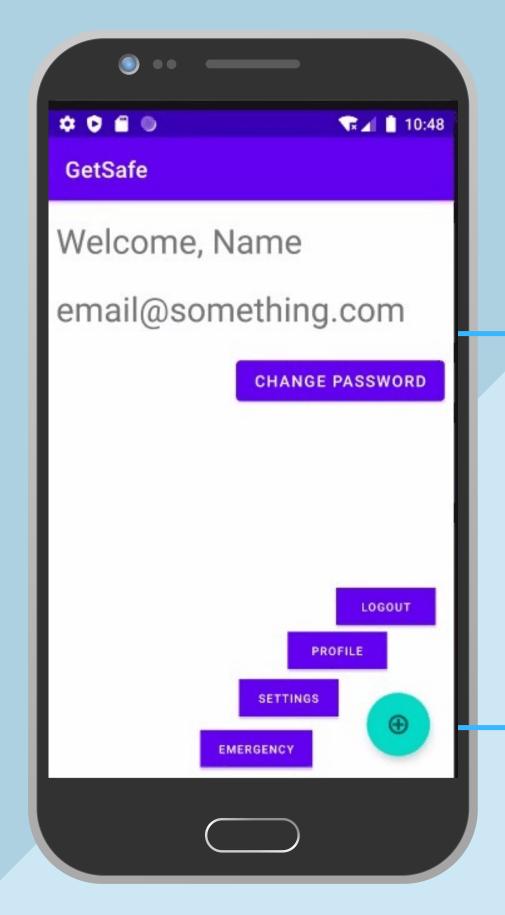
Initial UI Design

Basic Functionalities

Under the hood implementation



**User Login** 

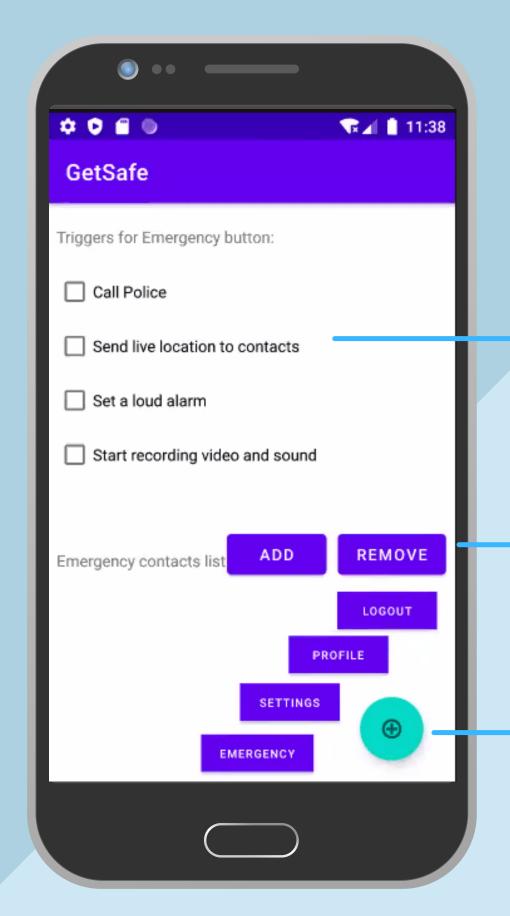


#### User Information Page

User can change their information, such as username, password and email

2 ) Navigation between pages

User Info



#### User Settings Page

- User can set up the desired actions to be executed by the application in case of emergency
- -( 2 ) User can edit their list of emergency contacts

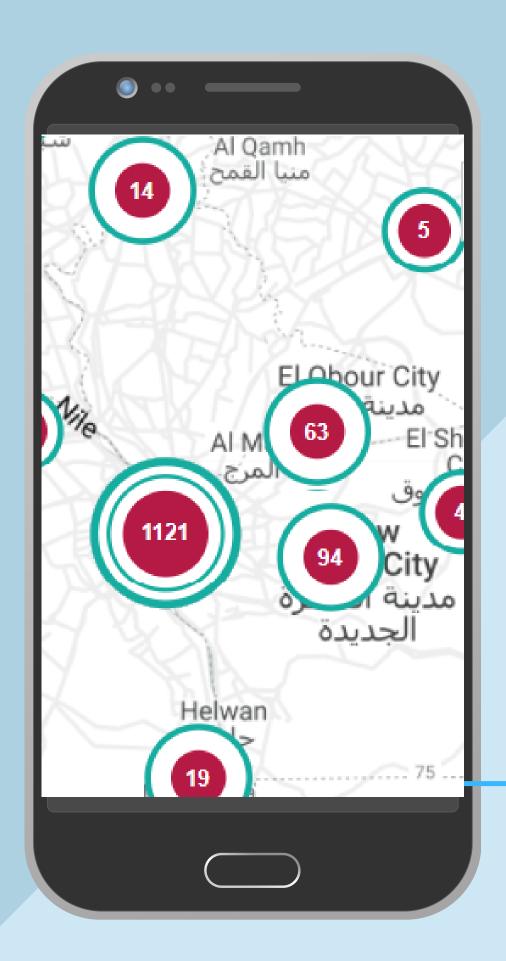
3 Navigation between pages



#### **Emergency Main Button**

- User can trigger the emergency button on release
- User can cancel the emergency request on button swipe up
- 3 Navigation between pages

Main Button

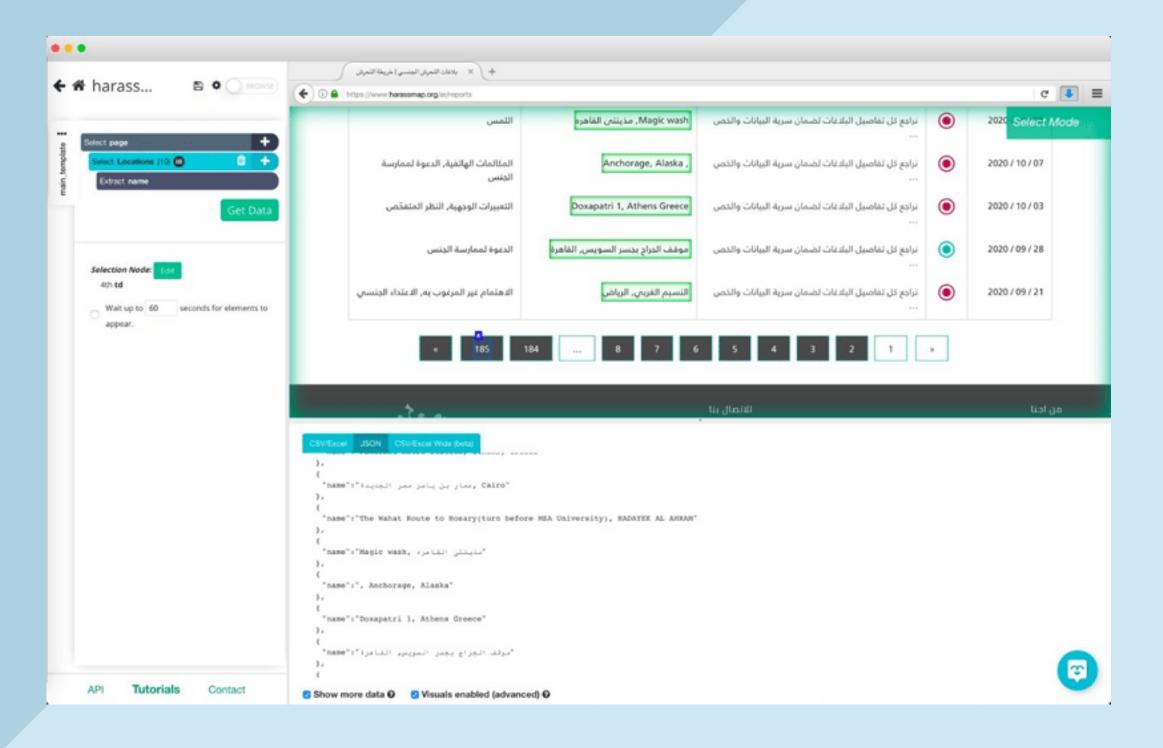


#### HarassMap Service

Users can view harassment hotspots on the map using HarassMap.org

1 ) Navigation between pages

#### HarassMap Under the Hood



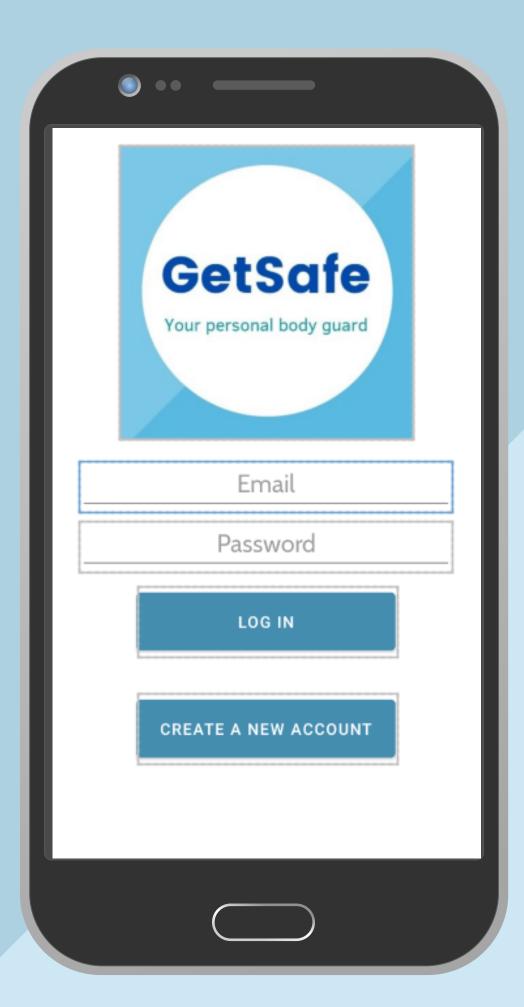
Map Data will be extracted as a JSON object from HarassMap then utilized to send warning notifications when 'walking' into danger zones with frequent cases.

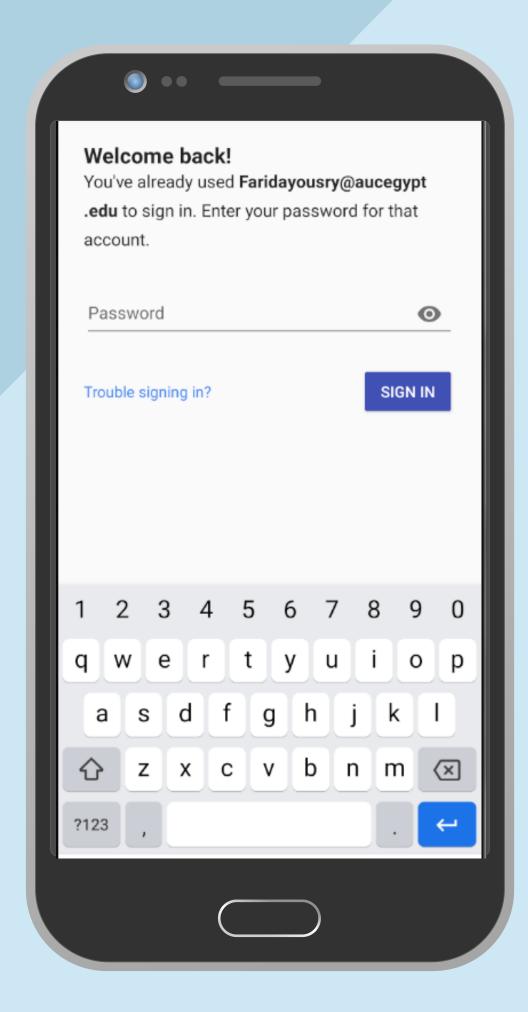
## Mile Stone 3

Final UI Design

Mostly Function

Back-end + Firebase



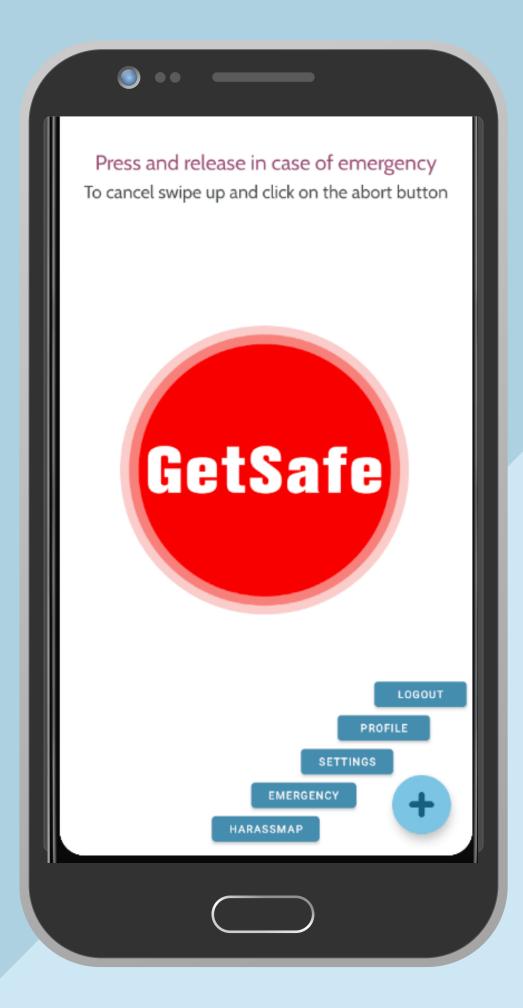


#### Log In - Updated

On initial launch – the user is directed to the login page.

Every other launch afterwards directs to the main button page for ease of access during emergencies.

Login & sign up page has been implemented using firebase API's



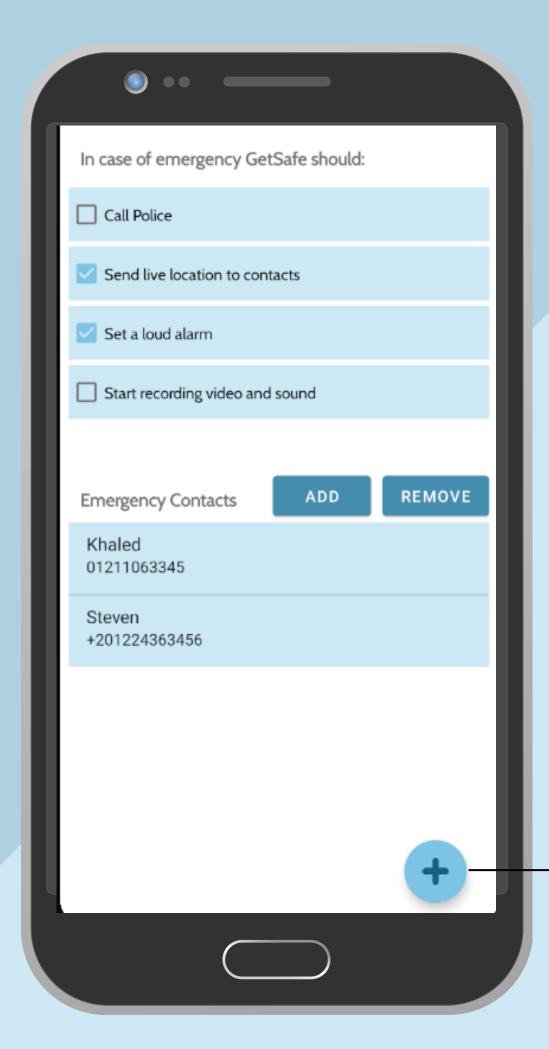


#### <u> Main Button - Updated</u>

In the case of emergency the user can press on the main button, which if released unintentionally, triggers the procedures priorly specified by the user in the settings.

In the case that the user no longer feels endangered, they can opt to cancel the emergency procedures through swiping up to click on the abort button.

The user can expand the action button to navigate through the application

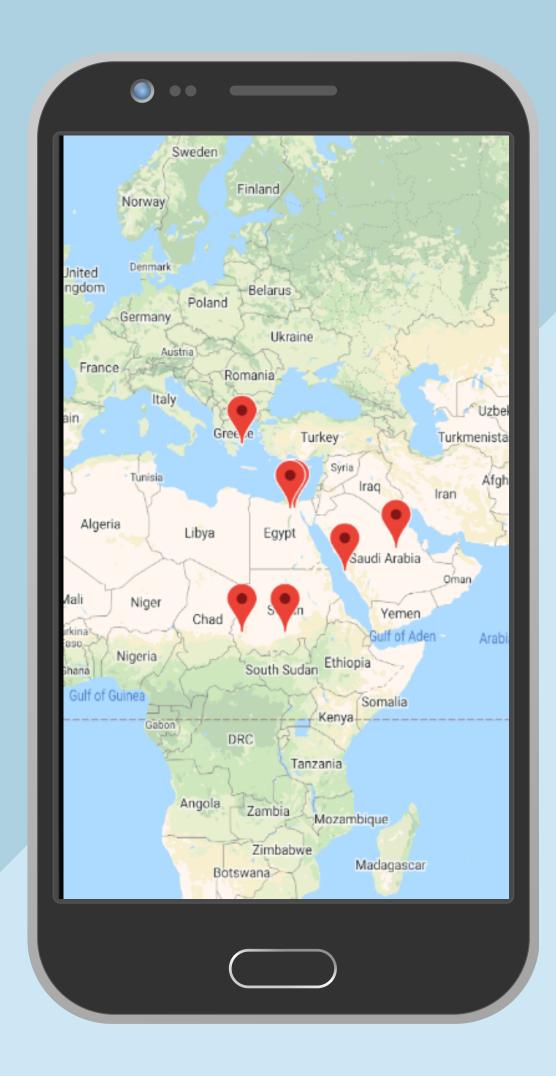


#### <u>User Settings - Updated</u>

User can customize the procedures they wish to be executed in the case of emergencies.

In addition, they can add and remove contacts to their list of Emergency contacts, who will be sent the user's location during emergencies

The user can expand the action button to navigate through the application



#### <u>HarassMap Service - Updated</u>

The user can access a map showing harassment hotspots nearby, in addition to being notified when near dangerous areas.

Latitude & Longitude data has been extracted and parsed from the <u>HarassMap.org</u> website in the form of JSON objects, then embedded as marker points on GetSafe's own map.

#### Back-end Implementation

- Database is set up and API's are running
  Only the Login & Sign up have a complete back-end through Firebase authentication
  - Implementing them in the application is underway

Local database stores Username, password, emergency contacts, emergency procedures, in addition to the map coordinates extracted from HarassMap

 Currently the application utilizes shared preferences to store data about the user such as emergency contacts and preferred emergency procedures.

### Mile Stone 4

Complete Client + Server sides of

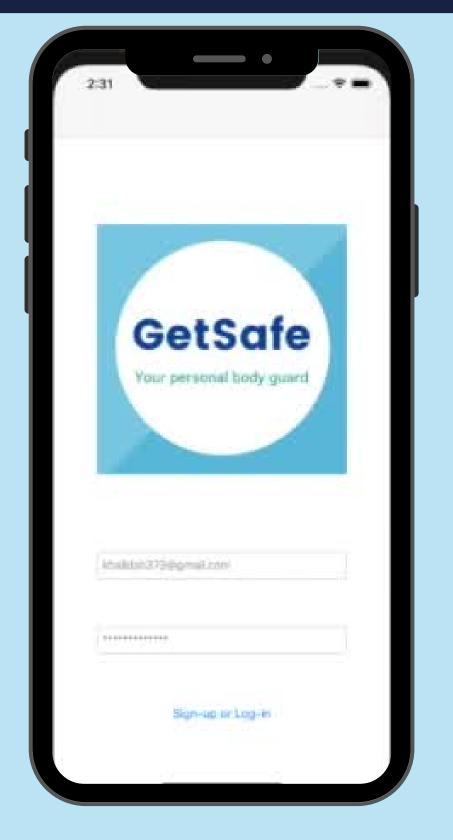
Android App

Functional Ul for iOS App

#### Demo of UI Prototype - iOS App

- Complete UI design + Basic functionalities:
  - Usable for all screen sizes, optimum for iPhone 11 Pro.
  - Navigation controller
  - Emergency alarm on button release and alert messages
  - HarassMap view functional.





#### Demo of complete Android App

- On login, user data is retrieved from the server and loaded into the UI
  - This initializes local data on the app such as emergency contacts and preferred procedures
- On exit of each page, user data is sent to the databse to update it incase of changes made by the user.



