PING APP
Software Requirement Specification (SRS)

Team Members

Name	Role
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1. Introduction

1.1. Purpose

- To help the users to have a sense of security no matter where they are
- To provide a piece of mind to the users' loved ones

1.2. Intended Audience and Reading Suggestions

The application is made for everybody, especially:

- Children
- Students
- Elderly
- People who are going out on their own
- People who are susceptible to emergencies

1.3. Product Scope

- Objectives
  - An Android/IOS safety application that automatically sends the users' current location and text messages to their emergency contacts
  - Used when the users are in an emergency or when they are in danger
- Benefits
  - Helps to save time alerting people since it only takes a few buttons to reach to multiple people
- Goals
  - Being able to make the app interfere with the phone's contact list, Apple Map/Google Map, and GPS
  - Being able to create a simple and nice user interface
- Additional Features
  - The app can notify other users within a certain radius from your current location
  - Allows users to notify emergency services
  - Make the app compatible with Apple Watch

2. Overall Description

2.1. Product Perspective

Ping App is a new personal safety mobile application that automatically sends text messages and the user's location to their trusted contact list when:

- They are in danger
- They are going out by themselves
- They are feeling unsafe

2.2. Product Functions

- When the PING button is pressed, the app will:
  - Automatically send text messages to the user's trusted contact list
  - Share the user's current location with their trusted contact list

2.3. Use Classes and Characteristics

- The app is made for everyone, especially:
  - Students
  - Children
  - Elderly
  - People who are susceptible to emergencies

2.4. Operating Environment

- Android
- iOS
- Firebase

2.5. Design and Implementation Constraints

- Initially, we planned to implement a feature where the users can press a physical button on the phone (volume up/volume down button), which will perform the app functions. However, since the app was built with ionic, that function could not be implemented since it has to be implemented as a native application.
- Google Map API. Some of the google map API works well with the implementation but ran into issues such as with the map displaying correctly to the phone screen and getting the exact location.

2.6. User Documentation

- Will Download the app from the store
- User will Sign and set there account
- User will press the Ping button to send SOS messages.

2.7. Assumptions and Dependencies

- There can map displaying issue
- Due to two different Location API there can be an issues with the precise location display
- The location can have issues due to the phone OS location API and Google API conflicting on the location, so there is a second location page that the user can use to get a more precise location using Google Map API.

- The app is currently relying on Firebase Database so there can be potential problems.

3. External Interface Requirements

3.1. User Interfaces

- Standard Button and Function
- Keyboard Shortcut
- Standard Messages Display
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3.2. Hardware Interfaces

- Phone
- Laptop, Personal Computer
- Potentially apple and android watches

3.3. Software Interfaces

- Firebase Auth API
- Google Map API
- Firebase Real Time and Firestore Database

3.4. Communications Interfaces

- Email
- Android SMS
- iOS SMS

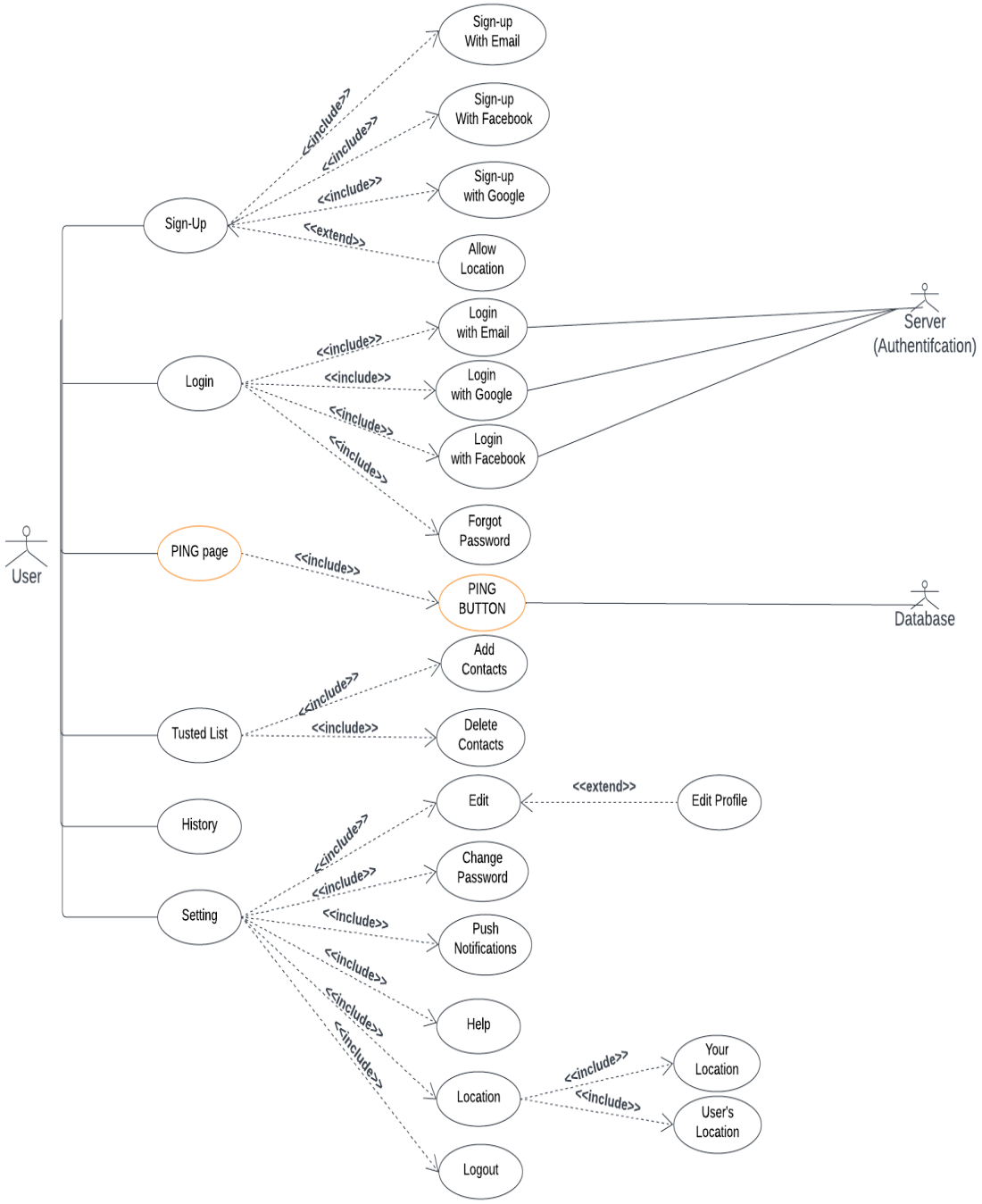
4. System Features

4.1. System Feature 1

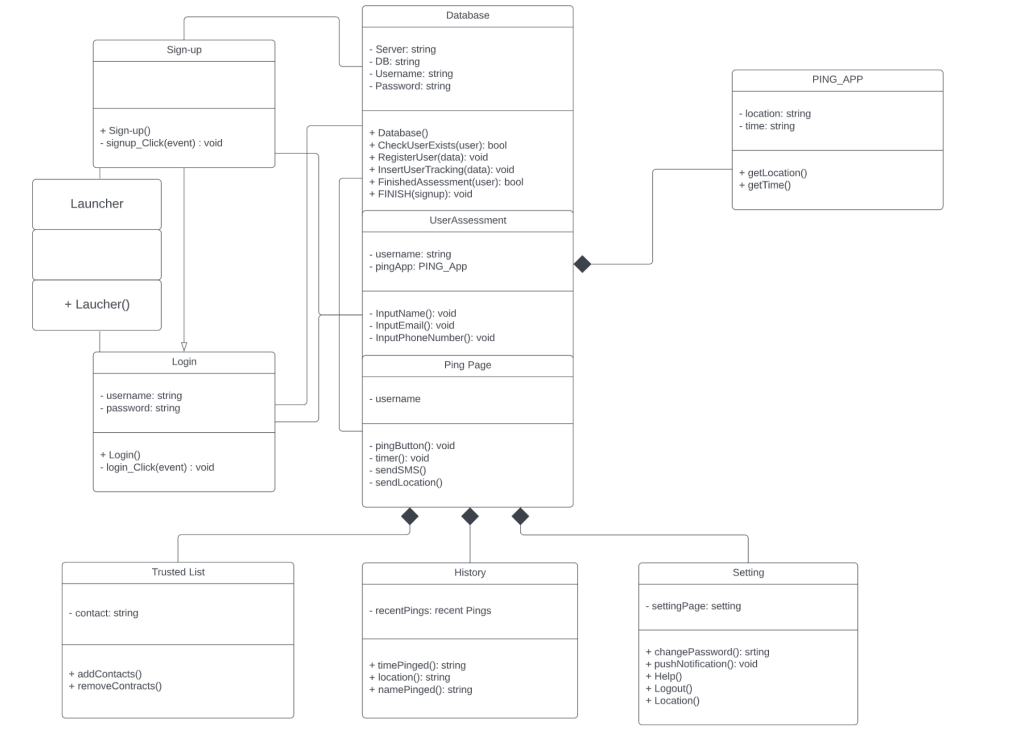
- The app asks for the access to the user location and phone contact to sync to the phone or they can input it manually. You will also need an email and a valid phone number to sign up to use the app. It will have a history of the messages sent and received also where they are coming from .
    - Stimulus and Response
        - Display messages to users to get contact information and location.
        - Display a big button to press to send out the message.
    - Function Requirement
        - Email
        - Phone Number and Service
        - Mappable Location

5. Diagrams

5.1. Use Case Diagram



5.2. Class Diagram



5.3. Sequence Diagram