

# REMINDME

An App for Abuse Victims

Version 1.0.0

## **Design Specifications Document**

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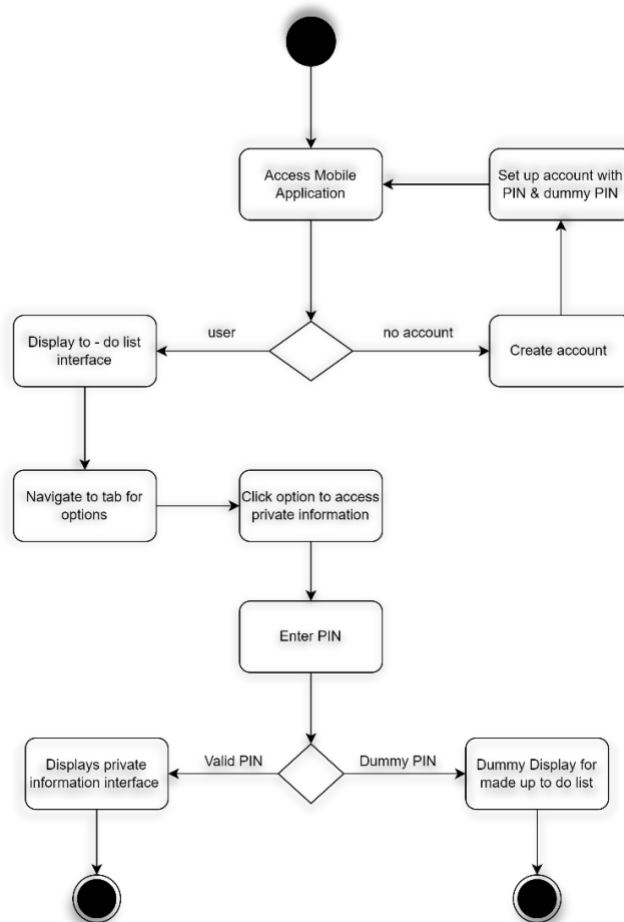
## Executive Abstract

The Design Specification document establishes a detailed plan for the functional aspects of the RemindMe mobile application. This plan describes the specifications for the software's behavior and architecture to ensure that all expectations between the engineering team and stakeholders for the project are met. This document describes and shows graphical representations of five essential features that will function on RemindMe. The 5 essential features include: *User Login (with Dummy Pin)*, *Survey to Determine Abuse Type/Severity*, *System Time-Out*, *Uploading & Storing Media*, and *Secretly Dialing 911*. The Architecture Specifications portion of the document has our Class Diagram and Application Map, which displays the flow of classes and functions that will be designed by our development team for all users. The Activity Diagrams & Class Diagram was based on our Use Cases found in the Requirements Specifications documents; and the Application Map was based on our Goal Model and System Vision. The development team will be responsible for designing, programming, deploying, maintaining, and improving the software using a variety of tools and skills to ensure the system remains functional. Furthermore, the RemindMe mobile application will be available on the Google Play Store by May 2023.

# Behavior Specifications

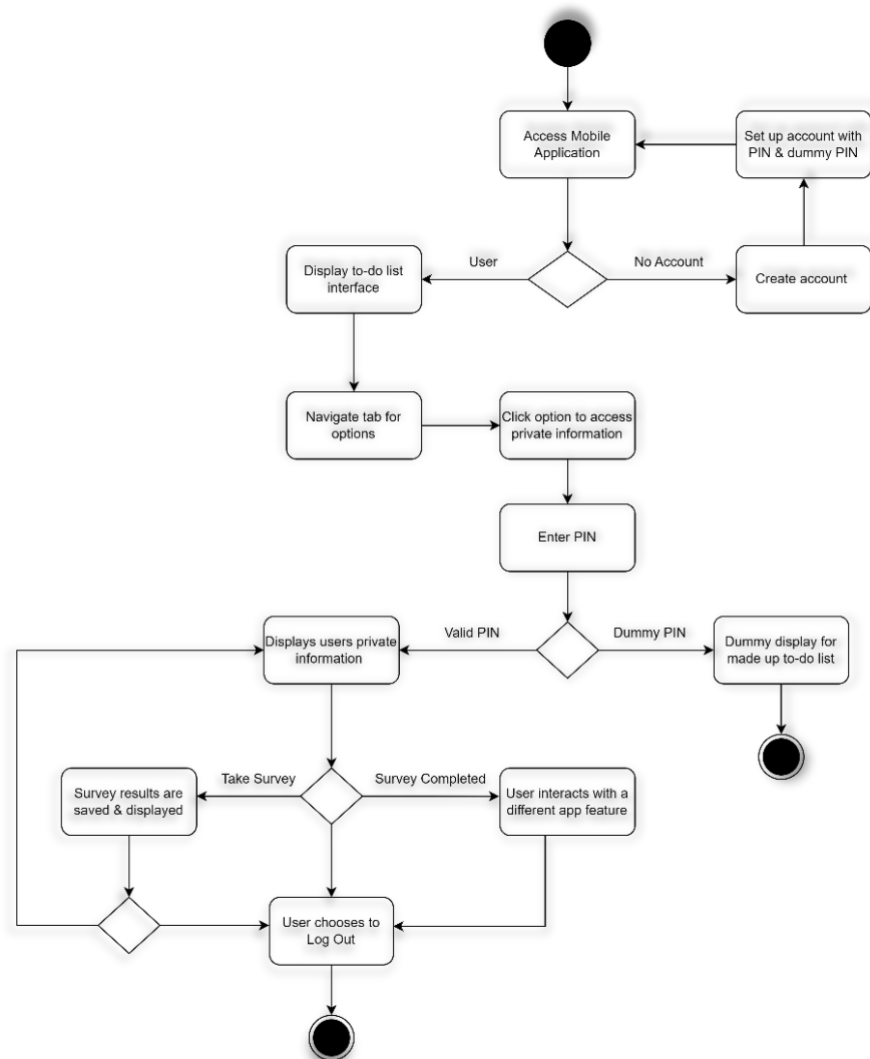
## User Login & Dummy Pin

The purpose of this feature is to use a login pin to protect access to the user's private information and disguising it by displaying a to-do list whenever the dummy pin is entered. This function is critical to provide a layer of security for the abuse victims in the case of their abuser attempting to access the applications hidden features that contains all the documented data. First, the user must download the app and set up a profile, then they will be prompted to create a secure pin and dummy pin. The next time the user wants to access their private data, they will need to enter either pin. One will grant access and the other will set off display for made up to do-list. These pins are stored and linked to the user's profile and can be modified later. The sequence of behaviors for how this feature will work is visualized in the diagram below.



## Survey to Determine Abuse Type/Severity

The purpose of this survey is to help users who are abuse victims, or who may know an abuse victim, determine the type and/or severity of the victim's abuse. This is an essential feature because some victims might not be aware of how severe their abuse is. This survey is designed to assist victims in becoming more aware of the different types of abuse that they are experiencing. The user's survey results will be saved and displayed to them immediately after completing all the questions. The results will indicate the abuse type and/or severity to the user so they can get the help they need.

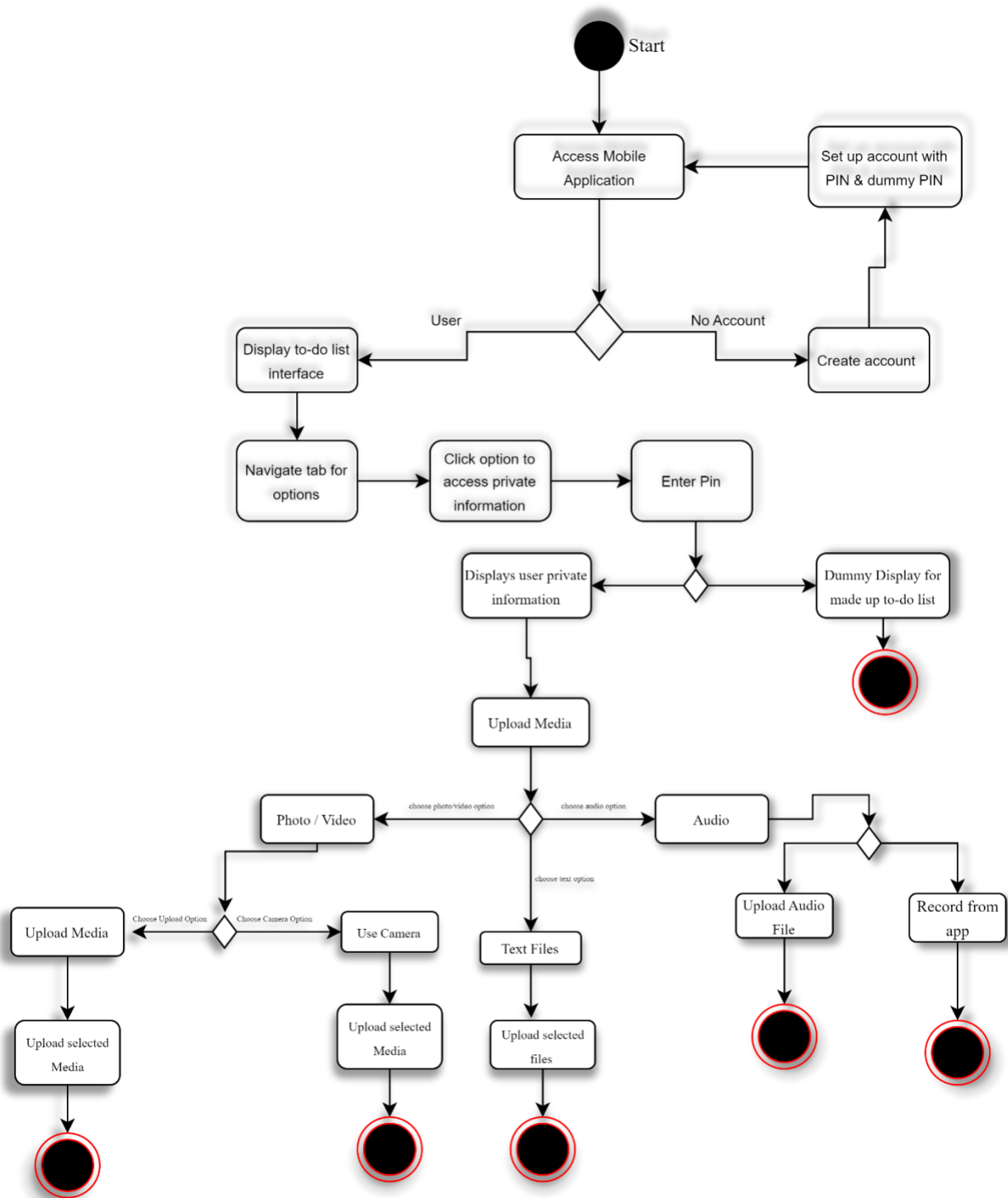


This feature will provide the user with additional security by closing the application when the user has been inactive for one (1) minute. If the user is uploading or creating new media/text, the timer to indicate inactivity will not run nor restart until the uploading process to the database has completed. When the inactivity reaches forty-five (45) seconds, a notification will be displayed within the application to ask if the user is still present, and they will be prompted to select a button indicating they are still using the application. If the user pushes the button and they were previously accessing their private information, they will be prompted to re-enter their pin to access the information again. If an incorrect/dummy pin is entered, the user will be directed to the dummy display and dummy features. If the 1-minute timer has been reached and there is no activity going on within the application, then the application will close and the user will need to re-open the application to re-enter their pin in order to access their information.



## Uploading & Storing Media

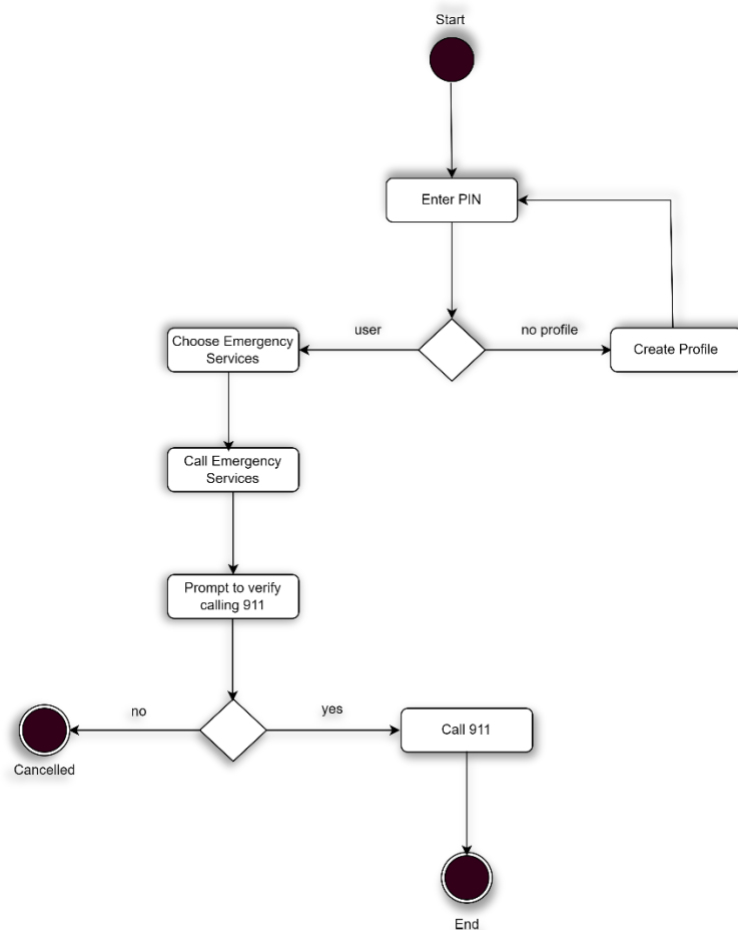
The user will have the ability to either upload or store text files, photos, videos, and audio files that contain evidence of documented abusive events. This feature will be available for use once the user sets up a PIN code to access any private and secure information along with their dummy PIN code to prevent any vulnerabilities. When the user enters the correct PIN code, they will be provided with the option to document events. If the user decides to document events using videos or photos, they will be asked if they would like to upload from their device's local storage or record/photograph directly from the application. If the user decides to upload from their device's local storage for the first time, the user will need to give the app permission to access their device's already stored photos and videos (this will be a one-time permission until the user removes the permission). If the user decides to record/photograph a new event directly from the application, the user will need to give the app permission to access the device's camera (this will also be a one-time permission until the user removes the permission). If the user decides to upload text files, they would be prompted to allow access to device local storage, if not yet done so (this will be a one-time permission until the user removes the permission). Once access has been granted, they will be able to upload. If the user decides to upload audio files, they will be asked if they would like to upload from their device's local storage or record directly from the application. If the user decides to upload from their device's local storage for the first time, the user will need to give the app permission to access their device's media files (this will be a one-time permission until the user removes the permission). If the user decides to record a new event directly from the application, the user will need to give the app permission to access the microphone (this will also be a one-time permission until the user removes the permission).





## Secretly Dial 911

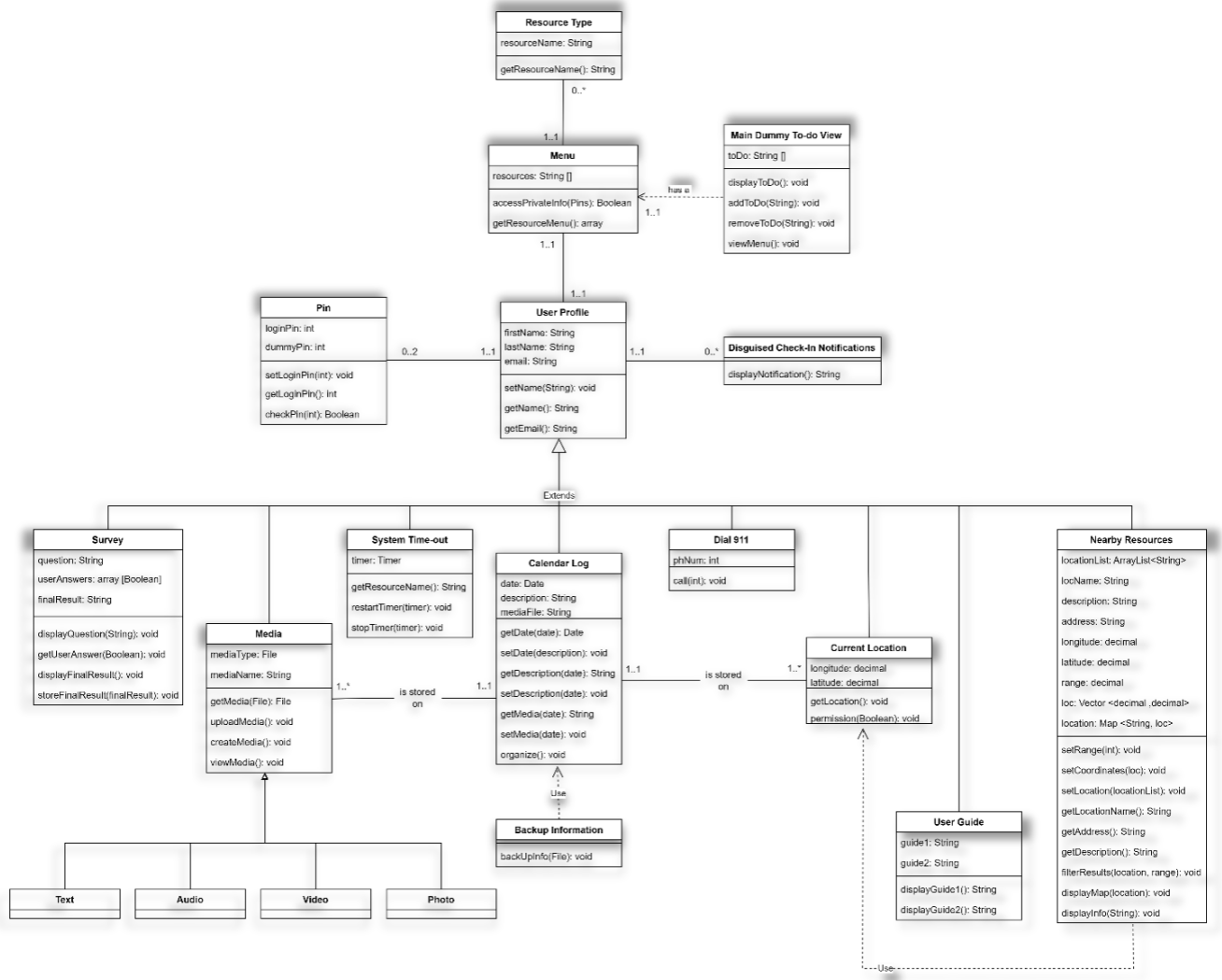
This feature will allow the user to discretely call 911 in the event of an emergency. The user opens the app and attempts to access the password-protected portion of the application, then they are prompted to enter a PIN. If they have not created a profile yet, they will be prompted to create a profile and set a PIN. Once they have their PIN, they will be able to go to choose the emergency services page. Once on that page, they can press the button that will begin the process of calling 911. They will then be prompted to verify that they do want to call 911. If they choose yes, 911 will be dialed automatically. If they choose no, the process is cancelled and 911 is not called.



# Architecture Specification

## Class Diagram

This class diagram was created using the Universal Mapping Language (UML) to develop the classes that will be used to implement all the app's tasks and features. The UML displays the relationships between classes that will need to operate in accordance with each other. The Main Dummy To-do View takes care of the to-do list operations and provides a menu to view other functions within the app. The Menu class serves as the gateway for the remaining classes in the application. It has a function for the user to enter their PIN to access the private features. This will determine whether the function for resources page appears or reverts to the dummy to-do list interface. The User Profile and Pin class are related to allow editing of user info, login and dummy pins. This class is designed to be the parent class to ensure that the subclasses only operate in accordance with a user who has defined the functions of the User Profile and PIN. The subclasses represent the hidden operations of the program to perform their tasks. These functions include system timeout, take a survey, secretly dial 911, store media to a calendar log, access to location, back up information, view user guide and nearby resources. Refer to the class diagram below for a full visualization of the program model.



## Application Map

The architecture of the design details the connection between each page, link, task, and utility in the application. The RemindMe app will consist of two different main pages. The first will be the dummy page with dummy features that will only allow the user to perform basic operations of a to-do list. This page will include links to a menu that will allow the user to navigate to their profile. The user profile will be a link to the second main page that can only be accessed with the correct PIN. The second main page will be the page that provides the user access to all sources for help. This page will include links to other pages to access features for their profile information, additional resources, emergency services, media services, and their calendar of events. The profile page will allow the user to modify their user profile information. The resources page will allow the user to search for nearby resource centers, and to take RemindMe's survey. The emergency services page will allow the user to contact emergency services. The media page will allow the user to provide permission to the application to access the device's camera, microphone, and local storage; the user will also be able to store media onto the database. The calendar page will provide a visually organized storage of the user's documented events in chronological order.

