PCSA - iOS (First Aide)

System Design & Development Document

Contents

1. Introduction

Peace Corps Safety Application (PCSA) helps the volunteers to get information about the Peace Corps' safety and security procedures in a button click. It also has the functionality in reporting and sending messages when the PCV's (Peace Corps Volunteers) are in trouble. The scope covers the initial development of the iOS version to reflect the already developed Android app and the remaining development which is suggested by the UI and general content update by the Peace Corps.

The name of the app is changed to "First Aide" and throughout this document and the development, this name will be used. This document describes the system design of **First Aide** application developed on **iOS** platform in **Swift** Language as part of the **Google Summer of Code 2016** project.

2. Application Design and Analysis

2.1 Application Content

First Aide application contains several components. Most of the components contains only the static content. Content will have several level of user navigation. Some components provide user actions like calling, sending SMS message, retrieving user location through the mobile phone. Following table describes a summary of each component and its content.
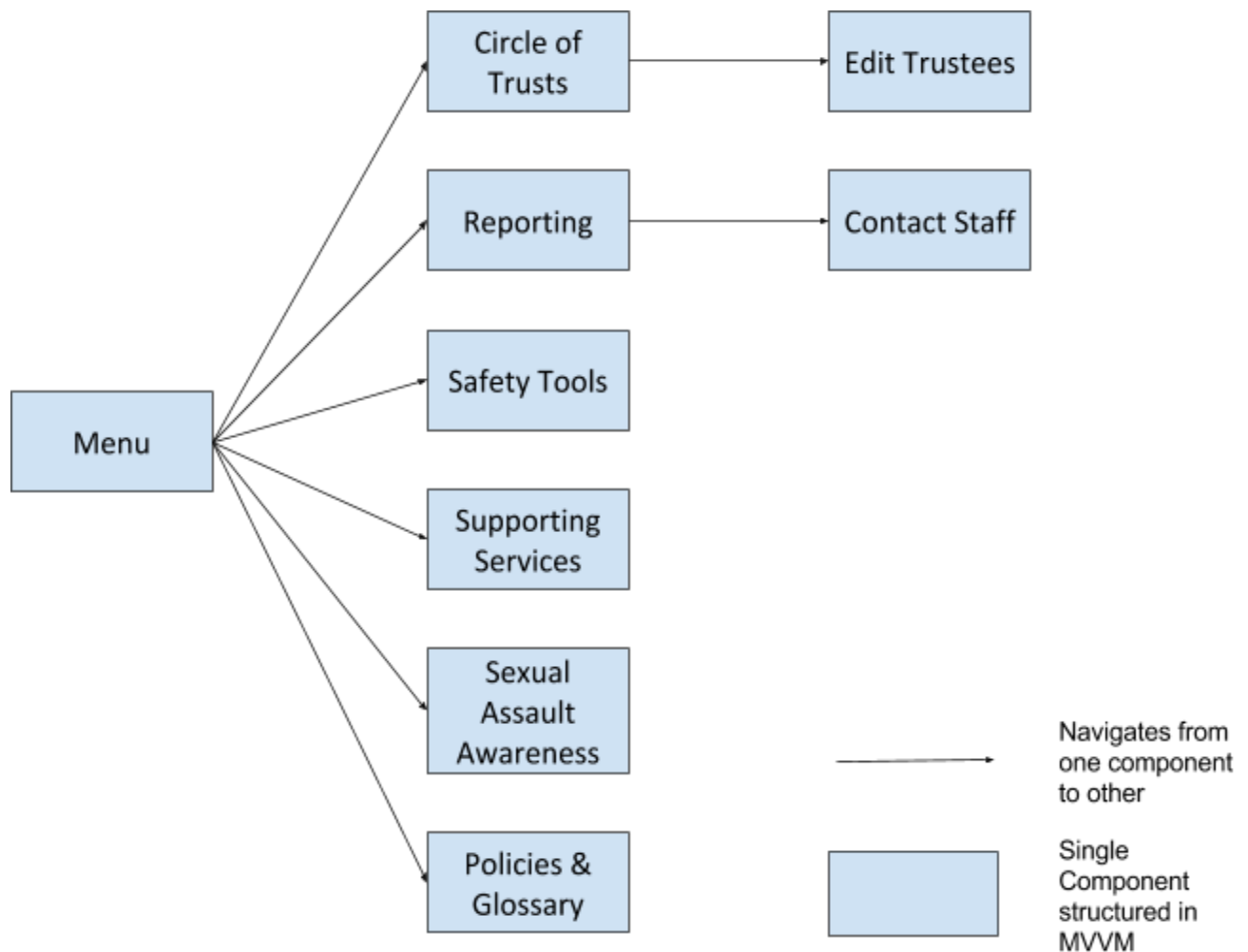
Component	Subcomponent	Description
Get Help Now		Static content, Send Email or SMS, Call to various offices
Circle of Trust		Send SMS to user defined phone number with a single click
	Edit Circle of Trust numbers	Add/Edit Phone numbers
Safety Tools		Personal Security Strategies on different scenarios. Each sub component focuses

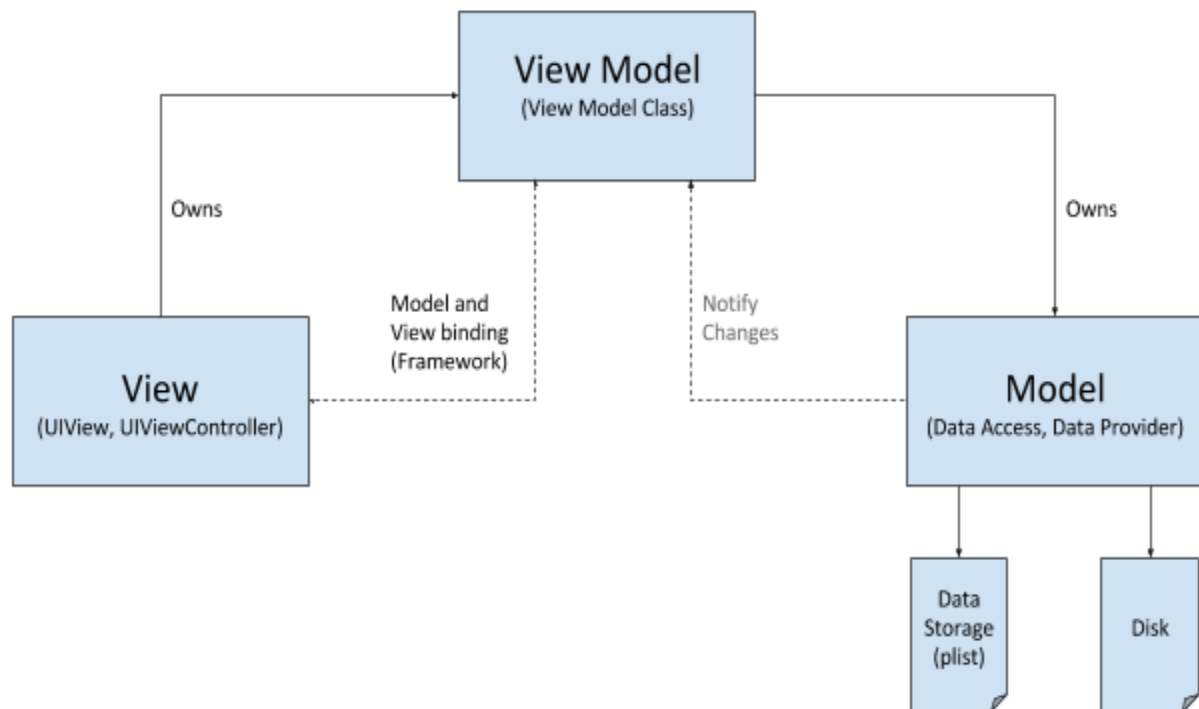|		on different scenarios
	RADAR	A series of steps to help for managing risks
	Coping with Unwanted Attention Strategies	Content of strategies to avoid unwanted attention
	Tactics of Sexual Predators	Introductions and details of sexual predators
	Bystander Intervention	Steps to act as a bystander when in physical violence situation
	Safety Plan Basics	Maintaining safety in various situations
	Safety Plan	Describe actions to be taken in crimes
	Benefits of Seeking Staff Support	Important reasons for a volunteer to seek out staff support
	Available Services after a Sexual Assault	Information on services
	Peace Corps' Commitment to Victims of Sexual Assault	Information on the topic
	What to do After an Assault	Steps to take after an assault
	Confidentiality	Details on the protection of Personally Identifying Information(PII)
	Peace Corps Mythbusters: Assumptions and Facts	Assumptions and the facts on various myths
Sexual Assault Awareness		Will only cover if the time permits for the development
Policies and Glossary		Will only cover if the time permits for the development

2.2 Application Design

Application will used Model View ViewModel (MVVM) architecture when developing each component. This will helps to maintain independent behaviour of View and the Model. Therefore unit testing will be much easier to implement. Each component and subcomponent will be

independent of each other. Message passing mechanism will be used between each component when navigating to provide data from component to the subcomponent. The component will be placement will be shown in following figure.

By considering the MVVM design pattern each component will have following interaction with its views and models.

Single component

Ex: Reporting process will have separate View & ViewController, Model and View Model.

- View & ViewController - contains UI components and the UI updates
- Model - contains classes to retrieve data, loaded data(Strings to display) and interfaces to access from ViewModel
- ViewModel - contains data bind between View and Model through functional interfaces
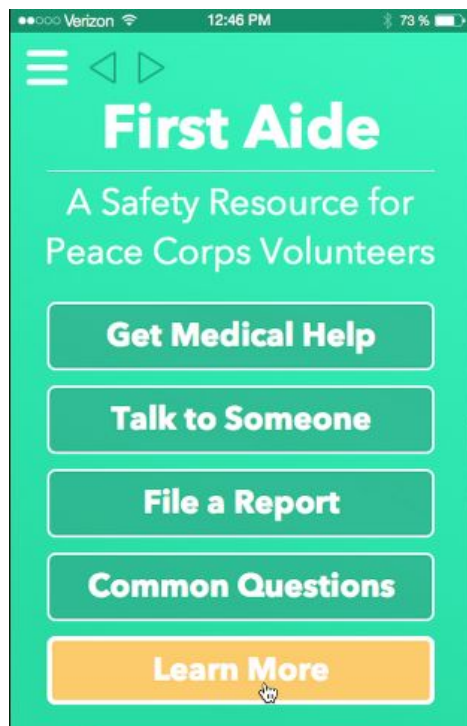
3. User Interfaces

Following are some of the mock user interfaces with of the original First Aide design. This application will also follow these UI designs in order to achieve the same user experience in all iOS, Android and Web applications.

3.1 Splash Screen

3.2 Main Screen

3.3 Main Menu

3.4 Text Content