Chi Alpha: Christian Fellowship Full-stack Mobile Application

Project Description and Clarification

Chi Alpha WSU

Web Ready

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I.   Introduction

The intent of this project is to create a resource in the form of a mobile application for Chi Alpha WSU. The mobile app will allow the organization to make announcements, advertise events, a medium for individuals to make donations, and communicate with the organization. The mobile app is intended for the organization to increase their presence and access to and for current members of the fellowship. This document serves as an overview of the intended work for this project.

II.   Background and Related Work

Chi Alpha WSU currently does not have a mobile resource application that they can use to communicate with the fellowship. The client has requested that this application provide an easier way for the web administrator to advertise activities that are happening within the organization.

Currently, the native development environment for mobile apps uses XCode to code in the Swift language for iOS applications for Apple mobile devices and Java to code applications for Android mobile devices. React-native combines the flexibility and ease of development by using the react framework in conjunction with web elements such as JavaScript and html to code in an environment that would allow any developer to create mobile apps for both iOS and Android devices without having to code in the native environment, especially considering XCode and Swift is only available for coding on mac devices.

III.   Project Overview

III.1 Use Cases

Story: Hailey would like to add an announcement to the resource application. Hailey opens the app and logs into the application using an administrator login. The application now shows the ability to add new templated elements to the app, specifically a form to add a new announcement to the application dashboard. Hailey enters the new announcement information into the form and submits for publication. The new announcement is reflected on the announcement dashboard of the application.

Source: Vincent Yen

Story: A member of the fellowship would like to donate to the organization. The member selects "Giving" from the menu and is taken to the "Giving" page. The member enters their payment information into the third-party payment API and submits. The organization receives the payment that was given by the member.

Source: Vincent Yen

III.2. Functional Requirements

- The application should allow adding and displaying announcements from the organization.
- The application should allow adding and displaying events for signing up and viewing.
- The application should allow a medium for donations from any individual who wishes to give.
- The application should show information about the organization and its staff members.
- The application should allow the user to login.
- The application should allow other users to communicate with each other that are using the application.
- An API should provide a medium between the application and the database which stores user information and media.
- The application should differentiate general users from admin users and limit certain access permissions to only the admin.

III.3 Non-Functional Requirements

- The mobile application should adhere to federal standards of accessibility.
- User experience should be intuitive and easy to use.
- The application should be intuitive for both general users and the administrators
- The application should be easily maintained by administrators who have little to no technical experience with mobile applications.

IV. Client and Stakeholder Identification and Preferences

Client: Hailey Galletly

Summary: Hailey Galletly is the principal client in this project as she is the current administrator for all media related concerns for Chi Alpha WSU.

Needs/Preferences:

- Seeking a mobile application that allows the organization to advertise and communicate to members of the fellowship
- Flexibility and ease of use for general users and admin
- Avenue for chat communication with general users

Stakeholders: fellowship members, Chi Alpha WSU, media administrators

Summary:

- Fellowship members are anyone that is involved with the organization, but not working in the organization.
- Media administrators are individuals that have been given the responsibility of the public relations and media related to the organization

- Chi Alpha WSU has particular interest in this application because the organization is being represented in the mobile application

    Needs/Preferences:

    - Application should be intuitive to any individual that uses it
    - Any future media administrator should be able to manage the content intuitively without technical experience
    - Application should accurately reflect WSU Chi Alpha as an organization and its needs

V.   Glossary

Android: The world's most popular mobile operating system; owning approximately 69.74% of the market share as of January 2022 [1].

API: Stands for application programming interface. A third-party application that may be used in conjunction with another application for its specific services [5].

Apple: "Apple is a multinational information technology company based in California, USA." The company make various electronic devices, computers, laptops, as well as software [3].

React-Native: React Native is an open-source mobile framework using JavaScript to design applications for IOS and Android. React Native is derived from ReactJS, a JavaScript framework used for web application development [4].

iOS: A mobile operating system for Apple mobile devices [6].

Java: A programming language and computing platform developed by Sun Microsystems in 1995 and currently owned by Oracle [7].

Swift: A programming language for iOS and other Apple devices [8].

Xcode: An integrated development environment created by Apple which supports the following languages: Swift, Objective-C, C++, etc [2].

VI.   References

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