Cru Central Coast iOS App: Vision and Scope

iCrew

Computer Science Department California Polytechnic State University San Luis Obispo, CA USA

October 7, 2015

Contents

\mathbf{C}_{1}	redit	\mathbf{z}						
\mathbf{R}	evisio	on History 3						
1	Bus	iness Requirements 4						
	1.1	Background						
	1.2	Business Opportunity						
	1.3	Business Objectives and Success Criteria 4						
	1.4	Customer or Market Needs						
	1.5	Business Risks						
2	Vision of the Solution							
	2.1	Vision Statement						
	2.2	Major Features						
	2.3	Assumptions and Dependencies						
3	Sco	Scope and Limitations						
	3.1	Scope of Initial and Subsequent Releases						
	3.2	Limitations and Exclusions						
4	Business Context 8							
	4.1	Stakeholder Profiles						
	4.2	Project Priorities						
		4.2.1 Release 1						
	4.3	Operating Environment						
5	Competitive Analysis							
	5.1	Overview						
	5.2	Competitor 1 - iRideShare						
	5.3	Competitor 2 - UN Calendar of Observances						

Credits

Name	Date	Role	Version
Daniel Lee	October 3, 2015	Lead Author of Business Require-	1.0
		ments	
Jordan Tang	October 3, 2015	Lead Author of Business Context	1.0
Tammy Kong	October 3, 2015	Lead Author of Vision of the Solu-	1.0
		tion	
Eric Tran	October 3, 2015	Lead Author of Scope and Limita-	1.0
		tions	
Mariel Sanchez	October 5, 2015	Lead Author of Competitive Anal-	1.0
		ysis	

Revision History

Name	Date	Reason for Changes	Version

1 Business Requirements

1.1 Background

Cru Central Coast, being a local non-profit group of the larger organization of Cru and based on the central coast of California, focuses on cultivating students in emotional, relational, and spiritual ways. It currently consists of over 1,200 students and is looking to utilize the mobile platform in reaching out to both college and high school students on various campuses. Cru Central Coast is only one branch of Cru and is hoping to be a lead developer in software solutions and resources that may be used by other Cru branches in the United States.

1.2 Business Opportunity

The mobile application we build for Cru Central Coast has the potential of being used by many other clubs or branches of Cru in the United States. As a result, our mobile application could become a primary method of communication between students and Cru, automating/simplifying the involvement process. Also, by giving students the capability to share the app among their peers, we would be raising awareness of Crus brand across campuses.

1.3 Business Objectives and Success Criteria

The main purpose of the mobile application is to efficiently connect students to Cru Central Coast and maintain that connection through notifications and ridesharing capabilities. Therefore, success criteria will revolve around how effective the application is in delivering these features or components. Such criteria may include: if events are pushed on time, if users are able to join community groups, if users can register to drive others, if users are able to receive rides to and from events, and if Cru leaders are able to access admin resources/data.

1.4 Customer or Market Needs

With its growing size, Cru Central Coast has assessed a need for a mobile application that would more easily make available Cru resources, present opportunities to students for joining Cru, publicize upcoming events, and

provide ride-sharing capabilities amongst its events.

On the other side, students are also needing ways to find out more about club-based events or how to get plugged into a club. Most on-campus clubs advertise through social media sites and paper flyers, so providing a mobile application that may potentially be a platform for clubs to share information would greatly benefit both students and on-campus clubs.

1.5 Business Risks

As we make the mobile application available to any smartphone user, there exist various privacy and security risks. Users could exploit the information gathering tool that exists for community groups to collect any leaders personal information. Users may also gain admin privileges to access sensitive data or resources that a normal user would not be able to see.

Moreover, if the app does not meet the expectations of a user wanting to connect to a club, people may lose interest in Cru Central Coast overall. For example, if the app always pushed notifications of events late or spammed users with notifications, users would lose interest in using the app and maybe even in connecting to Cru Central Coast.

2 Vision of the Solution

2.1 Vision Statement

For many years, Cru Central Coast members have been exchanging information through word-of-mouth communication. Although this method has been used for a while now, miscommunication has happened and will continue to. With a new iOS mobile application, Cru Central Coast members will be able to obtain information from one single source. This mobile app will provide available information for new and current members, help get a perspective member get started with joining Cru, get notified about upcoming events, and last but not least, help organize rides for events.

2.2 Major Features

The iOS mobile application will give user the option to select the ministry he/she wants to be a part of. If the user is a community leader, he/she will have the ability to log into the app to obtain more information.

This iOS app will consist of six different tabs Events, Resources, Get Involved, Summer Missions, My School, and Ride Sharing.

Events - This will allow users to be up to date with upcoming events that is happening within Cru Central Coast. Users will have the ability to subscribe to Crus Google Calendar, allowing the events to be displayed on their calendar application. Users do not need to worry about having to manually sync events to their calendar is it is already done for them. Through the use of Google Cloud Messaging, users will be able to decide if they want to receive push notifications.

Resources - Users will be able to access all YouTube videos on this tab. These videos consist of live streams of weekly meetings of specific ministry that was chosen by the user.

Get Involved - This will provide a lists of current community groups. Prospective members are able to go through the list and decide which ones they are interested in. Prospective members have the ability to submit their name and phone number to their interested groups as well as obtain information about the community leader. Community leaders will then be able to receive users information and contact the prospective member accordingly.

Summer Missions - This will allow information about Crus summer missions be easily available to the users. If users want to know more information about the summer missions, locations, trips ID, and duration of the mission will be made available.

My School - This tab will display information scraped from the corresponding school the user has selected. Information about the schools academic year will be displayed as well as user is able to add it to their native calendar app. A map of the school will also be available, with labeled building numbers and names.

Ride Sharing - This will provide a ride-sharing service for users who is in need of getting a ride to a weekly meeting or any big events hosted by Cru Central Coast. Users are able to offer rides through this tab as well as for users to reserve a ride to an event. The user in need of a ride will be able to exchange name and phone number with the driver.

2.3 Assumptions and Dependencies

For this project, we as a team can assume that the iOS app must be compatible with iOS 9. On top of that, we assume that the application will be published by the Cru Central Coast and that Cru will carry on the project once the school year is over.

As for dependencies, we can assume that Cru will provide us with a database that will contain information necessary to use for the app. Another dependency required by Cru is to follow their specific coding style. This way, Cru is able to take the source code of this project and be able to easily hand it to another team to expand if necessary.

3 Scope and Limitations

3.1 Scope of Initial and Subsequent Releases

The main priority upon initial release is reflected through Phase 1: the development of the graphical user interface, connection to Cru Central Coasts already existing database, and integration of third party services, mainly Google Calendar and Youtube.

After completion of Phase 1, we will focus primarily on development of RideSharing in Phase 2. RideSharing is a feature that will allow members of Cru to find rides to and from events. The primary focus is to implement RideSharing as a ridesharing service from each campus to the Cru Central Coast weekly meeting. A secondary focus is to implement RideSharing to set up rides from any one location to any second location for special events and conferences.

In our final Phase 3, we will create an HTML scraper that will pull relative campus information from their corresponding school website, as well provide the availability of school calendars and school building maps.

3.2 Limitations and Exclusions

There are many limitations and exclusions involved in this project. This application will not support user profiles for the common application user. Cru Central Coast has stated that they have no need for storage of user credentials. This application will be developed only with Cru Central Coast as the pertaining user demographic in mind. This application will be written in Swift for iOS, running a minimum iOS version: TBA. This application will be developed within the time span of 12 months. This application will not handle any user authentication, as that will be handled on Crus end. This application will be built and optimized for iPhones, no tablet support.

4 Business Context

4.1 Stakeholder Profiles

Primary stakeholders for this project are Cru organization members such as Community Group leaders, Cru students, general students, and ride sharers. Community Group leaders would be a person heading a community group within the Cru organization. They are one of the two stakeholders that have information available on the app. Cru students are those already involved in Cru and would mainly use the app for ride sharing and event notifications. General students would probably be newcomers to Cru, looking for an easy way to get involved. Their main reason for use would probably be getting attached to a community group and watching videos to get a feel for what Cru is about. Ride sharers be the second stakeholders with contact information available on the app. Ride sharers is anyone willing and available to give a ride.

4.2 Project Priorities

The three main features that we believe are vital to this project are the community group finding, ride sharing, and event notifications (in no par-

ticular order). Getting these features working locally within the app should be prioritized. This includes all features pertaining to events as well such as populating the summer missions. Setting up security around initiating new events and administration should also be implemented with these features. After these are working within the app, features such as push notifications, Google Calendar updates, and YouTube video embedding should be worked on. Finally, an HTML scraper pull relative campus information to the app will be of lowest priority.

GUI design should be worked on consistently throughout the project. Priority will be relatively low during the starting phases, but priority should increase as core features are finalized.

4.2.1 Release 1

The initial release will focus on the core application features that it would be unusable or unsafe without. These are:

- Community Group finding
- Ride sharing
- Events
- Security of resources / administration

4.3 Operating Environment

Operating environments will mainly be focused towards school campuses. These will include all the campuses Cru Central Coast is currently active on, as well as future campuses that Cru will expand to.

5 Competitive Analysis

5.1 Overview

This application is very specific to the needs of Cru Central Coast, so there are not many programs that integrate the same functionalities this application is planned to entail. However, there are applications that have features

similar to our idea of what the components of this application will be like. There are also other non-profit organizations that have made applications for the purpose of increasing involvement in their community, which is the overall goal of this project. In the following sections, we will be taking a look at these applications and analyzing how other programs were implemented.

5.2 Competitor 1 - iRideShare

iRideShare is a mobile app with the purpose of safely sharing rides with people going to the same event as you. One person, the host, creates an event and sends an invitation to join the rideshare to all the people who the person wishes to attend the event. Once a guest accepts the invitation, they then have the option to offer, find, and request a ride. These options are similar to what the users of the Cru app will see if the rideshare option is enabled for an event. The interface and flow of the app is simple and straight-forward. Its a good basis for how we can implement our ridesharing feature. The user can offer a ride or look for a ride. If the user wants to find a ride, a list of available drivers is shown. The user can then select a driver and request a ride. Once that occurs, a pending list is shown to indicate whether the driver has accepted the request or not.

5.3 Competitor 2 - UN Calendar of Observances

This app was created by the United Nations Foundation, a nonprofit organization similar to what Cru is. The purpose of the app is to get people more involved in their community and even their organization by promoting awareness of cultural, political, and social human rights issues. It features a way to get involved with their organization featuring a ist of events that may or may not be integrated with the phones native calendar. Other features include the option to set up notifications for events and view related videos and links.

This app has a more social aspect to it than the Cru app asks for. You can share content to other social media apps such as twitter, facebook, and instagram. There is also different language options and a tab to view the achievements of the foundations. We feel that these features are not needed in our application. Components of this app that can be implemented with ours are the video archive section and calendar section. These are displayed in a visually appealing and easy to understand fashion.