GNG2101

Introduction to Product Development

and Management for Engineers

and Computer Scientists

Mana Azarm

PM: Ayesha Khan

TA: Zaineb Al-Faesly

Project Deliverable F: Prototype 2

Group B-14: Personal Safety

Submitted by:

Sabeeha Ahamed 300167378

Sabina Solomon 300174303

Kian Ashrafganjouei 300173780

Iman Jama 300172218

Darby Martin 300198642

Nov 11, 2021

University of Ottawa

Abstract

The purpose of this report is to demonstrate the prototype we have developed based on our client's feedback. We have presented the documentation of our second prototype and the testing results of it.

Table of Contents

List of figures

List of Tables

Introduction

This report will mainly focus on the second prototype but will also include a documentation of the prototype. For our first prototype, we started off by solely working on the user interface using a platform called Figma. We then gathered our client's comments and produced more pages as well as better visuals. Later on, we began the development phase of the project and worked on our second prototype. This has been a learning experience for the entire team as we do not have much prior experience with app development. Therefore, the second prototype which was presented at the third client meeting was incomplete. Despite this, the client provided us with great feedback which will be useful to further improve and develop our prototype. Along with the client's feedback, testing is an integral part of our prototype development. In this report, we have listed our clients comments, the testing as well as the main goal for our second prototype. Finally, we have included our updated project plan as we near the end of this project.

Client Feedback

During our third client meeting, we presented our incomplete second prototype and discussed core functionalities in more detail. We received the following feedback:

- Client was content with the progress we are making with the prototype and the project
- Client prefers a larger font size as they have slight vision problems
- Client mentioned they prefer to type in the dates when creating a check-in but are also open to the idea of a calendar widget inside the app itself. The client dislikes when other apps open the calendar of their device.
- When talking about the emergency contacts, they mentioned they want to be able to delete contacts or set a ranking system for the emergency contacts as some contacts may not be available during specific situations. For example, if one of the contacts goes to another city, they will not be able to physically help the client during emergencies.
- Client was pleased that our second prototype focuses on creating a check-in as it is the most important functionality to them.
- Client mentioned that they would prefer that our app does not call emergency services and the notified emergency contacts would call if they have not had any communication with the client after receiving the emergency message.

Documentation of our Latest Prototype

The main goal of our second prototype is to complete the ‘Create Check-in’ functionality. In our initial project plan, we were planning to complete the authentication functionality. However, after a lengthy discussion we realised that it was more important and beneficial to the client if we started making progress on one of the core functionalities.

The beginning stage of building our prototype was focused more on the tools and applications we are going to be using for the project and setting up our working environment based on that. We decided to use the React Native framework to build our application, Visual Studio Code as our source-code editor and Expo to run simulations of our app. We mostly used JavaScript as our programming language. Choosing our environment and getting familiar with it took a huge portion of the time to build the prototype.

The team collaborated with each other using Github. Below is the link:
https://github.com/KianAshrafganjouei/gng2101-protoype2

Below are annotated diagrams of the simulation of our prototype:
(The simulations were done on an IOS simulator)

This is the home page. It displays the check-ins that has been created.

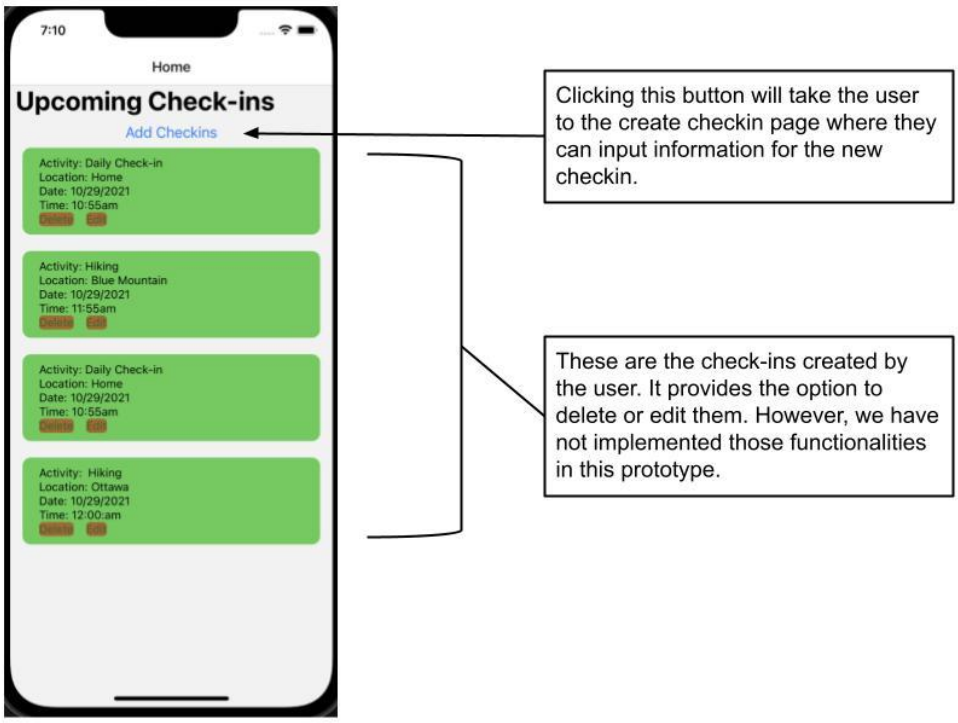

Figure 1: Home screen of application

This is the create check-in page which can be accessed from the home page by clicking 'Add Checkins'.

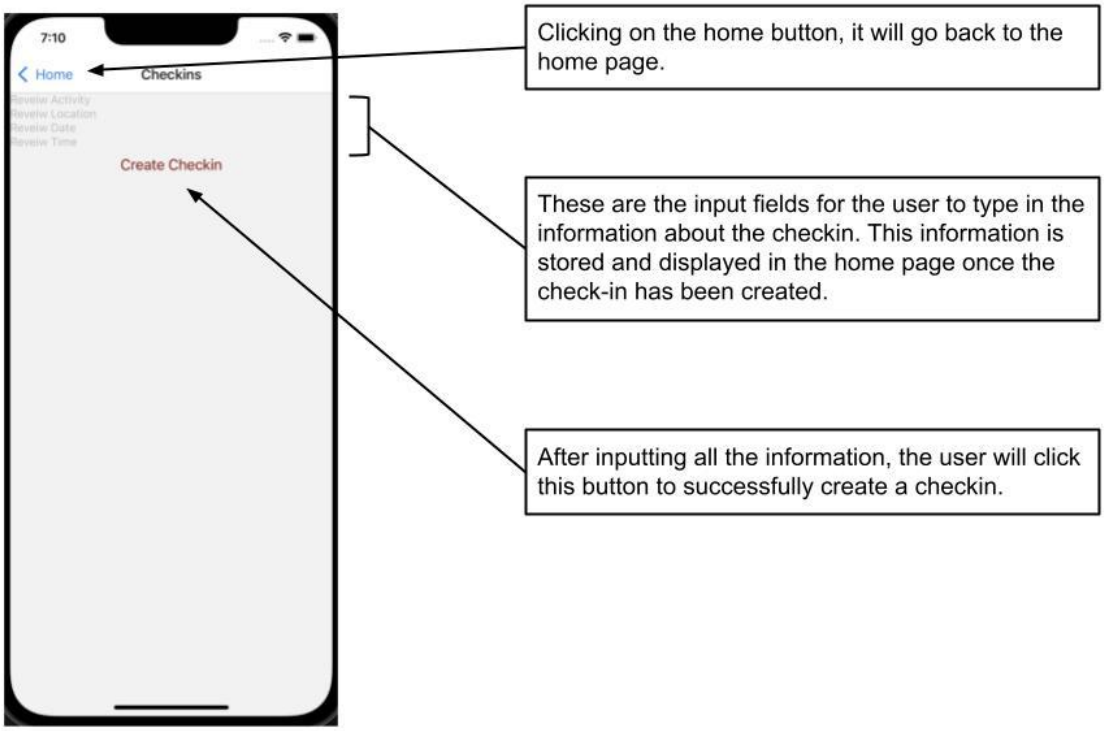

Figure 2: Creating a new checking for the application

Prototype Testing

Test 1: Create multiple check-ins successfully

Figure 3: Demonstrating ability to create multiple check-ins

Test 2: Having others rate the app's UI design

Table 1: Prototype test 2

User Interface Likeability						
A score of 10 is a very attractive UI feature A score of 0 is a very bad UI feature	User 1	User 2	User 3	User 4	User 5	Average

Interface design uses attractive colors	5	4	4	4	5	4.4
User interface is responsive	6	6	3	2	4	4.2
User interface is visually clear	3	6	4	6	5	4.8
The user interface is predictable	2	6	5	7	6	5.2
Overall Average						4.65

Test 3: Compatible operating systems

Table 2: Prototype test 3

Operating System	Is compatible
iOS	Yes
Android	Yes

For this prototype, we wanted to test the ability to create check ins as they are the central part of this application. We also wanted to test UI likability. Unfortunately, we did not progress as much as we wanted and achieved a rather low score. This is something we will be improving in our next prototype. Finally, we wanted to ensure that our application is iOS compatible from the start. Our client has an iOS device so it is important the application works on Apple devices. Currently, the application is also Andoid compatible, which is ideal since our client mentioned some of their friends with Android devices would also be interested in using the app. We were able to test these criteria with our prototype. We will build upon this for our next prototype.

Project Plan Update

In our updated project plan, we have:

- Added missing tasks and task responsibilities (tasks without a person assigned = the team will work on it together)
- Added any missing task start and end dates
- Added task dependencies
- Split large tasks into smaller sub-tasks (We split the “Development Phase” into smaller tasks)
- Identified the tasks that are In Progress such as the development of our app
- Marked the Completed tasks such as past deliverables and past prototypes
- Added project milestones such as Design Day and future deliverables

The updated version of our project plan can be found here: B14 Personal Safety Project - Wrike

Conclusion

Working on the development of the second prototype has given the team the opportunity to slowly start bringing our ideas to life. As we've entered the coding phase of our project, we have learnt new things by trial and error. Our client's feedback, the testing as well as a set project plan are important to the advancement of this project.

One of the major issues we faced during our prototype process was setting up and maintaining the development environment for our application. Our code repository is hosted on GitHub and our team members were unfamiliar with working on collaborative projects on this platform. It was very difficult maintaining this workspace without merge errors and conflicting branches. Our team is also new to app development, making this particularly challenging. We had to spend a lot of time familiarizing ourselves with the platform and will need to continue to do so.

In the end, although the second prototype is not as advanced as we would like it to be, we have achieved the main goal.