Oregon State University
College of Engineering

CS Capstone Final Report

June 4, 2018

"I Heart Corvallis" Mobile Application

Prepared for

Corvallis Community Relations Office

Lyndi-Rae Petty

Prepared by

Group 14

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Bradley Imai
Dylan Tomlinson

Abstract

This document takes a look back at the work have done on the I Heart Corvallis mobile application this past term. It recaps the purposes and goals of the project, explains our current status on the project, and details what we have left to complete. It also describes any problems that we have encountered, how they impeded our progress, and how we solved them. The document also showcases some notable pieces of code that we have recently implemented and some updated screenshots of our application and administrative website.

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1 Introduction

The ”I Heart Corvallis” mobile application was conceptualized by the Corvallis Community Relations office to complement their larger ”I Heart Corvallis” initiative. The CCR office noticed that many OSU students do not engage much with the greater community and prefer to interact with the OSU community itself, so they started this initiative to build and promote a strong and cooperative relationship between the OSU community and the greater Corvallis community. The goal of the mobile app is to inform students about the various community events, activities, and service opportunities available to them around the community, as well as to give them an incentive to engage in these activities. Our client was Lyndi-Rae Petty, the Graduate Teaching Assistant at the Corvallis Community Relations office, a subset of the Office of Student Life. The development team consisted of Omeed Habibelahian, Bradley Imai, and Dylan Tomlinson. All three of us were heavily involved in nearly all aspects of the application, and we often helped each other out when one of us was stuck on a particular section of the development. It was not so much that one of us took a particular role; we were all involved in the various aspects of development and implementation, as well as in communicating updates and changes with our client. There were, however, a few aspects of the development that we each took more control of. Omeed handled more of the implementation of the administrative website, Dylan was in charge of user security on both the mobile application and the administrative website, and Bradley put in quite a bit of work on the design of the user interface. Our client primarily took the role of supervisor of the project. Every week we would meet with her to discuss the changes we made and new features we implemented, as well as what we had to do next, and she gave input on how she felt about our changes and anything she wanted done differently. When we needed to reach out to another organization or source for guidance or help, we would describe our situation to her, and she would take charge of reaching out to these organizations.

2 Requirements Document

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3 Design Document

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4 Tech Review

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5 Weekly Blog Posts

5.1 Fall 2017

5.1.1 Week 1

5.1.2 Week 2

5.1.3 Week 3

5.1.4 Week 4

5.1.5 Week 5

5.1.6 Week 6

5.1.7 Week 7

5.1.8 Week 8

5.1.9 Week 9

5.1.10 Week 10

5.2 Winter 2018

5.2.1 Week 1

5.2.2 Week 2

5.2.3 Week 3

5.2.4 Week 4

5.2.5 Week 5

5.2.6 Week 6

5.2.7 Week 7

5.2.8 Week 8

5.2.9 Week 9

5.2.10 Week 10

5.3 Spring 2018

5.3.1 Week 1

5.3.2 Week 2

5.3.3 Week 3

5.3.4 Week 4

5.3.5 Week 5

5.3.6 Week 6

5.3.7 Week 7

5.3.8 Week 8

5.3.9 Week 9

5.3.10 Week 10

6 Final Poster

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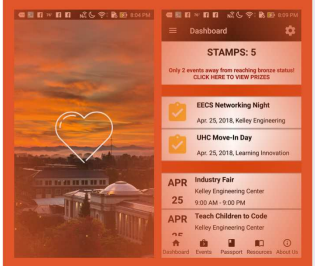
About the Project

The I Heart Corvallis project is a mobile application we created for the Corvallis Community Relations (CCR) office and is part of a larger initiative ran by the office to help students become more involved in the community.

The application focuses on increasing student awareness of events and service opportunities happening around Corvallis, as well as creating an incentive for students to attend these events.

Students will be able to view upcoming community events and service opportunities, receive stamps for attending these events, and win rewards to accumulating enough stamps. They can also view community resources and more information about the initiative.

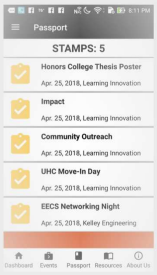


Oregon State

"I Heart Corvallis" Mobile App

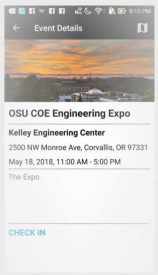
Incentivize student involvement with the greater Corvallis community

Passport System



- Users can see the events they completed in their passport
- When a user has completed enough events, they can turn in their stamps to redeem prizes from the CCR office

Detailed Event View



- Users can see the events they completed in their passport
- When a user has completed enough events, they can turn in their stamps to redeem prizes from the CCR office

Client Administrative Interface

- The CCR office has the ability to add, modify, and remove events, resources, and prizes from the application via the administrative website
- The office can also view summaries for events and organizations, such as how many students attended an event and how students are rating events by a particular organization

Implementation

App Development

Java, XML

Android Studio

Emulator

Android devices (smartphones, tablet)

Website Development

HTML, CSS, Javascript

Database Integration

PHP, MySQL

Corvallis Community Relations Office

Lyndi-Rae Petty, PI and project organizer. Outreach Coordinator for Center for Civic Engagement

Jonathan Stoll, Director of Corvallis Community Outreach

CS Capstone Team
(Pictured from left to right below):

Dylan Tomlinson, tomlinsd@oregonstate.edu

Omeed Habibelahian, habibelo@oregonstate.edu

Bradley Imai, imaib@oregonstate.edu

7 Recommended Technical Resources to Learn More

- Android Developers Website (https://developer.android.com/)
- Derek Whiteside, Director of Web and Mobile Services at OSU
- Andrew Morgan, Systems Administrator, Identity and Access Management at OSU

8 Conclusions and Reflections

8.1 Omeed

8.1.1 What technical information did you learn?

8.1.2 What non-technical information did you learn?

8.1.3 What have you learned about project work?

8.1.4 What have you learned about project management?

8.1.5 What have you learned about working in teams?

8.1.6 ***If you could do it all over, what would you do differently?***

8.2 Bradley

8.2.1 What technical information did you learn?

8.2.2 What non-technical information did you learn?

8.2.3 What have you learned about project work?

8.2.4 What have you learned about project management?

8.2.5 What have you learned about working in teams?

8.2.6 ***If you could do it all over, what would you do differently?***

8.3 Dylan

8.3.1 What technical information did you learn?

8.3.2 What non-technical information did you learn?

8.3.3 What have you learned about project work?

8.3.4 What have you learned about project management?

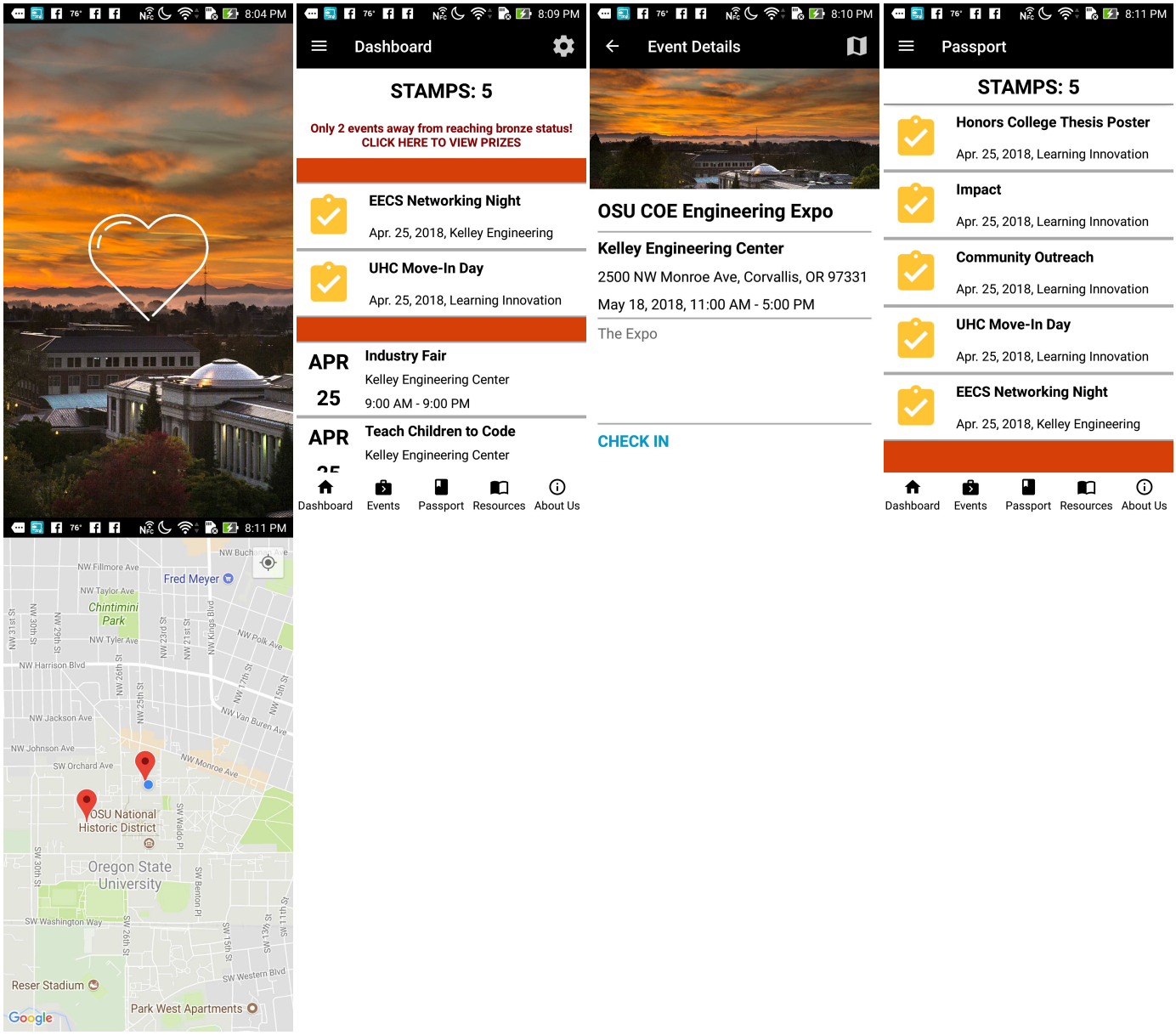
8.3.5 What have you learned about working in teams?

8.3.6 ***If you could do it all over, what would you do differently?***

9 Appendix I: Essential Code Listings

10 Appendix II: Screenshots

10.1 Application



Top left: Splash screen

Top second from left: Dashboard

Top second from right: Event Detail Page

Top right: Passport

Bottom left: Event Map