**DO NOT change any format (font, margin, line space, etc) of this document.**

**Blue ones are headings of the document. Fill in each section based on your project.**

**Minimum length requirements:**

* **Sections (a), (b), (d): 10 lines per section**
* **Section (c): 20 lines**

**Name:**

Matt McHughes

**TITLE OF PROJECT:**

Legend of You: a Gamification Program for the iPad.

**PROJECT ABSTRACT**

(a) Problem and Motivation:

This program was developed to fulfill an independent study credit for iOS application development. While the main objective for this program was to learn development in Swift and the Xcode 6 environment, the application itself aims to provide a simple rewards-based personal task manager. While similar apps exist, Legend of You aims to provide a highly customizable rewards system that allows the user to enjoy real world rewards for completing real world tasks.

The design of the application was inspired by a simplification of current RPG mechanics and visuals. The goal of the application is to provide a productivity tool that inspires the user an entertaining experience by mimicking the “grind” gameplay of current popular RPG titles. By applying the reward for event completion model to real world actions, the application looks to avoid gamification’s main criticisms.

(b) Background:

Swift is a new language for iOS development developed by Apple. Apple has made it clear that Swift will replace Objective-C as the standard for all iOS applications. The importance of this new language is found in the growing amount of iPhone and iPad users across the world. The company’s original decision to allow third party app development for its mobile devices has provided a large market for development of its software.

Gamification is the theory of applying game mechanics to an outside environment. The theory is that these mechanics can help develop good habits by appealing to achievement-based triggers of the user. While Gamification has been criticized for creating a false sense of achievement, Legend of You is designed to provide a real world experience with the application only being a digital reimagination of the real world tasks and rewards experienced by the user.

(c) Solution:

The basic architecture of Legend of You contains classes to keep track of the user’s player statistics, events, and rewards. An in-program calendar class ties together all player actions and provides the application with a system to store events. In addition to an in-game purchase system, rewards are also randomly awarded upon completions of tasks. The application was designed to allow for as much customization as possible while providing an exciting design to motivate the user to complete real world tasks.

The character creation provides a user to determine their own skill trees to assign task rewards and representation of real world experience. The character creation also provides an in-application avatar to help the user feel engaged within the application. Events and rewards both contain customizable attributes that allow the user to connect them with their character skills. Rewards can be awarded in relation to these predetermined skillsets.

The calendar was designed to provide a structure to store events as well as provide repeatability for tasks that should be done daily, weekly, or monthly. The choice to develop a calendar within the application was made to provide an opportunity to further develop the customization within the application while also maintaining the video game user experience.

The combination of the design choices aims to provide users with an entertaining experience that motivates real world accomplishment. A typical user experience begins with a character creation where the user decides what skill sets they will focus on. From there, the user is able to create events and rewards from a central creation menu. The user can customize events and rewards to respond appropriately to their assigned skillset. The system will store and repeat events and rewards according to settings available to the user.

As the user completes events, they can be rewarded in multiple ways. An in-application shop allows the user to purchase rewards they have created by using an application currency rewarded for completing events. An RNG-based award system also provides two separate possibilities for rewards on event completion. The first award will provide the user with an in-game currency that allows for a free purchase of a reward from the shop. The second award option can provide the user with a bonus reward based on settings for the event and reward.

(d) Result:

Legend of You provides a user experience thought to be entertaining while motivating real world progress. While much of what makes Legend of You can be found in other current iOS applications, the program finds its niche in providing a customizable experience that makes its use an extension of the users real world productivity. While being so customizable, it is also an easy system for the user to exploit. Therefore, the responsibility for proper use belongs to the user, and in no regards does the application make claims that it alone will provide benefit to a users productivity.

While the application fulfilled many of its original specifications, the main goal for the project was to provide an experience developing in Xcode6 using Apple’s new language Swift. To this end, the project succeeded in providing both an introduction to these technologies as well as a learning experience in general software development.