Procrastination Station: Requirement Analysis Document

1. Introduction

    1.1 Purpose of the system

        1.1.1 This system is proposed to offer an alternative to trying to decide what game to play when you are bored. To help fill in a short time span of boredom with some light entertainment without making the user apply any significant level of cognition.

    1.2 Scope of the system

        1.2.1 The system will be confined to the smartphones

            1.2.1.1 Android

            1.2.1.2 iOS

        1.2.2 Will use a SQL database to communicate with the Google Play Store and iOS app store.

    1.3 Objectives and success criteria of the project

        1.3.1 Project completed within 3 months

        1.3.2 Project completed for under $25,000

        1.3.3 Database carries enough games

        1.3.4 Database carries enjoyable games for a wide audience

        1.3.5 Game does not take up too much storage space

        1.3.6 Game does not use up too much memory

        1.3.7 Game play is quick and seamless

    1.4 Definitions, acronyms, and abbreviations

        1.4.1 App: Application

    1.5 References

        1.5.1 http://lucidchart.com

        1.5.2 Apple App Store

        1.5.3 Google Play Store

1.5.4 Object-Oriented Software Engineering – Using UML, Patterns, and Java, 3rd edition, by Bernd Bruegge and Allen H. Dutoit, ISBN-13: 978-0-13-606125-0, Publisher: Pearson.

1.6 Overview

1.6.1 The objective of our game is to provide a platform that any user can play several free games, by allowing them quick access to several top rated games without taking up tons of memory on the device. By doing this the user will be able to quickly test out games, save the games they do like, or quickly get rid of the games they do not like.

2. Current System

2.1 Currently in circulation in both the Apple App Store and Google Play Store are all-in-one apps that either contain multiple games or tools in one single app. One of the most popular mobile applications of this style is the Appzilla series designed by Fossil Software. Currently developing Appzilla 4, Appzilla 2 boasted containing over 120 tools and had 2 million downloads http://download.cnet.com/AppZilla-2-FREE/3000-2094_4-75501551.html). As far as all-in-one game apps go, Nordcurrent Ltd released 101-in-1 Games HD that offers users 109 games in one app and has 13,746 downloads in the Apple App Store (Apple App Store). These apps may work well, but there are a couple of issues we wish to resolve with Procrastination Station. One of the primary problems associated with current all-in-one apps is the amount of storage space they occupy on the user's mobile device. For example, Trinity Interactive's GameBox 1 app (2,813 Apple Downloads) requires 347 MB of space (Apple App Store). Since our database stores all of the games and uploads them to the user's phone via Internet it will occupy much less storage on the user's device. Another quality of the Procrastination Station that we believe is an improvement is the randomness of game selection. Sometimes the most difficult choice is which app to play or download, and our random feature takes all of the decision making out of the process. However, if a user enjoys a particular game, they can save it as a favorite and return to it whenever they please. One of the last major upgrades over current systems virtually unlimited number of games offered. If a person plays any of the all-in-one apps presently on the market for long enough, they will have played every game offered. On the other hand, our database is constantly being refreshed with new, popular games. The Procrastination Station will use less storage, allow for random game play, and be virtually limitless in options, qualities current systems do not offer.

3. Proposed System

3.1 Overview

3.1.1 The app will run on either an android or and iPhone smartphone device

3.1.2 The app will be in constant queue with our database

3.1.3 The database will be will be pulling the top 100 games from the respective app stores each week, refreshing its list

3.2 Functional requirements

3.2.1 - The app shall allow users to download games.

3.2.2 – The app shall allow users to remove games.

3.2.3 – The app shall allow users to play games.

3.2.4 – The app shall refresh the game database.

3.3 Nonfunctional requirements

3.3.1 – The app must be usable to all ages.

3.3.2 – The app must be available 24/7.

3.3.3 – The app must have shorter than 5 second load times.

3.3.4 – The app database is populated by the app store.

3.3.5 – the app database is refreshed every 24 hours.

3.3.6 – App will run on iPhone and Android devices.

3.3.7 – App will be displayed for download on the app store.

3.3.8 – App will come with legal restrictions.

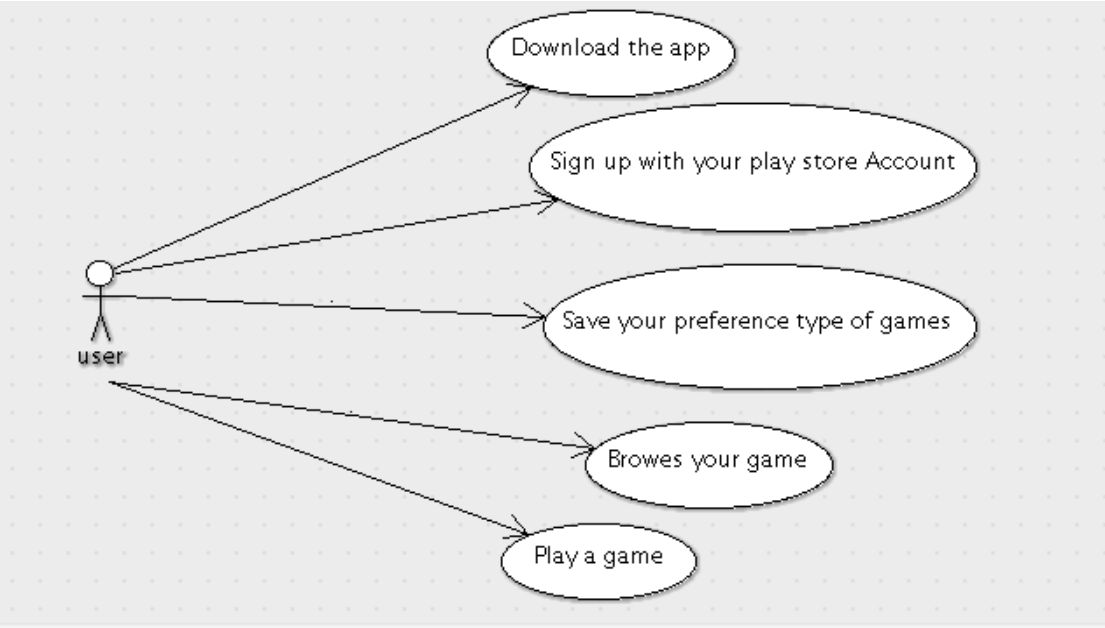
3.4 System models

3.4.1 Scenarios

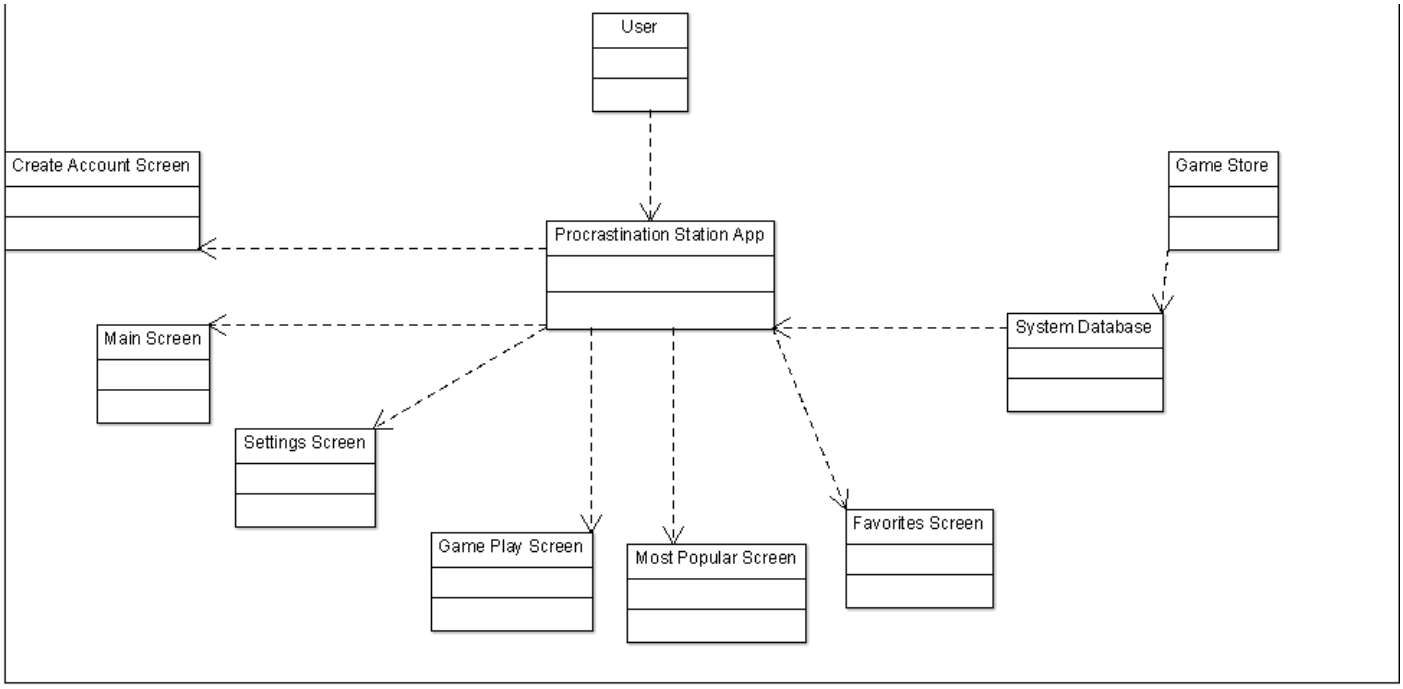
3.4.1.1 A user named Bob downloads the Procrastination Station from the Apple App Store. When he first opens the app, he will be asked to sign into his Game Center account and select the game genres he wishes to play. After setting up his user preferences, Bob is taken to the app's main screen. Bob is new to the app so he simply presses play random game. He is then taken to the play game screen where he is presented with his first game. After playing for a couple minutes, he decides he is bored with this game and hits the button to play the next game. Bob quickly realizes that he really enjoys this game and decides to add it to his list of favorite games. Once he had enjoyed the second game for a while, Bob decided to check out more features of the app and went back to the home screen. He clicked on the game type button and saw a drop-down list of

game types, each having a box he could check or uncheck. Since he recently set his game preferences, he went on to the next button. This was the popular games button, which took Bob to a screen showing him the games that people had selected most often as a favorite in the last 24 hours. After scrolling through the list of games, he hit the play random game button to play a random popular game. This took him back to the game screen, where he began playing another game which he decided to add to his favorites list as well. Bob then decided to return to the home screen to view the last functions of the app. He clicked on the favorite games button, which simply took him to a screen showing the two apps he had already selected as favorites. Rather than hit the play random button and play one of the games again, he returned to the main screen. Once there, Bob clicked on the settings button. He did not click the parental control since he was over 17 years old, but he did check the option that said he would play only when connected to Wi-Fi. Now that he had checked out all of the buttons, Bob decided to close and exit the app.

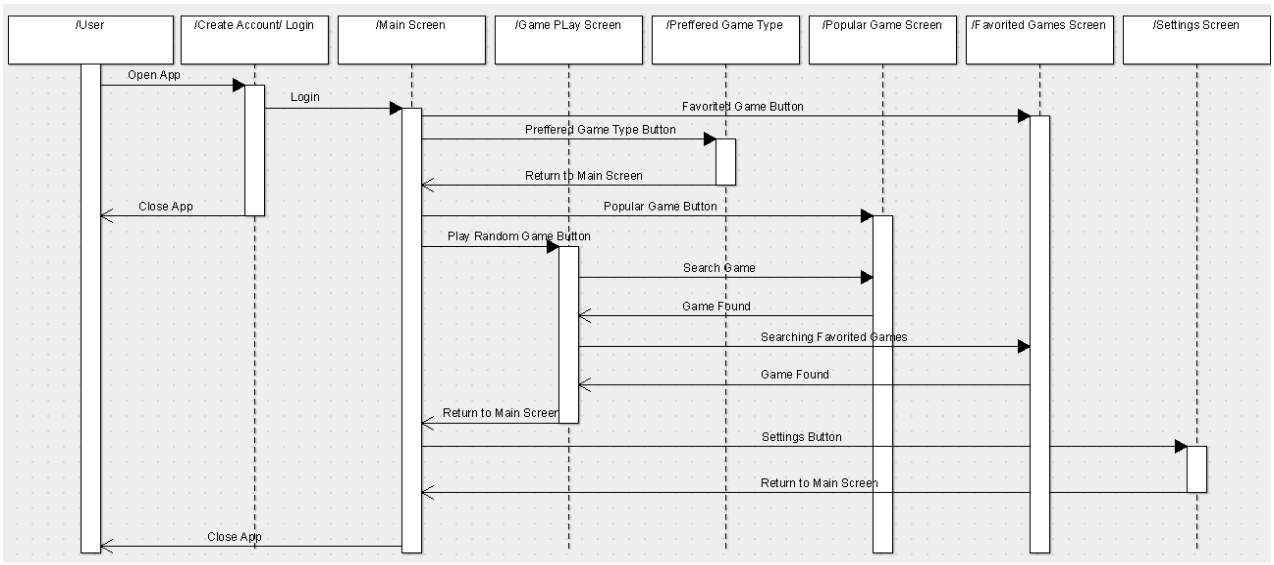
3.4.2 Use case model



3.4.3 Analysis Object Model

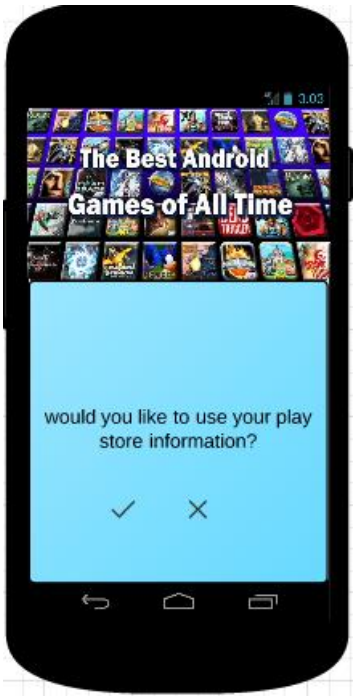


3.4.4 Dynamic Model



3.4.5 User interface

3.4.5.1 Create Account Screen

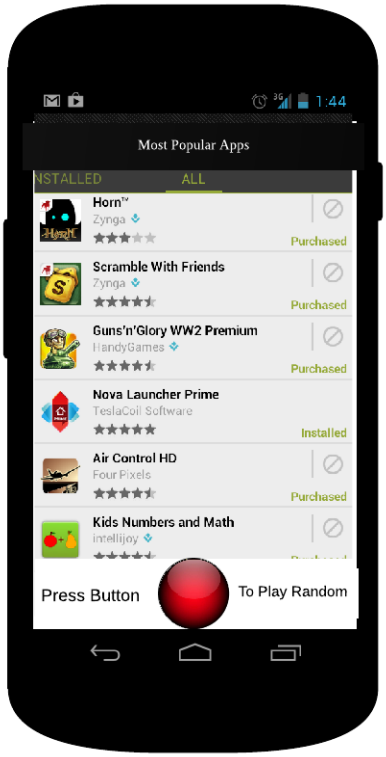


3.4.5.2 Main Screen

3.4.5.3 Gaming Screen

3.4.5.4 Favorites Screen

3.4.5.5 Most Popular Screen



3.4.5.6 Settings Screen

4. Glossary

App: Application run on a mobile device

Database: Computing system designed to store and handle data

Smartphone: Mobile phone with more features than just communication, such as internet and scheduling.

All-In-One App: App that contains multiple applications within one program for ease of use.