FlickStick Soccer Software Development Plan

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1 4.1 Plan Introduction

This Software Development Plan is to provide the details of the development planned for the FlickStick Soccer Mobile Android Game.

FlickStick Soccer is a Mobile Android Game based of the real game of soccer. With that being said the game will include a soccer field/pitch with all the markings as the background layout for the play state with a soccer ball to start in the middle. Sticks will be placed on the field (22 of them, 11 on each side) in a set formation to act as obstacle in front on the two goals. The game will be played between two people, either another person locally, a bot, or someone else through online play. One player will start off by flicking the ball from the middle towards the opposing goal to score. The next player then takes their turn and the turns keep rotating until a goal is scored which at that point it's the player's turn who got scored on. The game is continued to be played like this until one person has a certain amount of goals to win the game.

There are a couple reasons as for the rationale of the development of this game. Games are very popular today, especially mobile games and this game hopes to fit in with the best of them. Also, this development is to serve as a starting block for the development of games in the future.

Deliverable Dates

1. Initial Software Development Plan
   (a) Initial Software Development Plan
2. 3/11/15
   (a) Project Design Review Presentation
   (b) Oral Status Report
3. 3/18/15
   (a) Complete Software Development Plan
4. 3/25/15
   (a) Written Status Report
5. 4/8/15
   (a) Complete Requirements Specification Document
6. 4/15/15
   (a) Written Status Report
   (b) Oral Status Reports
7. 4/29/15
   (a) Written Status Report
8. 5/6/15
   (a) FINAL PRODUCT DELIVERY AND PRESENTATION

1.1 4.1.1 Project Deliverables

1. Software Development Plan

   This plan will be completed by week eight (March 3rd) of the semester. It is for the purpose of describing all the processes that will go on in the development of the game throughout the semester. This will include all documents pertaining to the game development as well as all hardware and software used in the development of the game.

2. Project Design Review Presentation

   (a) These will go on from week nine to eleven (March 11th - 25th) and will serve as reviews on the development of the game and the actual game itself. This will also be used as goals to have more and more developed by these dates and try and have enough to be presented in order to gain from any suggestions as well as bugs that may be encountered during presentations.

3. Complete Software Development Plan

   (a) This is to be completed by week 10 (March 18th) and is to be an updated version of the initial plan. It is to have any modifications to processes done as well as any updates for the actual game development that has been done within this time frame.

4. Complete Software Specification

   (a) This is to be completed week twelve (April 1st) and it is to be an updated version of the previous Requirements Specification. The same as the complete software development plan, this document is to include any and all updates done pertaining to the games development.

5. Preliminary Demonstrations

   (a) This to be done weeks 14 through sixteen and will be used to demonstrate the games capabilities to testers and the audience. It is only initial and in this case, there may be many bugs encountered as well as suggestions which will all go into the games development as these weeks progress.

6. Written Status Reports

   (a) Updates that are to be completed every two weeks starting after the first half of the semester and all it does is hold updates of where in the games development I am and in a sense set goals using the updates.

7. Oral Status Reports

   (a) This is the same as written reports, except they will be more informal on the status of the development.

8. FINAL PRODUCT DELIVERY AND PRESENTATION

   (a) Final week. The Game will be completely done and ready for its final presentation.

2 4.2 Project Resources

There are couple of resources that will be used for the project and in doing the game's development. With that being said, here are the resources split into two, hardware and software.

2.1 4.2.1 Hardware Resources

1. Sony Vaio E Series 14" Touch Laptop
   (a) Windows 8.1 64-bit
   (b) 1 TB Hard Drive
   (c) 16 GB Memory
   (d) 3rd Generation Intel Core i7 Quad-Core Processor
   (e) AMD Radeon HD 7670M Graphics Card
2. Nexus 7 (1st Generation)
   (a) Android 5.0 Kit Kat
   (b) 16 GB Storage
   (c) 1 GB RAM
   (d) Nvidia Tegra Quad-Core Processor
3. USB to Micro-USB cord/adapter

2.2 4.2.2 Software Resources

1. Windows 8.1
2. Android 5.0 Kit Kat
3. Eclipse for Java Developers
4. Android SDK
5. Java Game Development Framework
6. Android Studio
7. Java
8. Paint
9. Adobe Photoshop
10. bfxr.com

3 4.3 Project Organization

The development of FlickStick Soccer will be split up into the many parts of the game.

1. Graphics and Animation

   Here we separate the graphics from the actual game play itself. This will include all the backgrounds, buttons and game play layouts contained in the game. This is where the development of the soccer ball animation as well at the soccer field and goals will be. also, this part will also contain the making of all the games sounds such as Menu state music and game play sounds like goals, crowds chanting and when the ball hits an obstacle. The plan is to have all of these done first in order to be able to implement them while doing the development of the code and making sure that they are all compatible with the running and compiling of the code. Though, coding can be started before all graphics and sounds are done as a lot of the code does not require the sprites just yet.

2. Code

   Here is where it all happens. Using Java, this is how and where the game will be developed from its most basic of principles. This will include the coding of the graphics such as the ball and the ways in which it moves. It includes that coding of all the layouts and buttons of the game. And it also includes the coding of the actual game play. It is what makes the game work. All the implementation of how the game works will be made here.

3. Network

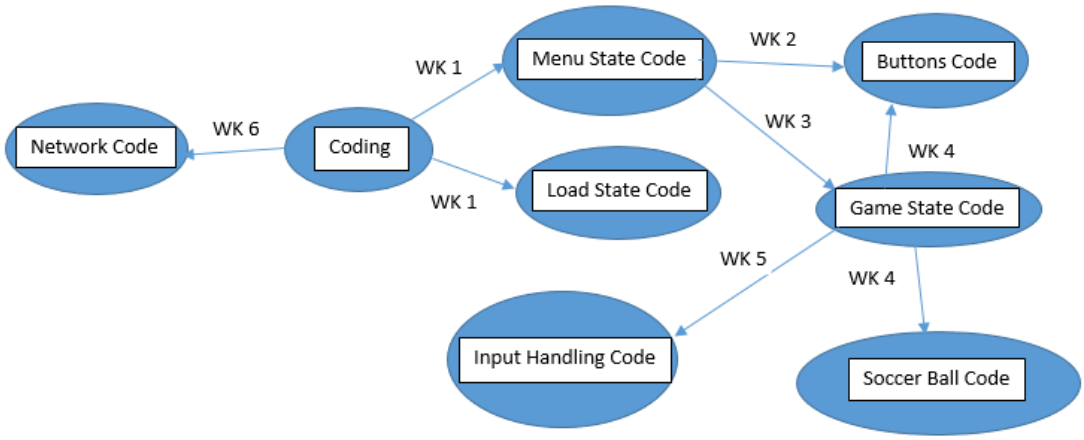
   The networking here is still a question mark. The main priority is to get the game working in and of itself. Get it working on an Android tablet is first priority. Once that happens, the network will come next. This is where we will try and find the best option for being able to play against players online in a way of mirroring one players moves from one phone to another and vice-versa. The plan is to learn on what works best in this case and then seeing how well the implementation of the network will go with the game.

4 4.4 Project Schedule

This section includes scheduled information for the FlickStick Soccer project.

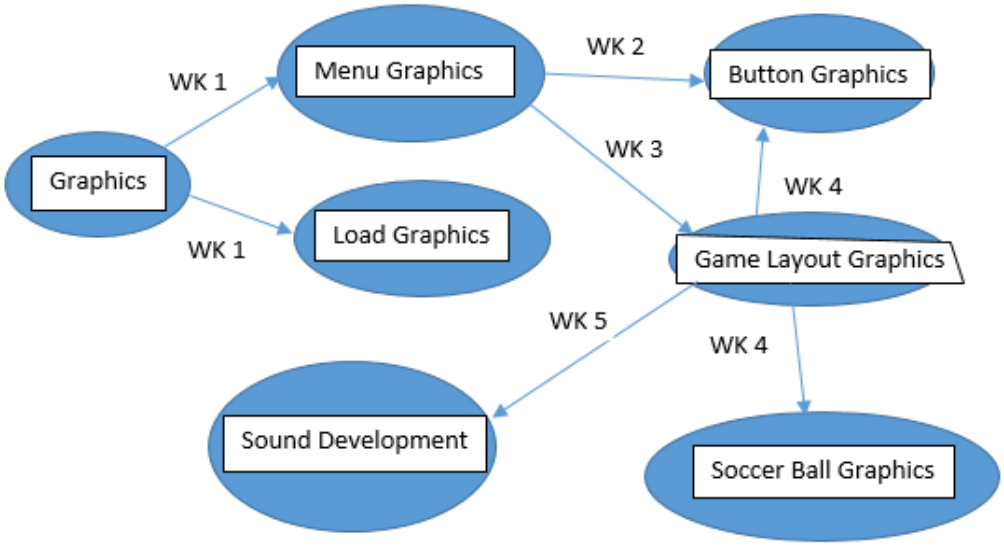
4.1 4.4.1 Program Evaluation and Review Technique Chart

Coding PERT Chart:



PERT.png

Graphics PERT Chart:



PERT.png

4.2 4.4.2 Task / Resource Table

vs Resources.png

Task	Resource
State Codes	Android Studio/Eclipse
Ball Code	Android Studio/Eclipse
Layouts Code	Android Studio/Eclipse
Input Handling Code	Android Studio/Eclipse
Graphics	Photoshop
Sound	Bfxr.com