Oluwatobi Ogunraiyewa

Salamahn XMills

“5-Strikes” Mobile Application

Abstract: We aim to develop an application that will educate the end user subconsciously while simultaneously entertaining them. This can be achieved by providing an environment where the user is indulged in fast-paced, addictive, arcade style gameplay. This expected end result of this application is to get the user to memorize various sequences present in areas such as Mathematics, Physics, Chemistry, Biology, and Language by introducing a pattern that slowly increases in length as the user traverses through the game.

Development: After researching about the development of mobile apps, we found that the 5 most commonly used languages for development are Java, C++, Objective-C, C#, and HTML5/JavaScript. Each major platform (iOS, Android) has a specific language that most developers choose to use. For Android it is Java, and for iOS it is Objective-C. There exists software that is able to translate certain code in a multiplatform environment to make development for the two platforms simultaneously easier. However, we found there is no “magic program” that will translate all of the code and in addition to that, most of these types of software involve using HTML5 as a base language. For this reason, and also development time constraints, we will focus on development for the Android platform at this time. Due to the simplistic nature of the software, porting to iOS in the near future should be relatively easy.

Gameplay: When the user enters the game, he/she will be presented with a set of scrolling tiles, a heads up display, and an area to collect items. The object of the game is to tap 1 out of 3 tiles in a column that is the next correct element in a sequence. As the tiles scroll to the left, the user will have to make the correct decision before the column leaves the screen. If the user taps the wrong tile or the column leaves the screen, the user will lose 1 “health point”. If the user loses all 5 health points, they will lose the game and result in a Game Over. As the user continues to select the correct tiles, the number of elements in a sequence that the user will need to guess correct will increase as well as the scrolling speed over time. The types of sequences the user will encounter will cycle between the subject areas mentioned above. The user will be able to collect items presented in the item area to assist their selection process and augment gameplay. The types of items available will control the user’s score, health, scroll speed, and column choices.

