1 – Introduction

This report will go over the process of creating an iOS application which was written in the programming language Swift and was developed on an iMac. Whilst this was the first time really using an Apple computer, it didn’t take long to get used to and to start experimenting with programming.

To begin, the first thing to explore would be XCode, which is Apples Integrated Development Environment (IDE) for developing macOS applications. This supports the development for applications for all of Apple’s devices, which range from macOS, watchOS, iOS and tvOS. This IDE is essential for working with macOS applications due to the fact they must be compiled (built) and can then run on an emulator for whatever device it is compatible for. This report will be focusing on the iPhone emulator.

2 – Design

The main design for this game is to create a mobile version of Tic-tac-toe, which is also known as Noughts and crosses in the UK. This aim of the game is to get 3 in a row on a 3x3 grid ([See Appendix 1](#_.1_-_Board)), on the board the players take turns adding an icon, O or X.

When thinking about the design of the board and game, it is good to start with the basics and to build upon it later. Therefore, the table and icons were simply created in Microsoft Word and after screenshotting them, made into an image. The board was created by making a 3x3 table and removing the outer borders, this is a simple Tic-tac-toe board with no flair but will do for now. For the icons they were created by getting a large plain font and using those within the board to get the right size.

# 3 – Implementation

All the coding and implementation was developed within XCode, so to start lets

4 - Pseudocode

## 4.1 – On Load

For the number of tiles on the board{

Set the board squares to be a button.

Set the board image to blank.

};

By doing this, the program will loop through the board tiles, changing them to be buttons and making sure the image is blank. This will allow the next function to change these buttons images to X’s or O’s.

## 4.2 – Input Name

Ask for user input{

Set the text to be input text,

Set the default text to be blank (null)

);

## 4.3 – Save user input{

Overwrite the user input (which is blank)

Type in your name “Mark”.

Set Input Text as Variable x.

};

# 5 – Conclusion

# 6 – References

Apple Docs – Available at <https://developer.apple.com/documentation/xcode/creating_an_xcode_project_for_an_app> Date Accessed: 01/03/2020

# 7 – Appendix

## 7.1 - Board

# 

## 7.2 – X

# 

## 7.3 – O

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