**“Quick Hands”**

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**Declaration**

I hereby certify that this material, which I now submit for assessment as part of CS171 Computer Systems module, is entirely my own work and has not been taken from the work of others - save and to the extent that such work has been cited and acknowledged within the text of my work.

Signed: Iulian Boariu Date: 18/12/2020

**Acknowledgements**

**Abstract**

# Introduction

The aim for this project is to demonstrate my program that runs a game where you use the mouse to control the goalkeeper and save incoming footballs. The prevent incoming footballs from entering the goal or else the user would lose lives. Points can be gained from saving balls. Testing the program was done by.

# Specification

The program has to allow the user to move the goalkeeper left and right using the mouse and have the incoming footballs be obtainable by the user. The footballs have to enter the goal and decrease the number of lives. The game must end when all lives are lost. The game must run perfectly on .

# Overview of the Code

The code features a number of statements and variables that were used to carry out various functions. There are variables used to position the footballs and change their direction. A void function was created within the void setup called reset which was used to reset the position of the footballs whenever they entered the goal or were saved by the user. Their original positions were within if statements inside the void reset function. This was done to give the sense of numerous footballs coming towards the user.

There are if statements inside the void draw function that use the same statements as the ones in the void reset function. There are six if statements, each ball has two statements attached to them, one for reducing lives and the other for the score. To reduce the number of lives, the ball would have to below a specific height and the user would lose a live. If the number is reduced to zero, the program stops running. If the user obtains the ball, they would be granted a point. Each statement has an else statement that follows after, which would reset the ball when they have carried out the first function.

# Testing

Below this paragraph is a showcase of the program running while demonstrating its key features functioning as intended.

Graphical user interface, application

Description automatically generatedGraphical user interface

Description automatically generated

**Figure 1:** Showcasing the score functioning properly

The screen shot to the left showcases the program running with no changes made aside from the moving footballs. This figure is supposed to demonstrate the increase in the score and reset of the football’s positions whenever the user catches a ball. The screenshot to the right demonstrates the score has increased by seven, meaning the user has saved seven footballs.