MIGHTY KINGDOM

GRADUATE PROGRAMMER TEST

SUBMISSION TEST

INTRODUCTION

The purpose of this test is to demonstrate your ability to develop a simple game in Unity. Of particular focus are the issues of code structure, performance and reliability. Additionally, this test will be an indication of how you design, develop, test, build and deliver an application.

TASK

Create a simple Unity game based on the “Stroop Test”.

Development Platform:

- Unity 2020.3.24 (LTS)

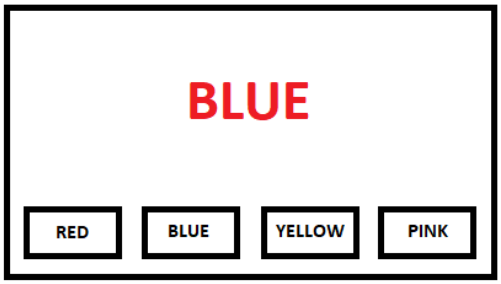
Background:

When looking at colour words, for example, “red”, “green”, “blue”, it is very easy to name the visual colour of the word when it is black, or when the colour of the word matches the meaning, i.e. **Red** or **Red**. It is much more difficult to name the visual colour of the word when it differs from the word meaning, i.e. **Red**. Our goal is to make a simple game to test this.

Functional Requirements:

- Ability to start a new game
- A game consists of:
    - A random colour word at the top of the screen in a random display colour (that is different from the word itself)
    - 4 Buttons at the bottom of the screen to represent the 4 colour options in the game. These colour options are the colours that the random word can select from for it's text and visual colours.
    - The player presses the button that matches the **visual** colour of the displayed word
    - If the button pressed matches the **visual** colour of the displayed word, then they are correct, otherwise they are incorrect.
    - A new random colour word is displayed at the top and the game continues.
- The player should be shown a fixed number of random words, with the game ending after the last word is shown and the answer button pressed.
- Some kind of time based scored should be tracked throughout the game.
- A result screen should be shown at the end of the game.
- The player should be able to restart the game.

The basic game should look something like the following, but is open to interpretation:



Source Control:

For this test, your ability to effectively use source control will be measured alongside your programming ability. It is recommended that you create a git repository with Github (or Bitbucket), and the link to this repository will serve as part of your submission.

Documentation of Process:
A small log will be required alongside the completion of the test that explains the steps you went through to solve the functional requirements of the test. This will be included as a pdf with the test submission.

Additional information:

- Unity assets from the Asset store are permitted for completion of the task. Please note that the visual design is secondary to the code quality in your submission however.
- The design of the game is entirely up to the candidate as long as the requirements have been fulfilled.

SUBMISSION

A submission of the test will be required with your graduate application.

The following files will be needed:

- URL to the repository (e.g. https://github.com + /repository name)
- PDF of the process log