CE318 High-level games development

1805163

Pacman 3D

Graphical user interface, website

Description automatically generated

<https://essexuniversity-my.sharepoint.com/:u:/g/personal/sa18154_essex_ac_uk/Ea8MsqrUPeJMseDDvhZrJJUBVIdPexwegKD6wGOfdlwVKA?e=q0RWme>

I have designed a simple main menu screen which allows you to see what options are available before starting the game.

Graphical user interface, website

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When you click options, you have the choice of changing the volume settings, choosing the game difficulty and can also click how to play to read the instructions and controls for the game

Graphical user interface, website

Description automatically generated

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Description automatically generated

I scripted two difficulties, easy or hard which are called using a switch case statement.

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Graphical user interface, application

Description automatically generatedGraphical user interface, application

Description automatically generatedA screenshot of a computer

Description automatically generated with medium confidenceGraphical user interface, application

Description automatically generated

There are several in-game menus which pop up depending on the conditions that are met.

A picture containing text

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The game consists of 2 levels. I originally wanted to design three but due to time constraints and some difficulties I faced along the way I decided it would be best to just focus on two. The first level is just a basic level where you navigate around the map collecting pick ups and avoiding the enemy. The second map includes the extra feature of speed boost which last for a duration of 5 seconds. I decided to only use a terrain as a background because my game is played on a platform.

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Graphical user interface, application, Teams

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When transitioning through scenes, the loading screen will appear with a loading bar, which also keeps track of the percentage loaded. I created this loading screen with help from the tutorial “How to make a LOADING BAR in unity” by Brackeys on YouTube ([How to make a LOADING BAR in Unity - YouTube](https://www.youtube.com/watch?v=YMj2qPq9CP8)) A lot of the tutorials on this channel helped me with my project. I also designed my camera based on one of his tutorials and it works very well with the style of the game.

In total my game uses 4 different sounds: the game music which is played at the start and then looped; the effect for collecting a pickup, the effect for colliding with an enemy, and the effect for picking up a speed boost. I only use one form of light in the game. This is a directional light. I also took your advice from the game prototype feedback and made the light darker. This really adds character to the game and blends in with the look and feel of the terrain in the background.

The materials which I used for the game are just based of solid colors from the original game. I believe this gives the game an authentic look.

For controlling my enemy Ai’s I only used navmesh agents. The reason I chose to do this is again because my game is played on a platform and the enemies only need to navigate around the maze. Therefore, I believed it was the best method to use.

How To Play

As shown in the screenshot of the options menu. The game is very simple. You navigate using the arrow keys on your keyboard and can pause and play the game by pressing spacebar. The aim of course is also very simple. Collect all the pick ups before time runs out and avoid enemies otherwise you will risk losing a life.

This was a very fun project and I’m a little disappointed I didn’t get to add all the features I wanted to suck as load and save features due to time constraints.