Mobile Applications Development - Finished Game Document

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Introduction:

The game I have developed as part of my Mobile Applications Development 2 module is titled "Bounty Hunter". This is a 2 – Dimensional shooter I developed using Unity software. The game was built and deployed for windows but I also attempted to build it for mobile.

Game Features:

"Bounty Hunter" features four scenes, one menu scene and three level scenes.

Level One is the easy level and features two enemies, Tumbleweed and Eagles. The player receives cash for killing these enemies, one cash for tumbleweed and five for eagles. The objective is to reach the edge of the level where there is a bank. The level is completed upon reaching the bank.

Level Two is the medium difficulty level, featuring the enemies from level one and two new enemies, a Villain, and several gang members (pitchfork wielding farmers). The villain is located at the end of the level and shoots bullets directly forward. The level is complete upon entering the bank.

Level Three is the hard difficulty level, featuring zombies instead of regular enemies. These zombies spawn at a high rate and are hard to kill. The player must survive for two minutes to complete the level.

The game generally stayed true to the original design document except for the level completion scenarios. Originally there was going to be a villain with a bounty for each level, but as detailed above the level completion scenarios are all different.

Control Scheme:

The control scheme I chose was WASD, W to jump, A to move left, D to move right, and S to crouch.

The particular aim scheme I developed aims the players gun wherever the mouse is pointing, the players gun movement is limited to whatever direction they're facing. The 'R' key is used to reload the gun.

Bullets are shot at the mouse direction using left click.

Player Score:

Player score is controlled using a GameController object, which updates the score whenever EnemyKilledEvent is published from the Enemy script, as we did in class. I made playerScore static so that the score carried through within levels, so that the total score could be displayed.

Shooting Mechanic:

Shooting is controlled using a co routine, which instantiates a bullet every time the co-routine is executed. Shooting is then stopped whenever the player needs to reload, there are 6 shots per round, as shown in the player GUI.

Building Game on Mobile

Installation:

I started out by updating my project to Unity 2019, as the 2019 version allows you to download the recommended Android build tools (SDK, NDK etc) for building the app onto your mobile. I also had to install USB drivers for my mobile phone.

Enable Developer options:

I enabled developer options on my phone by tapping system build multiple times, which allowed me to enable USB debugging.

Unity:

On Unity I changed my platform to Android and selected my device. I then selected "Build and run". Which then allowed me to build the app onto my mobile.

Upon booting into my game on my mobile everything worked except for movement. Which can be configured in character controller by adding a joystick UI to the screen. Unfortunately when I tried to reconnect my phone it would not reconnect to my PC no matter how many times I tried.

Components References:

Scripts:

Some scripts adapted from various sources –

Mobile Applications Development 2:

https://learnonline.gmit.ie/course/view.php?id=1832

Brackeys Youtube

https://www.youtube.com/user/Brackeys

BlackThornProd Youtube

https://www.youtube.com/channel/UC9Z1XWw1kmnvOOFsj6Bzy2g

Audio:

https://www.fesliyanstudios.com/ - Bullet and gun reloading sounds, Tumbleweed sounds.

http://soundbible.com/tags-eagle.html - Eagle sounds

https://soundcloud.com/jamieballmusic/wild-west-demo-1?in=jamieballmusic/sets/stupid-western-music-that-i-made - Menu and in game music.

Vectors I took and modified:

https://image.shutterstock.com/z/stock-photo-hot-desert-d-game-background-1686794374.jpg

https://clipartart.com/images/app-money-clipart.png

https://i.pinimg.com/originals/9a/cb/51/9acb516711b4cc948987c21a132c3dc5.jpg

https://www.gameart2d.com/uploads/3/0/9/1/30917885/9067385_orig.jpg

https://assetstorev1-prd-cdn.unity3d.com/key-image/41d933c1-f89f-4929-86df-e9f361a19903.jpg