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**2023 – 737**

***Game Dev Essay***

(INTRO)

In this assessment, we are assigned to create a 2d unity game and my game was inspired by the iconic dinosaur all over our browsers so I chose to create the game where we can play if we don't have a internet or wifi and we tried to open our browsers, the Dinosaur running game where the dino will run and jump over the cacti and I called it "Endless Dino Runner".

Creating a 2d game in unity is a great experience for us students, it's challenging and kinda fun, it allows us to apply theoretical knowledge in a nice way while we are learning new skills as a game creator or as a CC students and this assessment really helped us to explore and broaden our ideas, the experience of working this kind of activity gave me valuable insights or knowledge that I might use in the future.

(CONCEPT)

The first thing I did in our game dev is to define the concept of our my game. This kind of genre for a game is a nice choice, in this game I just need to use an pixelated image of a dinosaur and set the cactuses run or move towards my character (Dino) and then the dinosaur needs to avoid hitting the cactus or else the game will be over. I chose to build this basic concept and adding my own twist, everytime the dinosaur or the character pass through the cactuses, the speed will increase and the game will be harder and harder depends on how many cactuses the dinosaur jumped through, so this game is very easy at first but will get more difficult as time pass by.

The user can play this game infinitely but this game can be played by one person only, if the user is playing with his/her friends they can wait for their turn. My game design process was not all linear, I started with difficult concept but continued to work on it as I made progress, my game settings was going to be wider with many environments and backgrounds.

As I realized that there is time limitation of my project so I decided to focus on the important or essential things to keep my game visually simple and ensuring smooth gameplay. I changed the whole background by replacing it into a new tile that looks like an old or nostalgic game.

I started at the border part from left to right by applying a rock tile that has a lizard design on it and some leaves on the top side, while at the bottom side, I just applied some tile that looks like a blocks from minecraft or the minecraft logo itself, and to finalize the design, I added some extra tiles in the middle of the screen, and this decision helped the tone of the whole game's art and environment design.

(LEARNING UNITY AND CODES)

And then the next important step for this assessment is familiarizing ourselves to the unity game engine, an essential tool for developing both 2d and 3d games, learning unity is an ideal choice for this assessment because the unity is flexible and user friendly unlike the other apps, I dont think we can finish this kind of assessment in just a few days if we used different application or tool.

Yes the unity is quite easy but it's not that easy, I had a hard time learning the basics of this unity app, there are so many buttons and section that I never heard or encountered before, so I had to start by learning the basics of the C sharp code, the syntax and how to command unity's game objects through scripts.

I had to watch and listen to a simple tutorials to help me make this assessment, the first thing I learned from the tutorial is to set up the basic scene, the next step is to create a control player character and how the basic game mechanics like movements and collision detection works.

By creating the main character or player (the Dinosaur) is the first achievement in this assessment, I used an pixelated image of a Dinosaur and set it as 2d sprite, the next step is to create script to contol the movement of the Dinosaur, this Dinosaur is automatically move forward continuously, while I created a script for the Dinosaur to jump when the user press the space bar. The unity’s game physics tool made it easy to use and understand the jumping and gravity part, by creating this, the game looks realistic and also responsive.

(DESIGNING GAME)

Using the basic game mechanics, I switched to designing my game by seriously focusing on it, I don’t need to adjust the scale of this game, so I designed my game into landscape with a flat ground, just like the reference where I got it from, It is simple with minimalist type of obstsacles. I used unity built 2d tool to design the layout and assets for the tile background, obstacles and the player. I also need to adjust the gravity and everything just to achieve my expectations on this game and to make this game run smoothly.

(CHALLENGES AND DEBUGGING)

Now from the word itself Endless Runner, the mechanics to make this work, I had to generate and infinite level that loops, this part is kinda hard for me, I cannot design a larger work than this and make it endless. I honestly had a hard time working on the scripts and applying tiles as background, because if I just made an minor error inside my script, the whole game will not work.

And for the tile background, the reason why it is hard for me is because I need to apply it one by one the make a design, and if that one tile is not fit for my expected design, I need to re apply the whole thing to make an adjustment and make it fit, and my main reason why I had a hard time working on this game assessment is because I never used this unity before in my entire life, there are also multiple buttons that I don’t know about and what is the purpose of it.

(CONCLUSION)

Working the Endless Runner game is a nice experience for me, I learned so many things in this work about game developing, from designing a game world and learning the mechanics and tool inside the unity game engine. This also taught me how to fix errors in debugging.

I am very happy to face this kind of experience because by working this kind of assessment, I gained some lessons that I might use in my future projects and also my future, I can now make a simple game if someone wants to and I can also help others on their work if it is game related.