

Assignment Cover Sheet

To be completed electronically by the student and submitted with each piece of work. Please upload this completed cover sheet via Turnitin.

Assignment Title: 2D GAME DESIGN

Tutor: Subhan Ali

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Date of Submission: January 12, 2025

Details of your Submission:

Passed this document exactly at pm on the day of my birthday. DISCLAIMER !! if u click the itch.io link to my game it will let you download. My unity app had some technical issues so I had to export my file game to my friends laptop and the webgl didn't work since im not using my own laptop.

Drive with files:


Gdrive:

https://drive.google.com/drive/folders/1wDVod8eNkF8lWDORnjbOo_HWuNRVcUj_?usp=drive_link

itch.io: <https://soobiewoobie.itch.io/runjump-survive>

Game Walkthrough: <https://youtu.be/J36E-ofiGjU>

I am submitting this assignment, I am confirming that I have read and understood the regulations for assessment, and I am aware of the seriousness with which the University regards unfair practice.

Signed: 

Date: 01/12/25

Documentation:

Title:

Run, Jump & Survive!

Abstract:

As a person who doesn't play much video games and with a little understanding about games, I prefer those simple games that wouldn't need much exploration, less puzzles and really, a game where you can play without using wifi. Run, Jump & Survive is a 2D model game that I created based on the inspiration that I got from the dinosaur google chrome game. Simple, easy to play and with less amount of exploration.

The gameplay mechanics are tapping or pressing the spacebar to jump through the obstacles to avoid (the Fireball and the mushroom) them and the player will automatically run. The goal is to survive and get the highest score possible. The chances of winning is by having the highest score and losing is when the game is over.

Game Rule:

The rules are just simple and basic, you must avoid the mushroom and the fireball in order for you to achieve a high score. As for my game structure, it only consists of a very simple and short, like beginner style of game. I chose to create a simple game using only simple assets and characters for my video game because of the inspiration that I got from the dinosaur game, but instead of having minimalistic style, I approach to more colorful, happy colors as I want to give that kind of feeling from my game.

Context:

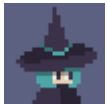
Going back to what I said, the main inspiration from developing this project is the dinosaur game, but it isn't the only game that I considered as my inspiration. I did my part and did my research while still thinking about my game and there are other two game inspirations I took from. One is the Lep's world game and the other is Doodle Jump. This concept inspired me to create something similar to those games I already played before, I did set my mind into creating that kind of gameplay as a game dev beginner.

Evidence of Design:

A lot of thought processes happen, but to show you visually what goes into my head, here is evidence of prototyping, testing and as well as feedback I got from my friends when they tried out my game.

Visually presenting, all the assets from my game are from itch.io as to what sir told us. The concept is to give it a good background that is appealing to the eyes. I dislike a background that looks like there's a lot going on as it takes out the focus of the user while playing the game, it's distracting and messy to look at.

Before deciding the final plan of the design of my game, here is the discontinued first option of my game. Reason for discontinuing is the technical difficulties from each asset.



The main character of the game.





The layering of the background

that I used.

The obstacles/ enemies.



(yes, a gem can hurt the witch.)

The final decision of my game:

Here is the background asset that I use:



Here is the character/s of my game:



This is Terry the squirrel. The main characters run, jump & survive. I chose this character as my runner because I got the inspiration from the kpop boy group that I like.

This is the mushroom. The first obstacle or the enemy of Terry the squirrel. 



The second obstacle/ enemy is the fireball that came from the mushroom;s mouth.

VISUAL TIMELINE:

Planning:

½ hour

Designing:

5 days

(2 days for the discontinued game and 3 days for the final game.)

Development:

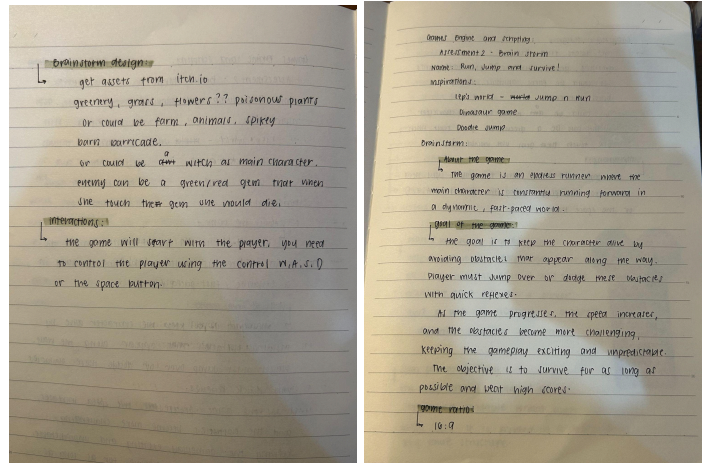
5 days

(adding features, doing small testing of the game, coding with trials and errors for building the games movement, background, characters and the buttons for the title screen and game over screen.)

Testing:

120 hours (part of this was development, making adjustments, checking errors, debugging codes etc.)

Here are screenshots of written plans for the game:



The video of the walkthrough is a youtube link, see the attached file above the document.

Prototyping, Testing, and, Feedback:

During the process of my game, I gave it a thought about how I can create a simple game that is enjoyable, entertaining.

Friend 1	"Bro your game is so cool, i like the colors of your game and the vibe it gives."
Friend 2	"I love the game, it's so fun and cute !"
Friend 3	"Maganda 10/10, so good !"

Link of a short video of me testing my game:

[https://drive.google.com/drive/folders/1wDVod8eNkF8lWDORnjbOo_HWuNRVcUj?usp=drive link](https://drive.google.com/drive/folders/1wDVod8eNkF8lWDORnjbOo_HWuNRVcUj?usp=drive_link)

Technical Challenges and Solution:

The challenges that I mostly faced are from my character, scoreboard buttons and the obstacle spawner. My character keeps falling from the ground even though there was a box collider2D on the ground, then how high my character jumps. The spawn area of my obstacle was a challenge as well, it kept going from places to places, it also passed through my character which when the character hits the obstacles the game would freeze (before developing the game over canvas). Mostly all of the technical challenges are from the trial and error of my code, which was stressful. What helped me was guidance from my friends, a youtube tutorial and chatgpt.

Critical Reflection:

Okay, there are a lot of things I wanted to say. First of all, my respect goes to sir Ali for having the longest patience to his students and for being the effortful teacher I have experienced. Developing my own game means realizing that this module is no joke, as a person who rarely plays games ? It took me so much time ! the month of January goes by really quick and you don't even realize you have already spent 3 days.

Going back to the topic, game developing is easy to learn only if you take a lot of your time studying and engaging into the lessons, of course don't cram. In all honesty, yes I did cram my game, which is now unforgettable because of the experiences that i got creating a game from scratch and submitting on the day of my birthday.

The run, jump & survive is honestly like a 5 min game dev for those professionals, and this alone is compelling for me to develop. The game itself is compelling and it gives me so much stress and hopelessness whenever my code would face an error. Then again, coding is all about trial and error, but in the midst of me working on my project I got to back track and re-learn all the lessons I have missed from sir and also got to learn and explore in unity.

My takeaways for game developing is do not cram games, give myself time to study a lot more on gaming and more on coding. Learning game dev is fun and a great challenge for me, it did get me out of my comfort zone.

I know my game could improve and do better, from the obstacles first and foremost, more levels, a better character and probably a storyline as well. This was the best that I could do

not because i'm an amateur, nor the norms of being a CC student that should do a better job but because of the first time experience in developing a game, small growth is what I aim and from there, I gradually improve. I need at least to start somewhere and in the following years I know I can and I will do an amazing job. B

Bibliography and References:

The references that I use for my game are as follows:

Dino google chrome game- https://youtu.be/UPvW8kYqxZk?si=J4_wSZceq5MaPs6J
(PreFabs 46:00 , spawner 54:21, and obstacles 1:08:23)

Flappy bird - <https://youtu.be/hKGzSYXPQwY?si=kO5PBgwJa3VMtSMo>
(animating 00:46, obstacles 2:10 until 3:11)

Parallax Tutorial- https://youtu.be/zit45k6CUMk?si=N3Qw2HXYKA3VBRh_
(animating/looping the background 1:06 until 5:20)

Idle, Run and Jump Animations- https://youtu.be/Sg_w8hIbp4Y?si=vmOHVC1eImLK6XhF
(Animation windows 1:43, create walk animation 2:47, create jump and fall animation 3:39, animator blend tree setup (jump +fall) 5:09, animator transitions 6:03, editing player movement script 7:13)

How to import a 2D character sprite sheet and use in a GameObject in unity (2021) - <https://youtu.be/FXXcohTWIMs?si=fopJPG6ONTj120-o>
(creating character game object 1:56, image settings for pixel art spritesheet 2:28, adding sprite to game object 4:40, setting up animations 6:17, adding move, attack, and death animations 8:39, creating a prefab for the character 11:02, animator window next steps, 11:35, adding rigidbody to character, 12:46, adding collision shape 13:48)

Start Menu 2D platformer - https://youtu.be/paaBTt5GcMU?si=SSlGt_CyFogn6frs
(startmenu controller script 1:15)