Game Development and Visualization Midterm project:
2D Game Development
QUARANTINE

Group 9 -"Wakanda"

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**Github link:** born99/CS427_Midterm (github.com)

I. Idea

To bring the inspiration for everybody around us to be motivated for preventing Covid-19, we create a wonderful name called "Quarantine".

The game operation is quite simple, the doctor is on his way to bring vaccines to citizens, and he must dodge any viruses coming to avoid being infected, the longer he survives, the higher score you can get.

The idea behind this "Endless Runner Game" is to raise the awareness of people: "You could be infected someday unless you stay at home". The game also extends our appreciations and thanks to the doctors who are doing their best fighting to viruses, despite the risk to save our world.

As you can see from the pictures below, the top left corner "heart" icon represents 3 HP, once it becomes 0, you will lose the game. The top right corner is the time (and the score) you survive. Hit the black viruses, you will lose 2 HP, hit the new-created viruses, you lose 1 HP.
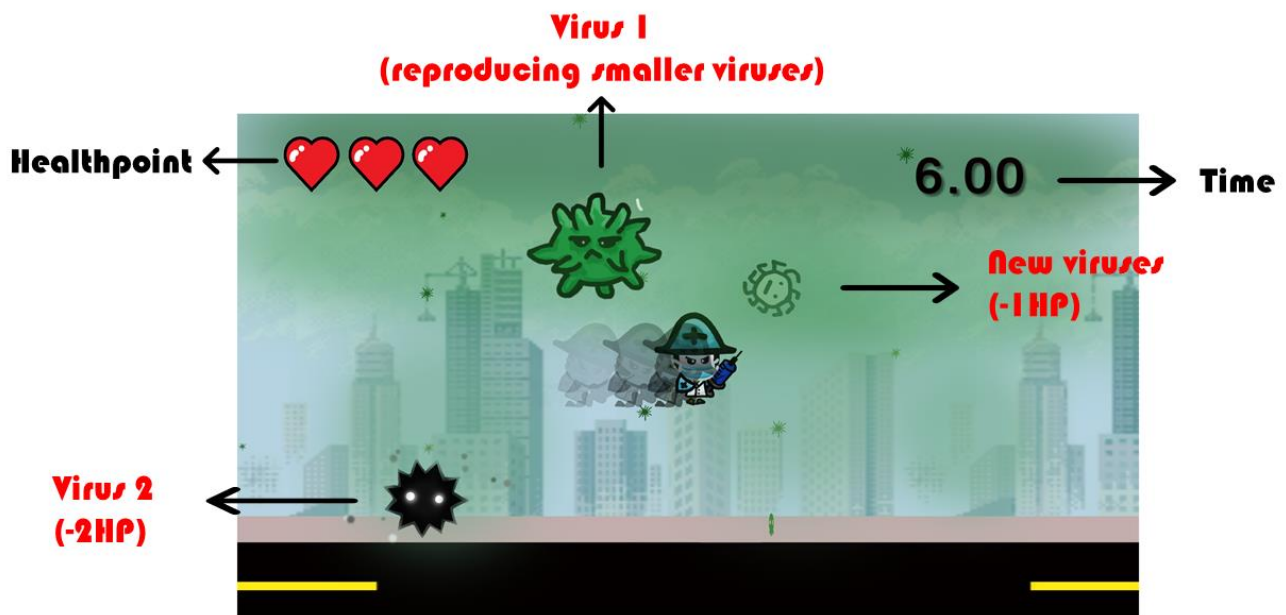
II. Control

How to play:

+ Press A or ← for moving left, D or → for moving right

+ Press Spacebar for jumping

+ Press J for dashing

- You need to dodge every Corona Virus to survive in this Covid 19

III. Features

1. Start Menu

- In start menu UI, there are 3 button you can click on, first one is play, when you click this button, it will move to the gameplay scene. Second one is option button, which is lead to the option menu. And the final is the quit button that you can exit the game. We also make the animations for those buttons to increase the interaction for the player.
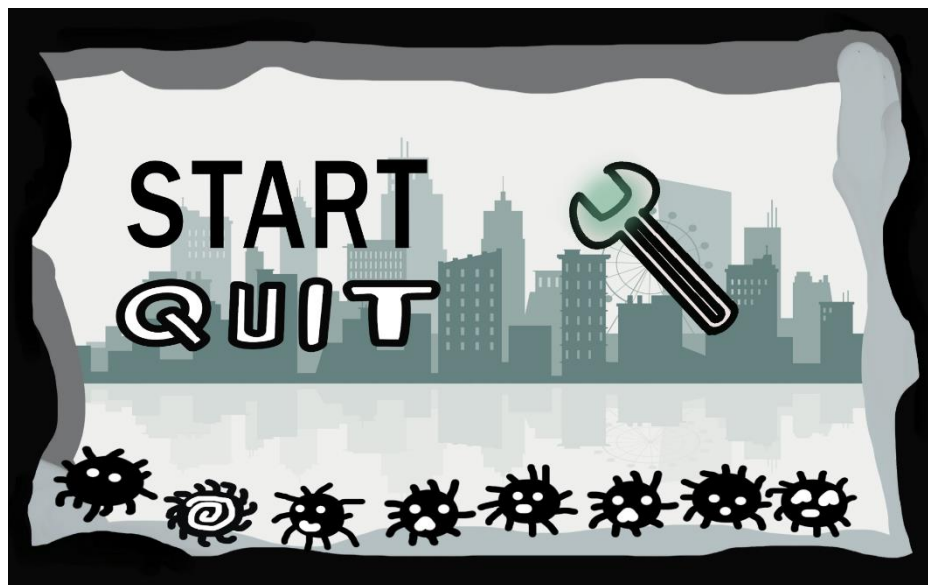
Start menu UI

2. Option Menu (multiple resolutions available)

- In Option menu, we separate into 2 main features, volume and resolution. With the volume setting, you can configure two sounds in the game, background sound and sound effect. When you configure the sounds, you can increase to the max value or decrease to the min value. With the resolution setting, you can set up, minimize or maximize to any resolution screen, from the smallest one to the largest one. Especially, when you want to change to the Fullscreen mode, you can check the Fullscreen box, it will appear the black corona virus, cool!
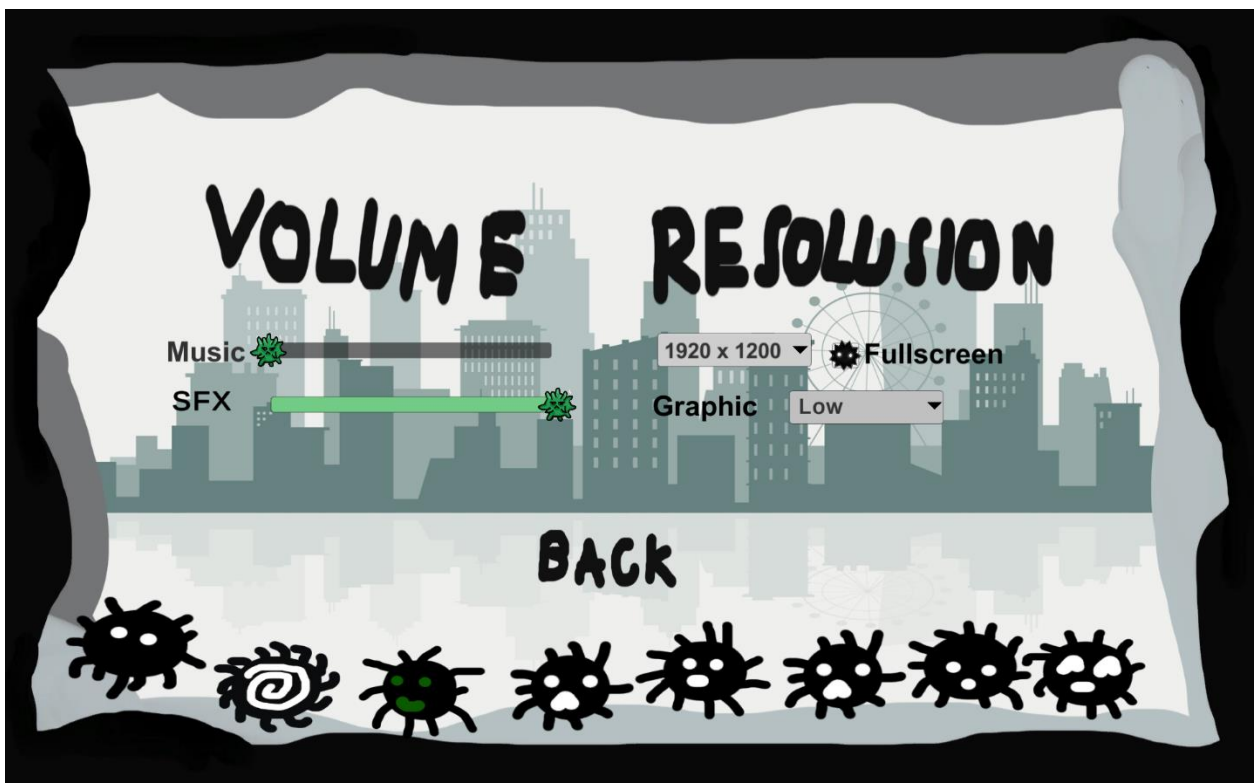
Setting Menu UI

3. Main gameplay (self-designed characters)

- As for the gameplay feature, we provide an endless runner gameplay. We set a looping background and ground to with different scroll speed to run endlessly on a "parallax" scene.

- The viruses movement are based on particle system.

- We manage to minimize the hitbox while dashing.

- Most of the character are designed by us ourselves with meaningful purposes.

Demo character design

IV. References

1. Sound Effect & Music: https://freesound.org/
2. https://www.youtube.com/watch?v=zc8ac_qUXQY
3. Menu Background
4. Background by Luis Zuno (@ansimuz)
5. Ground