

Name: Daniil Kazakov

Student Number: 20380923

Project Title: Freedom Project

Supervisor: Hao Wu

ECTS Credits: 15

1) Overall Project Objectives.

My objective with this project is to deliver a playable, fun and entertaining indie videogame of the rogue-like action genre. The product must be immersive but also easy to pick-up, which would be suitable for the people who do not have much time to play video games.

To explain the gameplay in short terms, the player will control a playable character who has a simple attack ability at the start. Around the player, there will be enemies appearing, who the player will be able to eliminate to gain experience. As the player picks up the experience, they will level up which allows them to unlock new abilities and improve their character's characteristics. With the player's growth, enemies will also become stronger and tougher to eliminate. The goal is to survive until the timer reaches 30:00 minutes.

When it comes to graphics, the decision came to creating a top-down 2D pixel-art visuals. Since animating/creating 3D assets can get time consuming and also expensive, I believe it is most suitable for this kind of project.

This game will have a simple storyline which will keep the player hooked and invested. It will help the player understand the game world while also serving a tutorial role. It will also help to explain certain aspects of the game which otherwise would not make sense to the player.

2) Description of work completed.

The entire work progress can be tracked via:

- [Github](#)
- [Trello](#) (screenshot will also be included in the Appendix)

At the current stage of development, the basic features of the game have been implemented. Player can move their in-game character via keyboard and rotate them using the mouse. There are enemies who are programmed to move towards the character via using vectors. There is a health point system implemented for both enemies and the playable characters. The character is also able to attack the enemies at a certain range using the mouse. When the mobs get within a certain range from the player, they will also trigger the attack code which in turns reduces the player's hit points.

There have also been some visual aspects implemented. A simple background has been added that contrasts the player and the enemy models which makes it easier for the player to see what is happening at the current stage of the game. The player and the enemies are animated with basic movement.

To aid the development, a Github repository has been set up to keep the code safe and easily accessible. Trello board was also created to keep track of the progress made and future tasks.

2.1) Evidence of work completed. (delivered outputs, number of lines of code, Class Diagram or similar)

- 352 written lines of code.
- 18 Trello tickets completed.
- 5 bugs fixed.
- Countless adjustments inside the game engine.
- ∞ amount of testing done.

3) Outline of future work.

Now that the basic features of the game are developed, there are a few things that need to be finished off.

- Experience system – When the player slays enemies, they will receive experience points to level up.
- Skills system – When player levels up, they will receive a choice of different skills and abilities that they can use to become stronger.
- Multiple types of enemies – In order for the game not to get boring, I will add a variety of different enemies to keep the player always challenged.
- Variety of maps – To keep the player interested, I will develop different playable maps which will have individual themes.
- GUI – For all of the above, I will develop a simple Graphic User Interface that makes everything easy to navigate.

Below, you will find the additional proof appendix.

Additional Evidence Appendix:

Figure 1: Github repository.

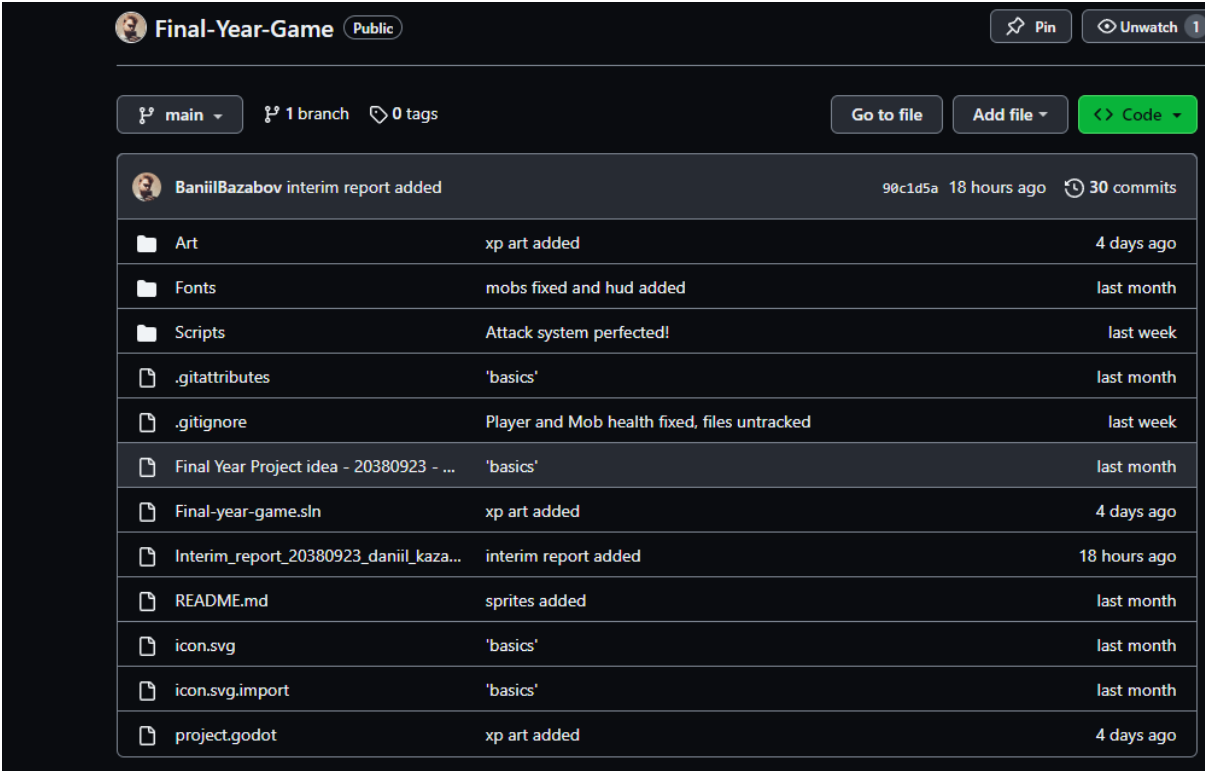


Figure 2: Github commits.

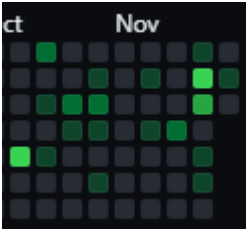


Figure 3: Trello task board.

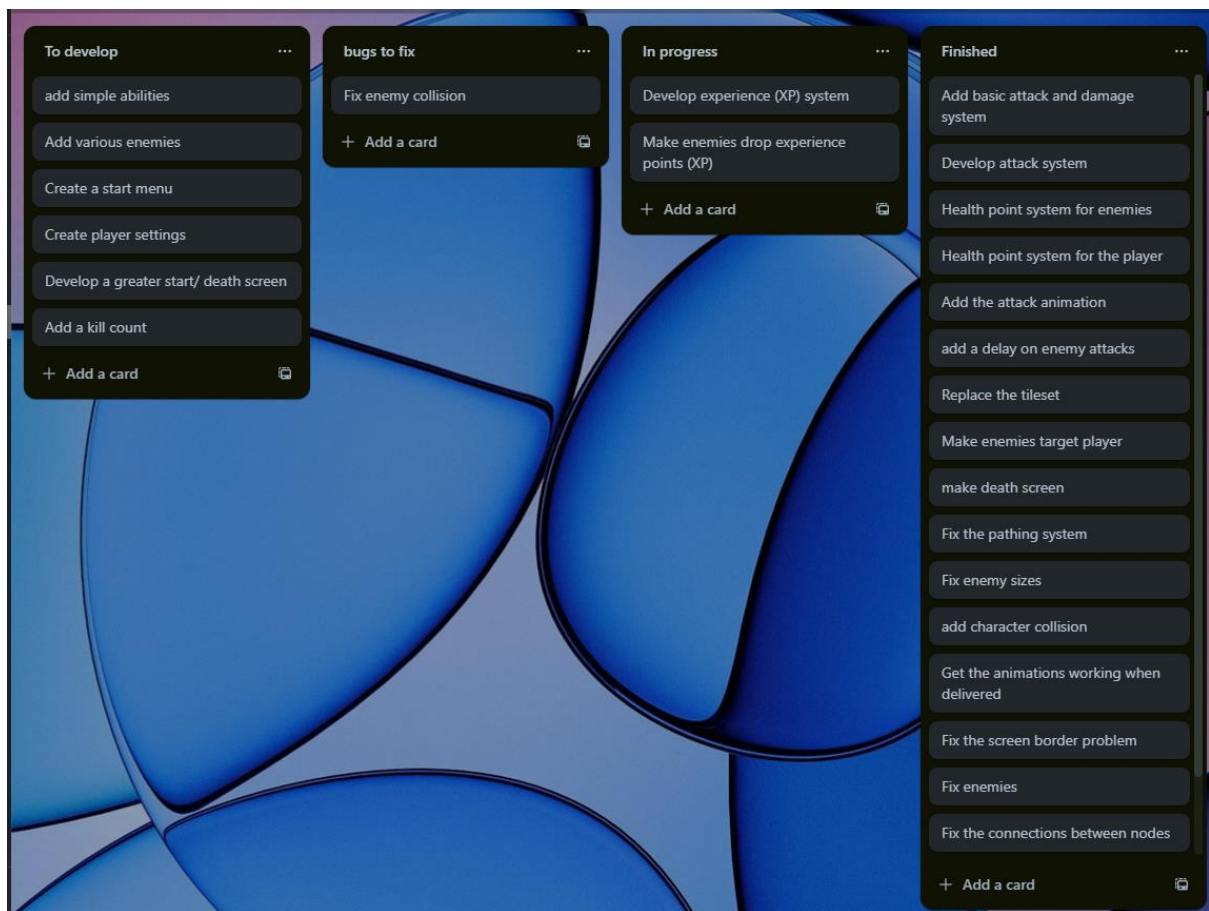


Figure 4: Running the project.

