Milestone 2: Minimal playability

Overview:

In this milestone we created a minimal playable game that follows ECS pattern, has a game menu and help page, level design, boss fight and so on.

Implementation:

1 - Playability

Implemented level 1, the player has to defeat 15 randomly spawned enemies first, then progress to a boss fight. It will take the player about 2 minutes to keep trying and dying to finally finish level 1.

2 - Improved Gameplay

Game logic: Enemies are spawned and moving randomly but face to the player all the time and keep shooting to the player. Projectiles are reflected back when the player activates their shield.
Assets: New sprites designed and drawn for the character and enemies.
Help/Tutorial: When the ESC button is pressed, the game will be paused a help page will be shown up.

3 - Game Design

We refactored our game to follow the ECS pattern and *EnTT* library to manage the entity, components and system notion.

4 - Robustness

Our game is running without any lagging. The resolution and aspect ratio are consistent across different machines and displays. The game terminates when the player complete the first level by killing all enemies and the boss or gets killed by them.

5 - Creative Component

We have manually designed and drawn sprites for our characters and enemies.
We implemented a power-up functionality by having a potion that the player can pick up to make their shield bigger.
Also, We implemented shield activation functionality in which the player can activate shield in order to protect themselves by pressing and holding the right click.

Reflection:

As mentioned in the previous report, we refactored most of our reflection related code which follows the ECS pattern. Also, We implemented shield activation functionality in which the player can activate shield in order to protect themselves by pressing and holding the right click.