Project Fortress Defence
Team Sub-zero

Team members

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Project explanation

We've created a fighting game called 'Fortress Defence'.

1. Rules in the game.
2. Gameplay.
3. Technical implementation
4. Known issues
5. Further development

Rules in the game

The game can be played by one player. There is currently no multiplayer mode, i.e. no AI.

Player is shooting with cannon balls against the ships that are attacking his tower.

The goal is to kill the ships by shooting them before they reach the tower. Once a ship reaches the tower its health is getting less. There are currently two types of ships – (o*rdinary*) and (*pirate*) with different power.

Gameplay

The game starts with "menu screen", and an option for a different level. Once player choose the level the game enters in main screen mode and the attack immediately begins.

Player can shoot with '**space'** button, move the gun up and down with **up arrow** and **down arrow.**

Player starts with 100 points initial health and every time a ship reaches the tower its health lowers **10 points** for an *ordinary* ship and **30 points** for *pirate* ship.

On another hand, tower needs to aim tree times at pirate ship and one time at an ordinary for it to begrassed.

Game ends once the tower's health reaches 0, or a new level is being unlocked.

Technical implementation

The game is built using the HTML5 **SVG and Canvas.** It uses vanilla JavaScript, also includes some libraries as jQuery, Kinetic.js, Raphael.js

This presented us with a few challenges such as moving objects, making animations, collisions etc.,

- Animations: we have created animations, combining Canvas and SVG in one project

- We have followed the best practices for producing high-quality code: correct naming, data encapsulation, strong cohesion and loose coupling

- Use GIT as a source control system
- (https://github.com/orgs/Sub-zero-team/dashboard)

Known issues

No know issues. The game runs smoothly as developed. However, there are many options for further development, described below.

Further development

- Multiplayer
- Bonuses for the tower
- Different guns
- More types of ships
- Update tower