Documentation Raul Pekander 466013

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Getting started

Initially I had an idea to start the development of the game with Phaser. However soon after many tries, I felt like doing the game that way felt complicated. I decided to just develop the game with plain JavaScript, CSS and HTML. I used to Photoshop make most of the game assets. The first idea for was to make it a shooting game.

My friend is passionate about top-down shooting games, so I knew that if I make something like that, I'd have someone to play and test it.

First challenges

Creating the canvas was quite simple as there were many examples online. The collectibles, the tank and tank enemies were designed in Photoshop. I preferred using image files as I am quite experienced with photo editing programs. The challenges started coming the gameplay.

Even though canvas as it appears to the player was simple to make, it was much more of a task to get elements to be inside it. After succeeding at player and enemy movements it become apparent that both just flew often out of the view.

Everything needed some collision check.

Designing the stages

For the levels I opted to draw a simple map and then have a function fill desired parts with color. The map looked plain but after adding enemies with higher speed and more unpredictable movement patterns it seemed that progress was happening. I wanted to introduce extra challenge to the levels, so I decided to make the walls move back and forth. Due to hitboxes being in reality different sizes than the actual images, I had to reduce to hitboxes to be slightly smaller than the image. This proved to solve the cases where players got stuck into a wall and having to restart the game.

Power-ups

Every shooting game needs power-ups. Immediately I decided they had to be moving on the playing field. The collectibles were already stationery and power-ups had to stand out. Blue orb gives the player double damage against the enemies and red orb makes the wall stationary for a couple of seconds. These two are simple but can prove to be useful as the level of difficulty rises.

Cutscenes

The cutscenes were the last things to be added to the game. A game needed some sort of story, and I had to communicate it to the player. I made the cutscenes static images with monologues from the villains. A couple of friends of mine gave me their permission to use their appearance in the game and I can also be found in the second cutscene. The characters are from my personal photo albums and the background images I compiled out some photos online. The links for the images are referenced in the files.

The story revolved around a warlord and his mercenaries who want to make pandas bad. The twist is that instead of being soldiers they're gangsters. Friends of mine had had the idea of making a gangster game for a long time so I decided to incorporate that theme to the game and have them play it.

Final thoughts

Game design is not easy. As you play a game, you rarely think about things like collision, boundaries, enemy speed and damage. You will notice when these things are done badly. As a developer, you must always think about what could go wrong and how to fix it.

When I started the game, I encountered many bugs, but after I decided to read about what it takes to make a game, I started to make less mistakes. I had other people play the game and give me advice on how to improve it. Sometimes the game was too easy and sometimes too hard. In the beginning, most times people got stuck inside a wall and received heavy fire from enemies. I hope that the game works for you and doesn't have bugs that were not noticed. The difficulty is little higher than usual, but I think it makes the simple game more exciting. Below are my suggestions for points.

Points (total : 26 points)

Well written PDF report – 3 points	Repository structure - 2 points
Game has a story - 3 points	Enemies can hurt the player - 3 points
Sound effects – 2 points	Four maps - 3 points
Moving tiles and power-ups – 3 points	2 different things to collect – 2 points

Scoreboard - 3 points

Runs on Firefox, Edge, Chrome – 2 points (maybe 3 points, I just cant test on Safari)