

Project Report

CT30A2910 Introduction to Web Programming

I ended up creating a game using Phaser 3. Before the project I was not familiar with developing a game at all, so I had to learn everything from very basics especially in term of Phaser 3.

First, I started digging the Internet for some basic game examples as I found the documentation for Phaser a little bit hard to understand. I built very basic things such as the ground and player character. As everything was not working properly, I found a kind of “feature” in the Phaser. Basically, if you have some mistakes in your code, the game will load right until this mistake and everything after will not work at all, so since then it was easier to find mistakes.

I decided to create everything that I can using my own skills. Of course, I didn’t want to waste my time drawing complicated sprites, especially when I don’t have such skills or passion, so I took the player sprites, skeleton sprites, coin texture, fireball texture, sky texture, ground texture and static platform/wall texture from sources that provided royalty free 2D sprites (links are provided below). The moving platform, flag, lava and crying face are designed by me.

However, every single sound in the game was created only by me. I took an inspiration from older Serious Sam games for jumping and dying sounds, which I tried to recreate with my voice.

The most challenging part in the project was to find the methods that are suitable for my purposes. The biggest problems I had with resizing platforms and moving of the platform since I found a lot of code examples and documentation that seemed to be useful, but everything ended up not working until I found the suitable methods. Also restarting the game was problematic since some people were suggesting calling the “preload” function again to do that, but in the very end of the project I found much more simple way to do that which was “this.scene.restart()”.

In terms of gameplay, I decided not to “just make something” to get points from the project. I wanted to be creative and satisfy myself with the project. The game is designed to be challenging and it has some strategies for easier completion, for example at the very start blocking the moving platform on the “second floor” by staying between it and the sealing and jumping from one floor to another without using the moving platform. The game indeed requires some skills, and it can be fun and annoying at the same time. Since the game was challenging even for myself, I decided to create the “crying face” collectable collecting which will extend the final “dot” platform so the player will pass the level easily. However, this will result in score penalty setting the score to -999, which will annoy and motivate the player to play the game as it is intended.

The link for playthrough video is provided in the end of the report.

Skipping the talking about obvious points for the project I would like to explain point wishes that I make up with myself which are point for sounds and music and challenging level design.

As I mentioned before, every sound in the game was fully create by me. I wish to receive double point for sounds as it took me a really hard work to even come up with ideas for the sounds, and then creating and processing them was also not that easy. Also, the soundtrack is kind of cool, isn't it? 😊

Talking about challenging level design, I really tried to make the game hard. I was testing a lot of versions of the level on my friends adjusting the difficulty from “nearly impossible” to “not that hard” and then to the final version. Yes, I could focus on building more features to surely gain more point for the project, but instead of, for example, creating two easy not that interesting maps and implementing the scoreboard, I focused on the quality. When some of my friends didn't immediately understand that the lava texture will kill you, I came with an idea of adding the skeleton which is jump to the lava and dies right in the start of the game.

Feature	Max points
Common features:	
Well written report	2
Application is responsive (scalable)	4
Application works on Firefox, Safari, Edge and Chrome	2
Game specific features:	
There is a clear plot in the game. It has a start and end.	4
There are different (more than 1) objects to collect	2
There are moving parts in the game area (other than the player and enemies, so e.g. some floors fall apart)	3
There are enemies that can hurt the player	3
There is music and sound effects when player shoots/jumps or anything like that	6
Challenging level design	2
Total	28

How start the game

User must have Phaser 3 and any live server tool installed. Phaser 3 can be installed using npm in the project folder. For live server I have been using “Live Server” extension for Visual Studio Code. When you have all the required tools installed, just run the “index.html” file with live server and the game will start.

Links

Github repository link: <https://github.com/Lionbull/phaser-project>

Warrior sprite: <https://opengameart.org/content/animated-warrior>

Skeleton sprite: <https://opengameart.org/content/animated-skeleton>

Playthrough video: <https://youtu.be/4DJXFyjq6J4>