

Introduction to Web Programming

Project Work – Project 3: HTML5 Game

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Points:

Feature	Max points
Well written report	2
Application is responsive and can be used on both desktop and mobile environment	4
Application works on Firefox, Safari, Edge and Chrome	2
There is a clear plot in the game. It has a start and end.	4
User can get their name in the scoreboard (Scoreboard is given in the last scene)	3
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 more than one map	3
There are enemies that can hurt the player (In this case, touching enemy decreases points)	3
There is music and sound effects when player shoots/jumps or anything like that (shooting and collecting items)	3

What was done:

I decided to continue developing the 2D platform game I created for the week 7 task by adding two more maps and separated scenes for the start and end of the game. Each map has a different theme. First, the player starts in the start scene where they can insert their username or if no username is given, the default name is simply player. The first level is desert-themed level where it is needed to collect 50 points to succeed to the next level. Then level 2 is mountain and mining themed where at least 100 points are collected by collecting minerals. The third level is space-themed where the player collects stars and tries to fight aliens that are spawning in random positions and can escape the screen. Each level has specific enemies that can hurt the player in that sense that player loses points from colliding with those, and player is also teleported back to the starting point in the map. Lastly, the player sees the scoreboard from all three levels and can play again. Additionally, in each level, after the player has collected minimum number of points, player can keep collecting items or shooting enemies for extra points for 30 seconds and after that player is automatically transferred to next level. In case of player doesn't want to collect extra points, the finish flag can be used to move directly to new level.

What tools were used:

For developing this game, I used VS Code as coding environment and parcel for running the game on server side on the Web. Phaser framework version 3.55.2 was used to implement the game itself. Most of the assets were created with image editor Gimp, for instance I drew the spritesheet for the player and images of enemies with that tool. Some of collectable items were downloaded from free image service Pixabay and edited a little bit with Gimp (resizing to fit the game). The sound effects and music used in this game project were downloaded from a website called freeSFX. It's available at: <https://freesfx.co.uk/Default.aspx>