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Project 4

IGME 230 Section 05

**Documentation for Project 4**

Using Javascript and PIXIJS, I made a 2D, side scrolling, platformer game with many libraries and a lot of source code.

**Sources**

W3Schools for instruction

**Libraries** Howler, PIXI.JS, Bump

**Source Code**

* <https://github.com/kittykatattack/bump>
* <https://github.com/ccaleb/pixi-parallax-scroller/tree/master/tutorial-4>

**Art**

* <https://opengameart.org/content/bevouliin-free-game-obstacle-spikes>
* <https://opengameart.org/content/jungle-tree-pack>
* <https://www.gameart2d.com/adventurer-girl---free-sprites.html>
* <https://opengameart.org/sites/default/files/4maps>

**Sounds**

* Death sound from <https://freesound.org/people/ProjectsU012/sounds/341701/>
* Jump sound from <https://freesound.org/people/jalastram/sounds/386658/>
* Music from <https://soundcloud.com/big-impact-sound/>

**Writeup**

I had a ton of fun with this project, but also struggled a lot. JavaScript is a fickle beast but very rewarding when you succeed. I followed a 7-hour tutorial about parallax scrolling and tile mapping in PIXI and it was very informative, but stressful too. I heavily modified the code, from the size of the assets, the layout of the map, speed, scroll speed, and I added randomization, so every playthrough is slightly different. I have multiple random number functions in the generation stage of the code that serve to make every time you play exciting. I added character movement, gravity, and velocity myself.

**Issues**

A lot of people in the industry make jokes about turning bugs into features and that’s exactly what I did here. For some unknown reason a random tile will not collide with the player and they’ll fall right through. I have no idea how to control it or how to detect a pattern. After spending hours trying to fix it, I added code that spawns spikes under you if you fall and kills you. This is something I considered doing anyways so it worked out.

The biggest issue is that the game crashes, consistently at a certain point. At between a score of 97 and 115 the game just crashes due to an error in the tile set. I also have no clue why this happened and spent a long time trying to fix it. I tried making the code regenerate a map at that point but it cause a slew of other issues and I left it alone I eventually decided to just keep it there but make it harder to get to that point.