Justin Gourley

Documentation for Project 1

Usability and UX: I believe the design of the project is aesthetically pleasing, as well as very easy to use. Mainly because of the minimal amount of things on the screen, its very easy to know what you can and can't do, and after showing it to multiple people, no one had any trouble figuring out what they can do. Although not all the descriptions for sliders may make sense to begin with, it almost encourages you to mess with them to see exactly what they do, and once you mess with them you will almost immediately know what each one does. Along with this I went 'above and beyond' by giving the user control over just about every aspect of each of the visualizers.

Interaction Design: The user is able to pick from 3 songs, and has a plethora of choices to make as it comes to manipulating their experience. From directly changing each visualizer, to changing the sound (bass, treble, delay), and changing the way things look with post-effects. I added in many options so the user can get the exact experience they want out of it.

Canvas API: There are no post-effect on to begin with, but there are 5 different options to manipulate the visualizer. Along with this, just about everything on the screen is a visualizer. There is the main center 'wave' drawn using lines that adapt directly based off the data. The curves on either side of the 'wave' change based off the average frequency (high for the top curve and low for the bottom). There are bar visualizers in each corner of the screen. Finally there are circles drawn in the background, with each circle representing a frequency and changing size based on the data. The 'wave' visualizer is also taking use of a radial gradient. Along with this there is a trail effect used with the 'wave' visualizer that gives a cool blurring/trail effect behind it.

Web Audio API: The user has access to change between frequency and waveform data, and is able to alter 3 audio nodes, delay, bass, and treble.

Presentation and CSS/HTML: This project doesn't have a title or header, as I wanted to keep it clean and simple. It has small visualizers in every corner, circle visualizers in the background, and a main visualizer in the center of your screen, giving it a clean and pleasing experience to the viewer.

Code: I tried to maintain a very clean code base, both for myself and for anyone who might look at it in the future. Everything that I felt needed commenting has comments, as well as each function has a brief description of what it does. I utilized functions a lot, as to not have to rewrite code a lot. I also tried my best to optimize the project the best I could, however it still gets laggy with certain actions, like turning blur to 1, and putting the max trail size. The noise effect also lags the visualizer a bit, and the distort effect does as well.

If I had more time for this project, I would have liked to find a better way to use curves than the way I am using them now. I don't dislike how they turned out, however I feel as though I would like them more if there was more movement of some kind. I also would have liked to optimize the functionality of everything more, so that even with everything turned on to max, there would be little to no lag. Everything else in the project went fairly smoothly, although I did have trouble at first making the trail and the blur effect.

To assist in the creation of the custom sliders, I used this tutorial: https://css-tricks.com/styling-cross-browser-compatible-range-inputs-css/

I feel as though I did a good job on this project, I put a lot of effort into making it, both with planning beforehand and the actual coding of it. Because of this I believe I deserve between a 95-100% on this project.