

Design Document – Generative Art Banner

Project Overview

For this project, I made an interactive generative art banner that reacts to mouse movement. I used p5.js, HTML, and CSS to build everything. The visuals are random and colourful, and every time you click and move your mouse, new shapes appear with smooth motion and fading trails. It's simple but fun to look at.

Generative Technique Used

The primary technique I used is Randomness and Noise. I used randomness for the size and colour of the circles, and Perlin noise to make the shapes appear around the mouse in a more natural, flowing way. It makes the visuals feel more organic, rather than totally random or messy. I used the microphone for the speed of the generation and movement of the ellipse.

How It Works

1. The canvas sits inside a div on the landing page.
2. When I press or drag the mouse, circles get drawn near the cursor.
3. Their position is slightly adjusted using noise to create a smoother and less robotic appearance.
4. I used HSB colour mode so the colours change like a rainbow over time.
5. The background has low opacity, allowing older shapes to fade away slowly.

What is included in the project:

- Only circles are drawn, but each one is different thanks to randomness.
- Perlin noise helps make the shapes appear to be flowing.
- The background trail — it gives the art a dreamy effect.
- HSB colour cycling keeps the visuals changing constantly.