MP1 TO MP2

TODAY

- Logistics
- Share back MP1!
- Break
- Introducing MP2 - Creative code!
- Work time - get started on MP2

LOGISTICS

New office hours time!

- Hannah: Mondays 12-1:30 PM
- Usually in Sieg 128, will also be available in Discord voice
- Will send a message via Discord to remind you!

AN IDEA?

Streaming my own dev projects on Discord in the evening?

MP1 SHARE BACK!

- Did anyone publish to the Chrome Web Store?
- In groups at your tables, show each other your extensions
- I'll come around to see if anyone wants to demo in front of class!

BREAK

INTRODUCING MP2

P5.JS

- p5 is a creative coding library!
- It is the JavaScript version of Processing

WHAT YOU CAN MAKE

https://openprocessing.org/discover

https://p5-demos.glitch.me/

https://tone-demos.glitch.me/

P5 IS A WHOLE ECOSYSTEM!

- Core libraries: p5.js and p5.sound
- *lots of add-on libraries!*

A P5 PROGRAM

```javascript
// Runs once, to initialize everything
function setup() {
  createCanvas(400, 400);
}

// Runs forever!
function draw() {
  background(220);
}
```

YOUR TURN!

- Go to p5js.org
- Click on the `Start creating with the p5 Editor!` button
- Follow along!

DRAWING A CIRCLE

Anything we want to just run once goes in the `setup` function

```
function setup() {
  createCanvas(windowWidth, windowHeight);
  background(102);
  circle(windowWidth / 2, windowHeight / 2, 50);
}

function draw() {}
```

TRACKING THE MOUSE

`draw` gets called over and over!

```
function setup() {
  createCanvas(windowWidth, windowHeight);
  background(102);
}

function draw() {
  circle(mouseX, mouseY, 50);
}
```

p5 has special variables that we can easily use in our draw loop!

MOUSE PRESSED!

We can change the fill color!

```javascript
function setup() {
  createCanvas(windowWidth, windowHeight);
  background(102);
}

function draw() {
  if (mouseIsPressed) {
    fill(0);
  } else {
    fill(255);
  }
  circle(mouseX, mouseY, 50);
}
```

ADDING MORE COLOR

```
function setup() {
  createCanvas(windowWidth, windowHeight);
  background(102);
}

function draw() {
  if (mouseIsPressed) {
    fill(100, 255, 100);
  } else {
    fill(255, 100, 100);
  }
  circle(mouseX, mouseY, 50);
}
```

MOUSE SPEED!

```javascript
function setup() {
  createCanvas(windowWidth, windowHeight);
  background(102);
}

function draw() {
  let circleSize = abs(mouseX - pmouseX) + abs(mouseY - pmouseY);
  circle(mouseX, mouseY, circleSize);
}
```

CONSTANTLY CHANGE THE COLOR!

```javascript
let current_hue = 0;

function setup() {
  createCanvas(windowWidth, windowHeight);
  background(102);
  colorMode(HSB);
}

function draw() {
  let circleSize = abs(mouseX - pmouseX) + abs(mouseY - pmouseY);
  fill(current_hue % 360, 50, 80);
  circle(mouseX, mouseY, circleSize);

  current_hue += 1;
}
```

ADDING COMPLEXITY!

link

WHAT YOU'LL BE DOING FOR MP2

- Six sketches, which increase in complexity
- Assembling them on a gallery page on your website
  - Inspiration: *this* and *this*
- Writeup

YOUR (MINIMUM) SIX SKETCHES

- Static
- Random
- Infinite
- Interactive
- Sound
- Interactive sound and visual

YOUR (MINIMUM) SIX SKETCHES

- Static
- Random
- Infinite
- Interactive
- Sound
- Interactive sound and visual

Your gallery must include *at least* one in each category - I encourage you to make more, slight variations on the same idea, etc.

RESOURCES

Lots of links to examples and resources in the MP2 description!

- p5.js *documentation* and *examples*
- *The Coding Train*

MP2

- MP2 description is up!
- Sketch complexity?
  - This is a 5 credit class
  - 5 hours in class, 10 hours outside class per week
  - 20 hours outside class total for the next two weeks
  - Allocate your time accordingly!
- The description includes a **suggested** timeline to help scaffold your work

NEXT CLASS

- Next class: CSS layouts activity
- Until then: start making your sketches in the web editor

WORK TIME!