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Post-CART 253 Reflection: Emerging Skill Set

What Has Changed?

I decided to take this class as a Design student to gain some knowledge and familiarity with basic coding principles to build my skill set as a prospective designer. Familiarity with coding is an asset in the field after all! As such, at the start of the course, I had absolutely zero coding or programming knowledge –following through with it was quite out of my comfort zone. Thus, the first-most significant change after taking this class is that I can now truly understand the power of coding, even with my basic, foundational knowledge. After about 3 months, I can animate objects, create basic games, and engage people with playful, interactive digital experiences.

Throughout my 4 years in the design program, I have only really thought about analog experiences. By this, I mean I have had lots of practice thinking in physical objects and 2D graphic works, but not much with digital interactions. However, engaging with this course's material and projects allowed me to think creatively, "digitally", and imagine several possibilities for user engagement via a simple screen, a mouse and a keyboard. I kept thinking about how to translate concepts and movements, like a frog jumping, for instance, through a set of events and

conditionals and make people feel something from that. The way I started to analyze what type of computer interactions made the most sense or felt the most comfortable to use when engaging in a certain experience was striking (and fun) for me. For instance, when creating my Mod Jam, I kept debating whether I thought using mouse events to control the frog's tongue, and keyboard events to control its body would "feel" like a good experience, or whether simply relying on the keys to move all aspects of the frog would be more intuitive. Thus, a second thing that changed after taking the course is how much more aware I am of how I, as a user, navigate a program and how I now think much more critically in a "computational" mindset.

What Can I Do Now?

As a designer who can now code a bit, I would love to integrate this newfound knowledge into web applications. For instance, incorporating JS Objects, and especially arrays, would make the front-end development of the site easily customizable, as you can simply change variable values in one designated area and not have to search through tons of code to do this. You can further apply changes to a group of JS Objects (which could be buttons, for example) simultaneously. Adding trigonometric functions

(EX from my Variation Jam:

```
crystalBallID.angle += 0.05;  
crystalBallID.y = sin(crystalBallID.angle) * crystalBallID.floatiness  
+ crystalBallID.originalY; under the draw( ) function )
```

into the program to animate an element on a website would make the site seem more dynamic and playful. Conditional statements are also very powerful in the way they give the program direction and opportunities for a variety of ways to interact with one object. For example, `if ()` and `else if ()` statements can be used to block or allow content depending on what user put as their age status:

EX in pseudocode:

```
function checkAge() {  
  const age = age to display  
  const message = message to display  
  // If the user is 18 or older  
  if (age >= 18) {  
    message = "Access granted!";  
  }  
  // If the user is under 18  
  else { message = "Sorry, you must be at least 18 years old to  
    access this content.";}  
}
```

Of course, this would also require me to learn and understand HTML and how to incorporate JavaScript (or the p5.js library) in HTML. I still am a beginner at coding and consequently face several challenges due to lack of practice. I hope to overcome this by working on more scripting projects.

What Could I Do Later On?

At this moment, I perceive my future in creative coding to be directed toward web design and channelling this knowledge to enhance the UX aspects of navigating a site. Dropdown menus, modals and tooltips can be programmed in JavaScript to help users easily view and access information for example. The p5.js library can be used to make a site look and feel more attractive and personalized. I can use `noCursor()`, `mouseX` and `mouseY` to replace the mouse cursor with that of any image I want, and I can use something like this

```
function setup() {  
  createCanvas(windowWidth, windowHeight);  
}  
  
function draw() {  
  background(20, 20, 40);  
  
  let distanceMouse = dist(mouseX, mouseY, width / 2, height / 2);  
  
  // Change the circle size based on the distance to the mouse  
  let circleSize = map(distanceMouse, 0, width, 100, 400);  
  fill(255, 0, 0, 150);  
  ellipse(width / 2, height / 2, circleSize, circleSize);  
}
```

to create a hover effect when the mouse goes over an object (by having the circle size increase and decrease based on whether the mouse is over it or not).

I am certainly closer to achieving this goal as I have a basic foundational knowledge in JS that I can use to complement the material I learn in DART 349's Intro to Web Design class I am taking in my last semester this winter, which is essentially an HTML coding class. There are also plenty of resources and tutorials I managed to find that instruct how to incorporate JS and/or p5.js into HTML for specific effects. The p5.js site is one of these resources that offers tutorials on how to do this: <https://p5js.org/tutorials/creating-styling-html/> , <https://p5js.org/tutorials/responding-to-inputs/> , <https://p5js.org/tutorials/loading-and-selecting-fonts/> .

My reasons for wanting to develop web design programming skills are primarily because this kind of knowledge is frequently sought out in graphic design or UX design job positions. Throughout my job search, I have noticed many positions that value knowledge of HTML and other programming languages as an asset. On a more personal note, I would love to be able to code some of my portfolio website to better personalize it. I also thoroughly enjoyed programming games and fun little experiences, and I am considering making more of them both for fun and to demonstrate skills and experience in digital interactivity to future employers.

Overall, I am grateful to have taken this class, which made learning and performing code fun, productive and accessible enough for me to reach these goals.