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Post-Reflection

My knowledge for coding at the start of the semester was as a complete beginner, with no experience in coding prior to this course; I didn't know the first thing about how to create a canvas or create shapes, or whatever a Boolean was. At the beginning, programming felt like learning a new language, nothing seemed intuitive. The syntax is so infuriating, anything can be messed up if the order of operations is swapped, and even the smallest task could take hours of practice. Eventually, concepts started to register, and what once felt impossible starts to feel satisfying, though it took many crash outs, many calls of panic, and so very many explanations.

One of the earliest moments of eureka was understanding event functions—especially in environments like p5.js. At first, it was confusing to set up your code, making it intuitive instead of messy, waiting for something to happen and then it actually responding, instead of breaking or freezing. The idea that a function can “listen” for a mouse click or key press, and then automatically run the specific code, transforms programming from a static sequence of instructions into something interactive. Gaining confidence with functions like mousePressed() is like realizing you can go further then just images on a canvas, it made thinking in code feel so creative. You press a key, and something on the screen moves. You click, and a sprite is triggered, it shakes, or turns color, or moves from left to right. It would get me to refresh the page over and over again in a childlike delight, because it’s that giddy “I made that!” feeling. If statements offer a similar feeling of revelation. Your program can make decisions, react to conditions, and follow different choices. If the player reaches a ladder, move them up. If the die rolls a six, grant another turn. Learning to think in terms of logic—if cardIsFlipped is true AND cardIsGood is true, then heart.fill.str equals heart.fill.red—is a mental shift that made me actively think differently outside of code, too. Sometimes a bit too much, when looking at code for so long I saw it in my dreams, woke up thinking in if-statements. Once the syntax is understood, following those picky rules, and the structure is written out, I really started to grasp it, and started to feel excited to build increasingly complex systems by layering conditions. My first project I was so unsure of how to go about making all different conditions, making it linear and have that domino affect of triggers, and even had to completely redo over a hundred lines of code, but it was the process, the learning curve to that understanding. Had I never failed so miserably the first time around, who knows if I’d be as comfortable as I am now with it. Learning journey is never linear, even as loops and events start to feel comfortable, other parts of coding remain murky. JSON, for example, often feels like a step into a more advanced dimension. Rules about commas and quotation marks are finicky, and it isn’t always clear when JSON is actually necessary. Following the notes and videos helped, but when deciding for myself, I’m still unsure about when to store data as JSON, how to load it, or how p5.js expects it to be formatted. Another ongoing challenge is knowing what needs to be coded from scratch versus what already exists in the p5.js library.

Being so new, I fall into the habit that I must manually code everything: text rendering, randomization, shapes, movement, colors. Discovering random(), map(), translate(), shuffle(), and dozens more that could have saved me hours of work and confusion. The difficulty lies in not knowing what tools the library already provides. Checking the p5 library was somewhat helpful but still confusing with its explanations at times, but what truly helped was taking a peek into my peer's code. Looking at Felix or Sean or Norah or Skyla's, it was so interesting how they interpreted the projects, but also learning different preset functions, or aspects to coding that I didn't know how to use at first (like a switch()). My uncertainty is just par of the course that comes with learning something new—its gradual, takes time to learn and recognize available tools. Another aspect to coding, and important one at that, is debugging, which is something that felt impossible at first. Finding those mistakes, even over the smallest ones, was one of the bigger issues, identifying mistakes is something that comes with practice, comes with writing code without constantly checking examples, or from reorganizing my scripts in a cleaner and more efficient way. Or experimenting with something that might make the code run smoother or look cleaner, (using the lerp() to make the sprite snap back to the mouseX at a specific speed instead of teleport directly to it), and committing to using it despite is being difficult at first.

This course has given me the confidence to explore and experiment and not give up when things break. Defined by the joy of seeing my ideas come to life, even if the code behind them is messy or definitely still in progress. Most importantly, it's the realization that there's always more to learn—but for the first time, that feels more exciting rather than just overwhelming. Perhaps the most important shift is the change in mindset: coding stopped being so structured and is such a creative outlet. Instead of fearing errors, instead of being intimidated by complex systems, instead of doubting my ability to learn, I look forward to exploring new concepts—whether that's arrays, object-oriented programming, animations, or eventually, JSON. As a design major, it made me consider what programming I learnt in other projects, where I am designing something digital and wish to create an interactive element to my illustration, or I can create my own website with complete control on structure and layout of the site. Though I feel I still have a long way before getting to that point confidently, the basics of coding are enough of a push to something that felt extremely daunting before this semester. Coding felt so impossibly intimidating to start, and truly only took the class because a friend in the Computer Science department recommended that I take it, but it has been such an inspiration for what I can achieve, and a motivation to not be so anxious that I refuse to escape my comfort zone.