OK, time to put our recent learnings to practice. With computer programming, no amount of reading, watching, and guidance compares to striking out on your own.

Background Reading/Viewing
Continue to use Khan Academy’s Introduction to JavaScript: Drawing & Animation for reference:
https://www.khanacademy.org/computing/computer-programming/programming

Other general JavaScript resources abound on the web, although those will only pertain to JavaScript as a language and not the specific features available in the Khan Academy environment. Still, they will have their uses.

What to Do: “Faces and Places”
Write a program that renders an animated artwork whose title could well be “Self-Portrait in Front of an LMU Building:”

1. Self-portrait—Convincing likeness not required
Have part of the program generate a portrait of yourself. The final picture can be cartoony but should still be recognizable a face; please nothing too abstract (nor emoji-like)

2. LMU building—As a backdrop for your self-portrait, render an LMU building of your choice. Aside from proportions or shape, prioritize the building’s signature details over just plain detail—the elements that make the building recognizable as that building

3. Animation and interaction—Provide at least one animated element and one interactive element in your picture: i.e., make sure that something changes over time even if the user does nothing (animation) and allow a mouse or keyboard action make something happen (interaction)

Take as much advantage as possible of variables, functions, conditions, and loops to make your code as efficient and flexible as possible. Avoid “brute force” (i.e., long sequences of highly repetitive statements, using tons of hardcoded numbers that are used over and over). Choose functions and parameters that give you a good balance between flexibility and complexity.

Make sure your code runs as-is when copy-pasted into the Khan Academy computer programming environment:
https://www.khanacademy.org/computer-programming/new/pjs

What to Submit
Work on your program within the Khan Academy environment and, when done, do a select-all + copy-paste of the code into Brightspace. The Brightspace assignment is configured for multiple plain text submissions; you may take advantage of that to save evolving versions of your program (use a comment at the top to label them). Unless otherwise indicated, I will assume that the latest submission is the one to be graded.

In terms of points, provide a program that fulfills the given specifications and you should be generally good. The following are the most likely reasons for deductions:

- **Brute force**—Code that very clearly would have been done better with variables, functions, conditions, or loops
- **Incorrect indentation**—Code that incorrectly reflects its structure (e.g., unindented lines that actually belong “inside” a function, conditional statement, or loop, etc.)
- **Cryptic names**—“Code” here doesn’t mean “cryptography;” make sure that other human beings can easily read what values your variables and parameters are supposed to hold and what tasks your functions fulfill

You may show your code to classmates (particularly to see if your names and indentation make the program easy to understand) but the code you submit must, of course, be yours and yours alone.