

Side Quest 4 - Process & Decision Documentation

Name: Amy Truong

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Tool disclosure: CHATGPT 5.2

Purpose of use: Debugging and workflow help

Summary of Process:

I started with the provided p5.js template that loads level data from a JSON file. At the beginning of the assignment, I was confused about what the prompt was asking, especially what it meant to generate a level using arrays or JSON data. I used ChatGPT to help break down the instructions and explain in simpler terms. Once I understood, I edited the levels.json file by changing the tile values to make new tile types, then I edited the drawing code so it loops through the level data and draws the tiles based on their values. I used ChatGPT mainly to help clear up confusion around the setup and data structure, but the design and implementation decisions were made by me.

Decision Points & Trade-offs:

One main decision was how to add new obstacles and word tiles into the level. Instead of adding new rows or hardcoding positions, I decided to just change existing values in the JSON grid.

Verification & Judgement:

I checked my work by running the sketch multiple times and confirming that changes in levels.json showed up. I tested switching between levels to make sure the data was loading properly.

Limitations, Dead Ends:

At first, I was unsure whether I needed to add new lines or just edit existing values in the JSON file, which caused confusion. After testing and iterating, I realized that only existing values needed to be changed.

Appendix:

Prompt:

"Here are the files for my project with the prompt: Generate a level using arrays or JSON data; use loops to dynamically place tiles, obstacles, or words. Help me to understand, am i adding a new line or changing an existing one?"

Response:

That's a **really good question**, and the confusion makes total sense.

What your task is

You already have **TWO levels**.

Each level is a **grid made of numbers**.

Right now:

- **1** = wall
- **0** = floor
- **2** = start
- **3** = goal

👉 Your task is NOT to add new rows.

👉 Your task is to change some existing **0s** into new numbers.

Short answer

👉 You are changing existing numbers.

You are NOT adding random new lines in the middle.

You only add a *new block* if you want a second level.

Prompt:

"what does the prompt of "Generate a level using arrays or JSON data; use loops to dynamically place tiles, obstacles, or words." mean in simpler terms"

Response:

What this prompt is asking you to do (plain English)

"Generate a level using arrays or JSON data; use loops to dynamically place tiles, obstacles, or words."

This prompt wants you to **build a level (like a map or layout)** where:

1. The layout is **stored as data** (arrays or JSON), and
 2. The level is **drawn automatically using loops**, not manually.
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Step 1: Store the level as data

You should represent your level as:

- a **2D array**, or
- a **JSON file** containing a 2D array

Each value in the array represents **one tile**.

Example idea (not required format):

- **0** = empty space
- **1** = wall
- **2** = obstacle
- **3** = word tile

The key point is:

The level exists as data before anything is drawn.

Step 2: Use loops to read the data

You must use:

- a loop for rows

- a loop for columns

These loops go through **every value in the array**.

This shows that the layout is being **generated dynamically**, not placed by hand.

Step 3: Draw based on the data

Inside the loops, your code should:

- check the value in the array
- decide what to draw based on that value
- place it at the correct position on the canvas

This could mean:

- drawing tiles
- drawing obstacles
- drawing words or letters

The important part:

The same drawing code works for any level layout, as long as the data changes.

Step 4: Show variation

The prompt expects **at least some variety**, such as:

- different tile types
- obstacles mixed into the level
- text or word tiles placed via data

It does **not** require:

- a playable game
 - collision detection
 - movement
 - advanced mechanics
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One-sentence summary

The prompt asks you to store a level as array or JSON data and use loops to read that data and automatically place tiles, obstacles, or words on the screen.