Web Design - Day 1 Activity: HTML, CSS, and JavaScript Review

Introduction:

Welcome to your first day of review! Today, we'll be working with HTML, CSS, and JavaScript to refresh your skills and ensure you're comfortable linking external files, adding common elements, and applying styles.

Key Concepts Covered:

1. **VS Code Basics**:
   - Creating new files (HTML, CSS, JavaScript).
   - Using the **Command Palette** to launch Live Server and preview your website in the browser.
2. **Linking Files**:
   - **CSS**: Using the `<link>` tag to link an external CSS file.
   - **JavaScript**: Using the `<script>` tag to link an external JavaScript file.
3. **Inspecting Elements**:
   - Right-click on a webpage and choose "Inspect" to see HTML and CSS in real-time.
   - Use this tool to find styles and troubleshoot your webpage.
4. **Writing Comments**:
   - **HTML**: `<!-- This is an HTML comment -->`
   - **CSS**: `/* This is a CSS comment */`
   - **JavaScript**: `// This is a JavaScript comment`

Tasks:

Task 1: Linking CSS and JavaScript

- **Goal**: Ensure that both your CSS and JavaScript files are properly linked to your HTML file.

Instructions:

1. Open your `index.html` file and ensure you link your `styles.css` and `script.js` files.
   - Link the **CSS** file in the `<head>` using the `<link>` tag.
   - Link the **JavaScript** file just before the closing `</body>` tag using the `<script>` tag.
2. Verify that your links are working by:
   - **For CSS**: Change the background color of your webpage to light gray (`#f0f0f0`).

    - **For JavaScript**: For now, simply ensure the `script.js` file is linked, but leave any JavaScript coding for later tasks.

What You Should See:

- The background color of your webpage should change, confirming the CSS is linked correctly.
- The JavaScript file is linked but you will write the code for it later.

Task 2: Adding HTML Elements and Styling with CSS

- **Goal**: Add new HTML elements and apply specific styles to them using your linked CSS file.

Instructions:

1. In your HTML file, add the following elements:
    - **Paragraphs**: Add two more paragraphs below the existing one.
    - **Lists**: Create an unordered list (`<ul>`) with at least three items and an ordered list (`<ol>`) with at least three items.
    - **Images**: Add an image using the `<img>` tag (use either an online image URL or a local file).
    - **Tables**: Create a simple table with two rows and two columns.
2. Style these elements in `styles.css`:
    - **Paragraphs**: Set the font size to `16px`, the line height to `1.6`, and the text color to `#444`.
    - **Lists**: For the unordered list, use square bullets. For the ordered list, use Roman numerals.
    - **Images**: Ensure that images have a maximum width of `100%` and the height adjusts automatically (`height: auto;`).
    - **Tables**: Apply borders to both the table and the table cells, and give the table header a different background color.

What You Should See:

- A webpage with paragraphs, lists, images, and a table, all styled according to your CSS rules.

Task 3: Inspecting and Debugging HTML/CSS with Developer Tools

- **Goal**: Use the browser's **Inspect Element** tool to identify HTML elements and troubleshoot CSS styling issues.

Instructions:

1. Right-click anywhere on your webpage and select "Inspect" to open the Developer Tools.
2. Use the "Elements" tab to view the HTML structure and ensure your elements are correctly placed.
3. Check the "Styles" tab to ensure your CSS styles (font sizes, colors, borders, etc.) are applied correctly.

What You Should Check:

- The Developer Tools should reflect the HTML structure and CSS styles you've written.
- Ensure that your CSS is being applied to the correct elements (e.g., check paragraph font sizes, list styles, table borders).

Task 4: Adding Basic JavaScript Interaction (Final Task)

- **Goal**: Add interactivity to your webpage using JavaScript.

Instructions:

1. In your HTML file, add a button below your paragraphs:
   html
   Copy code
   ```
   <button>Change Text</button>
   ```

2. In your `script.js` file, write a JavaScript function that changes the content of the first paragraph when the button is clicked:
   javascript
   Copy code
   ```
   document.querySelector('button').addEventListener('click', function() {

       document.querySelector('p').innerHTML = 'The text has been changed!';

   });
   ```

What You Should See:

- When you click the button, the text in the first paragraph should change to "The text has been changed!"

Extra Challenge

1. Add a navigation bar with links to different sections of your page, when you click it the site will scroll to an element on the current page
    a. Check this out to help

```
<a id="jupiter" class="nav-link" href="#testlink">Jupiter Ed</a>
```

```
<h1 id="testlink">heading 1</h1>
```

2. Write another JavaScript function that hides or shows the table when a second button is clicked.

Instructions for Submitting Your Work:

- Complete each task and ensure your webpage works as expected.
- Save your work in a folder named “webdev-review-*yourname*”