**Experiment 4 Documentation:**

**Experiment Title: Enhanced CSS Properties in HTML**

**1. Problem Statement**

**To demonstrate the use of advanced CSS properties for styling HTML elements, showcasing various effects such as transitions, shadows, and hover states to enhance user interaction and visual appeal.**

**2. Steps and Explanation**

1. **HTML Document Declaration: Start with <!DOCTYPE html> to define the document type, ensuring compatibility with HTML5.**
2. **HTML Structure:**
   * **The <html> tag encloses the entire document, with the lang attribute set to "en" for English.**
   * **The <head> section includes metadata:**
     + **The <meta> tags set the character encoding to UTF-8 and make the webpage responsive for different device viewports.**
     + **The <title> tag defines the title of the webpage, displayed in the browser tab.**
3. **Embedded CSS:**
   * **The <style> section contains CSS rules that apply to various HTML elements:**
     + **General Body Styling: Sets the font, background color, text color, and margins for the body.**
     + **Headings Styling: Styles <h1> and <h2> elements with color, text alignment, and shadow effects.**
     + **Text Styling: Sets font size and line height for paragraphs, with hover effects to change text color.**
     + **Links Styling: Styles links with colors and hover effects to enhance interaction.**
     + **Container Styling: Creates a visually appealing container with background color, padding, shadow, and transition effects on hover.**
     + **Lists Styling: Styles unordered lists with padding, margins, background colors, and hover effects.**
     + **Button Styling: Defines the appearance of a button with hover effects, color changes, and transitions for better user experience.**
     + **Image Styling: Ensures images are responsive with rounded corners and shadow effects, including hover scaling for interaction feedback.**
4. **Content Structure:**
   * **The <body> section contains a .container div that encapsulates:**
     + **A main heading (<h1>).**
     + **An introductory paragraph (<p>) highlighting the page's purpose.**
     + **A secondary heading (<h2>) introducing CSS properties being demonstrated.**
     + **An unordered list (<ul>) detailing various CSS features utilized in the page.**
     + **An image (<img>) styled with the image class, demonstrating enhanced styling effects.**
     + **A concluding paragraph with a link to MDN Web Docs for further learning.**
     + **A button (<button>) styled with the btn class for interaction.**

**3. Expected Output**

**Upon rendering the HTML document in a web browser, the following output will be displayed:**

* **A welcoming heading:**
  + ***Welcome to My Enhanced Web Page***
* **An introductory paragraph outlining the use of CSS properties for styling.**
* **A subheading detailing the CSS properties demonstrated.**
* **A list of CSS properties utilized in the page design:**
  + **Text Styling**
  + **Background Colors**
  + **Borders**
  + **Box Shadow**
  + **Hover Effects**
  + **Image Effects**
* **An example image styled with CSS, responsive and visually appealing.**
* **A link directing to MDN Web Docs for further exploration of web development.**
* **A styled button that changes color and scales slightly upon hover.**

