**Differences Between Inline, Internal, and External CSS**

**1. Inline CSS**

* **Definition**: CSS applied directly within an HTML element using the style attribute.
* **Advantages**:
  + Easy to apply for small changes.
  + Useful for quick fixes or applying styles to a single element.
* **Disadvantages**:
  + Not reusable; must be repeated for each element.
  + Makes the HTML code harder to read and maintain.
  + Not recommended for large-scale websites or projects.

**2. Internal CSS**

* **Definition**: CSS rules defined inside a <style> tag within the <head> section of the HTML document.
* **Advantages**:
  + Keeps styles contained within the same file, making it easier to debug.
  + Useful for applying styles to a single page.
* **Disadvantages**:
  + Not reusable across multiple pages.
  + Can increase the size of the HTML file.

**3. External CSS**

* **Definition**: CSS rules written in a separate file (with a .css extension) and linked to the HTML document.
* **Advantages**:
  + Allows for reusability of CSS across multiple HTML pages.
  + Keeps the HTML file clean and makes it easier to maintain.
  + Improves website performance by allowing the browser to cache the CSS file.
* **Disadvantages**:
  + Requires an additional HTTP request to fetch the CSS file, potentially slowing down the page load (although caching can mitigate this).

**Example HTML Page Demonstrating All Three Methods**

html

Copy code

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>CSS Demonstration</title>

<!-- Internal CSS -->

<style>

body {

font-family: Arial, sans-serif;

background-color: #f4f4f4;

padding: 20px;

}

h1 {

color: darkblue;

text-align: center;

}

.internal-css {

color: green;

font-size: 20px;

margin-top: 20px;

}

</style>

<!-- External CSS -->

<link rel="stylesheet" href="styles.css">

</head>

<body>

<h1>CSS Example: Inline, Internal, and External CSS</h1>

<!-- Inline CSS Example -->

<p style="color: red; font-size: 18px;">This paragraph uses <strong>inline CSS</strong> to set the text color to red and the font size to 18px.</p>

<!-- Internal CSS Example -->

<p class="internal-css">This paragraph uses <strong>internal CSS</strong> defined in the &lt;style&gt; tag to set the text color to green and the font size to 20px.</p>

<!-- External CSS Example -->

<p class="external-css">This paragraph uses <strong>external CSS</strong> linked from an external stylesheet (styles.css) to set the styles.</p>

</body>

</html>

**External CSS (styles.css)**

css

Copy code

/\* External CSS \*/

.external-css {

color: blue;

font-size: 22px;

margin-top: 20px;

}

**Explanation of the HTML Page:**

* **Inline CSS**: Applied directly to the first <p> element using the style attribute.
* **Internal CSS**: Applied to the second <p> element through a class .internal-css defined in the <style> tag within the <head>.
* **External CSS**: Applied to the third <p> element through a class .external-css linked from an external stylesheet (styles.css).