

## Introduction to CSS

CSS (Cascading Style Sheets) is a stylesheet language used to style a document written in a markup language. It is most commonly used to style web pages written in HTML and XHTML. We can also apply style to any kind of XML document, including SVG and XUL. CSS allows you to control the layout and appearance of a document, including things like colors, fonts, and spacing, as well as more advanced features like animations and responsive design. With CSS, you can separate the presentation of a document from its structure, making it easier to maintain and modify the design of a website.

## Different Types of Styling

- External Styling
- Internal Styling
- Inline Styling

### External Styling

External styling refers to the practice of defining CSS styles in a separate file, and then linking to that file from the HTML or XHTML document. This allows you to reuse the same styles across multiple documents, and also makes it easier to maintain and update the styles of a website.

Here's an example of how to link an external CSS file to an HTML document:

```
<head>  
  <link rel="stylesheet" type="text/css" href="styles.css">  
</head>
```

In this example, the link element in the head of the HTML document is used to link to an external CSS file called "styles.css". The href attribute gives us the location of the CSS file, and the rel attribute specifies that the file is a stylesheet.

The external stylesheet file should contain CSS rules and styles, and should have a .css file extension.

```
p {  
  color: blue;  
  font-size: 14px;  
}
```

## Internal Styling

Internal styling refers to the practice of defining CSS styles in the head of an HTML or XHTML document, using the "style" element. The styles defined within the style element apply to the entire document.

Here's an example of internal styling in an HTML document:

```
<head>
  <style>
    p {
      color: blue;
      font-size: 14px;
    }
  </style>
</head>
<body>
  <p>This is a blue paragraph</p>
  <p>This is another blue paragraph</p>
</body>
```

In this example, all paragraphs within the document will be displayed with a blue color and a font size of 14 pixels, because of the styles defined in the internal stylesheet.

Internal styling is useful when you want to style a single document or a small group of related documents. It allows you to keep the CSS and HTML together in the same file, which can make it easier to understand and maintain the code. However, if you want to style multiple pages with the same styles, it can be more efficient to use an external stylesheet, which can be reused across many documents.

Also, similar to inline styles, internal styles will overwrite any external stylesheet, and any internal styles that are defined later in the document.

## Internal Styling using Classes

Internal styling can also be done by using classes, which allows you to apply styles to specific elements within a document, rather than applying the styles to all elements of a particular type.

Here's an example of internal styling using a class in an HTML document:

```
<head>
  <style>
    .highlight {
      background-color: yellow;
    }
  </style>
</head>
<body>
  <p>This is a paragraph.</p>
  <p class="highlight">This is a highlighted paragraph.</p>
  <p>This is another paragraph.</p>
</body>
```

In this example, only the second paragraph in the body has the class "highlight" and it will have yellow background.

By using classes for styling, we apply the same styles to multiple elements throughout the document, and you can also change the styles of a single element without affecting the styles of other elements.

## Inline Styling

Inline styling refers to the practice of applying CSS styles directly to individual elements in an HTML or XML document, using the "style" attribute. The value of the style attribute is a string containing one or more CSS properties and their values, separated by semicolons.

Here's an example of inline styling in an HTML document:

```
<p style="color: blue; font-size: 14px;">This is a blue paragraph</p>
```

In this example, the color of the text within the paragraph is set to blue and the font size is set to 14 pixels.

Inline styling is useful for making small, one-off changes to the presentation of a document, but it is generally considered to be less maintainable and scalable than using separate CSS stylesheets. This is because if you need to make the same change on multiple elements it could require editing each element, whereas with a stylesheet you could target many elements with the same class and make the change once.

It's also important to note that inline styling is used to overwrite any styles that have been previously defined at the external or internal stylesheet, this means that if you have a style defined in a stylesheet and use inline style on an element that has that class the inline styles take precedence.