

Experiment-03

Develop an external style sheet named as “style.css” and provide different styles for h2, h3, hr, p, div, span,

time, img & a tags. Apply different CSS selectors for tags and demonstrate the significance of each.

Program:

Style.html

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
    <meta charset="UTF-8">
```

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

```
    <title>Sample Styled Page (No Div)</title>
```

```
    <link rel="stylesheet" href="style.css">
```

```
</head>
```

```
<body>
```

```
    <main id="main-content">
```

```
        <h2>Welcome to Our Styled Page</h2>
```

<p>This is a paragraph right after an h2. It demonstrates the adjacent sibling selector.</p>

<h3>Hover over me!</h3>

<hr>

<p lang="en">This paragraph has a lang attribute, demonstrating the attribute selector.</p>

<p>Here's a highlighted word using the class selector.</p>

<section>

<p>This paragraph is inside a section, showing the descendant selector.</p>

This span is a direct child of the section.

</section>

<p>The current date and time: <time datetime="2023-08-31">August 31, 2023</time></p>

<p>Notice how the first letter of each paragraph is styled differently.</p>

<article class="special">

<p>This paragraph is inside an article with class="special".</p>

</article>

<p>Check out this link to see
different link states.</p>

</main>

</body>

</html>

Style.css

/* Element Selector */

h2 {

color: #2c3e50;

font-family: 'Arial', sans-serif;

border-bottom: 2px solid #3498db;

padding-bottom: 10px;

}

/* Element Selector with Pseudo-class */

h3:hover {

color: #e74c3c;

cursor: pointer;

transition: color 0.3s ease;

}

/* Element Selector */

hr {

border: 0;

height: 1px;

background-image: linear-gradient(to right, rgba(0, 0, 0, 0), rgba(0, 0, 0, 0.75), rgba(0, 0, 0, 0));

}

/* Element Selector with Attribute */

p[lang] {

font-style: italic;

}

/* Class Selector */

.highlight {

background-color: #f1c40f;

padding: 5px;

}

/* ID Selector */

```
#main-content {  
  
    max-width: 800px;  
  
    margin: 0 auto;  
  
    padding: 20px;  
  
    background-color: #ecf0f1;  
  
}
```

/* Descendant Selector */

```
div p {  
  
    line-height: 1.6;  
  
    margin-bottom: 15px;  
  
}
```

/* Child Selector */

```
div > span {  
  
    font-weight: bold;  
  
    color: #16a085;  
  
}
```

/* Adjacent Sibling Selector */

```
h2 + p {  
    font-size: 1.1em;  
    color: #7f8c8d;  
}
```

/* Attribute Selector */

```
time[datetime] {  
    color: #8e44ad;  
    font-weight: bold;  
}
```

/* Pseudo-element Selector */

```
p::first-letter {  
    font-size: 1.5em;  
    font-weight: bold;  
    color: #c0392b;
```

}

/* Multiple Selectors */

img, a {

border: 1px solid #bdc3c7;

padding: 5px;

}

/* Pseudo-class Selector for Links */

a:link, a:visited {

color: #3498db;

text-decoration: none;

}

a:hover, a:active {

color: #e74c3c;

text-decoration: underline;

}

/* Attribute Selector for Images */

img[alt] {


```
max-width: 100%;  
  
height: auto;  
  
}  
  
/* Combining Selectors */  
  
div.special p {  
  
    text-indent: 20px;  
  
    color: #27ae60;  
  
}
```

Explanation

Step 1: HTML Structure

The document starts with the standard HTML5 declaration and basic structure.

The <head> section includes metadata, title, and a link to an external CSS file (style.css).

The <body> contains a <main> element with the id "main-content", which holds all the visible content.

Step 2: Main Content Structure

The main content includes various HTML elements like h2, h3, p, hr, section, article, img, and a.

These elements demonstrate different CSS selectors and properties.

Step 3: CSS Styling (from style.css)

Element Selectors:

h2: Styled with color, font-family, border-bottom, and padding.

h3: Has a hover effect changing color with a transition.

hr: Styled as a gradient line.

Attribute Selectors:

p[lang]: Applies italic style to paragraphs with a lang attribute.

time[datetime]: Styles time elements with a datetime attribute.

img[alt]: Ensures responsive sizing for images with alt text.

Class Selector:

.highlight: Applies background color and padding.

ID Selector:

#main-content: Sets max-width, margin, padding, and background color.

Descendant Selector:

div p: Styles paragraphs inside divs (note: no divs in this HTML, so this won't apply).

Child Selector:

div > span: Styles spans that are direct children of divs (also won't apply here).

Adjacent Sibling Selector:

h2 + p: Styles paragraphs immediately following h2 elements.

Pseudo-element Selector:

p::first-letter: Styles the first letter of each paragraph.

Multiple Selectors:

img, a: Applies border and padding to both images and links.

Pseudo-class Selectors for Links:

a:link, a:visited, a:hover, a:active: Different styles for various link states.

Combining Selectors:

div.special p: Would style paragraphs in divs with class "special" (not applicable here).

Step 4: Specific Content and Styling Examples

The h2 and following p demonstrate the adjacent sibling selector.

The h3 has a hover effect.

A paragraph with lang="en" shows the attribute selector in action.

The "highlight" class is applied to a span within a paragraph.

A section with a paragraph and span demonstrates descendant and child selectors (though the CSS for div won't apply).

The <time> element shows the datetime attribute selector.

An article with class="special" is included, but the CSS for div.special won't apply.

An image and a link are included to demonstrate various selectors and responsive design.