

CSS Syntax and Selectors

To apply styles to HTML elements, you need to understand the basic **syntax of CSS** and how to **select elements** on the page.

CSS Syntax

Every CSS rule consists of a **selector** and a **declaration block**.

```
selector {  
  property: value;  
}
```

Example:

```
h1 {  
  color: navy;  
  font-size: 32px;  
}
```

- `h1` is the **selector**
 - `color` and `font-size` are **properties**
 - `navy` and `32px` are the **values**
 - The curly braces `{ }` contain the **declaration block**
 - Each declaration ends with a semicolon `;`
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Types of Selectors

1. Element Selector

Selects all elements of a specific type.

```
p {  
  color: gray;  
}
```

This targets all `<p>` elements.

2. Class Selector

Selects elements with a specific class.

HTML:

```
<p class="highlight">This is important.</p>
```

CSS:

```
.highlight {  
  background-color: yellow;  
}
```

Use a period `.` before the class name.

3. ID Selector

Selects a single element with a unique ID.

HTML:

```
<h1 id="main-heading">Welcome</h1>
```

CSS:

```
#main-heading {  
  font-family: Arial, sans-serif;  
}
```

Use a hash # before the ID name.

4. Universal Selector

Applies styles to all elements on the page.

```
* {  
  margin: 0;  
  padding: 0;  
}
```

This is commonly used for resetting default styles.

5. Grouping Selectors

Apply the same styles to multiple selectors at once.

```
h1, h2, h3 {  
  color: darkblue;  
}
```

This avoids repetition.

6. Descendant Selector

Targets elements nested inside other elements.

HTML:

```
<div>
  <p>This is a paragraph inside a div.</p>
</div>
```

CSS:

```
div p {
  font-style: italic;
}
```

Only `<p>` tags inside `<div>` will be affected.

7. Combining Class and Element Selectors

You can be more specific by combining them.

```
p.note {
  color: teal;
}
```

This targets only `<p>` elements with the class `note`.

Summary

- CSS selectors help you choose **which** HTML elements to style.
- Use `.` for classes, `#` for IDs, and tag names for element selectors.
- Combine and group selectors for powerful control.