Frontend Development CSS Selector

A CSS selector is a pattern used to select and apply styles to specific HTML elements. There are various types of CSS selectors, each designed to target elements in different ways. Below are some common types of selectors:

1. Universal Selector (*)

Selects all elements on the page.

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

2. Element Selector

Targets all instances of a specific HTML element.

```
p {
  font-size: 16px;
}
```

3. Class Selector (.)

Selects elements with a specific class attribute.

```
.button {
  background-color: blue;
}
```

4. ID Selector (#)

Selects a single element with a specific ID.

```
#header {
  height: 100px;
}
```

5. Attribute Selector

Selects elements that have a specific attribute.

```
input[type="text"] {
  border: 1px solid gray;
}
```

6. Descendant Selector

Selects elements that are inside a specific element.

```
ul li {
  list-style-type: none;
}
```

7. Child Selector (>)

Selects elements that are direct children of a specified element.

```
div > p {
  color: red;
}
```

8. Adjacent Sibling Selector (+)

Selects the first sibling that immediately follows the specified element.

```
h1 + p {
  font-style: italic;
}
```

9. General Sibling Selector (~)

Selects all siblings of a specified element.

```
h2 ~ p {
  color: green;
}
```

10. Pseudo-Class Selector

Targets elements based on their state.

```
a:hover {
  color: red;
}
```

11. Pseudo-Element Selector

Targets parts of an element.

```
p::first-line {
  font-weight: bold;
}
```

12. Group Selector (,)

Selects multiple elements and applies the same styles to them.

```
h1, h2, h3 {
  margin-bottom: 10px;
}
```

You can also combine selectors for more complex targeting, e.g., selecting a class inside a specific element:

```
div.content .button {
  background-color: green;
}
```