

CSS Combinators Selectors

- A combinator is something that explains the relationship between the selectors.
- A CSS selector can contain more than one simple selector. Between the simple selectors, we can include a combinator.
- There are four different combinator selectors in CSS:
 1. Descendant selector (space)
 2. Child selector (>)
 3. Adjacent sibling selector (+)
 4. General sibling selector (~)

1. Descendant Selector:

- The descendant selector matches all elements that are descendants of a specified element.
- The following example selects all <p> elements inside <div> elements:

Syntax: `div p { background-color: yellow; }`

2. Child Selector using > symbol:

- The child selector will select all elements that are the direct children of a specified element.
- The following example selects all <p> elements that are direct children of a <div> element:

Syntax: `div > p { background-color: yellow; }`

3. Adjacent Sibling Selector by using + symbol:

- The adjacent sibling selector is used to select an element that is directly after another specific element.
- Sibling elements must have the same parent element, and "adjacent" means "immediately following".
- The following example selects the first <p> element that are placed immediately after <div> elements:

Syntax: `div + p { background-color: yellow; }`

4. General Sibling Selector by using ~ symbol:

- The general sibling selector selects all elements that are next siblings of a specified element.
- The following example selects all <p> elements that are next siblings of <div> elements:

Syntax: `div ~ p { background-color: yellow; }`

For example:

```
<!DOCTYPE html>
<html>
  <head>
    <style>
      body *{
        padding : 10px;
        border : 10px solid red;
      }
      div p {
        background-color: yellow;
        border : 10px solid blue;
      }
    </style>
  </head>
  <body>
```

<p>The descendant selector matches all elements that are descendants of a specified element.</p>

```
<div>
  <p>Paragraph 1 in the div.</p>
  <p>Paragraph 2 in the div.</p>
  <section><p>Paragraph 3 in the div.</p></section>
</div>

<p>Paragraph 4. Not in a div.</p>
<p>Paragraph 5. Not in a div.</p>
</body>
</html>
```

CSS element1 ~ element2 Selector

- Set a background color for all elements that are preceded by a <p> element with the same parent.
- **Syntax:** p ~ ul { background: #ff0000; }

For example:

```
<!DOCTYPE html>
<html>
  <head>
    <style>
      p ~ ul { background: #ff0000; }
    </style>
  </head>
  <body>
    <div>A div element.</div>
    <ul>
      <li>Coffee</li>
      <li>Tea</li>
      <li>Milk</li>
    </ul>
    <p>The first paragraph.</p>
    <ul>
      <li>Coffee</li>
      <li>Tea</li>
      <li>Milk</li>
    </ul>
    <h2>Another list</h2>
    <ul>
      <li>Coffee</li>
      <li>Tea</li>
      <li>Milk</li>
    </ul>
  </body>
</html>
```