05

SELECTORS

WHAT YOU WILL LEARN

> ➢ Simple selectors
> ➢ Combinator selectors
> ➢ Pseudo-class selectors
> ➢ Pseudo-elements selectors
> ➢ Attribute selectors

Simple Selector

- **Element Selector -** The element selector selects HTML elements based on the element name.

Example: all <p> elements on the page will be center-aligned, with a red text color

```
p {
  text-align: center;
  color: red;
}
```

- id Selector -   The id of an element is unique within a page, so the id selector is used to select one unique element!
  To select an element with a specific id, write a hash (#) character, followed by the id of the element.
  Example :

```
#para1 {
  text-align: center;
  color: red;
}
```

- class Selector - To select elements with a specific class, write a period (.) character, followed by the class name.

  Example –

  ```css
  .center {
    text-align: center;
    color: red;
  }
  ```

- Universal Selector - The universal selector (*) selects all HTML elements on the page.

  Example -
  ```css
  * {
    text-align: center;
    color: blue;
  }
  ```

- Grouping Selector - The grouping selector selects all the HTML elements with the same style definitions.
  Example -
  ```css
  h1, h2, p {
    text-align: center;
    color: red;
  }
  ```
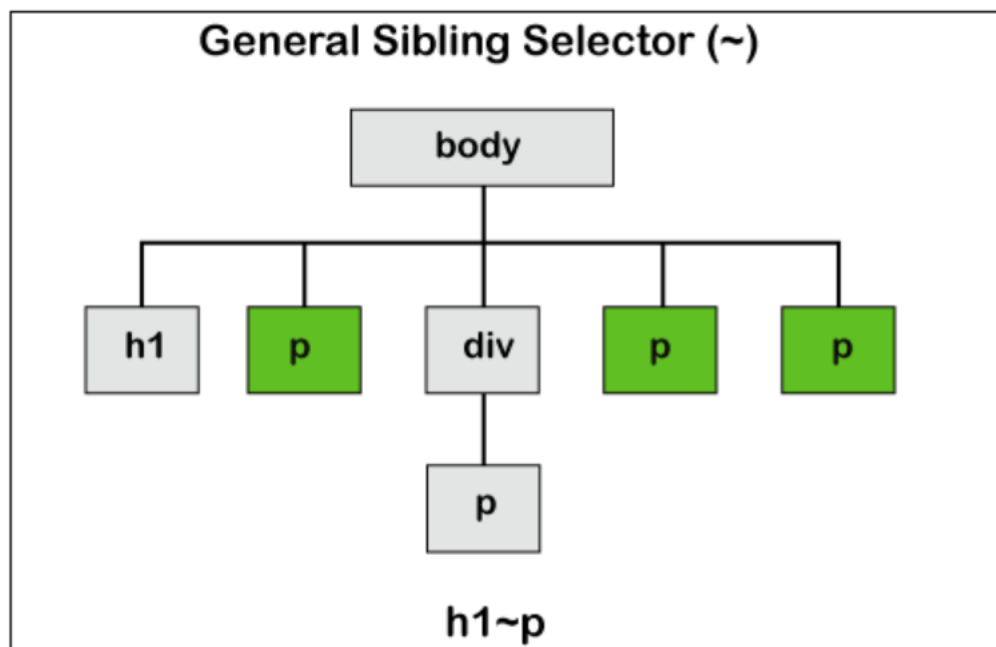
Combinator Selector

- General sibling selector (~)

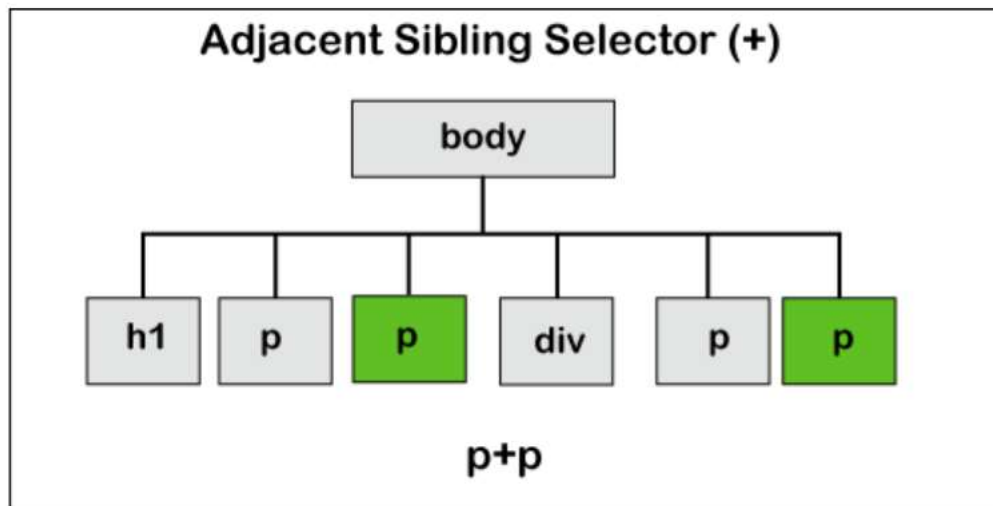 It uses the tlide (~) sign as the separator between the elements.

  It selects the elements that follow the elements of first selector, and both are the children of the same parent. It can be used for selecting the group of elements that share the common parent element.

  The figure given below helps us to understand the General sibling selector (~).

- Adjacent sibling selector (+)
  It uses the plus (+) sign as the separator between the elements. It matches the second element only when the element immediately follows the first element, and both of them are the children of the same parent.
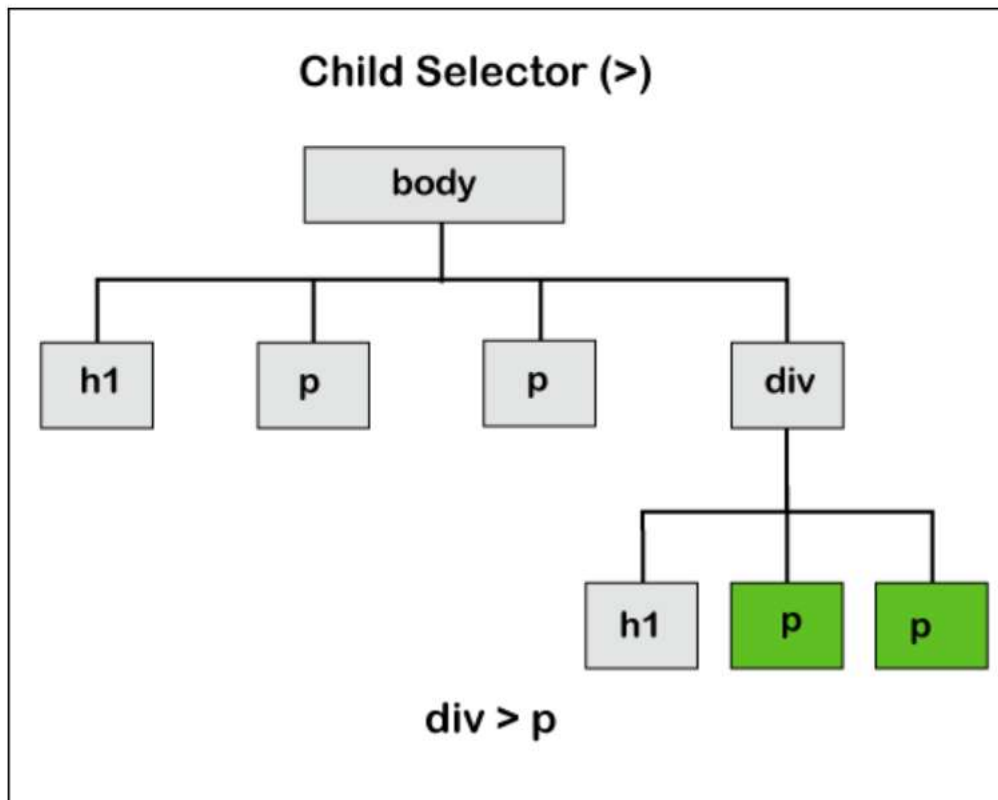
The figure given below helps us to understand the Adjacent sibling selector (+).

Adjacent Sibling Selector (+)

body

h1 p p div p p

p+p

- Child Selector (>)

It uses the greater than **(>)** sign as the separator between the elements. It selects the direct descendant of the parent. This combinator only matches the elements that are the immediate child in the document tree.
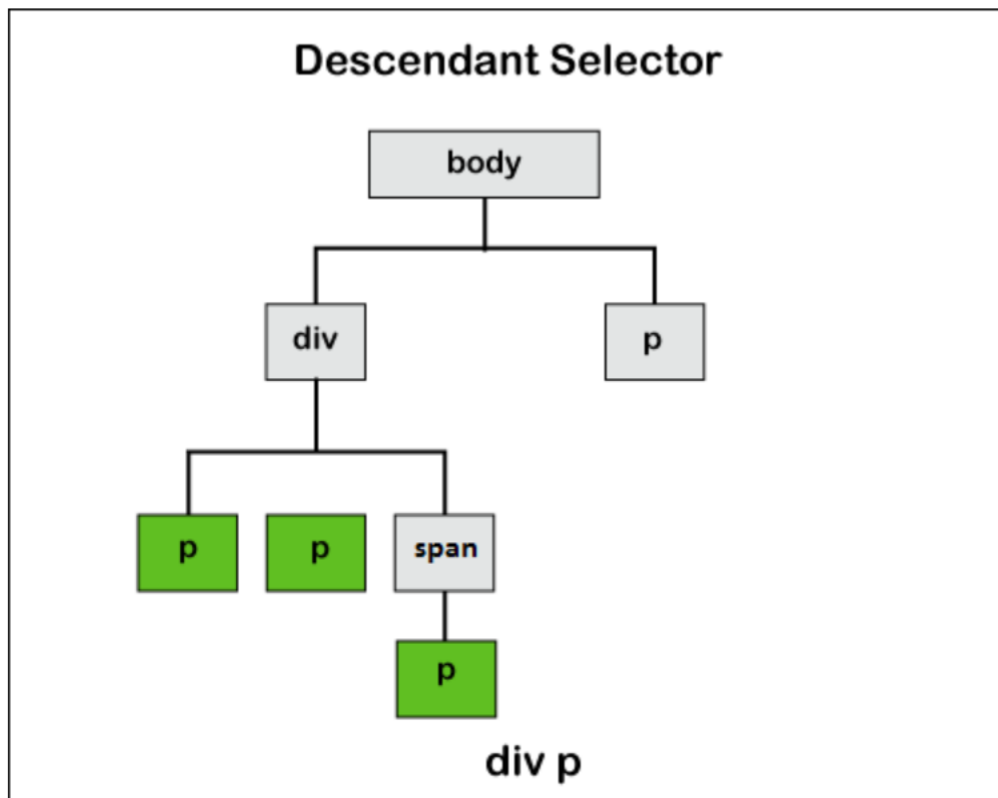
The figure given below helps us to understand the child selector (>).

Child Selector (>)

```
                    body
      ┌──────────┬──────┴──────┬──────────┐
     h1          p             p         div
                                     ┌────┼────┐
                                    h1    p    p

                    div > p
```

- Descendant Selector (space)

  It uses the space as the separator between the elements. The CSS descendant selector is used to match the descendant elements of a particular element and represent it using a single space.

  The figure given below helps us to understand the descendant selector.

  ## Descendant Selector

  ```
                          body

                   div              p

              p       p    span

                           p

                     div p
  ```

Pseudo-class selectors

Pseudo-class: A pseudo-class is used to define a special state of an element.

For example, it can be used to:

- Style an element when a user mouses over it
- Style visited and unvisited links differently
- Style an element when it gets focus

- :Link - It adds style to the unvisited link.

  Example - a:link{color:green}

- :active - It applies when the elements are clicked or activated.

  Example - a: active{ color: red; }

- : visited - It selects the visited links and adds special styles to them. Its possible values can be any color name in a valid format.

  Example - a: visited{ color: red; }

- : hover - It adds special effects to an element when the user moves the mouse pointer over the element.

  Example – h1:hover {background-color:blue;}

➢ Pseudo-element selectors

All CSS Pseudo Elements

Selector	Example	Example description
::after	p::after	Insert something after the content of each <p> element
::before	p::before	Insert something before the content of each <p> element
::first-letter	p::first-letter	Selects the first letter of each <p> element
::first-line	p::first-line	Selects the first line of each <p> element

Attribute selectors

- It is possible to style HTML elements that have specific attributes or attribute values.

➢ [attribute] Selector - The [attribute] selector is used to select elements with a specified attribute.

    Example - `a[href]` {
      `background-color`: `yellow`;
    `}`

➢ `[attribute="value"]` Selector - The `[attribute="value"]` selector is used to select elements with a specified attribute and value.

    Example - `a[href="css/style"]` {
      `background-color`: `yellow`;
    `}`

➢ `[attribute~="value"]` Selector - The `[attribute~="value"]` selector is used to select elements with an attribute value containing a specified word.
- Example - `[href~="www"]` {
    `border`: `5px solid yellow`;
    `}`

➢ `[attribute|="value"]` Selector - The `[attribute|="value"]` selector is used to select elements with the specified attribute, whose value can be exactly the specified value, or the specified value followed by a hyphen (-).
- Example - `[class|="top"]` {
    `background`: `yellow`;
    `}`

➢ `[attribute^="value"]` Selector – The `[attribute^="value"]` selector is used to select elements with the specified attribute, whose value starts with the specified value.
- `[class^="top"]` {
    `background`: `yellow`;
    `}`