

CSS Selectors



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Overview



Introduction to CSS Selectors

IDs and Classes

Combinators

Pseudo-classes

Pseudo-elements

Introduction to CSS Selectors

- A selector is a pattern used to match elements in the HTML document.
- Once a selector matches an element, the styles defined for that selector are applied to that element.
- CSS selectors are used to target and style HTML elements on a web page.

Selector Types

type

classes and IDs combinators

pseudo-classes

IDs and Classes

- **ID Selector:** It is used to select an element based on its unique identifier attribute, which is defined in the HTML code using the id attribute.
- The ID selector is denoted by a hash (#) symbol followed by the ID name.

```
<div id="my-element">This is my element.</div>
```

```
#my-element { /* CSS styles here */ }
```

- **Class Selector:** It is used to select elements based on their class attribute. A class is a way to apply a specific style to a group of elements on a web page.
- The class attribute is defined in the HTML code using the class attribute, and multiple elements can have the same class.

```
<div class="my-class">This is my element.</div>
```

```
.my-class {  
  /* CSS styles here */  
}
```


combinators

Based on HTML relationships

Useful when you don't have direct control over markup

- Combinators are used to select elements based on their relationship to other elements on the web page.
- There are four types of combinators in CSS:

1.Descendant combinator: represented by a space between two selectors. **It selects all elements that are descendants of the first selector.** For example, **p span** selects all `` elements that are descendants of `<p>` elements.

2.Child combinator: represented by `>` between two selectors. **It selects all direct children of the first selector.** For example, **div > p** selects all `<p>` elements that are direct children of `<div>` elements.

3.Adjacent sibling combinator: represented by + between two selectors. **It selects the next sibling element immediately following the first selector.** For example, **h1 + p** selects the first <p> element that immediately follows an <h1> element.

4.General sibling combinator: represented by ~ between two selectors. **It selects all sibling elements that follow the first selector, regardless of whether they are directly adjacent.** For example, **h1 ~ p** selects all <p> elements that follow an <h1> element.

Pseudo-elements and Pseudo-classes

- **A pseudo-class selector** is used to target elements that are in a specific **state** or **position** within the document.
- Pseudo-classes are denoted by a colon (:) followed by the name of the pseudo-class.
 - :hover** - targets an element when the user hovers over it with their mouse.
 - :active** - targets an element when it is being clicked or tapped.
 - :focus** - targets an element when it has received focus (such as when a user clicks on an input field).
 - :visited** - targets a link that has been visited by the user.
 - :nth-child()** - targets an element based on its position within a parent element.
 - :first-child** - targets the first child element of a parent element.
 - :last-child** - targets the last child element of a parent element.
 - :not()** - targets all elements that do not match the specified selector.

A pseudo-element selector is used to target a specific part of an element and apply styles to it.

- Unlike pseudo-classes, which target the state or position of an element, pseudo-elements target specific parts of an element that are not included in the HTML code.
- Here are some examples of pseudo-elements:

::before - inserts content before the content of an element.

::after - inserts content after the content of an element.

::first-letter - targets the first letter of the content of an element.

::first-line - targets the first line of the content of an element.

::selection - targets the selected text on the page.

References

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