**CSS Pseudo Class Selector**

A pseudo-class selector is used to style a specific state of an element, such as **:hover** is used to style an element when hovered.

**1. :hover**

Applies styles when the user hovers over an element.

/\* Changes the background color of a button when hovered over \*/

button:hover {

background-color: #4CAF50;

color: white;

}

Example:

<!DOCTYPE *html*>

<html *lang*="en">

<head>

    <meta *charset*="UTF-8">

    <meta *name*="viewport" *content*="width=device-width, initial-scale=1.0">

    <title>Document</title>

    <style>

        a:hover

        {

            font-size: 30px;

        }

        img:hover {

            width:200px;

            height: 200px;

        }

        input[type=submit]:hover {

            background-color: #4CAF50;

color: white;

        }

     </style>

</head>

<body>

<a *href*="http://www.nareshit.com">Nareshit</a><br>

<img *src*="images/ind.JPG"><br>

<input *type*="submit">

</body>

</html>

**2. :focus**

Applies styles when an element gains focus, such as when a user clicks on an input field.

/\* Adds a border to input fields when they are focused \*/

input:focus {

border: 2px solid #00f;

outline: none;

}

<!DOCTYPE *html*>

<html *lang*="en">

<head>

    <meta *charset*="UTF-8">

    <meta *name*="viewport" *content*="width=device-width, initial-scale=1.0">

    <title>Document</title>

    <style>

      input[type=text]:focus {

        background-color: aqua;

      }

      input[type=password]:focus {

        background-color: yellow;

      }

     </style>

</head>

<body>

    <form>

    <label *for*="uname">UserName</label>

    <input *type*="text" *id*="uname"><br>

    <label *for*="pwd">Password</label>

    <input *type*="password" *id*="pwd"><br>

    <input *type*="submit">

    </form>

</body>

</html>

**3. :active**

Applies styles while an element is being activated (e.g., clicked).

/\* Changes the color of a link when it is clicked \*/

a:active {

color: red;

}

**Example:**

<!DOCTYPE *html*>

<html *lang*="en">

<head>

    <meta *charset*="UTF-8">

    <meta *name*="viewport" *content*="width=device-width, initial-scale=1.0">

    <title>Document</title>

    <style>

      a:active {

        color: blue;

      }

      input[type=button]:active{

        color:red;

      }

     </style>

</head>

<body>

    <a *href*="http://www.nareshit.com">nareshit</a>

    <form>

        <input *type*="button" *value*="Login">

    </form>

</body>

</html>

**4. :first-child**

Selects the first child element of a parent.

/\* Adds a margin to the first <li> element within any <ul> \*/

ulli:first-child {

margin-top: 0;

}

**5. :last-child**

Selects the last child element of a parent.

/\* Adds a margin to the last <p> element within a container \*/

.container p:last-child {

margin-bottom: 0;

}

**Example:**

<!DOCTYPE *html*>

<html *lang*="en">

<head>

    <meta *charset*="UTF-8">

    <meta *name*="viewport" *content*="width=device-width, initial-scale=1.0">

    <title>Document</title>

       <style>

        table tr:first-child

        {

            background-color: aqua;

            color:red;

        }

        table tr:last-child {

            background-color: yellow;

        }

     </style>

</head>

<body>

    <table border="2" *width*="100%">

       <tr>

        <th>Rollno</th>

        <th>Name</th>

        <th>Course</th>

       </tr>

       <tr>

        <td>1</td>

        <td>Naresh</td>

        <td>Python</td>

       </tr>

       <tr>

        <td>2</td>

        <td>Suresh</td>

        <td>Java</td>

       </tr>

       <tr>

        <td>3</td>

        <td>Kishore</td>

        <td>Java</td>

       </tr>

       <tr></tr>

        <td>4</td>

        <td>Naresh</td>

        <td>Python</td>

       </tr>

       <tr>

        <td>5</td>

        <td>Suresh</td>

        <td>Java</td>

       </tr>

       <tr>

        <td>6</td>

        <td>Kishore</td>

        <td>Java</td>

       </tr>

    </table>

</body>

</html>

**6. :nth-child(n)**

Selects elements based on their position in a parent, where n can be a number, keyword, or formula.

/\* Applies a background color to every second <tr> element in a table \*/

table tr:nth-child(even) {

background-color: #f2f2f2;

}

**Example:**

<!DOCTYPE *html*>

<html *lang*="en">

<head>

    <meta *charset*="UTF-8">

    <meta *name*="viewport" *content*="width=device-width, initial-scale=1.0">

    <title>Document</title>

       <style>

        table tr:nth-child(even)

        {

            background-color: aqua;

        }

        table tr:nth-child(odd) {

            background-color: yellow;

        }

        table tr:nth-child(1) {

            background-color: yellowgreen;

        }

        table tr:nth-child(3) {

            background-color: aquamarine;

        }

     </style>

</head>

<body>

    <table border="2" *width*="100%">

       <tr>

        <th>Rollno</th>

        <th>Name</th>

        <th>Course</th>

       </tr>

       <tr>

        <td>1</td>

        <td>Naresh</td>

        <td>Python</td>

       </tr>

       <tr>

        <td>2</td>

        <td>Suresh</td>

        <td>Java</td>

       </tr>

       <tr>

        <td>3</td>

        <td>Kishore</td>

        <td>Java</td>

       </tr>

       <tr>

        <td>4</td>

        <td>Naresh</td>

        <td>Python</td>

       </tr>

       <tr>

        <td>5</td>

        <td>Suresh</td>

        <td>Java</td>

       </tr>

       <tr>

        <td>6</td>

        <td>Kishore</td>

        <td>Java</td>

       </tr>

    </table>

</body>

</html>

**Example:**

<!DOCTYPE *html*>

<html *lang*="en">

<head>

    <meta *charset*="UTF-8">

    <meta *name*="viewport" *content*="width=device-width, initial-scale=1.0">

    <title>Document</title>

       <style>

        .container span:nth-child(1) {

            background-color: aqua;

            color:red;

            font-family: Arial, Helvetica, sans-serif;

            font-size: 20px;

        }

        .container span:nth-child(3) {

            background-color: yellowgreen;

            color:blue;

            font-size: 20px;

        }

     </style>

</head>

<body>

    <div *class*="container">

        <span>Home</span>

        <span>Courses</span>

        <span>Contact Us</span>

    </div>

</body>

</html>

**7. :nth-of-type(n)**

Selects elements of a specific type based on their position.

/\* Selects every third <p> element within a container \*/

.container p:nth-of-type(3n) {

color: blue;

}

Example:

<!DOCTYPE *html*>

<html *lang*="en">

<head>

    <meta *charset*="UTF-8">

    <meta *name*="viewport" *content*="width=device-width, initial-scale=1.0">

    <title>Document</title>

       <style>

        .container p:nth-of-type(2n) {

            background-color: aqua;

        }

     </style>

</head>

<body>

    <div *class*="container">

        <p>

            Lorem ipsum dolor sit amet, consectetur adipisicing elit. Nulla vero praesentium in ut fuga provident blanditiis ipsa cumque. Error saepe qui cumque, nam temporibus assumenda aut sapiente consequuntur porro reprehenderit!

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        </p>

        <p>

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        </p>

        <p>

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        <p>

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        </p>

        <p>

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            Lorem ipsum dolor sit amet consectetur adipisicing elit. Deleniti nobis esse quo est accusamus aut id autem itaque eos placeat cumque eligendi corporis tempora enim odio corrupti rerum, atque unde?

        </p>

    </div>

</body>

</html>

**8. :not(selector)**

Selects elements that do not match the given selector.

/\* Selects all <input> elements that are not of type 'password' \*/

input:not([type="password"]) {

border: 1px solid #ccc;

}

<!DOCTYPE *html*>

<html *lang*="en">

<head>

    <meta *charset*="UTF-8">

    <meta *name*="viewport" *content*="width=device-width, initial-scale=1.0">

    <title>Document</title>

       <style>

        :not(img){

            border: 2px solid black;

        }

     </style>

</head>

<body>

    <div *class*="container">

        <h1>Heading</h1>

        <p>

            Lorem ipsum dolor sit amet, consectetur adipisicing elit. Nulla vero praesentium in ut fuga provident blanditiis ipsa cumque. Error saepe qui cumque, nam temporibus assumenda aut sapiente consequuntur porro reprehenderit!

            Lorem ipsum dolor sit, amet consectetur adipisicing elit. Quibusdam voluptas modi eveniet? In eius distinctio voluptates, consequatur maxime magni exercitationem molestias ad! Enim provident repudiandae, hic id ut vel voluptas?

        </p>

        <img *src*="images/kids-banner.avif">

    </div>

</body>

</html>

**9. :checked**

Selects input elements that are checked (like checkboxes or radio buttons).

/\* Styles the label of a checked checkbox \*/

input[type="checkbox"]:checked + label {

font-weight: bold;

}

**Example:**

<!DOCTYPE *html*>

<html *lang*="en">

<head>

    <meta *charset*="UTF-8">

    <meta *name*="viewport" *content*="width=device-width, initial-scale=1.0">

    <title>Document</title>

       <style>

            input[type=checkbox]:checked+label {

                font-weight: bold;

            }

            input[type=radio]:checked+label{

                color:blue;

                font-weight: bold;

            }

     </style>

</head>

<body>

    <form>

        <input *type*="checkbox">

        <label *for*="java">Java</label><br>

        <input *type*="radio" *name*="c">

        <label *for*="python">Python</label>

        <input *type*="radio" *name*="c">

        <label *for*="oracle" >Oracle</label>

    </form>

</body>

</html>

**10. :disabled**

Selects elements that are disabled.

/\* Styles disabled form fields with a lighter background \*/

input:disabled {

background-color: #e0e0e0;

cursor: not-allowed;

}

<!DOCTYPE *html*>

<html *lang*="en">

<head>

    <meta *charset*="UTF-8">

    <meta *name*="viewport" *content*="width=device-width, initial-scale=1.0">

    <title>Document</title>

       <style>

        :disabled {

            color:red;

        }

     </style>

</head>

<body>

    <form>

        <input *type*="button" *disabled*="true" *value*="button">

        <input *type*="button"  *value*="button">

        <input *type*="button"  *value*="button">

    </form>

</body>

</html>