

4.2 Basic selectors

Element, class, and ID selectors

CSS has many ways to specify the selector. Three common selector types are:

1. The **element selector** matches elements with the specified element names.
Ex: `p { color: blue; }` selects all `p` elements.
2. The **class selector**, specified with a period character followed by the class name, matches elements that have the specified class name.
Ex: `.notice { color: blue; }` selects all elements with a `class="notice"` attribute.
3. The **ID selector**, specified with a hash character followed by the ID name, matches the element that has the specified ID.
Ex: `#byLine { color: blue; }` selects the element with the `id="byLine"` attribute.

HTML class names allow CSS rules and JavaScript code to modify all HTML elements belonging to a class. An HTML tag's **class attribute** specifies the classes to which the tag belongs, with each class name separated by a space. Ex:

`` has two classes, `highlight` and `first`. While HTML elements' IDs are unique, many elements may use the same HTML class name.

PARTICIPATION ACTIVITY

4.2.1: Applying styles to HTML elements.



Start

☐ 2x speed

```
p { color:blue; }  
.gr { color:green; }  
#second { color:orange; }
```

```
<p>Children of Men</p>  
<p id="second">Blade Runner</p>  
<p class="gr">Moon</p>
```

Children of Men

Blade Runner

Moon

Captions ^

1. The default styling colors the text black with a white background.
2. The element selector `p` matches all paragraph elements and colors the text blue.
3. The class selector `.gr` matches all elements with the `"gr"` class attribute and colors the text green.
4. The ID selector `#second` matches the paragraph with `"second"` ID attribute and colors the text orange.

PARTICIPATION
ACTIVITY

4.2.2: Element, class, and ID selectors.



Modify or add one CSS rule for each requirement below using the specified selectors.

1. Element selector: Change the text **color** from **green** to **blue** for the list items.
2. Class selector: Set the **text-decoration** to **underline** for all HTML elements with the class name **footnote**.
3. ID selector: Set the text **color** to **orange** and the **font-style** to **italic** for the HTML element with the ID **footnote-1**.

HTML

CSS

```
1 li {  
2   color: blue;  
3 }  
4 .footnote {  
5   text-decoration: underline;  
6 }  
7 #footnote-1 {  
8   color: orange;  
9   font-style: italic;  
10 }  
11
```

Render webpage

Reset code

Your webpage

Expected webpage

Facts about CSS

- According to Wikipedia, CSS was first proposed by Håkon Wium Lie on October 10, 1994. [\[1\]](#)
- The first W3C CSS Recommendation (CSS1) was released in 1996.
- CSS was selected over competing stylesheet technologies because CSS *allowed a document's style to be influenced by multiple stylesheets by way of "cascading"*. [\[1\]](#)

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 Explain

--- START FILE: HTML ---

```

<section>
  <h2>Facts about CSS</h2>
  <ul>
    <li>According to Wikipedia, CSS was first proposed by
Håkon Wium Lie on October 10, 1994.
      <a href="#footnote-1">[1]</a></li>
    <li>The first W3C CSS Recommendation (CSS1) was
released in 1996.</li>
    <li>CSS was selected over competing stylesheet
technologies because CSS <cite>allowed a document's
style to be influenced by multiple stylesheets by
way of "cascading".</cite>
      <a href="#footnote-1">[1]</a></li>
    <li>Four years passed from when CSS1 was released
before any browser fully supported CSS1.
      <a href="#footnote-2">[2]</a></li>
  </ul>
  <p id="footnote-1" class="footnote">
    [1] <a
href="https://en.wikipedia.org/wiki/CSS#History"
target="_blank">
      Cascading Style Sheets history</a>. Retrieved March
31, 2022.
  </p>
  <p id="footnote-2" class="footnote">

```

```
[2] <a
href="https://en.wikipedia.org/wiki/CSS#Difficulty_with_adopt
target="_blank">
    Difficulty with Adoption</a>. Retrieved March 31,
2022.
</p>
</section>
```

--- END FILE: HTML ---

--- START FILE: CSS ---

```
li {
    color: blue;
}
.footnote {
    text-decoration: underline;
}
#footnote-1 {
    color: orange;
    font-style: italic;
}
```

--- END FILE: CSS ---

[Feedback?](#)

**PARTICIPATION
ACTIVITY**

4.2.3: Element, class, and ID selectors.



Refer to the following HTML fragment.

```
<ol class="numbers">
  <li id="first">First number</li>
  <li id="second">Second number</li>
  <li id="third">Third <span class="important">number</span></li>
</ol>
<ul>
  <li>A bullet</li>
  <li>Another bullet</li>
  <li>Another <span class="important">important item</span></li>
</ul>
```

1) What CSS selector matches all the `` elements?

Correct



[Check](#)[Show answer](#)

The element selector `li` matches the `` elements of the ordered and unordered lists.

- 2) What CSS selector matches the last `` element in the ordered list?

[Check](#)[Show answer](#)

Correct

#third

The ID selector `#third` matches the `` element with ID "third".

- 3) What CSS selector matches the `numbers` class attribute?

[Check](#)[Show answer](#)

Correct

.numbers

The class selector `.numbers` matches any element with the "numbers" class attribute.

[Feedback?](#)

Descendant selector

The **descendant selector**, specified with a selector followed by a space and another selector, matches elements that are contained in other elements. Ex: `h2 em { color: blue; }` selects `em` elements contained in `h2` elements.

PARTICIPATION ACTIVITY

4.2.4: Descendant selectors.

The given CSS rule makes all strong elements have a gold background. Modify the rule so only strong elements inside a `ul` element are gold.

[HTML](#)[CSS](#)

```
1 /* Modify the rule below */
2 ul strong {
3     background-color: gold;
4 }
5
```

[Render webpage](#)[Reset code](#)

Your webpage

Some common **idioms**:

- The **ball** is in your **court**.
- Break a **leg**.
- It's the best thing since **sliced bread**.
- Jump on the **bandwagon**.

Expected webpage

Some common **idioms**:

- The **ball** is in your **court**.
- Break a **leg**.
- It's the best thing since **sliced bread**.
- Jump on the **bandwagon**.

▼ View solution

 Explain

--- START FILE: HTML ---

```
<style>
ul strong {
    background-color: gold;
}
</style>
<body>
  <p>
    Some common <strong>idioms</strong>:
```

```

</p>
<ul>
  <li>The <strong>ball</strong> is in your
<strong>court</strong>.</li>
  <li>Break a <strong>leg</strong>.</li>
  <li>It's the best thing since <strong>sliced
bread</strong>.</li>
  <li>Jump on the <strong>bandwagon</strong>.</li>
</ul>
</body>

```

--- END FILE: HTML ---

[Feedback?](#)

PARTICIPATION ACTIVITY

4.2.5: Descendant matching.



Refer to the CSS below.

```

p span {
  background-color: yellow;
}

```

- 1) Does "text" appear highlighted?

```

<p>The
<span>text</span>
is highlighted.
</p>

```

- ☒ Yes
☐ No

Correct

The descendant selector matches the `` element contained in the `<p>` element, so "text" will appear highlighted.



- 2) Does "text" in the first `` element appear highlighted?

```

<ol>
  <li>The
  <span>text</span>
  is highlighted.
</li>
  <li>The text is
  not highlighted.
</li>
</ol>

```

- ☐ Yes
☒ No

Correct

The `` element in is not contained in a `<p>` element, so the `` element is not a descendant, and the selector does not match.



- 3) Does "text" appear highlighted?

```
<p><em>
<span>text</span>
</em></p>
```

- ☒ Yes
☐ No

Correct

The `` element is a descendant of a `<p>` element. The descendant selector selects any descendant, not just immediate descendants.



- 4) Does "text" appear highlighted in both `` elements?

```
<p>
<span>text</span>
  <span>
    <em>text</em>
  </span>
</p>
```

- ☒ Yes
☐ No

Correct

Both "text" strings are within a `` element, which is in a `<p>` element.



- 5) Does "text" appear highlighted?

```
<span><p>text</p>
</span>
```

- ☐ Yes
☒ No

Correct

The `` element is outside the `<p>` element, so the `` is not a descendant, and the selector does not match.



[Feedback?](#)

Pseudo-class selector

The **pseudo-class selector**, specified with a colon character followed by a pseudo-class name, matches elements based on user behavior or element metainformation. Example pseudo-class selectors include:

- **:disabled** - Element is disabled.
- **:hover** - Mouse is hovering over the element.
- **:empty** - Element has no child elements.
- **:lang(language)** - Element contains text in a specified language.
- **:nth-child(n)** - Element is the parent element's nth child.

Class selectors and pseudo-class selectors can combine with element names to match more specific elements. Ex: `a:hover` selects only the anchor tag the mouse is hovering over, and `span.highlight` selects only `span` elements that have the `highlight` class attribute.



The table displays the five countries that earned the most medals in the 2022 Winter Olympics in Beijing. Hovering the mouse over the text on the expected webpage's top row makes the text orange.

1. Add a new rule using the `tr:nth-child(even)` selector that makes every even tr child element have a lavender background color.
2. Add a new rule using the `th:hover` selector that changes the th element's text color to orange when the mouse hovers over the element.

HTML

CSS

```
1 /* Add additional rules below */
2 table {
3     font-family: Arial;
4     border: 2px solid black;
5 }
6
7 tr:nth-child(even) {
8     background-color: lavender;
9 }
10
11 th:hover {
12     color: orange;
13 }
```

Render webpage

Reset code

Your webpage

2022 Olympic Medal Counts				
Country	Gold	Silver	Bronze	Total
Norway	16	8	13	37
ROC	6	12	14	32
Germany	12	10	5	27
Canada	4	8	14	26
USA	8	10	7	25

Expected webpage

2022 Olympic Medal Counts				
Country	Gold	Silver	Bronze	Total
Norway	16	8	13	37
ROC	6	12	14	32
Germany	12	10	5	27
Canada	4	8	14	26
USA	8	10	7	25

[▼ View solution](#) Explain

--- START FILE: HTML ---

```
<style>
table {
    font-family: Arial;
    border: 2px solid black;
}

tr:nth-child(even) {
    background-color: lavender;
}

th:hover {
    color: orange;
}
</style>
<body>
    <table>
        <caption>2022 Olympic Medal Counts</caption>
        <tr>
            <th>Country</th>
            <th>Gold</th>
            <th>Silver</th>
            <th>Bronze</th>
            <th>Total</th>
        </tr>
        <tr>
            <td>Norway</td>
            <td>16</td>
            <td>8</td>
            <td>13</td>
            <td>37</td>
        </tr>
        <tr>
            <td>ROC</td>
            <td>6</td>
            <td>12</td>
            <td>14</td>
            <td>32</td>
        </tr>
        <tr>
            <td>Germany</td>
            <td>12</td>
```

```
<td>10</td>
<td>5</td>
<td>27</td>
</tr>
<tr>
<td>Canada</td>
<td>4</td>
<td>8</td>
<td>14</td>
<td>26</td>
</tr>
<tr>
<td>USA</td>
<td>8</td>
<td>10</td>
<td>7</td>
<td>25</td>
</tr>
</table>
</body>
```

--- END FILE: HTML ---

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**PARTICIPATION
ACTIVITY**

4.2.7: Pseudo-class selectors.



- 1) Which selector makes a div element's background color change to light blue when the mouse hovers over any part of the div contents?

```
____ {
  background-
color: lightblue;
}
```

- ☐ :hover
- ☒ div:hover
- ☐ div.hover

Correct

When the element selector `div` is combined with the `:hover` pseudo-class, the rule applies to only div elements.



- 2) The `:nth-child` pseudo-class can be

Correct



specified with "even" and "odd" values as well as a number representing the child's position, where 1 is the first child. What is missing to make the first list item purple?

```
li:nth-child(____) {  
    color:  
    purple;  
}
```

- ☐ 0
- ☒ 1
- ☐ first

3) Which selector gives buttons with a **disabled** attribute a gray background?

```
____ {  
    background-color:  
    gray;  
}
```

- ☐ button
- ☒ button:disabled
- ☐ button:enabled

The number 1 is the first child. An equivalent pseudo-class that selects the first child element is **:first-child**. The **:last-child** pseudo-class selects the last child element.

Correct

The **:disabled** pseudo-class applies to buttons that have a **disabled** attribute. Buttons that are disabled cannot be clicked.



[Feedback?](#)

CHALLENGE ACTIVITY

4.2.1: Basic selectors.



530096.4000608.qx3zqy7

Start

Set color to gold for all elements with class: standout [SHOW EXPECTED](#)

CSS HTML

```
1  
2 /* Your solution goes here */  
3
```



1



2



3



4



5

1

2

3

4

5

Check

Next

View your last submission ▼

[Feedback?](#)

Exploring further:

- [CSS Selectors Reference](#) from W3Schools.
- [CSS Pseudo-classes](#) from W3Schools.
- [CSS Attribute Selectors](#) from W3Schools.

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this
section?

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