

Basic **Format** of CSS

Selector

h1 {

color: red;

}

Property

Value



Universal Selector

To select everything in a document

Universal
Selector



* {

property: value;

}

Element Selector

Selects all elements of the same type

Element
Selector



```
h1 {
```

```
    property: value;
```

```
}
```

ID Selector

Selects an element based on the value of the element's id attribute

Id Selector



```
#myId {
```

```
    property: value;
```

```
}
```

ID Selector

→ *unique id*

<h1 id="myId">

Selects an element based on the value of the element's id attribute

Id Selector

↘
#myId {


property: value;

}

Class Selector

Selects an element based on their class attribute

class
Selector



```
.myclass {
```

```
    property: value;
```

```
}
```

Class Selector

Selects an element based on their class attribute

class
Selector

.myclass {

property: value;

}

<h1>

<button>

<p>

}

color: red

class attribute

✓ <h1 class="a">
✓ <button class="a">
✓ <p class="a">

Practice Qs

Implement the following CSS for the given html document.

- Set font family of entire document to Courier New → *universal*
- Set text color for all h1 headings to #1b74e4 → *elem*
- Set background color of search button to black & text to white
- Set background color of login & signup button to aqua.



Facebook

[Log in](#)[Register](#)

Search [Search](#)

Descendant Selector

Eg - Selects all paragraphs inside divs

descendant
Selector



div p {

property: value;

}

Descendant Selector

Eg - Selects all paragraphs inside divs

descendant
Selector

`div p {`

`property: value;`

`}`

grandparents
↓
parents
↓
me

P
↓
s'

<p> nagupta7383@gmail.com

Adjacent Sibling Combinator

Eg - Heading3 that comes immediately after any paragraph

sibling
combinator



p + h3 {

property: value;

}

Child Combinator

Eg - Selects all buttons which are direct children of spans

child
Selector



```
span > button {
```

```
    property: value;
```

```
}
```

Attribute Selector

Selects elements based on the presence or value of a given attribute

Attribute
Selector



```
input[attr="value" {  
    property: value;  
}
```

element : pseudoclass

Pseudo Class

A Keyword added to a selector that specifies a **special state** of the selected element(s)

: hover

: active

: checked

: nth-of-type

o yes

o no

A Keyword added to a selector that specifies a **special state** of the selected element(s)

: hover

: active

: checked

: nth-of-type

o yes

o no

click



A Keyword added to a selector that specifies a **special state** of the selected element(s)

: hover

: active

: checked

radio
checkbox

: nth-of-type

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Pseudo Class

element : pseudoclass

A Keyword added to a selector that specifies a **special state** of the selected element(s)

: hover

: active

: checked



radio
checkbox



: nth-of-type

nth elements



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Pseudo Elements

A Keyword added to a selector that lets you style a **specific part** of the selected element(s)

:: first-letter

:: first-line

:: selection

CSS : Cascading StyleSheets

What is cascade in CSS?

The **CSS cascade algorithm**'s job is to select CSS declarations in order to determine the correct values for CSS properties.

```
h2 {  
  background-color: yellow;  
}
```

```
h2 {  
  background-color: blue;  
}
```

final color is blue



Selector Specificity

What is specificity?

Specificity is an algorithm that calculates the weight that is applied to a given CSS declaration.

selector

1

id

1

class,
attribute &
pesudo-class

element &
pesudo-
element

sel

1

id

1

class,
attribute &
pesudo-class

element &
pesudo-
element

id > class > element

```
h2 {
```

```
background-color: yellow;
```

```
}
```

0

id

0

class,
attribute &
pseudo-class

1

element &
pseudo-
element

```
.myClass hover {
```

```
color: blue;
```

```
}
```

0

id

2

class,
attribute &
pseudo-class

0

element &
pseudo-
element

Selector Specificity

What to remember?

① **id > class > element**

② more selectors > less selectors
 ↑ CSS

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③ if specificity same \Rightarrow cascading

Inline Specificity

Inline styles are more specific than id

inline style



id

class,
attribute &
pseudo-class

element &
pseudo-
element

Practice Qs

For the given html & css code, what is color of h1:


```
<h1 id="greet" class="myClass">Hello!</h1>
```


```
h1 {  
  color: pink;  
}  
  
#greet {  
  color: yellow;  
}  
  
.myClass {  
  color: brown;  
}
```


Practice Qs

For the given html & css code, what is bg-color of p:

```
<div>
|   <p class="para">This is a paragraph.</p>
</div>
```

```
div p {
|   background-color: black;
}

.para {
|   background-color: blue;
}

p {
|   background-color: green;
}
```

Practice Qs

For the given html & css code, what is bg-color of p:

```
<div>
  <p class="para">This is a paragraph.</p>
</div>
```

```
div p {
  background-color: black;
}
```

← descendant sel

$$\frac{0}{x} \frac{0}{x} \frac{2}{x} (2)$$

```
.para {
  background-color: blue;
}
```

← class sel

$$\frac{0}{x} \frac{1}{x} \frac{0}{x} (10)$$

```
p {
  background-color: green;
}
```

← element sel

$$\frac{0}{id} \frac{0}{cl} \frac{1}{x} (1)$$

Practice Qs

For the given html & css code, what is color of h1:

```
<h1 id="greet" class="myClass">Hello!</h1>
```

```
h1 {  
  color: ■ pink;  
}
```

← el sel

h1 →

```
#greet {  
  color: ■ yellow;  
}
```

← id sel

```
.myClass {  
  color: ■ brown;  
}
```

← class sel

Practice Qs

For the given html & css code, what is color of text "Hello World!":

```
<div class="greetDiv">
  <p class="greet">
    Hello World!
  </p>
</div>
```

```
div.greetDiv .greet {
  color: ■green;
}
```

$\frac{0}{\text{div}} \frac{2}{\text{dot}} \frac{1}{\text{greet}}$

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```
.greetDiv p.greet {
  color: ■blue;
}
```

$\frac{0}{\text{div}} \frac{2}{\text{class}} \frac{1}{\text{greet}}$

```
.greetDiv .greet {
  color: ■red;
}
```

$\frac{0}{\text{div}} \frac{2}{\text{class}} \frac{0}{\text{el}}$



!important

To show the most specific thing in document

```
h2 {  
    background-color: blue !important;  
}
```


CSS (Part 2)

Practice Questions

We are going to write CSS for the following code :
(Please copy-paste or re-write this code in your HTML file)

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8" />
<meta http-equiv="X-UA-Compatible" content="IE=edge" />
<meta name="viewport" content="width=device-width,
initial-scale=1.0" />
<title>CSS Assignment</title>
</head>
<body>
<h1>CSS Practice</h1>
<h3>Let's learn about selector.</h3>
<!-- Paragraph1 -->
<p>There are multiple selectors in css.</p>
<!-- Paragraph2 -->
<p>Some of them include class selector, id selector etc.</p>
<!-- Paragraph3 -->
<p>And we can also combine these too.</p>
<div>
```



```
<h5>Did you like the practice set?</h5>
<input type="checkbox" id="yes" />
<label for="yes">Yes</label>
<br />
<button>Learn next!</button>
</div>
</body>
</html>
```

PART A (Selectors)

Qs1. Give the h1 header a unique id - "mainTopic" & set its color to blue using the id selector.

Qs2. Align all the text in the page to the center using a universal selector.

Qs3. Change the font style of all heading tags in the page to 'Georgia'.

Qs4. Set the color of all the paragraphs to white & background color to cornflowerblue. (Without using the element selector - 'p')

Qs5. Select all buttons inside div and change their background color to purple & text color to azure.

PART B (Pseudo class & elements)

Qs6. Change the button background color to yellow & text color to blue when we hover over it.

Qs7. Change the color of every odd numbered paragraph to yellow. (Paragraph 1 & 3)

Qs8. Change the color of the first letter of h1 heading to red.

Qs9. Set the text color of the checkbox label to dark green when the checkbox is ticked.

Qs10. Order these rules according to their specificity, from least specific to most specific. :

- h1
- #mainContent
- .main
- div .main

CSS (Part 2)

Practice Solutions

Ans A (all 5 parts)

Create a separate CSS file and link it with your html code.

In the CSS file write the following code :

```
* {  
text-align: center;  
}  
  
#mainTopic {  
color: blue;  
}  
  
h1,  
h3,  
h5 {  
font-family: Georgia;  
}  
  
.content {  
background-color: cornflowerblue;  
color: white;  
}  
  
div button {
```

```
background-color: purple;
color: azure;
}
```

Ans B (part 6 to 9)

```
button:hover {
background-color: yellow;
color: blue;
}

p:nth-of-type(2n+1) {
color: yellow;
}

h1::first-letter {
color: red;
}

#yes:checked + label {
color: darkgreen;
}
```

Ans 10

The correct order is :

- a. #mainContent
- b. div .main
- c. .main
- d. h1