

Selectors

in CSS



Element Selector

Selects all elements of the same type

Element
Selector



```
h1 {
```

```
    property: value;
```

```
}
```



Universal Selector

To select everything in a document

Universal
Selector



```
* {
```

```
  property: value;
```

```
}
```



ID Selector

→ *unique id*

<h1 id="myId"> **APNA**
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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;  
}
```



Descendant Selector

Eg - Selects all paragraphs inside divs

descendant
Selector

div p {

property: value;

}



`<p>` `</p>`
`<h3>`

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;`

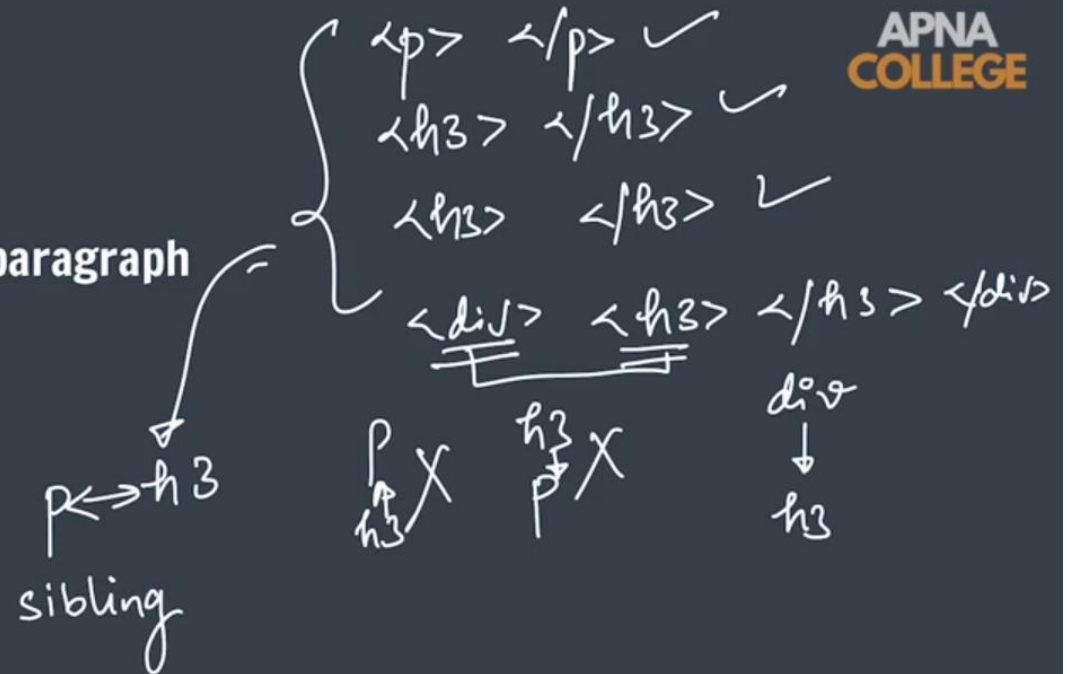
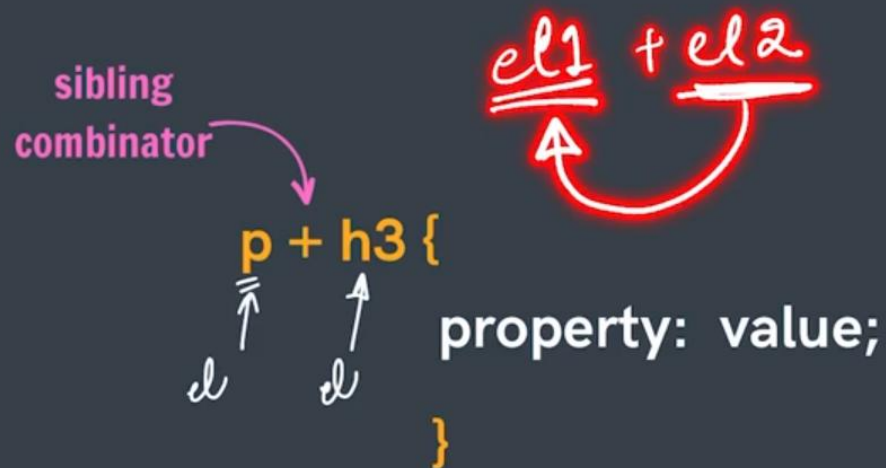
`}`

`<div>` `<p>` `</p>` `</div>`
div
↓
p child
↘ direct
desc



Adjacent Sibling Combinator

Eg - Heading3 that comes immediately after any paragraph



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;  
}
```



id > class > element
selectors

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

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

← id sel

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

←

CSS



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;
}
```

← descendant sel

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

← class sel

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

← element sel

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



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;
}
```

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

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

specificity → cascading

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blue
A

$\frac{0}{\text{div}} \frac{2}{\text{class}} \frac{1}{\text{class}} (21)$

$\frac{0}{\text{div}} \frac{2}{\text{class}} \frac{1}{\text{class}} (21)$

$\frac{0}{\text{div}} \frac{2}{\text{class}} \frac{0}{\text{id}} (20)$



Pseudo Class

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

: hover

: active

: checked

: nth-of-type



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



Selector Specificity

What is specificity?

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

id

4

class,
attribute &
pseudo-class

1

element &
pseudo-
element



Selector Specificity

What is specificity?

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

#myId {

.myclass {

}

}

selector

(1 2 1)

(3 0 0)

— — —

1

id

1

class,
attribute &
pseudo-class

element &
pseudo-
element

id >



Selector Specificity

What is specificity?

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

#myId {

.myclass {

}

}

selector

① 2 1
X
③ 0 0
X

— — —

1

id

1

class,
attribute &
pseudo-class

element &
pseudo-
element

id > class > element



Selector Specificity

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

0

id

0class,
attribute &
pseudo-class1element &
pseudo-
element

Selector Specificity

```
.myClass:hover {  
    color: blue;  
}
```

0 20

0

id

 $1+1$

2class,
attribute &
pseudo-class

0element &
pseudo-
element

Selector Specificity

What to remember?

① **id > class > element**

② more selectors > less selectors
 ↑
 CS'



Selector Specificity

What to remember?

① **id > class > element**

② more selectors > less selectors
 ↑ CSS

③ if specificity same \Rightarrow cascading



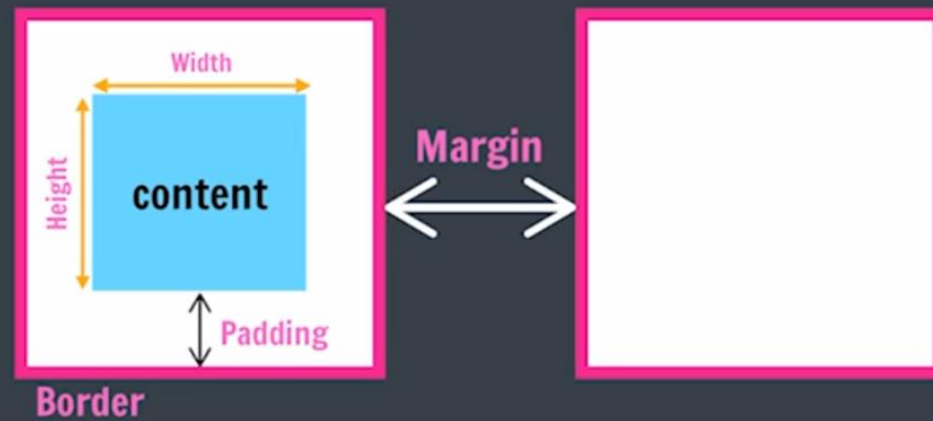
Inline Specificity

Inline styles are more specific than id



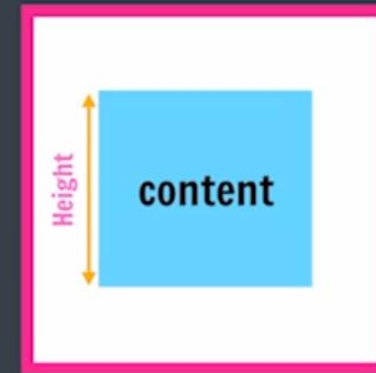
Box Model in CSS

- Height
- Width
- Border
- Padding
- Margin



Height

By default, it sets the **content area** height of the element



text
image

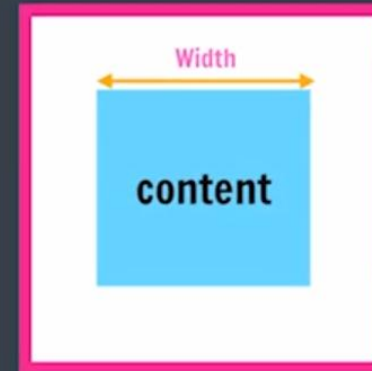
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```
div {  
    height: 100px;  
}
```



Width

By default, it sets the **content area width** of the element



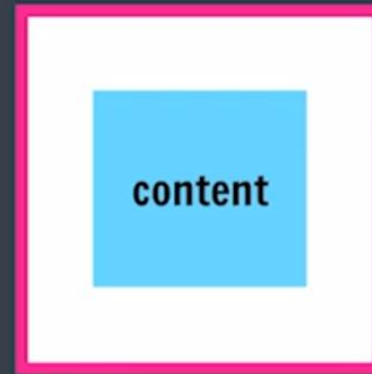
```
div {  
    width: 300px;  
}
```



Border

Used to set an element's border

- border-width
- border-style
- border-color



Border



Border Shorthand

width | style | color

```
div {  
  border: 2px solid blue;  
}
```



Border Sides

To control an individual side of the box

- border-left
- border-right
- border-top
- border-bottom





Border Radius

Used to **round the corners** of an element's outer border edge

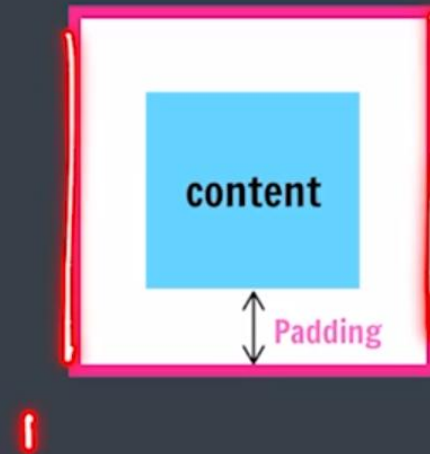
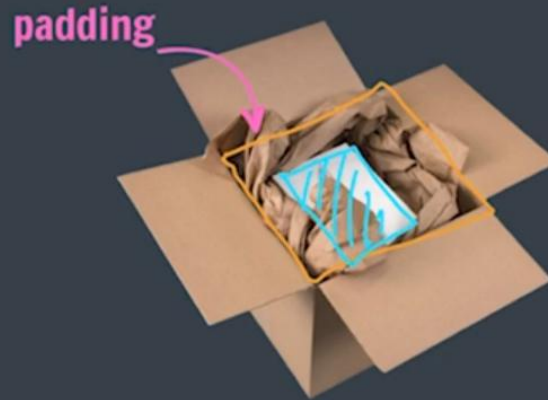
```
div {  
    border-radius: 15px;  
}
```

```
div {  
    border-radius: 50%;  
}
```



Padding

- padding-left
- padding-right
- padding-top
- padding-bottom



```
div {  
  padding-left: 50px;  
}
```

