



Web design and development 1

Part 1

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Second languages

CSS

2





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❑ What is CSS?

stands for Cascading Style Sheets. It is a language used to style and design web pages written in HTML , With CSS, you can control colors, fonts, spacing, sizes, layouts, and even add animations and effects.

❑ Ways to add CSS:

1. Inline CSS:

- Written directly inside an HTML tag using the style attribute.
- Affects only that specific element.
- Example : `<h1 style="color: red;">Welcome</h1>`

2. Internal CSS:

- Written inside a <style> tag within the <head> section
- Affects elements on that page only.
- **Example :**



```
1  <head>
2    <style>
3      body { background-color: #f0f0f0; }
4      h1 { color: blue; text-align: center; }
5    </style>
6  </head>
```

3. External CSS:

- Written in a separate file (e.g., style.css) and linked to HTML using <link>
- Recommended for most websites
- Example :

index.html



```
1 <head>
2 <link rel="stylesheet" href="style.css">
3 </head>
```

Style.css



```
1 body {
2     background-color: white;
3 }
4 h1 {
5     color: green;
6 }
7
```

❑ Main Components of the Web?

- **Browser:** (e.g., Google Chrome, Firefox, Edge) – used to display websites.
- **Server:** Stores and serves website data to users.
- **User:** The person accessing websites through their device.
- **Website:** A collection of interconnected web pages.

❑ Main Web Languages?

- **HTML:** Defines the structure of a web page.
- **CSS:** Provides styling and design.
- **JavaScript:** Adds interactivity and dynamic behavior.

❑ Every CSS rule consists of three parts:

1. **Selector:** Specifies which HTML element you want to style.
2. **Property:** Defines what you want to change — such as color.
3. **Value:** Defines how the property should look.

❑ Example :

```
p {  
  color: blue;  
  font-size: 16px;  
}
```


❑ **CSS Selectors:** Selectors are used to target HTML elements so that you can apply styles to them:

1. Element Selector:

- Selects all elements of a given type.

2. ID Selector :

- Targets a single element with a specific id.
- Use # before the ID name

3. Class Selector:

- Targets elements with a specific class name.
- Use . before the class name.

4. Group Selector:

- Applies the same style to multiple elements.

Css Selectors



```
1  /* Element Selector*/
2  p { color: blue; }
3
4  /* ID Selector*/
5  #main-title { color: red; }
6
7  /* Class Selector*/
8  .note { background-color: yellow; }
9
10 /* Group Selector*/
11 h1, h2, h3 { color: green; }
```

Css Selectors

1. **Descendant Selector:** The descendant selector is used to apply styles to elements nested inside (children or deeper levels) another element.

- **Syntax:**

```
parent child { }
```

- **Example :**

```
div p {  
    color: red;  
}
```

2. **Child Selector:** Targets only the direct children of a parent element.

- **Syntax:**

```
parent > child{ }
```

- **Example :**

```
div > p {  
  color: red;  
}
```

3. Adjacent Sibling Selector :Selects an element that immediately follows another element.

- **Syntax:**

```
element1 + element2{ }
```

- **Example :**

```
h2 + p {  
  color: green;  
}
```

4. **General Sibling Selector:** Selects all sibling elements that come after a specified element.

- **Syntax:**

```
element1 ~ element2{ }
```

- **Example :**

```
h2 ~ p {  
  color: orange;  
}
```

5. **Universal Selector:** Used to select all elements inside a specific element or in the entire document.

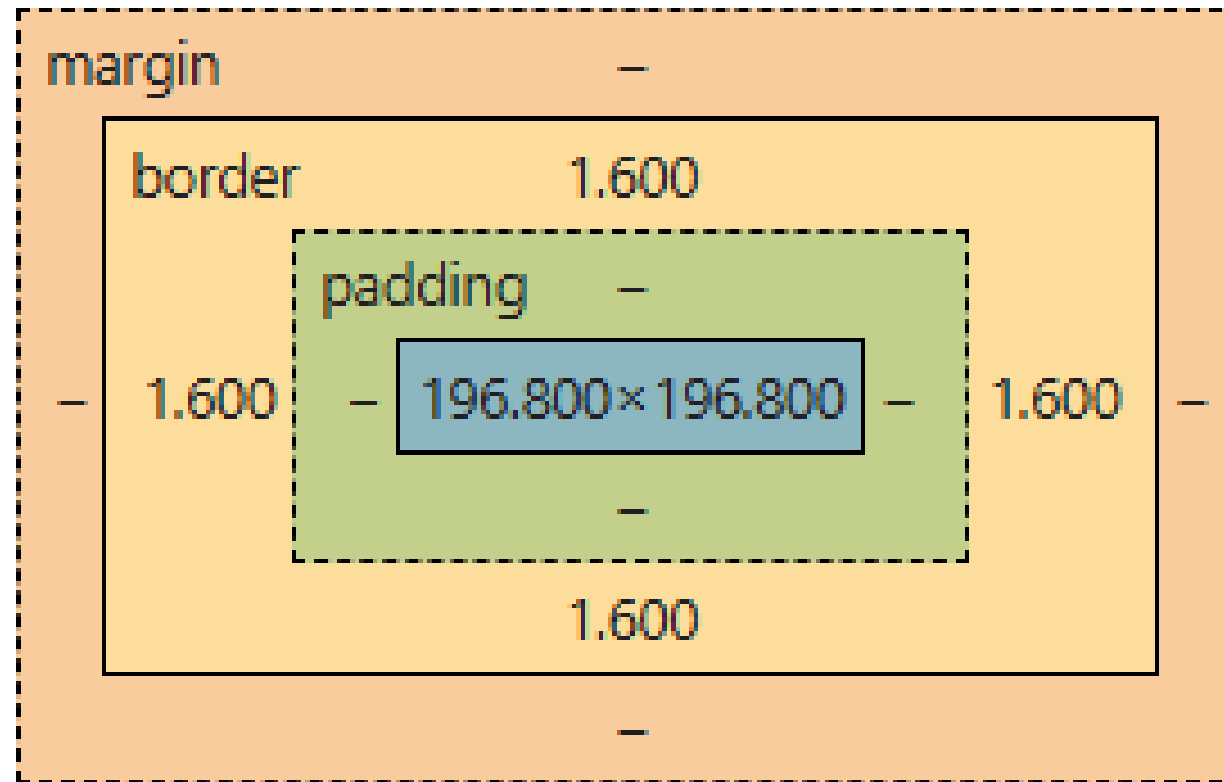
- **Syntax:**

```
parent * { }
```

- **Example :**

```
h2 ~ p {  
  color: orange;  
}
```

Box Model



Box Model

❑ Comports of Box Model:

1. **Content:** Content – the actual content inside the element.
2. **Padding:** Padding – the space between content and border.
3. **Border :** Border – the edge around the padding and content.
4. **Margin:** Margin – the space outside the border.

Box Model

❑ **Padding:** is the space inside the element, between the content and the border.

❑ **Example :**

```
div {  
    padding: 10px 15px 20px 25px; /* top right bottom left */  
}
```

❑ **Margin:** is the space outside the element, creating distance between the element and neighboring elements or page boundaries.

❑ **Example :**

```
div {  
    margin: 10px 15px 20px 25px; /* top right bottom left */  
}
```

Box Model

Auto Margin: automatically adjusts the margin to **center the element** within its container. Most commonly used for horizontal centering when the element has a fixed width.

❑ Example :



```
1  div {  
2    width: 300px;      /* يجب تحديد عرض العنصر */  
3    margin: 0 auto;    /* هامش أعلى وأسفل = 0، هامش أيسر وأيمن = تلقائي */  
4  }
```

Box Model

Border : The border is the line that surrounds an element, separating padding from the outside (margin). You can change its width, color, and style.

❑ Syntax :

```
div {  
    border: border-width border-style border-color;  
}
```

❑ Example :

```
div {  
    border: 3px solid black;  
}
```

❑ Rounded Borders: Gives rounded corners to the element.

```
div {  
    border: 2px solid black;  
    border-radius: 10px;  
}
```

Example

[Index.html](#)



```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4  <meta charset="UTF-8">
5  <title>example</title>
6  <link rel="stylesheet" href="style.css">
7  </head>
8  <body>
9  <div class="card">
10     <h2>FATMA ALI</h2>
11     <p>front-end designer</p>
12     <p>fatma@example.com</p>
13 </div>
14 </body>
15 </html>
```

Example

[style.css](#)



```
1  .card {
2      width: 300px;
3      padding: 20px;
4      border: 3px solid #306080;
5      border-radius: 10px;
6      margin: 30px auto;
7      background-color: #e5b4b4;
8      text-align: center;
9  }
10
11  .card h2 {
12      margin-top: 0;
13  }
14
15  .card p {
16      margin-bottom: 0;
17  }
```

Dimensions

❑ **Width:** : Defines how **wide** an element is Units can be : px ...

❑ **Example :**

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

❑ **Height:** Defines how **tall** an element is Units can be : px ...

❑ **Example :**

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

Dimensions

- ❑ **What are min and max properties?** They define the minimum and maximum size limits for an element's width or height .

- ❑ **Examples :**

```
div {  
  min-width: 200px;  
}
```

```
div {  
  max-width: 600px;  
}
```

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

```
div {  
  max-height: 400px;  
}
```


Example

[Index.html](#)



```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4  <meta charset="UTF-8">
5  <title>example</title>
6  <link rel="stylesheet" href="style.css">
7  </head>
8  <body>
9  <div class="card">
10     <h2>FATMA ALI</h2>
11     <p>front-end designer</p>
12     <p>fatma@example.com</p>
13 </div>
14 </body>
15 </html>
```

Example

[style.css](#)



```
1  body{
2    background-color: rgb(87, 87, 87);
3  }
4  .card{
5    background-color: #acaebb;
6    width: 400px;
7    min-height: 200px;
8    border: 3px blue;
9    border-radius: 10px;
10   margin: 15% auto;
11   text-align: center;
12   padding: 10px;
13 }
14
```

NEXT TO
