T.C. İSTANBUL KÜLTÜR ÜNİVERSİTESİ

COM5005 – WEB PROGRAMMING

LAB 03 – CSS and HTML

After completing this Lab, you will be able to

- CSS ID and Class Selector
- CSS Grouping
- CSS Box Model (Margin, Padding and Border)
- Example Web Page Design with “div”

PROCEDURE 1 – CSS ID and Class Selector

When we apply generic CSS to a tag, that tag has the properties given wherever it is used.

Thanks to the Style Template selectors, we can apply different styles to the same tag in different places.

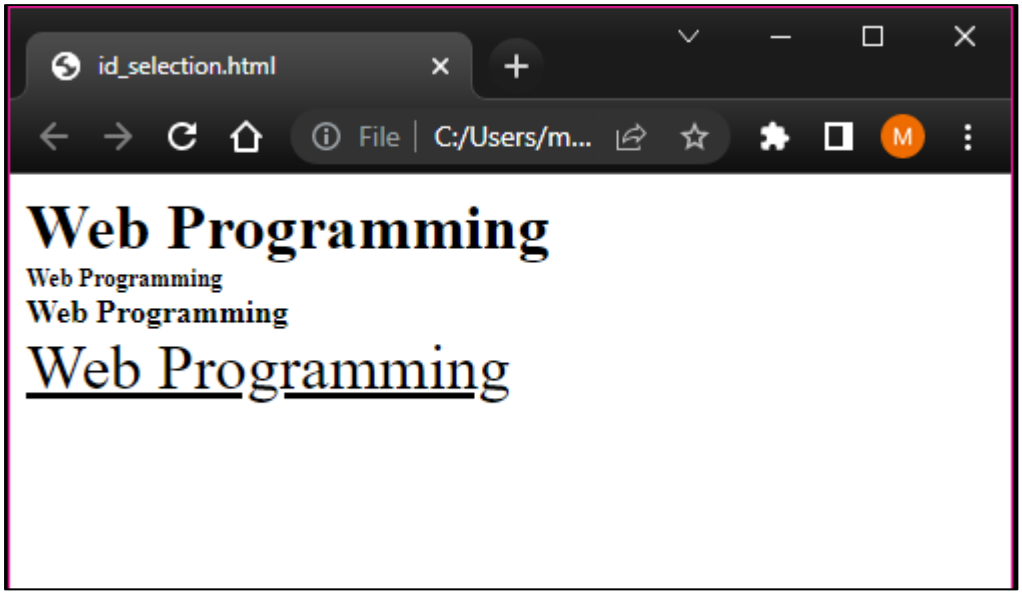
In other words, we can apply the CSS selector we created to a tag wherever we want and not apply it where we don't want it. We can even apply different formatting to the same label in different places.

Step 1 - ID Selectors:

- When identifying, **"#"** is put in front of the name.
- When applying to any tag, the **"id"** parameter is used.
- Since the id parameter also specifies the identity of the element it is used with, there may be problems when the same id selector is applied to more than one tag.
  For example, in the example below, the capitalized style template has been applied to both the b tag and the u tag. There will be no problems with formatting and the specified properties will be applied to both tags. However, if there is a programming language (such as Asp.Net, Php, Javascript) that uses these ids on the page, there will be problems because there will be two elements with the same name on the page.
- It does not change the tags to which it is not applied. For example, in the example below, the big-name style selector is applied to the first b tag, the small-name style selector is applied to the second b tag, while no CSS template is applied to the third b tag.

```
<html>
    <head>
        <style type="text/css">

            #big
            {
                font-size:24pt;
            }

            #small
            {
                font-size:9pt;
            }

        </style>
    </head>
    <body>
        <b id="big">Web Programming</b> <br/>
        <b id="small">Web Programming</b> <br/>
        <b>Web Programming</b> <br/>
        <u id="big">Web Programming</u>
    </body>
</html>
```

** Execute the code and review the results.

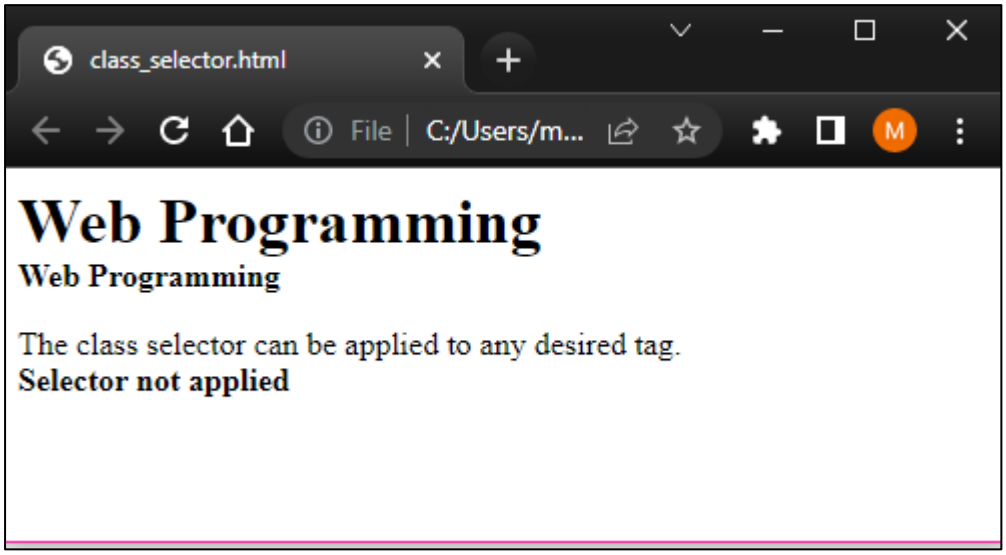


Step 2 – Class Selectors:

- When defining, **"."** is put.
- While applying, the **"class"** parameter is used.
- It can be applied to more than one tag, it does not affect the tags to which it is not applied.

```
<html>
    <head>
        <style type="text/css">

            .big
            {
                font-size:24pt;
            }

            #small
            {
                font-size:11pt;
            }

        </style>
    </head>
    <body>
        <b class="big">Web Programming</b> <br/>
        <b class="small">Web Programming</b> <br/>
        <p class="small">The class selector can be applied to any desired tag.</u> <br/>
        <b>Selector not applied</b> <br/>
    </body>
</html>
```

** Execute the code and review the results.



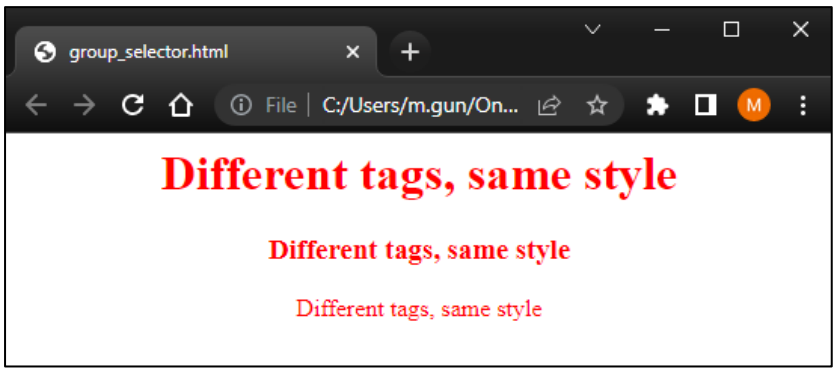
PROCEDURE 2 – CSS Grouping

We can group while selecting tags with the same style values. For example;

```
h1 {
    text-align: center;
    color: red;
}

h2 {
    text-align: center;
    color: red;
}

h3 {
    text-align: center;
    color: red;
}
```

```
h1, h2, h3 {
    text-align: center;
    color: red;
}
```

Here 3 tags have the same style. Then we can write it in one line, separated by commas.
** Execute the code and review the results.



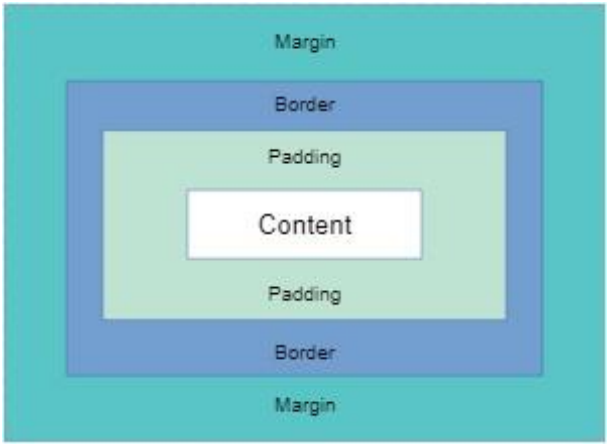
Note: You can use not only tags but also id and class.

We can make combined selections using different options over the tag names.

* {	Selects all tags
p {	Selects all p tags. It can be used in other tags as well.
div p {	Selects all p tags contained within div tags.
div , p {	Selects all div and all p tags.
div > p {	Selects all p tags whose parent tag is div.
p ~ div {	Selects all div tags at the same level after p. To see the same level, you can look at the tab level in the editors.
p + div {	Selects the first div tag of the same level after p.
div.box , p {	Selects the p paragraphs with the label whose class name is box inside the div.

PROCEDURE 3 – CSS Box Model (Margin, Padding and Border)

The CSS box model is a box model of rectangles that wrap around each HTML element. The box model allows us to add a border around elements and define spacing between elements. It consists of: margins, borders, padding, and actual content.



Content - The main content of the box in which text and images appear.

Padding - The space around the content. The fill is transparent so no color can be assigned. It can be called inner space.

Border – The border that surrounds the outer part of the padding. Color and line-type can be assigned to it.

Margins – The transparent space outside the border of the frame. Color cannot be given. It can be called the outer space.

Step 1 - Width and Height of an Element. First, we create a new file named firstLayer.html to write the HTML codes.

```
<html>
    <head>
        <link rel="stylesheet" type="text/css" href="firstLayer.css" />
    </head>
    <body>
        <div id="firstLayer">
            <h1>HEADER</h1>
            <p> First Box Model</p>
        </div>
    </body>
</html>
```

Step 2 – We are creating a ** ** element whose **id is firstLayer**. Next, we prepare content using the h1 and p tags.

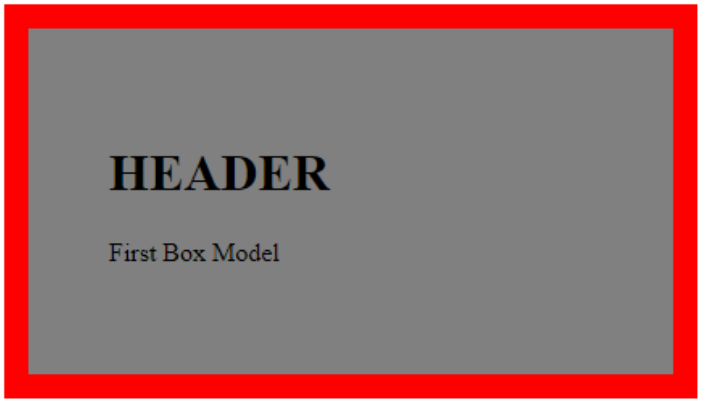
Step 3 – Secondly, we create a css file named **firstLayer.css**. And we add which style properties to which layer we will apply to this file.

Step 4 - We are designing a box model with a yellow background color, a width of 300px, a border size of 15px and a color of red, 50px between content and border, and 20px outside space (margin).

```
/* CSS Document */

#firstLayer{
  background-color: grey;
  width: 300px;
  border: 15px solid red;

  /*inner space*/
  padding: 50px;

  /* external space */
  margin: 20px ;
}
```

Step 5 - We embed the firstLayer.css file in the html document using the **<link> tag.**

** Execute the code and review the results.



PROCEDURE 4 – Example Web Page Design with “div”

```
<html>
<head>
<title>CSS and HTML</title>
<link rel="stylesheet" type="text/css" href="firstWebPage.css" />
</head>
<body>

<div id="mainLayer">

<div id="topLayer">
  <h1>HEADER</h1>
  <p>Total width of the main layer 1000px</p>
</div>

<div id="leftLayer">
  <p>CONTENT 1</p>
  <p>left - right spacing and borders:</p>
  <p>border: 1+1</p>
  <p>margin: 0+5</p>
  <p>padding: 5+5</p>
  <p>width : 183</p>
  <p>Total area covered: 200px</p>
</div>

<div id="middleLayer">
  <p>MAIN CONTENT</p>
  <p>left - right spacing and borders:</p>
  <p>border: 1+1</p>
  <p>margin: 5+5</p>
  <p>padding: 5+5</p>
  <p>width : 378</p>
  <p>Total area covered: 400px</p>
</div>

<div id="rightLayer">
  <p>CONTENT 2</p>
  <p>left - right spacing and borders:</p>
  <p>border: 1+1</p>
  <p>margin: 5+0</p>
  <p>padding: 5+5</p>
  <p>width : 383</p>
  <p>Total area covered: 400px</p>
</div>

<div class="clear"></div>

<div id="bottomLayer"> The total footprint of the left - middle and right layers is 1000px,
the same as the width of the main layer, so it's fine..
</div>

</div>
</body>
</html>
```

HEADER

Total width of the main layer 1000px

CONTENT 1

left - right spacing and borders:

border: 1+1

margin: 0+5

padding: 5+5

width : 183

Total area covered: 200px

MAIN CONTENT

left - right spacing and borders:

border: 1+1

margin: 5+5

padding: 5+5

width : 378

Total area covered: 400px

CONTENT 2

left - right spacing and borders:

border: 1+1

margin: 5+0

padding: 5+5

width : 383

Total area covered: 400px

The total footprint of the left - middle and right layers is 1000px, the same as the width of the main layer, so it's fine..

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