



Department of computer science and Engineering Data Science

Academic Year: 2022-23
Class / Branch: TEDS
Subject: WC AND
NW

Semester: V

Experiment No. 02

1. **Aim: To design a web page using CSS3 with properties and styles.**
2. **Software used: HTML5.0 and CSS**
3. **Theory :-**

3.1 CSS Properties

CSS rules also known as rulesets and are a combination of one or more CSS properties that you can apply to one or more HTML elements.

It consists of a CSS selector and CSS properties. It determines what to style to a targeted HTML element.

Example

```
div {  
border-color: black;  
font-size: 2rem;  
}
```

=

In this instance, it creates a CSS rule targeting the div element and creating CSS properties, border-color, and font-size to be the style for the div element.

Declaring Values For Multiple Properties In a CSS Rule

In this section, let us learn how to declare values for multiple properties in a CSS rule. This is very helpful as it allows you to apply several style instructions to an HTML element all at once. In simpler words, for instance, if you want to apply border-color, font-size, and more to a div tag, you can do that all at once.

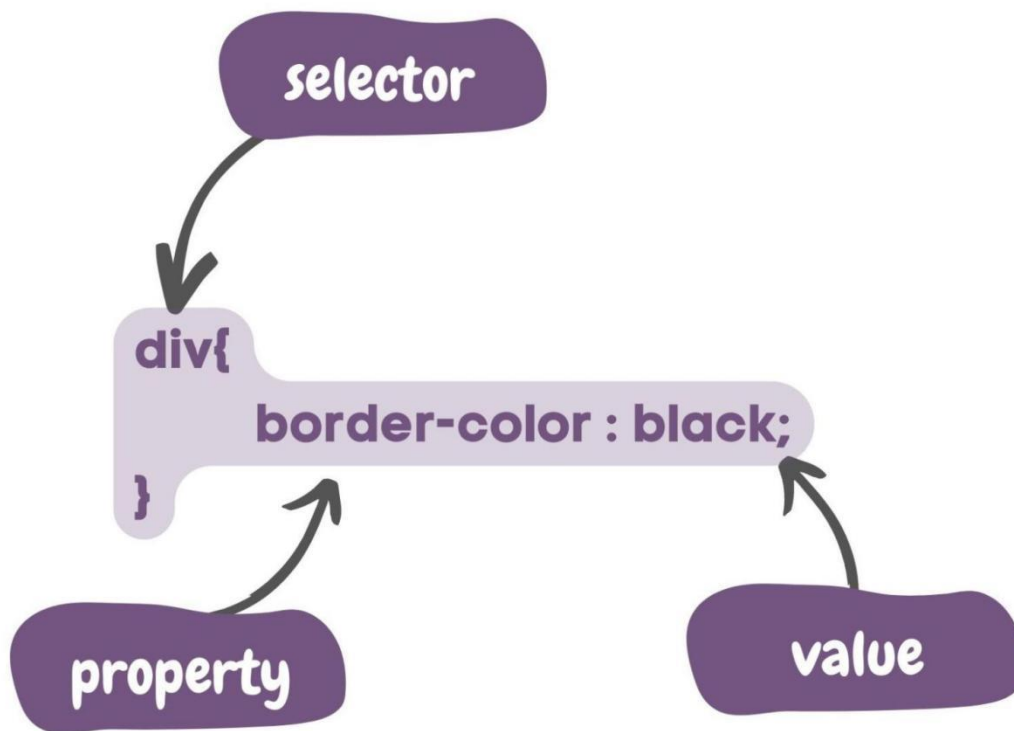


diagram of a CSS rule

Declaring Values For Multiple Properties In a CSS Rule

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```
div {  
  
border-color: brown;  
  
font-size: 2rem;  
  
font-family: 'Times New Roman';  
  
}
```

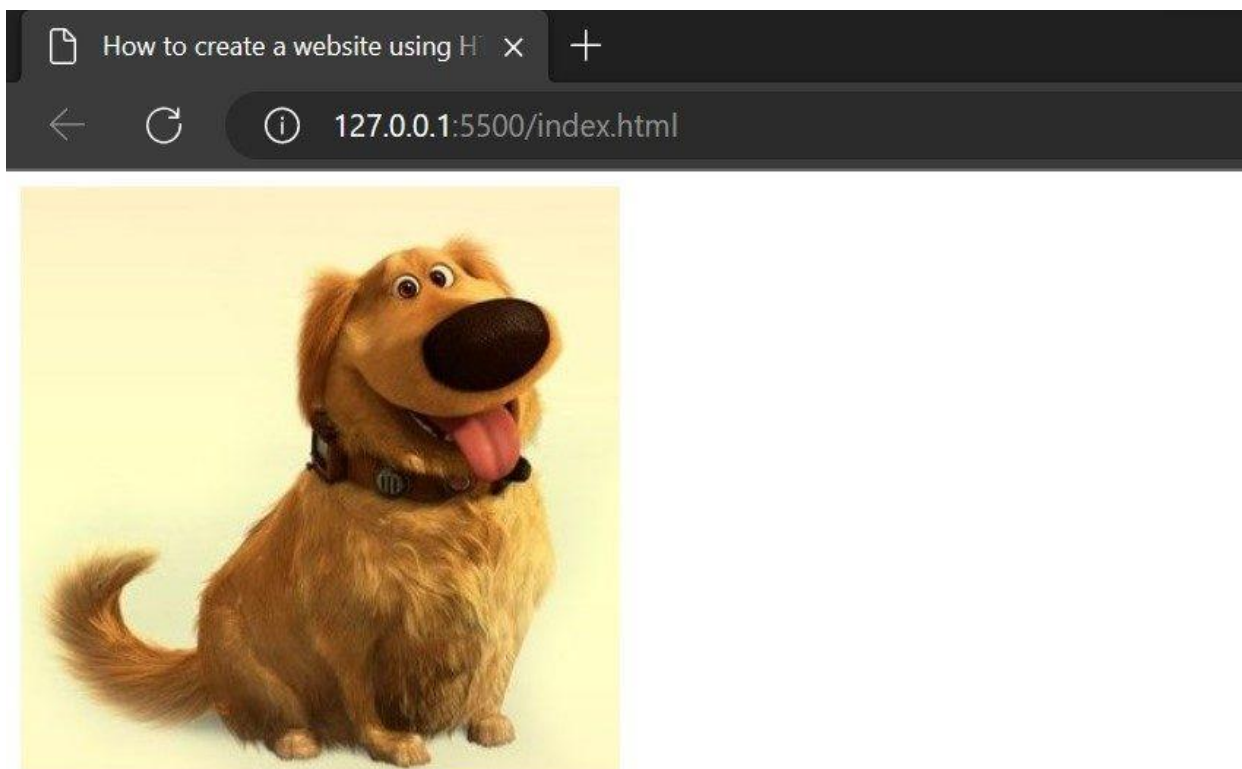
Style Images With CSS

In this section, let's learn how to style images with CSS such as adding a border to an image, adjusting its dimensions, and further specific CSS to our images in the webpage. First, add an image element in the HTML file.

```

```

This will produce following result:



Styling Classes With CSS

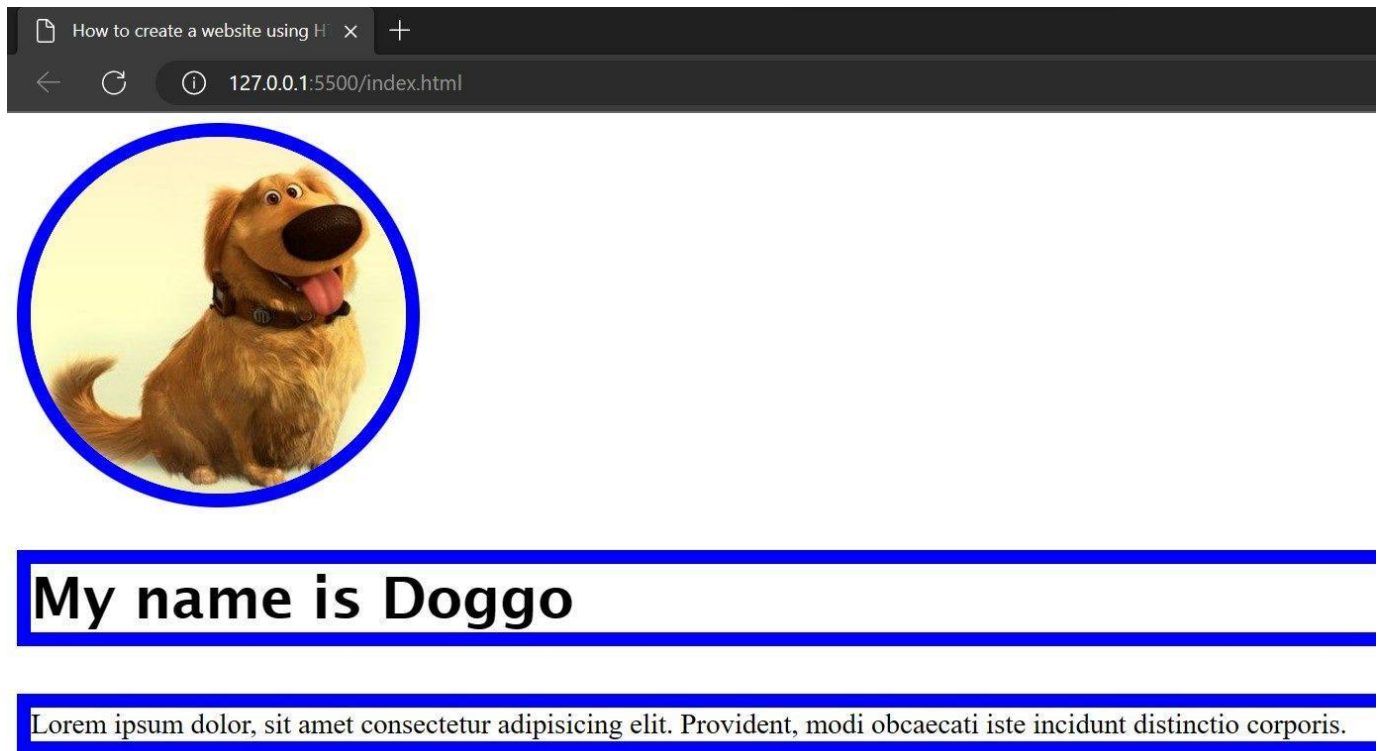
Now, let's see how to create classes with the help of CSS. here, we shall learn how to apply CSS rules only to the HTML elements that have specific classes. First, let's create an HTML element that has some class, and then we shall apply CSS to the entire class. Applying CSS to the entire class will allow us to style all the elements that have the particular class.

```
  
<h2 class="blueBorder">My name is Doggo</h2>  
<p class="blueBorder">Lorem10</p>
```

Example

```
.blueBorder{  
  
border: 12px solid blue;  
  
}
```

To use the class as a selector while creating a CSS rule, we use the ‘.’ symbol before writing the class name in the CSS file.



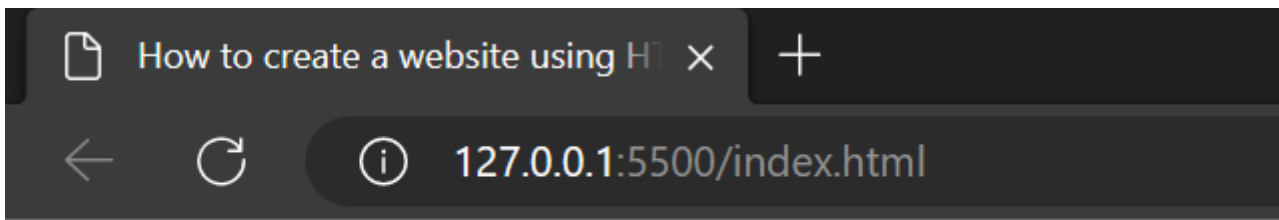
Styling IDs with CSS

Using IDs as selectors while creating CSS rules is similar to using classes as selectors, however, IDs are unique in the HTML document and no two elements can carry the same IDs. IDs are generally applied to the elements which are present only one time in the HTML document such as the navbar, logo, and more.

```
<h2 id="BrowserStack">Using ID as a CSS selector</h2>
```

Now, let's create a CSS rule, using ID as a selector.

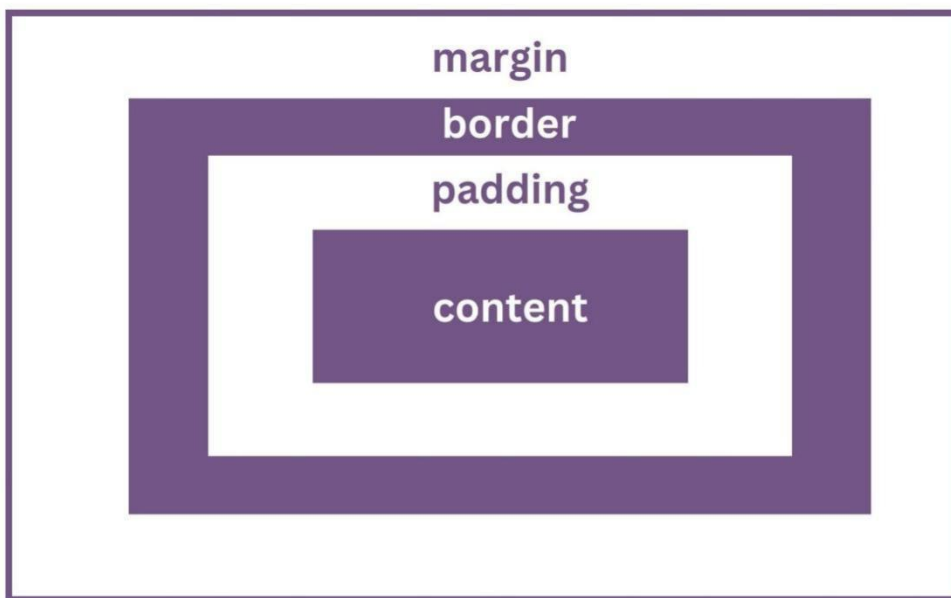
```
#BrowserStack{  
  
font-size: 2rem;  
  
color: blueviolet;  
  
background-color: bisque;  
  
}
```



Using ID as a CSS selector

How To Adjust the Content, Padding, Border, and Margins of an HTML Element With CSS

Before understanding how to adjust the content, padding, border, and margins of an HTML element, let's understand the CSS box model. It is a box that wraps around every HTML element in the DOM.



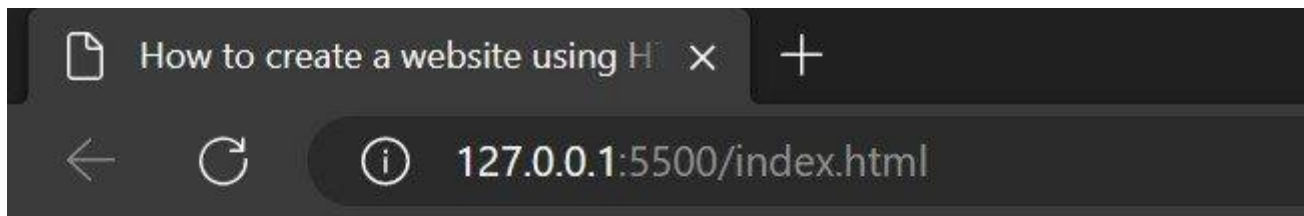
CSS box model

- **Content box:** It is the space where the content of the HTML element appears, such as images, text, and more.
- **Padding:** It is the transparent area around the content of the element.
- **Border:** It is the box surrounding the padding box. By default, the value of the border for every HTML element is zero; however, increasing the border value increases the space between the padding and the margin box.
- **Margin:** It is the transparent area outside the border box.

Let's take the example of the previous image to understand how to adjust these values.

```
img{  
  
height: 300px;  
  
border-radius: 50%;
```

```
border: 12px dotted rgb(255, 85, 0);  
  
padding: 10px 10px 20px 20px;  
  
margin: 20px 20px 15px 10px;  
  
}
```



Let us use seven steps to create a good-looking website from scratch.

- **Step 1: Create a Layout**

First create a basic structure of your website as a rough sketch. There are a lot of free online services that will help you design your website. Nonetheless, you must have a basic structure of the website ready.

```
<!DOCTYPE html>  
  
<html lang="en">
```

```
<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>How to create a website using HTML and CSS</title>

<link rel="stylesheet" href="css/style.css">

</head>

<body>

<header>

<nav>

<ul>

<li><a href="#intro">Home</a></li>

<li><a href="#about">About</a></li>

<li><a href="#contact">Contact</a></li>

</ul>

</nav>

</header>

<main>

<section id="intro">

<div class="Container">



<h2>My name is Doggo</h2>

</div>

</section>

<section id="about">

<div class="container">

<h1>About Me</h1>

<p>hello, friends</p>
```



```
<ul>

<li>Btech Qualified</li>

<li>Software Engineer</li>

<li>GATE AIR 01</li>

</ul>

</div>

</section>


<section id="contact">

<div class="container">

<h1>Contact me</h1>

<p>hello, friends</p>

<ul>

<li>Email ID</li>

<li>Insta ID</li>

<li>Facebook ID</li>

</ul>

</div>

</section>


</main>

<footer>

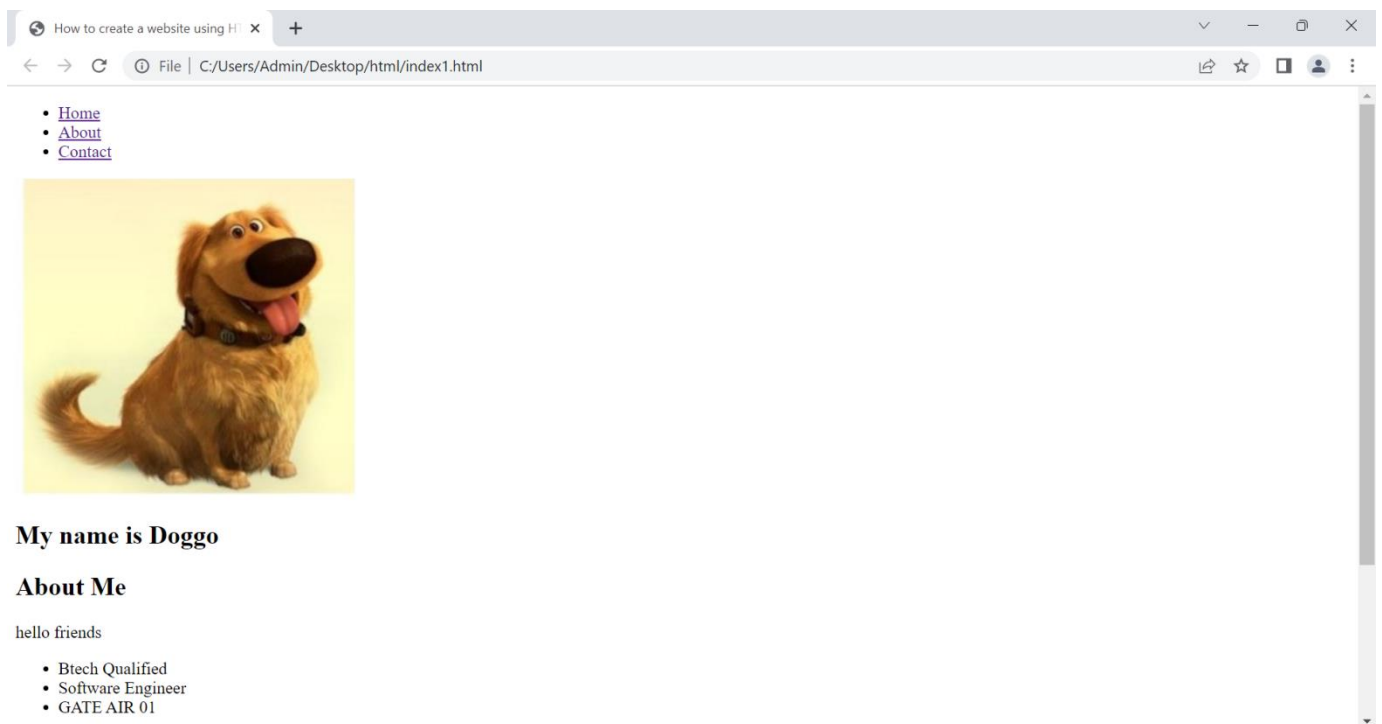
<p>© Copyright 2022 Doggo Co LTd.</p>

</footer>

</body>

</html>
```

This will produce following result:



Create CSS for the layout

Before adding the depth in the CSS, let us first add some basic CSS to make our webpage look somewhat similar to the layout that we designed in the first step.

```
*{  
  
padding: 0;  
  
margin: 0;  
  
}
```

```
header{

height: 45px;

}

header nav ul{

display: flex;

margin-left: 70%;

list-style: none;

}


header nav ul li{

padding-left: 10%;

}


header a{

text-decoration: none;

color: brown;

}

section{

height: 100vh;

border: 1px solid grey;

display: flex;

justify-content: center;

align-items: center;

}
```

```

.Container img{
height: 300px;
border-radius: 50%;
}

.Container h2{
margin-top: 2%;
font-size: 3em;
font-family: 'Lucida Sans', 'Lucida Sans Regular', 'Lucida Grande', 'Lucida Sans Unicode',
Geneva, Verdana, sans-serif;
}

.Container p, ul{
margin-top: 2%;
font-size: 1.5rem;
}

footer {
line-height: 40px;
display: flex;
justify-content: center;
font-size: 1rem;
}

```

- **Add background color and style**

In this step, let us add some finishing touches, and our website is ready. Let us add a background image and background colors to the sections.

```

#intro {

background-image: url(pinkbg.jpg);

```

```
background-repeat: round;
```

```
}
```

```
#about{
```

```
background-color: bisque;
```

```
}
```

```
#contact{
```

```
background-color: blanchedalmond;
```



My name is Doggo

Result:

Thus, we have studied to design webpage using HTML 5.0 and CSS3.