#Day02 of Responsive web Design

1.Margin

We can get spacing between the two HTML elements with the CSS Box property margin.

To get space only on one particular side, we use **Margin Variants**.

- margin-top
- margin-right
- margin-bottom
- margin-left

Try out changing the Margin Variants in the below Code Playground.

Example:

HTML

<!DOCTYPE html>

<html>

  <head>

    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css" integrity="sha384-JcKb8q3iqJ61gNV9KGb8thSsNjpSL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ0Z" crossorigin="anonymous"/>

    <script src="https://code.jquery.com/jquery-3.5.1.slim.min.js" integrity="sha384-DfXdz2htPH0lsSSs5nCTpuj/zy4C+OGpamoFVy38MVBnE+IbbVYUew+OrCXaRkfj" crossorigin="anonymous"></script>

```html
    <script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.1/dist/umd/popper.min.js"
integrity="sha384-9/reFTGAW83EW2RDu2S0VKaIzap3H66lZH81PoYlFhbGU+6BZp
6G7niu735Sk7lN" crossorigin="anonymous"></script>

    <script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"
integrity="sha384-B4gt1jrGC7Jh4AgTPSdUtOBvfO8shuf57BaghqFfPlYxofvL8/KUEf
YiJOMMV+rV" crossorigin="anonymous"></script>

  </head>

  <body>

    <div class="box orange-box"></div>

    <div class="box green-box"></div>

  </body>

</html>
```

CSS

```css
.box {

  padding: 30px;

  margin-bottom: 10px;

}

.orange-box {

  background-color: orange;

}

.green-box {
```

background-color: green;

}

2. Bootstrap Spacing Utilities

2.1 Margin

CSS Margin property	Bootstrap class name
margin	m-*
margin-top	mt-*
margin-right	mr-*
margin-bottom	mb-*
margin-left	ml-*

Note:The asterisk (*) symbol can be any number in the range of 0 to 5. For example, m-5, mr-2, mb-3, etc.

2.2 Margin Values

Size	Value
0	0
1	0.25 * spacer
2	0.5 * spacer
3	1 * spacer
4	1.5 * spacer
5	3 * spacer

The spacer is a variable and has a value of 16 pixels by default.
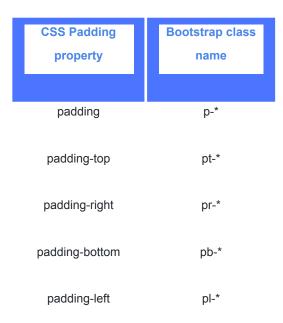
For example,

- **mb-3 = 1 * 16px = 16px**
- **m-5 = 3 * 16px = 48px**

Note

Avoid using CSS

margin-left and margin-right properties for Bootstrap Grid Columns. It disturbs the Bootstrap Grid System and gives unexpected results.

3. Padding

CSS Padding property	Bootstrap class name
padding	p-*
padding-top	pt-*
padding-right	pr-*
padding-bottom	pb-*
padding-left	pl-*

The asterisk (*) symbol can be any number in the range of 0 to 5. For example, p-3, pr-1, pb-5, etc.

3.1 Padding Values

Size	Value
0	0
1	0.25 * spacer
2	0.5 * spacer
3	1 * spacer
4	1.5 * spacer
5	3 * spacer

The **spacer** is a variable and has a value of 16 pixels by default.

For example,

- p-1 = 0.25 * 16px = 4px
- pt-4 = 1.5 * 16px = 24px

4. Bootstrap Background Color Utilities

You can use one of the below Bootstrap class names to apply a background color to an HTML element.

HTML

<!DOCTYPE html>

<html>

  <head>

    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css" integrity="sha384-JcKb8q3iqJ61gNV9KGb8thSsNjpSL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ0Z" crossorigin="anonymous"/>

    <script src="https://code.jquery.com/jquery-3.5.1.slim.min.js" integrity="sha384-DfXdz2htPH0lsSSs5nCTpuj/zy4C+OGpamoFVy38MVBnE+IbbVYUew+OrCXaRkfj" crossorigin="anonymous"></script>

    <script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.1/dist/umd/popper.min.js" integrity="sha384-9/reFTGAW83EW2RDu2S0VKaIzap3H66lZH81PoYlFhbGU+6BZp6G7niu735Sk7lN" crossorigin="anonymous"></script>

```html
    <script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"
integrity="sha384-B4gt1jrGC7Jh4AgTPSdUtOBvfO8shuf57BaghqFfPlYxofvL8/KUEf
YiJOMMV+rV" crossorigin="anonymous"></script>

  </head>

  <body>

    <div class="bg-primary p-2">

      <p>Primary</p>

    </div>

    <div class="bg-secondary p-2">

      <p>Secondary</p>

    </div>

    <div class="bg-success p-2">

      <p>Success</p>

    </div>

    <div class="bg-info p-2">

      <p>Info</p>
```

```html
  </div>

  <div class="bg-warning p-2">

    <p>Warning</p>

  </div>

  <div class="bg-light p-2">

    <p>Light</p>

  </div>

  <div class="bg-dark p-2">

    <p>Dark</p>

  </div>

  <div class="bg-white p-2">

    <p>White</p>

  </div>

  <div class="bg-danger p-2">

    <p>Danger</p>

  </div>
```

```
    </body>

</html>
```

5.Developing Layouts for five Responsive Breakpoints

```
<!DOCTYPE html>

<html>

  <head>

    <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css"
integrity="sha384-JcKb8q3iqJ61gNV9KGb8thSsNjpSL0n8PARn9HuZOnIxN0hoP+V
mmDGMN5t9UJ0Z" crossorigin="anonymous"/>

    <script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"
integrity="sha384-DfXdz2htPH0lsSSs5nCTpuj/zy4C+OGpamoFVy38MVBnE+IbbVY
Uew+OrCXaRkfj" crossorigin="anonymous"></script>

    <script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.1/dist/umd/popper.min.js"
integrity="sha384-9/reFTGAW83EW2RDu2S0VKaIzap3H66lZH81PoYlFhbGU+6BZp
6G7niu735Sk7lN" crossorigin="anonymous"></script>

    <script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"
```

```
      integrity="sha384-B4gt1jrGC7Jh4AgTPSdUtOBvfO8shuf57BaghqFfPlYxofvL8/KUEf
YiJOMMV+rV" crossorigin="anonymous"></script>

  </head>

  <body>

    <h1 class="color-palette-heading">Color Palette</h1>

    <div class="container">

      <div class="row">

        <div class="col-12 col-md-6 col-lg-4 col-xl-3 mb-3">

          <div class="color-box bg-primary">

            <p class="color-name">Primary</p>

          </div>

        </div>

        <div class="col-12 col-md-6 col-lg-4 col-xl-3 mb-3">

          <div class="color-box bg-secondary">

            <p class="color-name">Secondary</p>

          </div>
```

```html
        </div>

        <div class="col-12 col-md-6 col-lg-4 col-xl-3 mb-3">

          <div class="color-box bg-success">

            <p class="color-name">Success</p>

          </div>

        </div>

        <div class="col-12 col-md-6 col-lg-4 col-xl-3 mb-3">

          <div class="color-box bg-info">

            <p class="color-name">Info</p>

          </div>

        </div>

        <div class="col-12 col-md-6 col-lg-4 col-xl-3 mb-3">

          <div class="color-box bg-warning">

            <p class="color-name">Warning</p>

          </div>

        </div>
```

```html
        <div class="col-12 col-md-6 col-lg-4 col-xl-3 mb-3">

          <div class="color-box bg-danger">

            <p class="color-name">Danger</p>

          </div>

        </div>

      </div>

    </div>

  </body>

</html>
```

CSS

```css
.color-palette-heading {

  font-size: 24px;

  text-align: center;

}

.color-box {

  padding: 10px;
```

```css
}

.color-name {

  color: white;

  font-size: 20px;

}
```