

Web Technologies

Bootstrap

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What is the Bootstrap?

- It is a framework for web page developers that has been developed by twitter employees since 2010.
- Using Bootstrap;
 - It can be ensured that web pages appear responsive on different devices.
 - It contains ready-made style templates for many web elements.
 - Easy development of the design is provided
- It consists of css and js files.

What is the Bootstrap?

It is possible to work with Bootstrap online or by downloading the necessary files.

To work online with Bootstrap CSS:

```
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css"
rel="stylesheet" integrity="sha384-
1BmE4kWBq78iYhFldvKuhfTAU6auU8tT94WrHftjDbrCEXSU1oBoqyl2QvZ6jIW3"
crossorigin="anonymous">
```

To work with Bootstrap JavaScript online:

```
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js"
integrity="sha384-
ka7Sk0Gln4gmtz2MlQnikT1wXgYsOg+OMhuP+IlRH9sENBO0LRn5q+8nbTov4+1p"
crossorigin="anonymous"></script>
```

Lines must be added to the head of the relevant web page.

What is the Bootstrap?

- In order to run the files that we will download to our own computer with Bootstrap, we first need to download the necessary files from the site.
- The latest version valid as of now is 5.1.3.
- We can download the files of this version from getbootstrap.com.
- After the page is opened, the necessary files are downloaded from the window opened by clicking the **download** button in the window that appears.

What is the Bootstrap?

After opening the files to the folder where our pages are, we add the files we will use to the head section of our web page.

To work with CSS:

```
<link rel="stylesheet" href="css/bootstrap.css">
```

To work with the compressed version of the file by removing the spaces in CSS:

```
<link rel="stylesheet" href="css/bootstrap.min.css">
```

To work with JavaScript:

```
<script type="text/javascript" src="js/bootstrap.js"></script>
```

To work with the compressed version of the file by removing the spaces in the JavaScript:

```
<script type="text/javascript" src="js/bootstrap.min.js"></script>
```

What is the Bootstrap?

- Bootstrap will be run on HTML5 pages. For this, to the top of the page

```
<!DOCTYPE html>
```

the document becomes an HTML5 document by adding the line.

- To set the character set, click Title line is added.

```
<meta charset="UTF-8">
```

What is the Bootstrap?

For the settings related to displaying the page on mobile devices and for users to enlarge and shrink the page on these devices, click the header

```
<meta name="viewport" content="width=device-width, initial-scale=1">
```

Then the line with the Bootstrap .css and .js files is added.

What is the Bootstrap?

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<title>ÖRNEK</title>
<link rel="stylesheet" href="css/bootstrap.min.css">
</head>
<body>
  <div class="container-fluid">
    <h1>Sayfamız</h1>
    <p>İlk Örneğimiz...</p>
  </div>
</body>
```

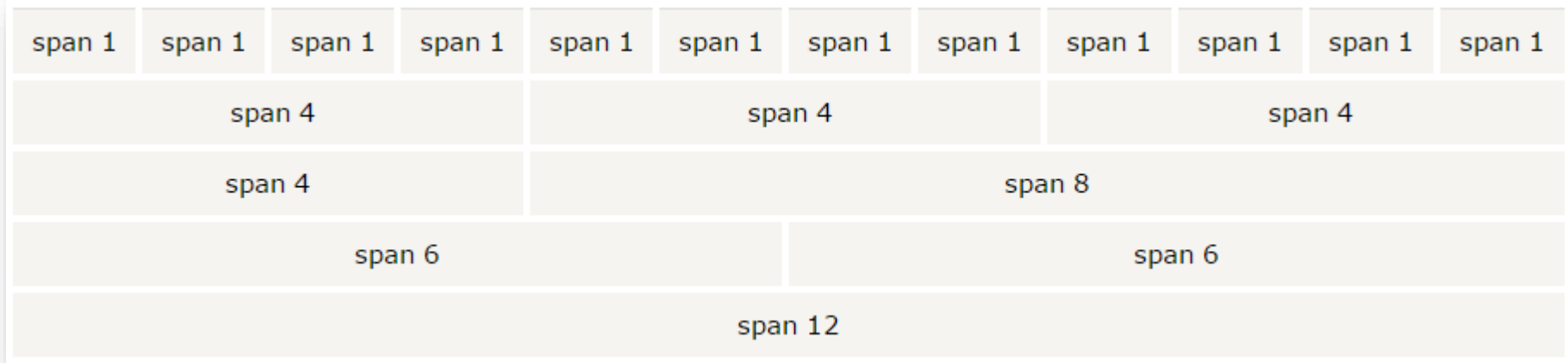
Sayfamız

İlk Örneğimiz...

Bootstrap Grid Structure

In Bootstrap, the grid system is used to determine how the elements on the web page will be placed.

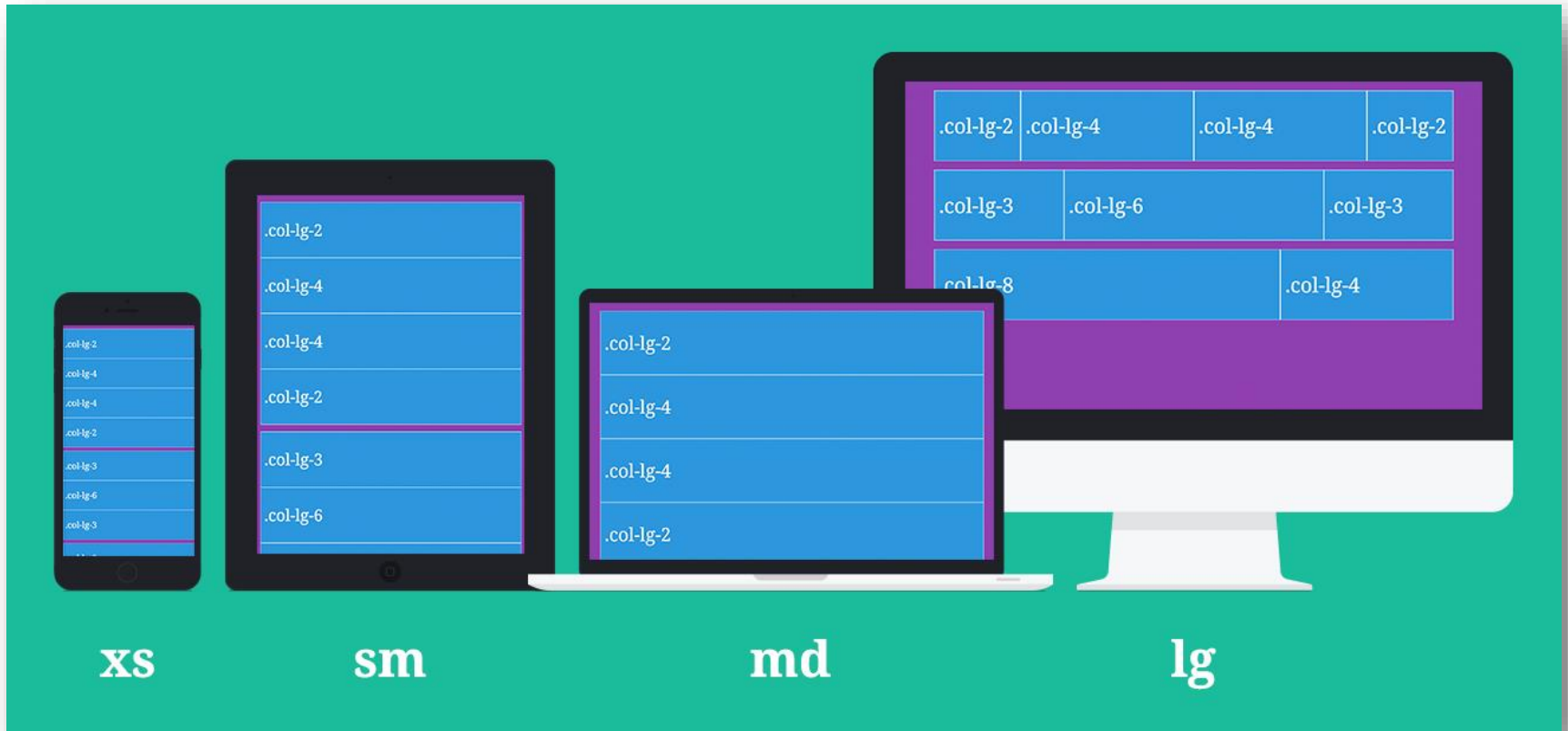
The placement of the elements is achieved by dividing the web page horizontally into 12 equal parts, namely columns.



Bootstrap Grid Structure

- In Bootstrap, there are different subclasses for different devices in addition to the grid system in order to determine how the elements on the web page will be placed.
- Different subclasses are used for 4 different screen resolutions.
 - xs: for mobile phones,
 - sm: for tablets,
 - md: for laptops,
 - lg: for desktop computers.

Bootstrap Grid Structure



Bootstrap Grid Structure

There are 5 different grid structures.

- **col** → for extra small devices (display size < 576px)
- **col-sm** → for small devices (display size ≥ 576px)
- **col-md** → for medium devices (display size ≥ 768px)
- **col-lg** → for large devices (display size ≥ 992px)
- **col-xl** → for xlarge devices (display size ≥ 1200px)

Bootstrap Grid Structure

In order to use the grid structure, a row definition is made using the row class that the grid will be in.

```
<div class="row"> </div>
```

Then div is defined for each column.

col-resolution type-number of columns to be combined in div.

```
<div class="col-sm-4"> 4-column for small devices </div>
```

Bootstrap Grid Structure

ÖRNEK:

- Three equal columns for tablet

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<title>ÖRNEKLER</title>
<link rel="stylesheet" href="css/bootstrap.min.css">
</head>
<body>
  <div class="container">
    <div class="row">
      <div class="col-sm-4" style="background-color: yellowgreen">
        4'lü sütun
      </div>
      <div class="col-sm-4" style="background-color: greenyellow">
        4'lü sütun
      </div>
      <div class="col-sm-4" style="background-color: yellowgreen">
        4'lü sütun
      </div>
    </div>
  </div>
</body>
```

4'lü Sütun

4'lü Sütun

4'lü Sütun

Bootstrap Grid Structure

If there are more than 12 columns in the row, the columns after the 12th column are shown in the lower row. If the placement of the columns does not fit in one line, the display continues from the bottom line.

For example, if the screen is minimized in the previous application or if it is shown on the screen with a smaller resolution (such as a mobile phone), it is displayed one after the other.



4 lü Sütun

4 lü Sütun

4 lü Sütun

Bootstrap Grid Structure

```
<div class="container">
  <div class="row">
    <div class="col-sm-4" style="background-color: yellowgreen">4'lü 3 sütun</div>
    <div class="col-sm-4" style="background-color: greenyellow">4'lü 3 sütun</div>
    <div class="col-sm-4" style="background-color: yellowgreen">4'lü 3 sütun</div>
  </div>
  <div class="row">
    <div class="col-sm-12" style="background-color: lightgreen">12'li tek
sütun</div>
  </div>
  <div class="row">
    <div class="col-sm-3" style="background-color: yellowgreen">3'lü 4 sütun</div>
    <div class="col-sm-3" style="background-color: greenyellow">3'lü 4 sütun</div>
    <div class="col-sm-3" style="background-color: yellowgreen">3'lü 4 sütun</div>
    <div class="col-sm-3" style="background-color: greenyellow">3'lü 4 sütun</div>
  </div>
</div>
```

4 lü 3 Sütun

4 lü 3 Sütun

4 lü 3 Sütun

12 li tek Sütun

3 lü 4 Sütun

3 lü 4 Sütun

3 lü 4 Sütun

3 lü 4 Sütun

Bootstrap Grid Structure

If desired, more than one resolution type class can be used together by giving values with spaces between them.

It chooses which css to use by looking at the screen resolution.

```
<div class="container">
  <div class="row">
    <div class="col-md-6 col-lg-3" style="background-color: yellowgreen">
      Dizüstü 2, masaüstü 4 sütun
    </div>
    <div class="col-md-6 col-lg-3" style="background-color: greenyellow">
      Dizüstü 2, masaüstü 4 sütun
    </div>
    <div class="col-md-6 col-lg-3" style="background-color: yellowgreen">
      Dizüstü 2, masaüstü 4 sütun
    </div>
    <div class="col-md-6 col-lg-3" style="background-color: greenyellow">
      Dizüstü 2, masaüstü 4 sütun
    </div>
  </div>
</div>
```

Bootstrap Grid Structure

Diz üstü 2 sütun Masaüstü 4 sütun

Diz üstü 2 sütun Masaüstü 4 sütun

Diz üstü 2 sütun Masaüstü 4 sütun

Diz üstü 2 sütun Masaüstü 4 sütun

Diz üstü 2 sütun Masaüstü 4 sütun

Diz üstü 2 sütun Masaüstü 4 sütun

Diz üstü 2 sütun Masaüstü 4 sütun

Diz üstü 2 sütun Masaüstü 4 sütun

Bootstrap Grid Structure

If desired, more than one grid structure can be used together.

It is necessary to define a line every time during use.

```
<div class="container">
  <div class="row">
    <div class="col-sm-4" style="background-color: yellowgreen">
      <div class="row">
        <div class="col-sm-6" style="background-color: #bce8f1">6'lı 2 sütun</div>
        <div class="col-sm-6" style="background-color: blue">6'lı 2 sütun</div>
      </div>
    </div>
    <div class="col-sm-4" style="background-color: greenyellow">4'lü 3 sütun</div>
    <div class="col-sm-4" style="background-color: yellowgreen">4'lü 3 sütun</div>
  </div>
</div>
```

Bootstrap Text Color

There are defined color classes that can be given to texts with Bootstrap.

- `text-muted`
- `text-primary`
- `text-success`
- `text-info`
- `text-warning`
- `text-danger`
- `text-secondary`
- `text-white`
- `text-dark`
- `text-body`
- `text-light`

Bootstrap Text Color

..

```
<p class="text-muted">sessiz</p>
<p class="text-primary">önemli</p>
<p class="text-success">başarı</p>
<p class="text-info">bilgi</p>
<p class="text-warning">uyarı</p>
<p class="text-danger">tehlike</p>
<p class="text-secondary">ikinci metin</p>
<p class="text-dark">dark grey</p>
<p class="text-body">gövde rengi(genellikle siyah)</p>
<p class="text-light">açık gri(beyaz arkaplanda)</p>
<p class="text-white">beyaz(siyah arkaplanda)</p>
```

sessiz

önemli

başarı

bilgi

uyarı

tehlike

ikinci metin

dark grey

gövde rengi(genellikle siyah)

açık gri(beyaz arkaplanda)

beyaz(siyah arkaplanda)

Bootstrap Background Color

There are defined color classes that can be given for the background with Bootstrap.

- `bg-primary`
- `bg-success`
- `bg-info`
- `bg-warning`
- `bg-danger`
- `bg-secondary`
- `bg-dark`
- `bg-light`

You can use the `.text-*` class to specify text colors along with background colors.

Bootstrap Text and Background Color

..

```
<p class="bg-primary text-white">ÖNEMLİ</p>
<p class="bg-success text-white">BAŞARILI</p>
<p class="bg-info text-white">BİLGİ</p>
<p class="bg-warning text-white">UYARI</p>
<p class="bg-danger text-white">TEHLİKE</p>
<p class="bg-secondary text-white">İKİNCİ ARKAPLAN RENGİ</p>
<p class="bg-dark text-white">KOYU GRİ ARKAPLAN RENGİ</p>
<p class="bg-light text-dark">AÇIK GRİ ARKAPLAN RENGİ</p>
```

ÖNEMLİ

BAŞARILI

BİLGİ

UYARI

TEHLİKE

İKİNCİ ARKAPLAN RENGİ

KOYU GRİ ARKAPLAN RENGİ

AÇIK GRİ ARKAPLAN RENGİ

Bootstrap Tables

When the .table class is used in the table tag, a table with an inner row border is created.

```
<table class="table">
  <tr>
    <td>Ad</td><td>Soyad</td><td>Ortalama</td>
  </tr>
  <tr>
    <td>Ali</td><td>YILMAZ</td><td>75</td>
  </tr>
  <tr>
    <td>Veli</td><td>ÖZTÜRK</td><td>90</td>
  </tr>
</table>
```

Ad	Soyad	Ortalama
Ali	Gel	75
Veli	Git	90

Bootstrap Tables

- To have table borders **.table-bordered**,
- to create zebra stripes on the table **.table-striped**,
- to change color on the line **.table-hover**,
- for resolution sensitive table **.table-responsive** classes can be added.
- The classes that can be used to give the background color to table rows and (or) columns:

- `table-primary`
- `table-success`
- `table-info`
- `table-warning`
- `table-danger`
- `table-active`
- `table-secondary`
- `table-dark`
- `table-light`

Bootstrap Tables

ÖRNEK:

```
<table class="table">
  <tr class="table-warning">
    <td>Ad</td><td>Soyad</td><td>Ortalama</td>
  </tr>
  <tr>
    <td class="table-active">Ali</td>
    <td class="table-success">YILMAZ</td>
    <td class="table-info">75</td>
  </tr>
  <tr>
    <td>Veli</td><td>ÖZTÜRK</td><td>90</td>
  </tr>
</table>
```

Ad	Soyad	Ortalama
Ali	YILMAZ	75
Veli	ÖZTÜRK	90

Bootstrap Tables

ÖRNEK:

```
<div class="table-responsive">
  <table class="table table-striped">
    <tr class="table-warning">
      <td>Ad</td><td>Soyad</td><td>Ortalama</td>
    </tr>
    <tr>
      <td class="table-active">Ali</td>
      <td class="table-success">YILMAZ</td>
      <td class="table-info">75</td>
    </tr>
    <tr>
      <td>Veli</td><td>ÖZTÜRK</td><td>90</td>
    </tr>
  </table>
</div>
```

Ad	Soyad	Ortalama
Ali	YILMAZ	75
Veli	ÖZTÜRK	90

Bootstrap Images

.Rounded to show the picture with rounded edges, **.rounded-circle** to show it inside the circle, **.img-thumbnail** to show it with a clawed border, and **.img-fluid** classes to create resolution sensitive images.

```
<div class="container">
  <div class="row">
    <div class="col-lg-4">
      
    </div>
    <div class="col-lg-4">
      
    </div>
    <div class="col-lg-4">
      
    </div>
  </div>
</div>
```

Bootstrap Images...

ÖRNEK:

```
<div class="container">
  <div class="row">
    <div class="col-lg-4">
      
    </div>
    <div class="col-lg-4">
      
    </div>
    <div class="col-lg-4">
      
    </div>
  </div>
</div>
```



Bootstrap Alert Class

Bootstrap 4 allows predefined alert messages.

The `.alert` class is used for simple warning messages.

The following classes can be used to define the background colors differently:

- `alert-primary`
- `alert-success`
- `alert-info`
- `alert-warning`
- `alert-danger`
- `alert-secondary`
- `alert-dark`
- `alert-light`

NOTE: Warning messages can be created using Bootstrap Javascript. This part will be explained later....

Bootstrap Alert Class

ÖRNEK:

```
<div class="alert alert-success"><strong>BAŞARILI!</strong></div>
<div class="alert alert-info"><strong>BİLGİ!</strong></div>
<div class="alert alert-warning"><strong>UYARI!</strong></div>
<div class="alert alert-danger"><strong>TEHLİKE!</strong></div>
<div class="alert alert-primary"><strong>BİRİNCİL!</strong></div>
<div class="alert alert-secondary"><strong>İKİNCİL!</strong></div>
<div class="alert alert-dark"><strong>KOYU GRİ!</strong></div>
<div class="alert alert-light"><strong>AÇIK GRİ!</strong></div>
```

BAŞARILI!

BİLGİ!

UYARI!

TEHLİKE!

BİRİNCİL!

İKİNCİL!

KOYU GRİ!

AÇIK GRİ!

Bootstrap Buttons

For basic buttons .btn class is used.

Button classes can be used for `<a>`, `<button>` or `<input>` elements.

```
<a href="#" class="btn btn-info" role="button">Bağlantı Butonu</a>  
<button type="button" class="btn btn-info">Buton</button>  
<input type="button" class="btn btn-info" value="Giriş Butonu">  
<input type="submit" class="btn btn-info" value="Submit Butonu">
```

Link Button

Button

Input Button

Submit Button

Bootstrap Buttons...

The classes given below on the left can be used to define different buttons in the background colors on the web pages, and the classes given below on the right can be used to define different buttons with border colors. :

- `btn-primary`
- `btn-secondary`
- `btn-success`
- `btn-info`
- `btn-warning`
- `btn-danger`
- `btn-dark`
- `btn-light`
- `btn-link`

- `btn-outline-primary`
- `btn-outline-secondary`
- `btn-outline-success`
- `btn-outline-info`
- `btn-outline-warning`
- `btn-outline-danger`
- `btn-outline-dark`
- `btn-outline-light`

Bootstrap Buttons...

The `.btn-lg` classes are used to create buttons larger than their default size, and `.btn-sm` classes are used to create smaller buttons.

```
<button type="button" class="btn btn-primary btn-lg">BÜYÜK</button>  
<button type="button" class="btn btn-primary btn-md">VARSAYILAN</button>  
<button type="button" class="btn btn-primary btn-sm">KÜÇÜK</button>
```

BÜYÜK

VARSAYILAN

KÜÇÜK

Bootstrap Buttons...

Buttons can be enabled/disabled.

The **.active** class is used for a button to be active, that is, clickable, and the disabled property is used to make it unclickable.

The **.disabled** class is used to make this tag unclickable because the anchor tag does not support the disabled property.

```
<button type="button" class="btn btn-primary">BUTON</button>  
<button type="button" class="btn btn-primary active">AKTİF BUTON</button>  
<button type="button" class="btn btn-primary" disabled>ENGELLENMİŞ BUTON</button>  
<a href="#" class="btn btn-primary disabled">ENGELLENMİŞ BAĞLANTI</a>
```

BUTON

AKTİF BUTON

ENGELLENMİŞ BUTON

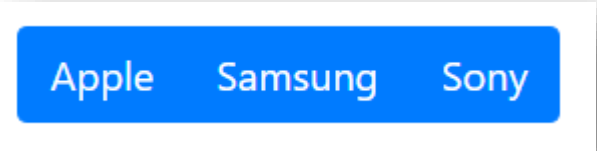
ENGELLENMİŞ BAĞLANTI

Bootstrap Buttons

To group the buttons on the web page on a single line, not separately, the buttons are defined in the `.btn-group` class.

To accomplish this, buttons are defined within a `<div>` tag defined using a `.btn-group` class.

```
<div class="btn-group">  
  <button type="button" class="btn btn-primary">Apple</button>  
  <button type="button" class="btn btn-primary">Samsung</button>  
  <button type="button" class="btn btn-primary">Sony</button>  
</div>
```

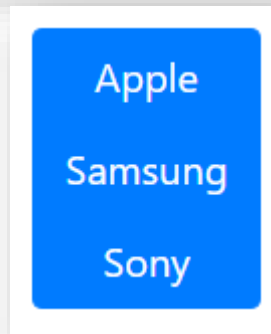


Apple Samsung Sony

Bootstrap Buttons

The `.btn-group-vertical` class is used to group the buttons vertically.

```
<div class="btn-group-vertical">  
  <button type="button" class="btn btn-primary">Apple</button>  
  <button type="button" class="btn btn-primary">Samsung</button>  
  <button type="button" class="btn btn-primary">Sony</button>  
</div>
```



Bootstrap Badge Class

Badge is used to provide additional information for any content.

The `.badge` class is used in the `` tag content to create rectangular marks.

The content classes that can be used in the `.badge` class are listed below.

- `badge-primary`
- `badge-secondary`
- `badge-success`
- `badge-info`
- `badge-warning`
- `badge-danger`
- `badge-dark`
- `badge-light`
- `badge-link`

Signs with more rounded borders are created using the `.badge-pill` class.

Bootstrap Badge Class

EXAMPLE:

```
<span class="badge">İŞARET</span>  
<span class="badge badge-warning">UYARI İŞARETİ</span>  
<span class="badge badge-pill badge-danger">YUVARLATILMIŞ UYARI İŞARETİ</span>
```

İŞARET UYARI İŞARETİ YUVARLATILMIŞ UYARI İŞARETİ

```
<button type="button" class="btn btn-primary">  
  MESAJLAR <span class="badge badge-light">4</span>  
</button>  
<button type="button" class="btn btn-danger">  
  UYARILAR <span class="badge badge-light">7</span>  
</button>
```

MESAJLAR 4

UYARILAR 7

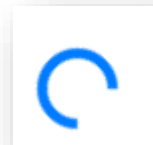
Bootstrap Spinner Class

To create a spinner/loader, the `.spinner-border` class is used.

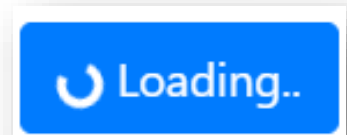
The `.spinner-grow` class is used to create a grow effect instead of a spin effect.

EXAMPLE:

```
<div class="spinner-border text-primary"></div>
```



```
<button class="btn btn-primary">  
  <span class="spinner-border spinner-border-sm"></span>  
  YÜKLENİYOR..  
</button>
```



Bootstrap Pagination

In order to paginate structures consisting of more than one page, the `.pagination` class is used in the `` list element.

The `.page-item` class is used for each list element, and the `.page-link` class is used for each link element within the list element.

The class of the current page is made `.active`.

```
<ul class="pagination">
  <li class="page-item"><a class="page-link" href="#">&lt;</a></li>
  <li class="page-item active"><a class="page-link" href="#">1</a></li>
  <li class="page-item"><a class="page-link" href="#">2</a></li>
  <li class="page-item"><a class="page-link" href="#">3</a></li>
  <li class="page-item"><a class="page-link" href="#">&gt;</a></li>
</ul>
```




Bootstrap Pagination...

The `.breadcrumb` class is used in the `` list to use "/" instead of boxes in order to paginate structures consisting of more than one page.

The `.breadcrumb-item` class is used for each list element.

The class of the current page is made `.active`.

```
<ul class="breadcrumb">
  <li class="breadcrumb-item"><a href="#">1</a></li>
  <li class="breadcrumb-item"><a href="#">2</a></li>
  <li class="breadcrumb-item"><a href="#">3</a></li>
  <li class="breadcrumb-item active">4</li>
</ul>
```



1 / 2 / 3 / 4

Bootstrap Lists

To work with list boxes, the `.list-group` class is used in the `` tag, and the `.list-group-item` class is used in list elements.

The `.active` class is used for the current list element.

To change the color of the list element when hovered with the mouse. The `list-group-item-action` class is used.

The following classes are used to color the background of list elements:

- `list-group-item -primary`
- `list-group-item -success`
- `list-group-item -secondary`
- `list-group-item -info`
- `list-group-item -warning`
- `list-group-item -danger`
- `list-group-item -dark`
- `list-group-item -light`

Bootstrap Lists...

EXAMPLE:

```
<div class="list-group">
  <a href="#" class="list-group-item
                    list-group-item-action">LISTE ELEMANI - 1</a>
  <a href="#" class="list-group-item
                    list-group-item-action
                    list-group-item-success">LISTE ELEMANI - 2</a>
</div>
```

LISTE ELEMANI - 1

LISTE ELEMANI - 2

Bootstrap Lists...

EXAMPLE:...

```
<ul class="list-group">
  <li class="list-group-item
            list-group-item-action
            list-group-item-success">LISTE ELEMANI - 1</li>
  <li class="list-group-item
            list-group-item-secondary">LISTE ELEMANI - 2</li>
</ul>
```

LISTE ELEMANI - 1

LISTE ELEMANI - 2

Kaynaklar:

<http://www.w3schools.com/>

<http://ozgrozer.com/2015/06/08/bootstrap-izgara-sistemi>