

Bootstrap4

3.1.1 Introduction to Bootstrap

- Bootstrap is a free front-end framework for faster and easier web development.
- Bootstrap includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many others, as well as optional JavaScript plugins.
- Bootstrap also gives you the ability to easily create responsive designs.

3.1.2 Use of Bootstrap

- Easy to use: Anybody with just basic knowledge of HTML and CSS can start using Bootstrap
- Responsive features: Bootstrap's responsive CSS adjusts to phones, tablets, and desktops
- Mobile-first approach: In Bootstrap, mobile-first styles are part of the core framework
- Browser compatibility: Bootstrap 4 is compatible with all modern browsers (Chrome, Firefox, Internet Explorer 10+, Edge, Safari, and Opera)

Example of Bootstrap 4 :

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport"
    content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
    href="https://cdn.jsdelivr.net/npm/bootstrap@4.6.2/dist/css/bootstrap.min.css">
```

```
<script
src="https://cdn.jsdelivr.net/npm/jquery@3.6.4/dist/jquery.slim.min.js"
> </script>
<script
src="https://cdn.jsdelivr.net/npm/popper.js@1.16.1/dist/umd/popper.min.js"> </script>
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@4.6.2/dist/js/bootstrap.bundle.min.js"> </script>
</head>
<body>
```

```
<div class="jumbotron text-center">
  <h1>My First Bootstrap Page</h1>
  <p>Resize this responsive page to see the effect!</p>
</div>
```

```
<div class="container">
  <div class="row">
    <div class="col-sm-4">
      <h3>Column 1</h3>
      <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit...</p>
      <p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...</p>
    </div>
    <div class="col-sm-4">
      <h3>Column 2</h3>
      <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit...</p>
      <p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...</p>
    </div>
    <div class="col-sm-4">
      <h3>Column 3</h3>
      <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit...</p>
      <p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...</p>
    </div>
  </div>
</div>
```

```
</div>
</div>
```

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

Links to use bootstrap 4 :

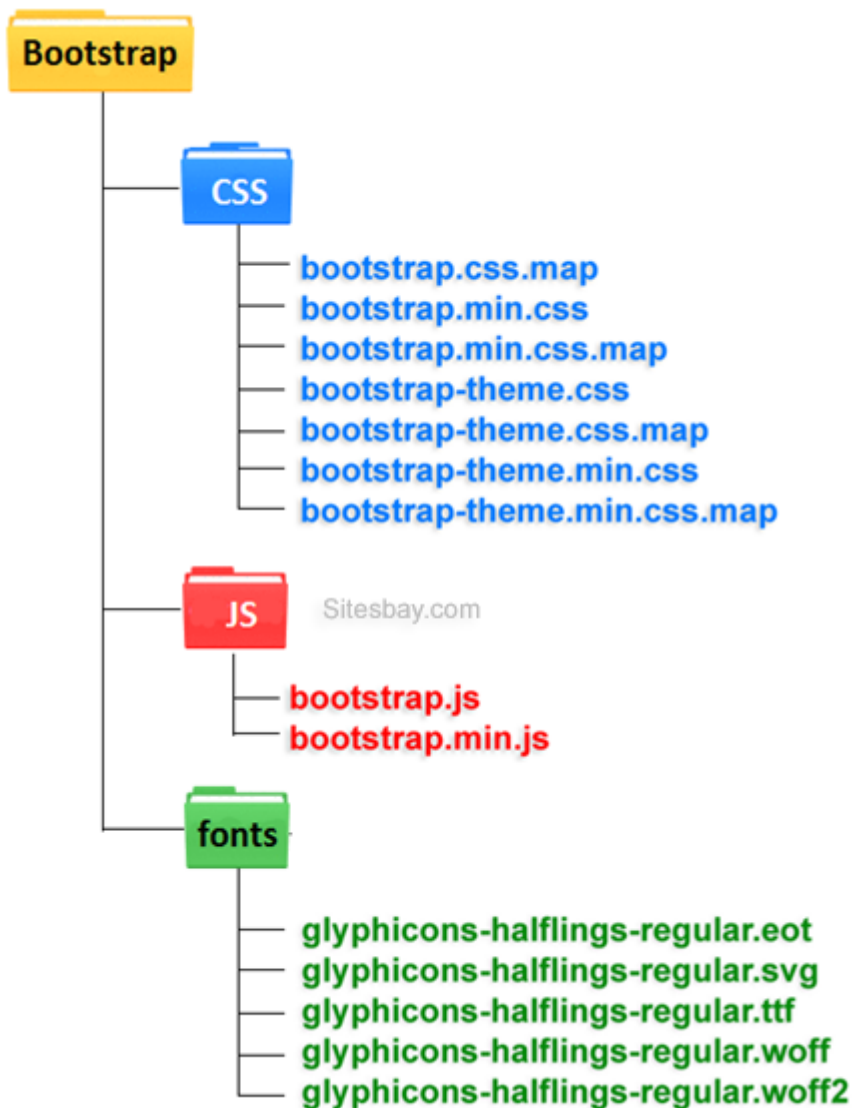
```
<!-- Latest compiled and minified CSS -->
<link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.6.2/dist/css
/bootstrap.min.css">

<!-- jQuery library -->
<script
src="https://cdn.jsdelivr.net/npm/jquery@3.6.4/dist/jquery.
slim.min.js"></script>

<!-- Popper JS -->
<script
src="https://cdn.jsdelivr.net/npm/popper.js@1.16.1/dist/umd
/popper.min.js"></script>

<!-- Latest compiled JavaScript -->
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@4.6.2/dist/js/b
ootstrap.bundle.min.js"></script>
```

3.1.3 Structure of Bootstrap



Some well known classes of bootstrap :

- Text Colours
 - .text-muted, .text-primary, .text-success, .text-info, .text-warning, .text-danger, .text-secondary, .text-white, .text-dark, .text-body
- Background Color
 - .bg-primary, .bg-success, .bg-info, .bg-warning, .bg-danger, .bg-secondary, .bg-dark, .bg-light
- Table
 - .table-striped, .table-bordered, .table-hover, .table-dark, table-hover | striped | bordered
- Other properties
 - .container : responsive container of fixed width

- .container-fluid : full width container
- .p : padding
- .pt : top padding (likewise for bottom, left & right)
- .border
- .bg-dark
- .bg-primary
- Size of Container
 - .sm
 - .md
 - .lg
 - .xl
- Grid
 - Bootstrap-4 divides the screen into 12 columns, we can define how many columns should contain by container, if we don't define it, the grid automatically divides them in equal partitions.
- Bootstrap 4 uses a default font-size of 16px, and its line-height is 1.5.
 - .display-1 (Bigger Font Size)
 - .display-2
 - .display-3
 - .display-4 (Smaller Font Size)
 - .mark : highlight text
 - .dl : description list
 - .font-weight-bold
 - .font-italic
 - .text-black-50 (here 50 is opacity)
 - .rounded (add rounded corners to the image)
 - .jumbotron (Text with extra attention, major padding and larger font size)
 - .alert (alert message)
 - .alert-dismissible (for closing alerts)
 - .btn (we can add other classes for styling purpose too)
- Badge
 - .badge
 - .badge-pill