

Bootstrap

3.1 Basics of Bootstrap

3.1.1 Introduction of Bootstrap

- Bootstrap is a popular easy-to-learn powerful frontend framework that makes a developer's life easy in developing responsive and mobile-friendly websites.
- Bootstrap was developed by Twitter (X).
- It is widely known for its pre-designed CSS and JavaScript components which a developer can easily use in their web apps.
- The current stable version of Bootstrap is v5.3

3.1.2 Use of Bootstrap

- Bootstrap simplifies the development process by providing ready-to-use UI components.
- It provides components like forms, carousels, navbars, buttons, etc.
- It is used to make a website responsive as all of the bootstrap components are responsive out of the box.
- While Bootstrap styles may look old and generic but the customization potential in these components is huge enough to overshadow it.

3.1.3 Structure of Bootstrap

Bootstrap offers a set of tools, components, and styling to streamline the development process and create visually appealing and user-friendly websites.

Here's an overview of the typical structure when using Bootstrap:

1. HTML template:

- Begin by setting up the basic HTML structure. Add the `<html>`, `<meta>`, `<head>`, and `<body>` elements.
- Eg:

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

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

  <title>My Bootstrap Website</title>

</head>

<body>

  <!-- Content -->

</body>

</html>
```

2. Bootstrap CSS and JavaScript CDN

- Link these URLs to <link> and <script> tags respectively

JS -

<https://cdn.jsdelivr.net/npm/bootstrap@5.3.1/dist/js/bootstrap.bundle.min.js>

CSS -

<https://cdn.jsdelivr.net/npm/bootstrap@5.3.1/dist/css/bootstrap.min.css>

3. Adding a Navbar

- Eg:

```
<nav class="navbar navbar-expand-lg bg-body-tertiary">
  <div class="container-fluid">
    <a class="navbar-brand" href="#">GUI training</a>
    <!-- Other links and options -->
  </div>
</nav>
```

4. Container

- Wrapping content within a Bootstrap container provides a responsive layout and ensures proper alignment.
- Eg:

```
<div class="container">
  <!-- Content -->
</div>
```

5. Grid System

- Using the Bootstrap grid system we can create responsive layouts. The grid consists of rows and columns that help structure the content.

- Eg:

```
<div class="row">
  <div class="col-md-6">Column 1</div>
  <div class="col-md-6">Column 2</div>
</div>
```

6. Components

- Bootstrap provides 100s of prebuilt components which are ready to use and modify.

- Eg:

```
<button class="btn btn-primary">Click Me</button>

<form>
  <!-- Form fields -->
</form>

<div class="card">
  <!-- Card content -->
</div>
```

Bootstrap Reference:

<https://getbootstrap.com/docs/5.3/getting-started/introduction/>