Bootstrap

- Bootstrap is an open source toolkit for developing Mobile and Web Applications with HTML, CSS and JavaScript.
- It provides a repository [library] that helps developers to build complex HTML, CSS and JavaScript page with less logic and markup.
- It provides pre-defined CSS classes and stylesheets, which you can use for any HTML page.
- Bootstrap even provides templates for web and mobile application.
- Bootstrap also provide premium features.

  www.getbootstrap.com
- Latest version 4.5
- Bootstrap 5 is coming [not stable yet]

Setup Environment for Bootstrap

- Download "Node.js" on your computer.
- Node.js is required for Package Manager.
- Package Manager is a tool used to install and maintain packages [library] for project.
- There are several package managers
  - NPM
  - Yarn
  - Bower
  - RubyGems
  - NuGet
- Download Node.js for NPM
  https://nodejs.org/en/download/
- Test Node.js version from command prompt

```
> node -v
> npm -v
```

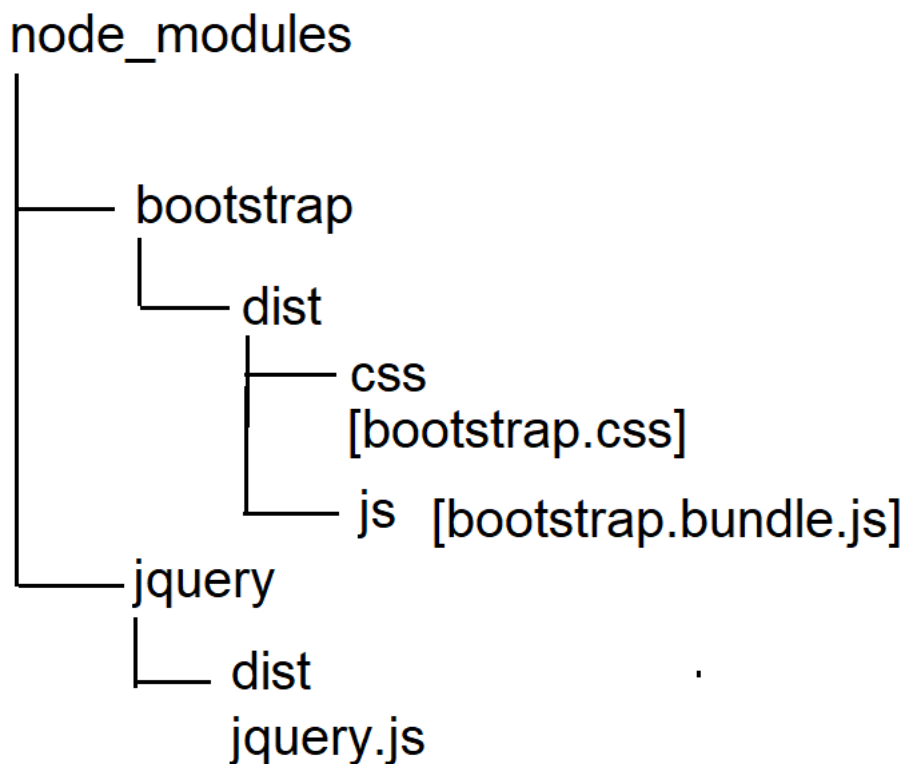## Install Bootstrap for your project with NPM:

- Open your project in VS code
- Open Terminal [Ctrl + `]
- Type the following command
  ```
  > npm install bootstrap
  ```
- Bootstrap library is added into a folder "**node_modules**"

Install jQuery for your project with NPM:

- jQuery is a library used by bootstrap for creating complex interactions.
- To install jQuery type the following command
  ```
  > npm install jquery
  ```

- jQuery library is added into
  "node_modules"

The basic files required for bootstrap templates from "bootstrap and jQuery" are:

```
node_modules
│
├── bootstrap
│       └── dist
│               ├── css
│               │   [bootstrap.css]
│               │
│               └── js  [bootstrap.bundle.js]
└── jquery
        └── dist
            jquery.js
```

- bootstrap.css
- jquery.js
- bootstrap.bundle.js

Note: Any jQuery file of bootstrap must be defined only after "jquery.js"

- A developer has to know about different types of CSS classes provided by **bootstrap.css** and different types of attributes provided by **bootstrap.bundle.js**
- A developer can extend existing bootstrap classes and customize according to his requirements.

Ex:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Demo</title>
```

```
    <link rel="stylesheet"
href="../node_modules/bootstrap/dist/cs
s/bootstrap.css">

  </head>

  <body class="container">

    <h1 class="text-primary text-
center">Welcome to Bootstrap</h1>

    <button class="btn btn-outline-
primary">Submit</button>

  </body>

</html>
```

Bootstrap Containers

- Containers are used for basic layout design.
- Containers are defined with margin and padding.

- Containers are controller with "@media()" feature, which can make your content responsive.
- Bootstrap provides 3 different container classes
  - o .container
  - o .container-fluid
  - o .container-sizes[sm, md, lg, xl]

Container Class	Resolution
.container	Min 540px – Max 1200px - width
.container-sm	Min 540px – max 1140px [mobile]
.container-md	Min 100% - max 1140px [tab]

.container-lg	Min 100% - max 1140px [laptop]
.container-xl	Min 100% - max 1140px [desktop]
.container-fluid	Min 100% - max 100% [responsive]

Ex:

```html
<!DOCTYPE html>
<html>
  <head>
    <title>Demo</title>
    <link rel="stylesheet" href="../node_modules/bootstrap/dist/css/bootstrap.css">
    <style>
      div {
```

```html
            border:2px solid darkcyan;

            margin-top: 10px;

        }

    </style>

</head>

<body>

  <div class="container">

      Container

  </div>

  <div class="container-sm">

      Container-sm

  </div>

  <div class="container-fluid">

      Container Fluid

  </div>

</body></html>
```