**Bootstrap – 5**

* It is a component library for Web Development.
* Component comprises of
  + HTML
  + CSS
  + JavaScript code snippets
* You can inject, customize and implement in your web application.
* Bootstrap will provide a good UI and UX for application.
* Bootstrap also provides premium template. [Paid]

**Setup Environment**

* Download and Install “Node.js” on your PC  
  <https://nodejs.org/en/download/>
* Node.js is required for a package manager “NPM”
* Other package managers you can use
  + Yarn
  + NuGet
  + Bower
  + RubyGems etc..
* Test Node.js and NPM from command prompt

**C:\>node -v  
C:\>npm -v**

* Download and Install “Visual Studio Code Editor”  
  [**https://code.visualstudio.com/**](https://code.visualstudio.com/)
* **Install “Live Server Extension” in Visual Studio Code**

**Create a new Project and Setup Bootstrap**

* Create a new Folder in your PC “C:\bootstrap-workshop”
* Open folder in “Visual Studio Code Editor”
* Go to “Terminal Menu - > New Terminal”
* Run the following command   
  **> npm init**

package name: (bootstrap-workshop)

version: (1.0.0)

description: Bootstrap Examples

entry point: (index.js)

test command:

git repository:

keywords:

author: NIT

license: (ISC)

About to write to C:\bootstrap-workshop\package.json:

{

"name": "bootstrap-workshop",

"version": "1.0.0",

"description": "Bootstrap Examples",

"main": "index.js",

"scripts": {

"test": "echo \"Error: no test specified\" && exit 1"

},

"author": "NIT",

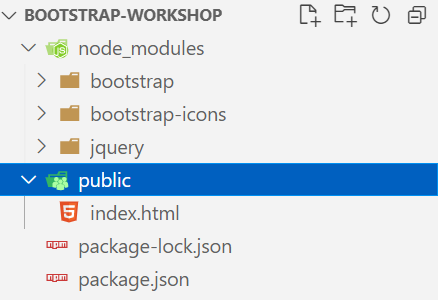
"license": "ISC"

}

Is this OK? (yes) yes

* This will generate “package.json” [Contains Meta Data]
* **Download and Install Bootstrap library from terminal**> npm install bootstrap  
  > npm install bootstrap-icons **[new from bootstrap 5]  
  >** npm install jquery

**Note:** All library files are copied into “**node\_modules**” folder



**Integrating Bootstrap into Web Page**

* **Link the following CSS files in Head Section  
  <head>**<link rel="stylesheet" href="../node\_modules/bootstrap/dist/css/bootstrap.css">

<link rel="stylesheet" href="../node\_modules/bootstrap-icons/font/bootstrap-icons.css">

**</head>**

* **Link the following Scripts in Body Section** [Bootstrap 5 requires all scripts in body section only]

**<body>**

<script src="../node\_modules/jquery/dist/jquery.js"></script>

<script src="../node\_modules/bootstrap/dist/js/bootstrap.bundle.js"></script>

**</body>**

**Index.html**

<!DOCTYPE html>

<html>

<head>

<title>Index</title>

<link rel="stylesheet" href="../node\_modules/bootstrap/dist/css/bootstrap.css">

<link rel="stylesheet" href="../node\_modules/bootstrap-icons/font/bootstrap-icons.css">

</head>

<body>

<h1>Welcome to Bootstrap</h1>

<script src="../node\_modules/jquery/dist/jquery.js"></script>

<script src="../node\_modules/bootstrap/dist/js/bootstrap.bundle.js"></script>

</body>

</html>

**Bootstrap Containers**

**Classes**

.container

.container-sm

.container-md

.container-lg

.container-xl

.container-xxl

.container-fluid

**Bootstrap Margins and Padding**

**Classes**

.m for Margin

.p for Padding

.b for bottom

.t for top

.s for start [older version it is “l [left]”]

.e for end [older version it is “r [right]”]

.x for both left and right

.y for both top and bottom

Size can be from “1 to 5” or “auto”

mt-4 Margin top 4

ms-4 Margin left 4

me-4 Margin right 4

pt-4 Padding top 4

etc..

Ex:

<!DOCTYPE html>

<html>

<head>

<title>Index</title>

<link rel="stylesheet" href="../node\_modules/bootstrap/dist/css/bootstrap.css">

<link rel="stylesheet" href="../node\_modules/bootstrap-icons/font/bootstrap-icons.css">

<style>

p {

border:2px solid;

}

</style>

</head>

<body class="container-fluid">

<p class="mt-5 ms-5 me-5 pt-3 px-5 pb-4">

Depending on how you obtained the Windows software, this is a license agreement between (i) you and the device manufacturer or software installer that distributes the software with your device; or (ii) you and Microsoft Corporation (or, based on where you live or, if a business, where your principal place of business is located, one of its affiliates) if you acquired the software from a retailer. Microsoft is the device manufacturer for devices produced by Microsoft or one of its affiliates, and Microsoft is the retailer if you acquired the software directly from Microsoft. Note that if you are a volume license customer, use of this software is subject to your volume license agreement rather than this agreement.

</p>

<script src="../node\_modules/jquery/dist/jquery.js"></script>

<script src="../node\_modules/bootstrap/dist/js/bootstrap.bundle.js"></script>

</body>

</html>

**Bootstrap 5 Buttons Changed**

**Classes**

.btn

.btn-primary, danger, success, warning etc..

.btn-outline-primary, danger, success, warning etc..

.btn-link

.btn-block [deprecated] – No longer available in bootstrap 5

.btn-toolbar

.btn-group

.btn-close [new] close button

Note: In bootstrap-5 block buttons are defined by using “d-grid”

Ex:

<!DOCTYPE html>

<html>

<head>

<title>Index</title>

<link rel="stylesheet" href="../node\_modules/bootstrap/dist/css/bootstrap.css">

<link rel="stylesheet" href="../node\_modules/bootstrap-icons/font/bootstrap-icons.css">

<style>

p {

border:2px solid;

}

</style>

</head>

<body class="container-fluid">

<div class="w-25 border border-danger p-3 m-4">

<div class="d-grid">

<button class="btn btn-danger">Home</button>

</div>

<div class="mt-3">

<button class="btn btn-primary">Contact</button>

</div>

</div>

<script src="../node\_modules/jquery/dist/jquery.js"></script>

<script src="../node\_modules/bootstrap/dist/js/bootstrap.bundle.js"></script>

</body>

</html>

**Bootstrap 5 Input Group**

**Classes**

.input-group

.input-group-text

**.input-group-append [Deprecated]**

**.input-group-prepend [Deprecated]**

**Bootstrap 5 Icons**

**Classes**

.bi

.bi-iconName [search, house, alarm etc..]

.bi-search

.bi-house

Ex:

<!DOCTYPE html>

<html>

<head>

<title>Index</title>

<link rel="stylesheet" href="../node\_modules/bootstrap/dist/css/bootstrap.css">

<link rel="stylesheet" href="../node\_modules/bootstrap-icons/font/bootstrap-icons.css">

<style>

p {

border:2px solid;

}

</style>

</head>

<body class="container-fluid">

<div class="w-50 p-3 m-4">

<div class="input-group">

<select class="input-group-text">

<option>All</option>

<option>Electronics</option>

<option>Footwear</option>

</select>

<input type="text" class="form-control">

<button class="btn btn-warning">

<span class="bi bi-search"></span>

</button>

</div>

</div>

<script src="../node\_modules/jquery/dist/jquery.js"></script>

<script src="../node\_modules/bootstrap/dist/js/bootstrap.bundle.js"></script>

</body>

</html>

**Bootstrap 5 Forms**

**Classes**

.form-group [Deprecated]

.form-control

.form-select [new for dropdown]

.form-check [new for checkbox and radio]

.form-check-input [new]

.form-switch [new]

.form-file [new for file type]

.form-range [slider]

.form-floating

Ex:

<!DOCTYPE html>

<html>

<head>

<title>Index</title>

<link rel="stylesheet" href="../node\_modules/bootstrap/dist/css/bootstrap.css">

<link rel="stylesheet" href="../node\_modules/bootstrap-icons/font/bootstrap-icons.css">

<style>

p {

border:2px solid;

}

</style>

</head>

<body class="container-fluid">

<div class="w-25 p-4">

<h2>Register Product</h2>

<div class="mt-3">

<label>Name</label>

<div>

<input type="text" class="form-control">

</div>

</div>

<div class="mt-3">

<label>Price</label>

<div>

<input type="text" class="form-control">

</div>

</div>

<div class="mt-3">

<label>Select City</label>

<div>

<select class="form-select">

<option>Delhi</option>

<option>Hyd</option>

</select>

</div>

</div>

<div class="mt-3">

<label>Price Range</label>

<div>

<input type="range" class="form-range">

</div>

</div>

<div class="mt-3">

<label>Upload Photo</label>

<div>

<input type="file" class="form-file">

</div>

</div>

<div class="mt-3">

<label>In Stock</label>

<div class="form-switch form-check">

<input type="checkbox" class="form-check-input"> Yes

</div>

</div>

<div class="mt-3">

<div class="d-grid">

<button class="btn btn-primary">Register</button>

</div>

</div>

</div>

<script src="../node\_modules/jquery/dist/jquery.js"></script>

<script src="../node\_modules/bootstrap/dist/js/bootstrap.bundle.js"></script>

</body>

</html>

**Bootstrap Components - JQuery**

**Attributes In Older Version [4.6]**

data-toggle

data-dismiss

data-target

**Attributes in New Version 5**

data-bs-toggle

data-bs-target

data-bs-dismiss etc.

Ex:

<!DOCTYPE html>

<html>

<head>

<title>Index</title>

<link rel="stylesheet" href="../node\_modules/bootstrap/dist/css/bootstrap.css">

<link rel="stylesheet" href="../node\_modules/bootstrap-icons/font/bootstrap-icons.css">

</head>

<body class="container-fluid">

<h3>Shopping Online</h3>

<button class="btn btn-primary" data-bs-toggle="modal" data-bs-target="#register" >Register Product</button>

<div class="modal fade show" id="register">

<div class="modal-dialog modal-dialog-scrollable">

<div class="modal-content">

<div class="modal-header">

<h3>Register New Product</h3>

<button class="btn-close" data-bs-dismiss="modal"></button>

</div>

<div class="modal-body">

<div class="p-3">

<h2>Register Product</h2>

<div class="mt-3">

<label>Name</label>

<div>

<input type="text" class="form-control">

</div>

</div>

<div class="mt-3">

<label>Price</label>

<div>

<input type="text" class="form-control">

</div>

</div>

<div class="mt-3">

<label>Select City</label>

<div>

<select class="form-select">

<option>Delhi</option>

<option>Hyd</option>

</select>

</div>

</div>

<div class="mt-3">

<label>Price Range</label>

<div>

<input type="range" class="form-range">

</div>

</div>

<div class="mt-3">

<label>Upload Photo</label>

<div>

<input type="file" class="form-file">

</div>

</div>

<div class="mt-3">

<label>In Stock</label>

<div class="form-switch form-check">

<input type="checkbox" class="form-check-input"> Yes

</div>

</div>

</div>

</div>

<div class="modal-footer">

<button class="btn btn-primary">Register</button>

<button class="btn btn-danger" data-bs-dismiss="modal">Cancel</button>

</div>

</div>

</div>

</div>

<script src="../node\_modules/jquery/dist/jquery.js"></script>

<script src="../node\_modules/bootstrap/dist/js/bootstrap.bundle.js"></script>

</body>

</html>

Bootstrap Image

.img

.img-fluid

.img-thumbnail

Bootstrap Table

.table-responsive is give now given to container not to table element.