

Angular Bootstrap

- Bootstrap is a free & open-source front-end framework for developing web applications.
- It contains HTML- and CSS-based design templates for typography, forms, buttons, navigation and other interface components, as well as optional JavaScript extensions.
- In Angular we can use the concept Bootstrap design to create our GUI much more better.
- Bootstrap, originally named Twitter Blueprint, was developed by Mark Otto and Jacob Thornton at Twitter as a framework to encourage consistency across internal tools.
- Before Bootstrap, various libraries were used for interface development, which led to inconsistencies and a high maintenance burden.

Versions of Bootstrap :

Bootstrap 1:

In August 19, 2011 first Bootstrap 1 released .

It has continued to be maintained by Mark Otto, Jacob Thornton, and a small group of core developers, as well as a large community of contributors.

Bootstrap 2:

On January 31, 2012, Bootstrap 2 was released, which added a twelve-column responsive grid layout system, inbuilt support for Glyphicons, several new components, as well as changes to many of the existing components.

Bootstrap 3:

On August 19, 2013, Bootstrap 3 was released, which redesigned components to use flat design, and a mobile first approach.

Bootstrap 4:

On October 29, 2014, Mark Otto announced that Bootstrap 4 was in development.

The first alpha version of Bootstrap 4 was released on August 19, 2015.

The first beta version was released on 10 August 2017.

The stable version of Bootstrap 4 was released on January 18, 2018 basically improving print styles and border utilities and also providing more control over the flexbox.

To use the concept of ngx Bootstrap in Angular application refer below link

<https://valor-software.com/ngx-bootstrap/#/>

To use Bootstrap in Angular we have to follow below steps as

Step 1 :

Create regular Angular project as
ng new MarvellousBootstrap

Step 2 :

Enter inside project folder
cd MarvellousBootstrap

Step 3 :

Install ngx-bootstrap and bootstrap

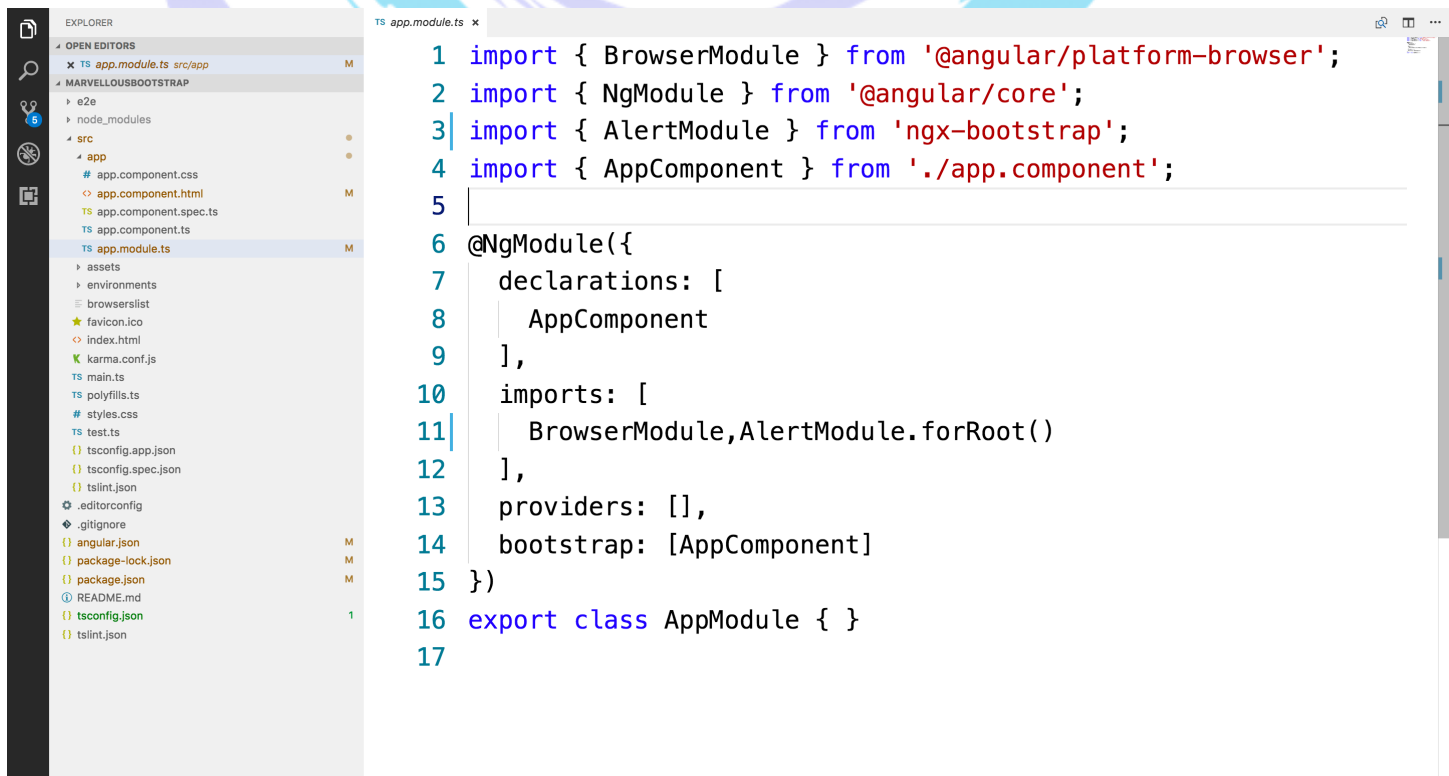
```
npm install ngx-bootstrap bootstrap --save
```

Step 4 :

Open src/app/app.module.ts and add:

```
import { AlertModule } from 'ngx-bootstrap';
```

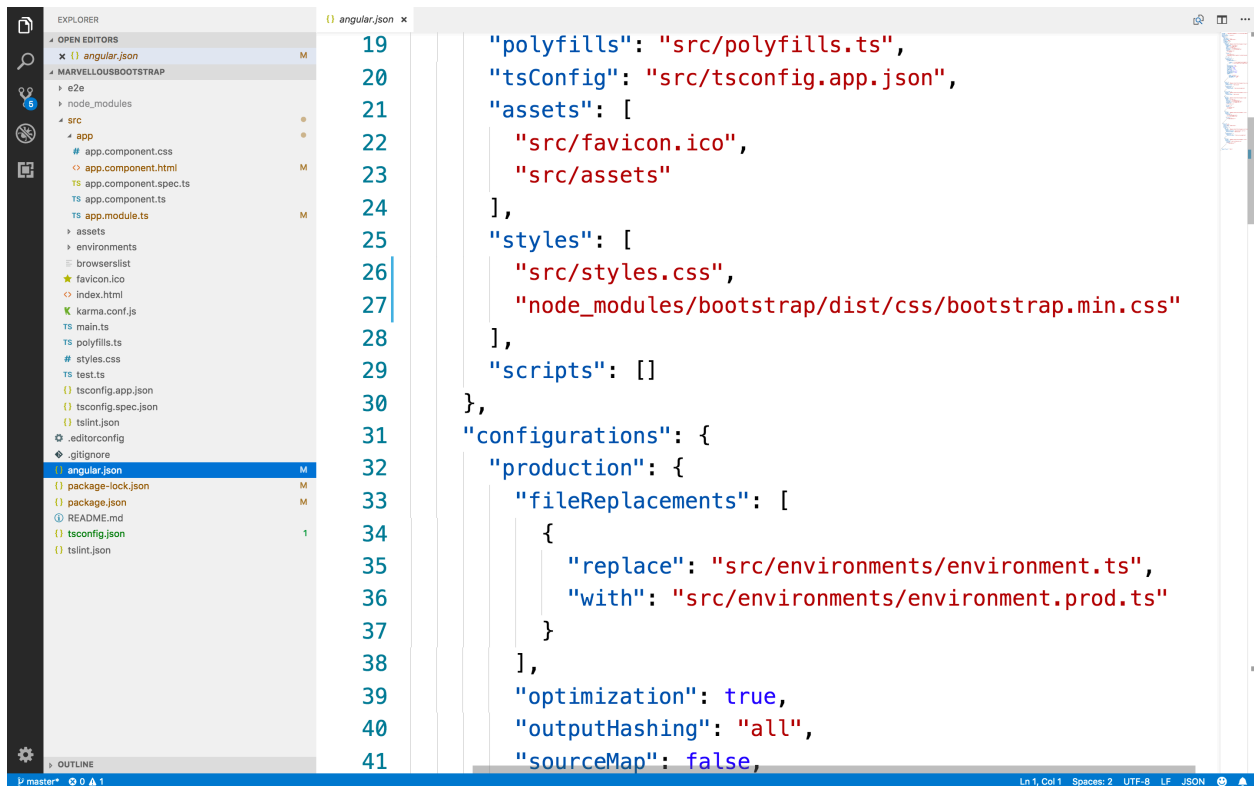
```
@NgModule({  
  ...  
  imports: [AlertModule.forRoot(), ... ],  
  ...  
})
```



Step 5 :

Open .angular-cli.json / angular.json and insert a new entry into the styles array:

```
"styles": [
  "../node_modules/bootstrap/dist/css/bootstrap.min.css",
  "styles.css",
],
```




The screenshot shows the VS Code editor with the `angular.json` file open. The `styles` array has been updated to include `src/styles.css` along with the bootstrap CSS. The `polyfills` is set to `src/polyfills.ts`, and the `tsConfig` is `src/tsconfig.app.json`. The `assets` array includes `src/favicon.ico` and `src/assets`. The `scripts` array is empty. The `configurations` section has a `production` configuration with `fileReplacements` for environment files and `optimization` set to `true`.

```
19 "polyfills": "src/polyfills.ts",
20 "tsConfig": "src/tsconfig.app.json",
21 "assets": [
22   "src/favicon.ico",
23   "src/assets"
24 ],
25 "styles": [
26   "src/styles.css",
27   "node_modules/bootstrap/dist/css/bootstrap.min.css"
28 ],
29 "scripts": []
30 },
31 "configurations": {
32   "production": {
33     "fileReplacements": [
34       {
35         "replace": "src/environments/environment.ts",
36         "with": "src/environments/environment.prod.ts"
37       }
38     ],
39     "optimization": true,
40     "outputHashing": "all",
41     "sourceMap": false,
```

Step 6 :

Open src/app/app.component.html and add:

```
<alert type="success">Marvellous Infosystems</alert>
```



The screenshot shows the VS Code editor with the `app.component.html` file open. The code inside the `<div>` tags includes a centered heading, a welcome message, and the alert component added in Step 6.

```
1 <div style="text-align:center">
2   <h1>
3     Welcome to Marvellous Infosystems!
4   </h1>
5   <alert type="success">Marvellous Infosystems</alert>
6 </div>
```

Step 7 :

Now start angular application as

Npm start

Step 8 :

Open the browser and enter the URL

<http://localhost:4200>

