Module 2: Modules and Components

Demo Document 2: Create A Shopping List Component

edureka!

Create A Shopping List Component Using Bootstrap Styles

In this demo, we will see how to create new component using Angular and style our application using bootstrap 4.

Step 1 –

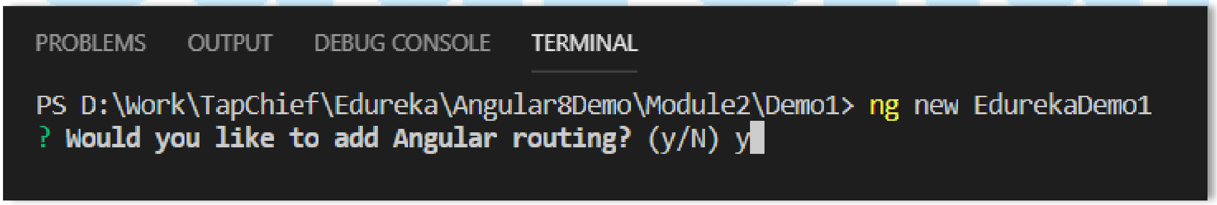
- Open Visual Studio Code, navigate to Terminal → New Terminal, it will open a new terminal window
- Check node.js version using command 'node -v' (see the screenshot below)
- Check angular cli version using command 'ng version' or 'ng –version'

Step 2 –

- Navigate to the folder where you want to build the Angular app. Create new Angular app by using command 'ng new {AppName}'

Make a note of this app as we will be using same app in the next demo as well

- Enter y when it asks, 'Would you like to add Angular routing?'



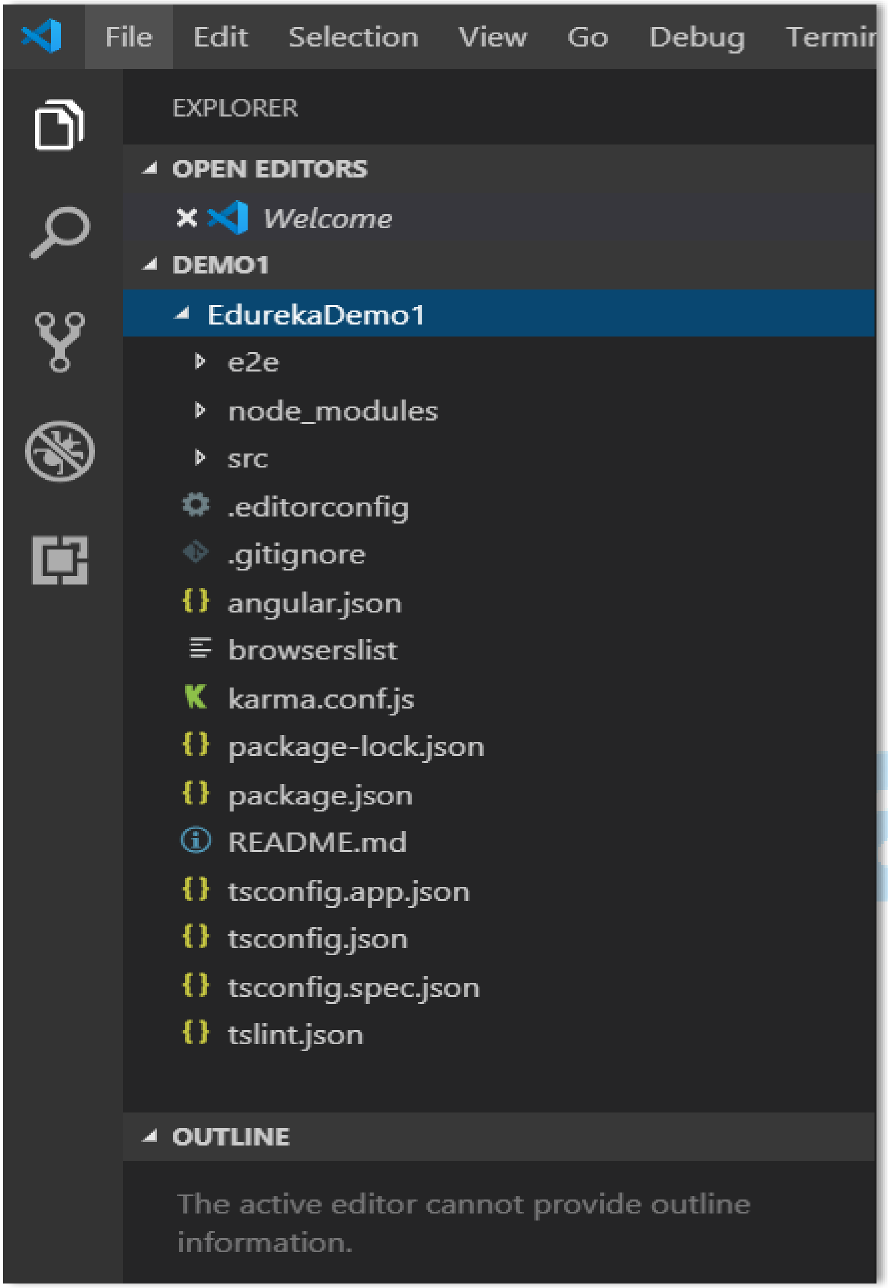
```
PS D:\Work\TapChief\Edureka\Angular8Demo\Module2\Demo1> ng new EdurekaDemo1
? Would you like to add Angular routing? (y/N) y
```

- When it prompts: ? Which stylesheet format would you like to use?

  Select > CSS and press enter

Wait for a few minutes for the npm packages to be installed. Once the download is completed, you will get a success message in command prompt. Ignore any warnings.

Step 3 – Open the app in Visual studio code by navigating to File → Open Folder → {AppName}, app/folders will be loaded as below

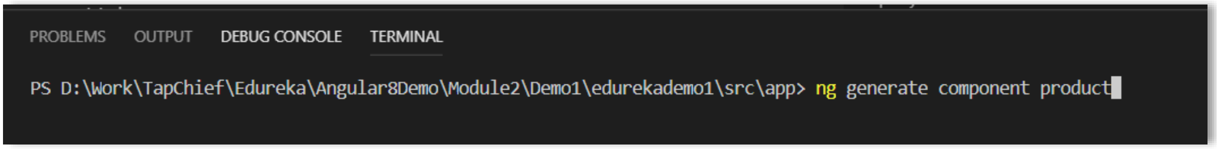


EdurekaDemo1
e2e
node_modules
src
.editorconfig
.gitignore
angular.json
browserslist
karma.conf.js
package-lock.json
package.json
README.md
tsconfig.app.json
tsconfig.json
tsconfig.spec.json
tslint.json

The active editor cannot provide outline information.

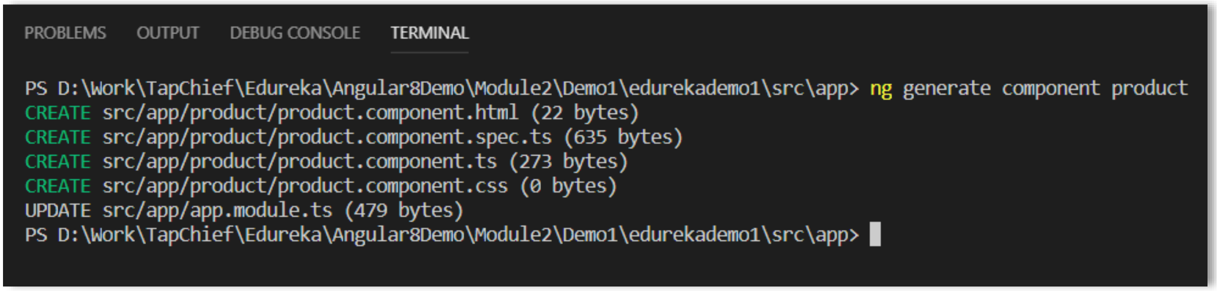
Step 4 –

- Create new component named *'product'* using the command 'ng generate component {ComponentName}'



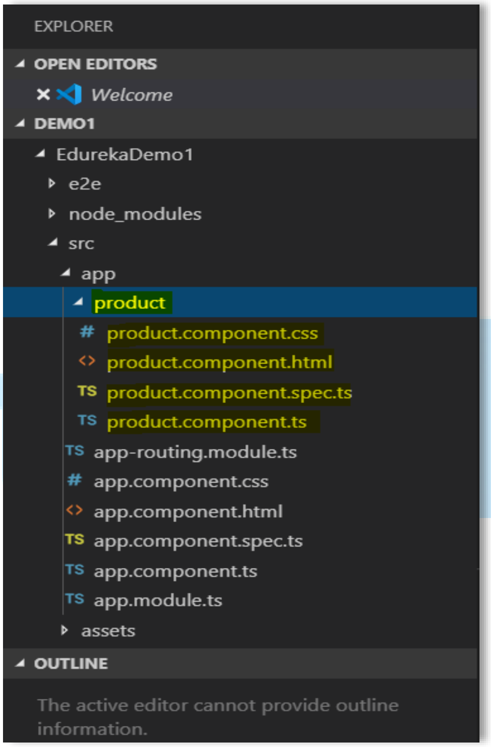
```
PS D:\Work\TapChief\Edureka\Angular8Demo\Module2\Demo1\edurekademo1\src\app> ng generate component product
```

- New product component will be created as shown below



```
PS D:\Work\TapChief\Edureka\Angular8Demo\Module2\Demo1\edurekademo1\src\app> ng generate component product
CREATE src/app/product/product.component.html (22 bytes)
CREATE src/app/product/product.component.spec.ts (635 bytes)
CREATE src/app/product/product.component.ts (273 bytes)
CREATE src/app/product/product.component.css (0 bytes)
UPDATE src/app/app.module.ts (479 bytes)
PS D:\Work\TapChief\Edureka\Angular8Demo\Module2\Demo1\edurekademo1\src\app>
```

- Also, we can see in the app folder, all the files related to product component will be created

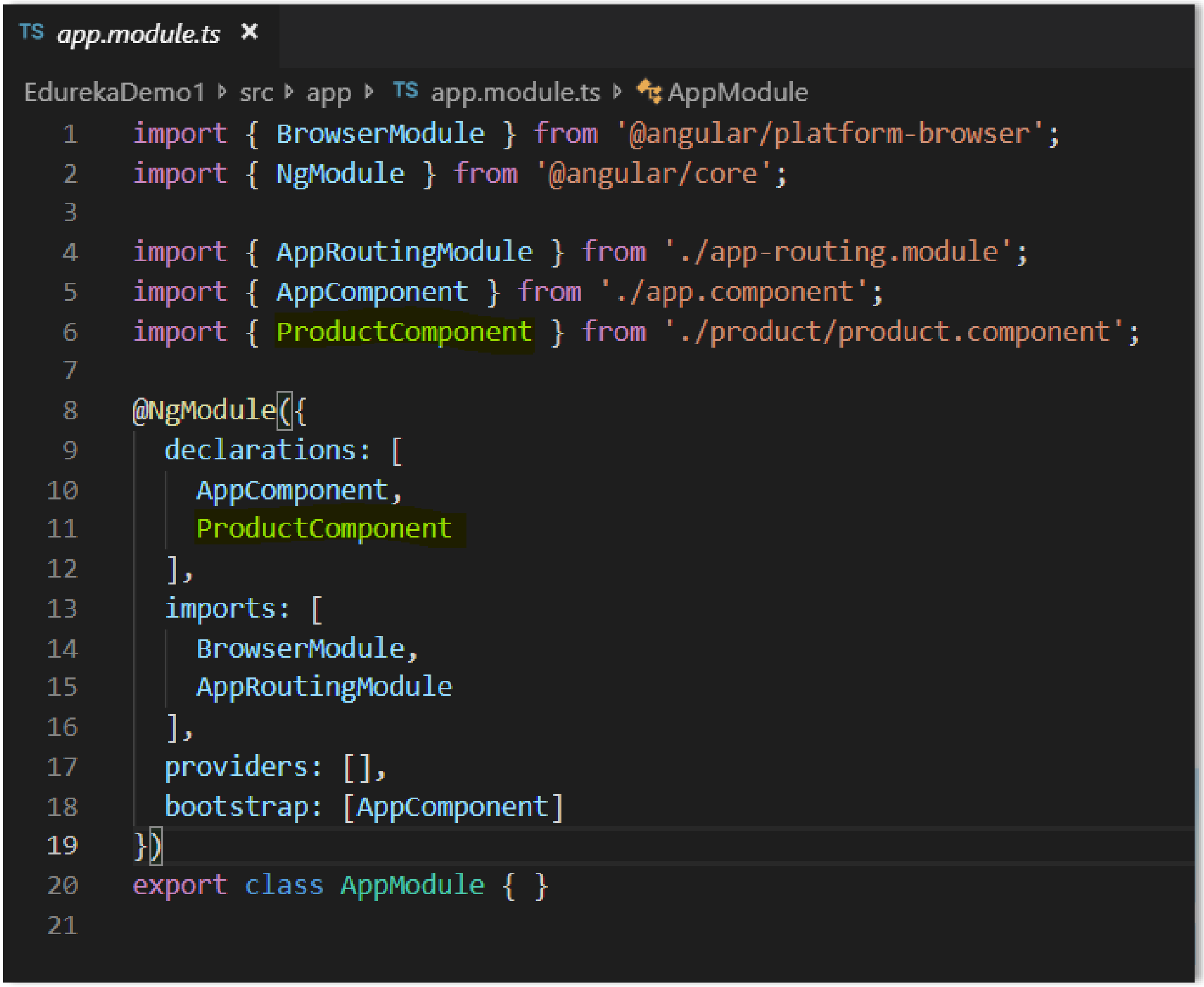


```
EXPLORER
OPEN EDITORS
  × Welcome
DEMO1
  EdurekaDemo1
    e2e
    node_modules
    src
      app
        product
          product.component.css
          product.component.html
          product.component.spec.ts
          product.component.ts
        app-routing.module.ts
        app.component.css
        app.component.html
        app.component.spec.ts
        app.component.ts
        app.module.ts
      assets
OUTLINE
  The active editor cannot provide outline information.
```

4 types of files will be created for component as below

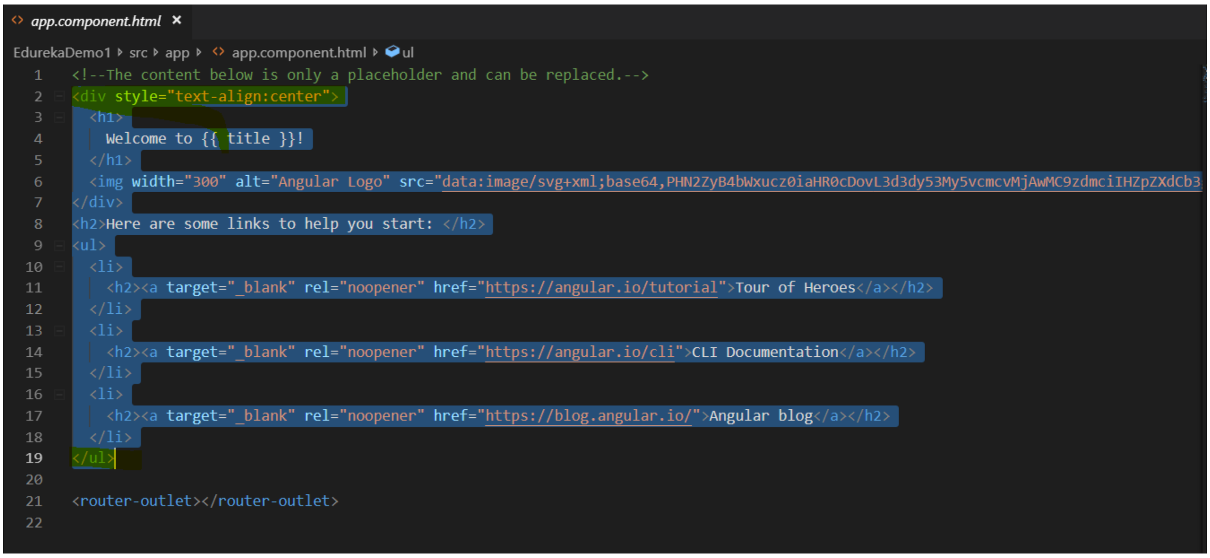
- .css -> styling
- .html -> template
- .spec.ts -> testing
- .ts ->root file

‘ng generate component’ command will automatically add product component reference in the app.module.ts file as shown below



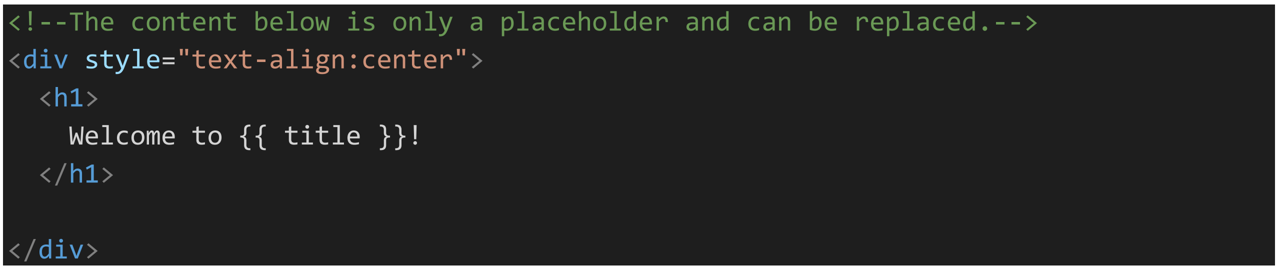
```typescript
import { BrowserModule } from '@angular/platform-browser';
import { NgModule } from '@angular/core';

import { AppRoutingModule } from './app-routing.module';
import { AppComponent } from './app.component';
import { ProductComponent } from './product/product.component';

@NgModule({
  declarations: [
    AppComponent,
    ProductComponent
  ],
  imports: [
    BrowserModule,
    AppRoutingModule
  ],
  providers: [],
  bootstrap: [AppComponent]
})
export class AppModule { }
```

Step 5 – Open app.component.html file and remove the highlighted lines.



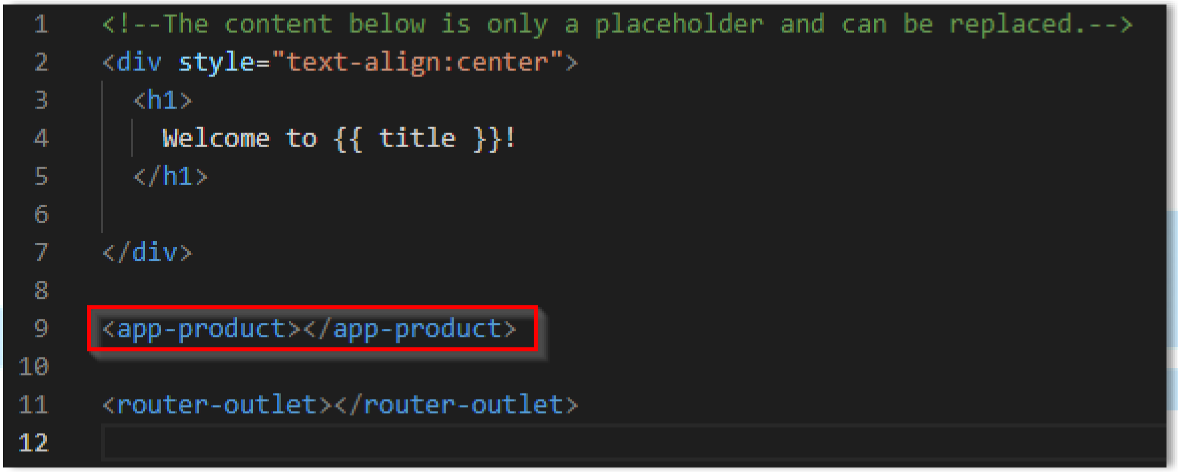
```html
<!--The content below is only a placeholder and can be replaced.-->
<div style="text-align:center">
  <h1>
    Welcome to {{ title }}!
  </h1>
  <img width="300" alt="Angular Logo" src="data:image/svg+xml;base64,PHN2ZyB4bWxucz0iaHR0cDovL3d3dy53My5vcmcvMjAwMC9zdmciIHZpZXdCb3
</div>
<h2>Here are some links to help you start: </h2>
<ul>
  <li>
    <h2><a target="_blank" rel="noopener" href="https://angular.io/tutorial">Tour of Heroes</a></h2>
  </li>
  <li>
    <h2><a target="_blank" rel="noopener" href="https://angular.io/cli">CLI Documentation</a></h2>
  </li>
  <li>
    <h2><a target="_blank" rel="noopener" href="https://blog.angular.io/">Angular blog</a></h2>
  </li>
</ul>

<router-outlet></router-outlet>
```

Step 6 – Add the following lines of code to app.component.html file

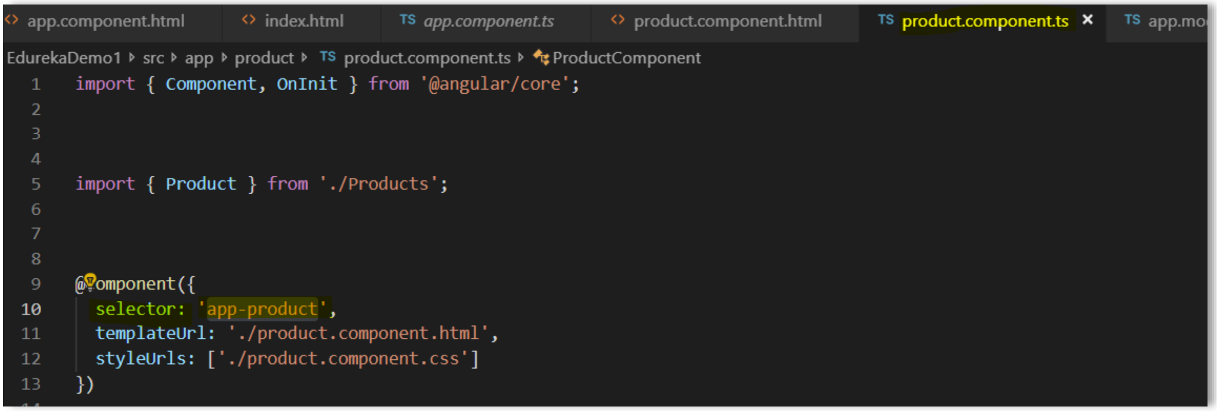


```
<!--The content below is only a placeholder and can be replaced.-->
<div style="text-align:center">
  <h1>
    Welcome to {{ title }}!
  </h1>

</div>
```

Step 7 – Add the selector <app-product> to app.component.html file.



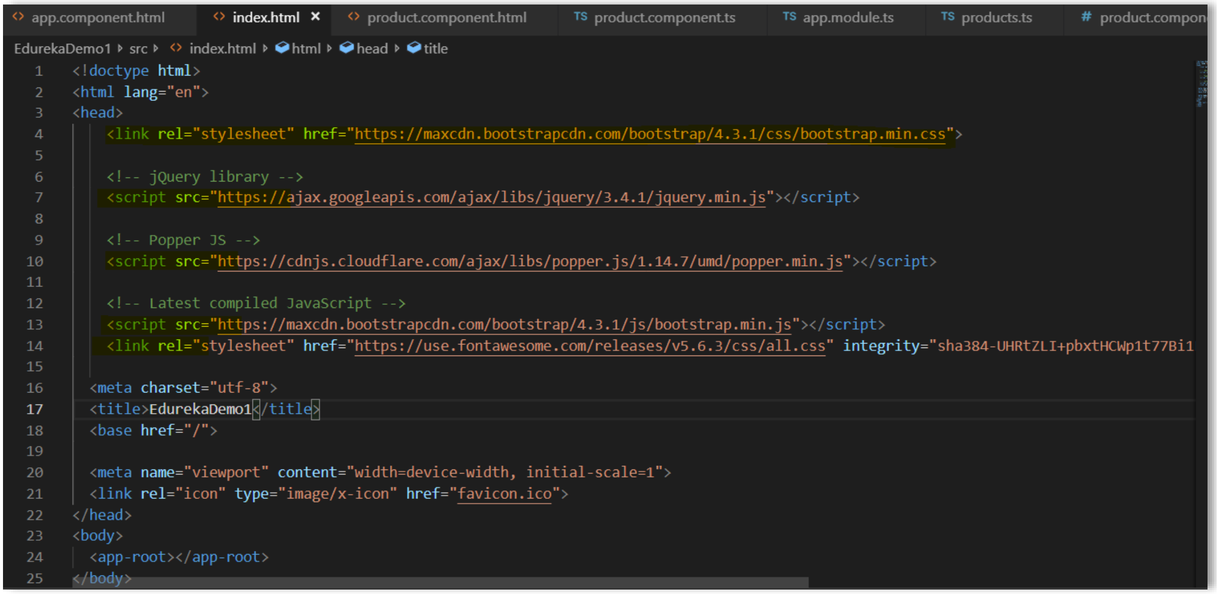
```
<!--The content below is only a placeholder and can be replaced.-->
<div style="text-align:center">
  <h1>
    Welcome to {{ title }}!
  </h1>

</div>

<app-product></app-product>

<router-outlet></router-outlet>

```



```
import { Component, OnInit } from '@angular/core';



import { Product } from './Products';



@Component({
  selector: 'app-product',
  templateUrl: './product.component.html',
  styleUrls: ['./product.component.css']
})
```

Now our product component is ready, but we don't have any html code added to product component. We will add html tags and styles and create our shopping list design page as below.

Step 8– To use Bootstrap library for styling the application, import it from the links. Add reference of bootstrap to src/index.html file as shown below



```html
<!doctype html>
<html lang="en">
<head>
    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css">

    <!-- jQuery library -->
    <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>

    <!-- Popper JS -->
    <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"></script>

    <!-- Latest compiled JavaScript -->
    <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"></script>
    <link rel="stylesheet" href="https://use.fontawesome.com/releases/v5.6.3/css/all.css" integrity="sha384-UHRtZLI+pbxtHCWp1t77Bi1

  <meta charset="utf-8">
  <title>EdurekaDemo1</title>
  <base href="/">

  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="icon" type="image/x-icon" href="favicon.ico">
</head>
<body>
  <app-root></app-root>
</body>
```

Step 9– Open product.component.ts file and add the following code to create the logic for shopping list

```typescript
export class ProductComponent implements OnInit {

products: Product[];

selectedProduct:Product;

productList: Product[]=[];

 errorItem: boolean = false;

  constructor() {}
   ngOnInit() {
this.products = [

    {

      p_id : 1,

      product_name : '',

      product_weight : '',

      product_price : 0,
      product_image : ''

    },
  ]
  }

total() {
    return this.productList.reduce((total, item) => total + item.product_price, 0)
;
 }



addToCart(item) {
    if(this.productList.indexOf(item) === -1) {

      this.productList.push(item);

      this.errorItem = false;

    }

    else if (this.productList.indexOf(item) > -1) {

        this.errorItem = true;

    }
  }

   removeItem(item) {

    var index = this.productList.indexOf(item);

    if (index > -1) {

      this.productList.splice(index, 1);
    }

  }
}
```

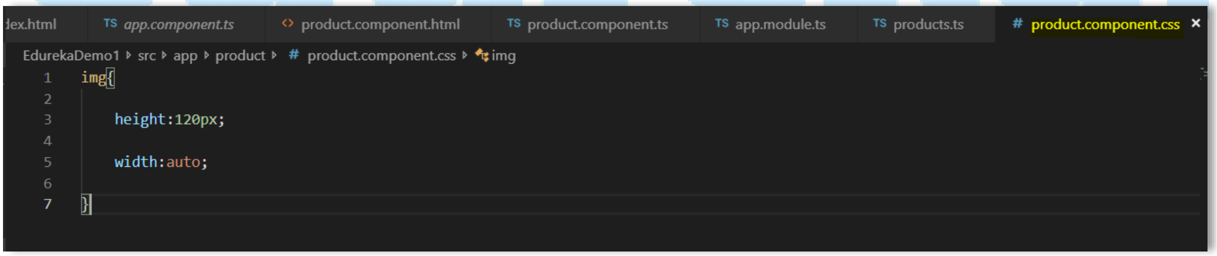
Step 10– Open product.component.html file and add html code to create shopping list design

```
<div>
        <div class="row">

          <div class="col-8">

        <div class="card">
          <div class="card-header bg-info">SHOPPING LIST</div>
          <div class="card-body">
            <div class="row">
  <div class="col-xl-4 col-sm-6 col-12 border border-warning mb-
2" *ngFor = "let item of products">


                <div class="row text-center mb-2">
                  <div class="col-12">
                      <img class="img-fluid mt-
3" src="{{item.product_image}}" alt="Card image cap">
                  </div>
                </div>

                <div class="row">
                  <div class="col-12">
```

```
                     <h6 class="card-title font-weight-bold" > {{item.product_name}}</h6>

                  </div>

                </div>



                <div class="row">

                      <div class="col-md-6">

                        <p class="card-text"> <small> {{item.product_weight}}  </small></p>

                      </div>

                      <div class="col-md-6">

                      <p class="text-right"> <small> Rs {{item.product_price}}  </small> </p>

                      </div>

                    </div>



                <div class="row text-center mb-1">

                  <div class="col-12">

                    <button class="btn btn-sm btn-primary" (click)="addToCart(item)">Add to Cart</button>

                  </div>

                </div>
              </div>

            </div>



          </div>
          <div class="card-footer text-center">Copyright</div>
        </div>


          </div>


          <div class="col-xl-4">
            <div class="card">
          <div class="card-header bg-warning">
            <div *ngIf="productList.length == 0">You have no items in your basket</div>
            <div *ngIf="productList.length == 1">You have {{productList.length}} item in your basket</div>


             <div *ngIf="productList.length > 1">You have {{productList.length}} items in your basket</div>
          </div>
          <div class="card-body">
            <div class="row">
              <div class="col-12">
                <div class="text-danger" *ngIf="errorItem">
                  You have already this item in your list
                </div>
              </div>
            </div>
           <div class="row">
```

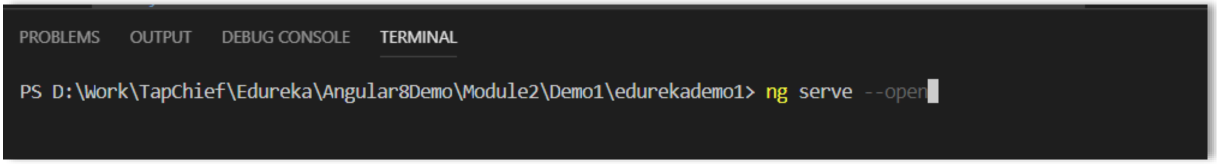
```
                  <div class="col-12" >
        <table class="table table-borderless">
            <thead>
              <tr>
                <th>Product</th>

                <th>Amount</th>
                   <th>Actions</th>
              </tr>
            </thead>
            <tbody>
              <tr *ngFor="let cart of productList">
                <td>{{cart.product_name}} </td>
              <td>{{cart.product_price}} </td>
              <td>
                <button class="btn btn-info btn-sm" title="Remove Item" (click)="removeItem(cart)"><i class="fas fa-trash fa-sm"></i></button>
              </td>

              </tr>

            </tbody>
          </table>
                  </div>
                </div>

          </div>

          <div class="card-footer bg-dark text-white text-center">

            Total Amount: Rs. {{total()}}

            </div>

        </div>

          </div>

        </div>




        </div>
```

Step 11 – Overwrite existing image styles by adding height & width property of image in the product.component.css as below.



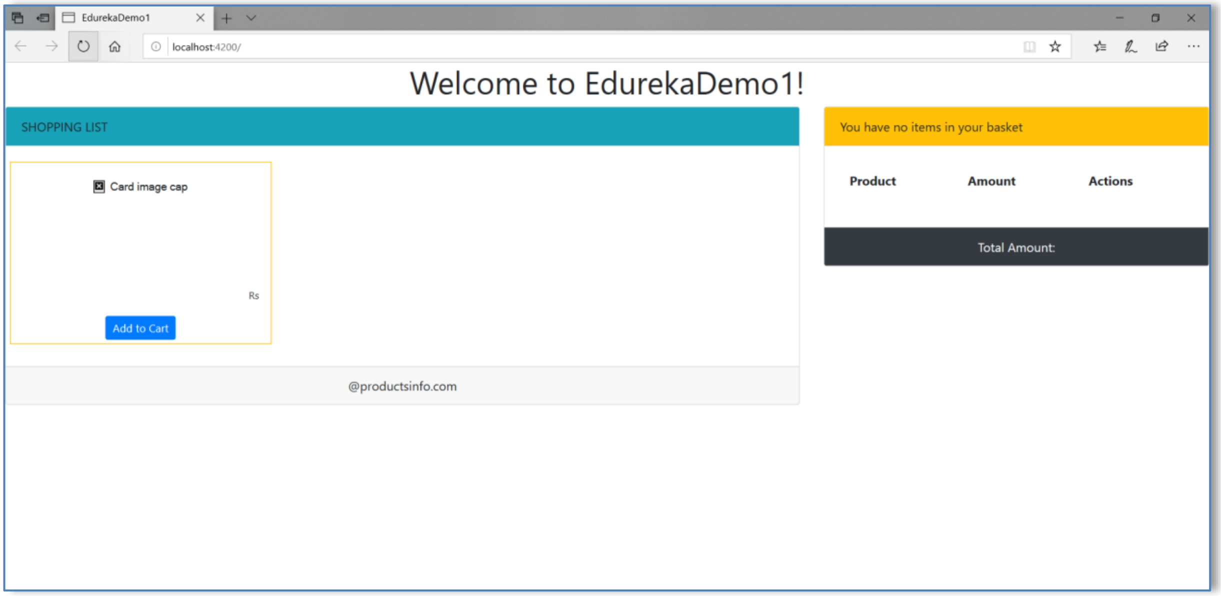
```
img{

    height:120px;

    width:auto;

}
```

Step 12 – Run Angular application by using command 'ng serve --open'



```
PS D:\Work\TapChief\Edureka\Angular8Demo\Module2\Demo1\edurekademo1> ng serve --open
```

Step 13 – This will open our shopping list app in the browser as shown below.



Welcome to EdurekaDemo1!

SHOPPING LIST

@productsinfo.com

You have no items in your basket

Product	Amount	Actions

Total Amount: