



3416-003 Web Development Using Angular 8 and TypeScript

Module 8: Create Group Project



Module 1: Section 1

What Is This Course About

Create main components for project

- Create the following directory:
- C:\workspace-UT-Angular8-SEPT-2020\Group-Project\
- Copy C:\workspace-UT-Angular8-SEPT-2020\Session4\example1-bootstrap4-version1\bootstrap4 to C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version1
- Run the following command:

```
C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version1\bootstrap4>
```

```
ng g c home
```

```
ng g c addProduct
```

```
ng g c searchProduct
```

Create main components for project

```
C:\workspace-UT-Angular7-Sept-2019\Group-Project\Group-Project-Version1\bootstrap4>ng g c home
CREATE src/app/home/home.component.html (23 bytes)
CREATE src/app/home/home.component.spec.ts (614 bytes)
CREATE src/app/home/home.component.ts (261 bytes)
CREATE src/app/home/home.component.css (0 bytes)
UPDATE src/app/app.module.ts (467 bytes)

C:\workspace-UT-Angular7-Sept-2019\Group-Project\Group-Project-Version1\bootstrap4>ng g c addProduct
CREATE src/app/add-product/add-product.component.html (30 bytes)
CREATE src/app/add-product/add-product.component.spec.ts (657 bytes)
CREATE src/app/add-product/add-product.component.ts (288 bytes)
CREATE src/app/add-product/add-product.component.css (0 bytes)
UPDATE src/app/app.module.ts (567 bytes)

C:\workspace-UT-Angular7-Sept-2019\Group-Project\Group-Project-Version1\bootstrap4>ng g c searchProduct
CREATE src/app/search-product/search-product.component.html (33 bytes)
CREATE src/app/search-product/search-product.component.spec.ts (678 bytes)
CREATE src/app/search-product/search-product.component.ts (300 bytes)
CREATE src/app/search-product/search-product.component.css (0 bytes)
UPDATE src/app/app.module.ts (679 bytes)

C:\workspace-UT-Angular7-Sept-2019\Group-Project\Group-Project-Version1\bootstrap4>
```

App.module.ts

- Run following:
- C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version1\bootstrap4>
npm install @angular/http@latest or npm install @angular/http@7.2.15

```
C:\workspace-UT-Angular7-Sept-2019\Group-Project\Group-Project-Version1\bootstrap4>npm install @angular/http@7.2.15
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.9 (node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.9: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})

+ @angular/http@7.2.15
added 1 package from 1 contributor and audited 43281 packages in 16.626s
found 9 vulnerabilities (2 moderate, 7 high)
  run `npm audit fix` to fix them, or `npm audit` for details

C:\workspace-UT-Angular7-Sept-2019\Group-Project\Group-Project-Version1\bootstrap4>
```

Edit app-routing.module.ts

- Edit C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version1\bootstrap4\src\app\app-routing.module.ts

<> app.component.html

TS app-routing.module.ts ✕

app ▸ TS app-routing.module.ts ▸ [🔍] routes

Add 3 lines of code

```
1 import { NgModule } from '@angular/core';
2 import { Routes, RouterModule } from '@angular/router';
3 import { HomeComponent } from '../home/home.component';
4 import { AddProductComponent } from '../add-product/add-product.component';
5 import { SearchProductComponent } from '../search-product/search-product.component';
6
```

Add this 4 lines of code

```
7 const routes: Routes = [
8   { path: '', component: HomeComponent },
9   { path: 'home', component: HomeComponent },
10  { path: 'addProduct', component: AddProductComponent },
11  { path: 'searchProduct', component: SearchProductComponent }
12 ];
```

add {useHash: true}

```
13
14 @NgModule({
15   imports: [RouterModule.forRoot(routes, {useHash: true})],
16   exports: [RouterModule]
17 })
18 export class AppRoutingModule { }
```

19

20

Edit app.module.ts

- Edit C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version1\bootstrap4\src\app\app.module.ts

TS app.module.ts ✕

src ▸ app ▸ TS app.module.ts ▸ AppModule

```
1  import { BrowserModule } from '@angular/platform-browser';
2  import { NgModule } from '@angular/core';
3
4  import { AppRoutingModule } from './app-routing.module';
5  import { AppComponent } from './app.component';
6  import { HomeComponent } from './home/home.component';
7  import { AddProductComponent } from './add-product/add-product.component';
8  import { SearchProductComponent } from './search-product/search-product.c
9  import { FormsModule } from '@angular/forms';
10 import { HttpClientModule } from '@angular/common/http';
```

```
11
12
13 @NgModule({
14   declarations: [
15     AppComponent,
16     HomeComponent,
17     AddProductComponent,
18     SearchProductComponent
19   ],
20   imports: [
21     BrowserModule,
22     AppRoutingModule,
23     FormsModule,
24     HttpClientModule,
25   ],
```

Add these 4 lines

Edit app.component.html

- Edit C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version1\bootstrap4\src\app\app.component.html

app ▸  app.component.html ▸  ul

```
<!--The content below is only a placeholder and can be replaced.-->
<div style="text-align:center">
  <h1>
    | Welcome to {{ title }}!
  </h1>
  
<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
    </li>
    <li>
    | <h2><a target="_blank" rel="noopener" href="https://angular.io/cli">CLI Documentation</h2>
    </li>
    <li>
    | <h2><a target="_blank" rel="noopener" href="https://blog.angular.io/">Angular blog</a>
    </li>
</ul>
```

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

Delete all this code except "<router-outlet></router-outlet>"

Edit app.component.html

- Edit C:\workspace-UT-Angular7-May-2019\Group-Project\Group-Project-Version1\bootstrap4\src\app\app.component.html

<> app.component.html ✕

TS app-routing.module.ts

app ▸ <> app.component.html ▸ div.container ▸ div.row ▸ div.col-4

```
1  <div class="container">
2    <div class="row">
3      <div class="col-4">
4        <a href="#/home">Home</a>
5      </div>
6      <div class="col-4">
7        <a href="#/addProduct">Add Product</a>
8      </div>
9      <div class="col-4">
10       <a href="#/searchProduct">Search Product</a>
11     </div>
12   </div>
13 </div>
14 <router-outlet></router-outlet>
15
```

Add these new line of code

Edit app.component.html

- The 3 possible paths:
- <http://localhost:4200/#/>
- <http://localhost:4200/#/addProduct>
- <http://localhost:4200/#/searchProduct>

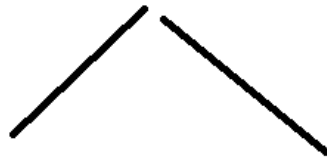
Index.html

- Edit C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version1\bootstrap4\src\index.html
- `<script type='text/javascript' src='https://cdnjs.cloudflare.com/ajax/libs/Chart.js/2.7.2/Chart.js'></script>`

index.html ▸ ...

```
<!doctype html>
<html lang="en">
<head>
```

Add this line



```
<meta charset="utf-8">
<title>Bootstrap4</title>
<base href="/">
```

```
<script type='text/javascript' src='https://cdnjs.cloudflare.com/ajax/libs/Chart.js/2.7.2/Chart.js'></script>

<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>
```

search-product.component.ts

- Edit C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version1\bootstrap4\src\app\search-product\search-product.component.ts

```
app ▸ search-product ▸ TS search-product.component.ts ▸ Sei
1  import { Component, OnInit } from '@angular/core';
2
3  @Component({
4      selector: 'app-search-product',
5      templateUrl: './search-product.component.html',
6      styleUrls: ['./search-product.component.css']
7  })
8  export class SearchProductComponent implements OnInit {
9      productId: number;
10     productDescriptionEnglish: string;
11
12     constructor() { }
13
14     ngOnInit() {
15     }
16
17     search() {
18     }
19 }
20
```

Add these 2 lines

search-product.component.html

- Edit C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version1\bootstrap4\src\app\search-product\search-product.component.html

```
<div class="container">
  <div class="row">
    <div class="col-12">
      <h1>Search Products</h1>
    </div>
  </div>

  <div class="row">
    <div class="col-12">
      <input type="text" name="productId" placeholder="Product ID" class="form-control"
[(ngModel)]= "productId">
    </div>
    <div class="col-12">
      <input type="text" name="productDescriptionEnglish" placeholder="Product Description" class="form-
control" [(ngModel)]= "productDescriptionEnglish">
    </div>
    <div class="col-12">
      <br/>
      <input (click)="search()" type="submit" id="submit" class="Ybutton" name="submit" value="Search">
    </div>
  </div>
</div>
```

Create new service called “Product”

- Copy C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version1\bootstrap4 to C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version2\bootstrap4
- C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version2\bootstrap4>ng g service Product

```
C:\workspace-UT-Angular7-Sept-2019\Group-Project\Group-Project-Version2\bootstrap4>ng g service Product
CREATE src/app/product.service.spec.ts (338 bytes)
CREATE src/app/product.service.ts (136 bytes)
```

search-product.component.ts

- Edit C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version2\bootstrap4\src\app\search-product\search-product.component.ts

```
1  import { Component, OnInit } from '@angular/core';
2  import { ProductService } from '../product.service';
3
4  @Component({
5    selector: 'app-search-product',
6    templateUrl: './search-product.component.html',
7    styleUrls: ['./search-product.component.css']
8  })
9  export class SearchProductComponent implements OnInit {
10    productId: string;
11    productDescriptionEnglish: string;
12    message: string;
13    // let result: Array<string>;
14
15    constructor(private productService: ProductService) { }
16
17    ngOnInit() {
18    }
19
20    search() {
21
22      this.productService.getProducts().subscribe((res: any) => {
23
24        console.log(res);
25
26      }, (err: any) => {
27        console.log(err.error.status);
28
29      });
30  }
```

Edit environment.ts

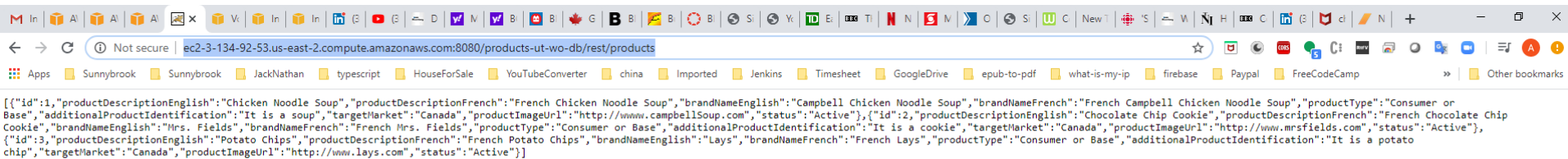
- Edit C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version2\bootstrap4\src\environments\environment.ts

Add this line of code

```
export const environment = {  
  production: false,  
  baseUrl: 'http://localhost:8080/products-ut-wo-db/rest/'  
};  
..
```


Edit environment.ts

- AWS:
- <http://ec2-52-14-130-217.us-east-2.compute.amazonaws.com:8080/products-ut-wo-db/rest/products>



Edit environment.ts

- AWS:
- `http://ec2-52-14-130-217.us-east-2.compute.amazonaws.com:8080/products-ut-wo-db/rest/products`

Create folder called model

File Edit Selection View Go Debug Terminal Help product.service.ts - bootstrap4 - Visual S

EXPLORER

OPEN EDITORS

- TS environment.ts src\environments
- X TS product.service.ts src\app
- TS app.component.ts src\app
- TS search-product.component.ts src\app

BOOTSTRAP4

- node_modules
- src
 - app
 - add-product
 - home
 - search-product
 - search-product.component.css
 - search-product.component.html
 - search-product.component.spec.ts
 - search-product.component.ts

Right click "app" and choose "New Folder".

New File

New Folder

Reveal in Explorer Shift+Alt+R

Open in Terminal

Move Typescript

Find in Folder... Shift+Alt+F

Cut Ctrl+X

Copy Ctrl+C

Paste Ctrl+V

Copy Path Shift+Alt+C

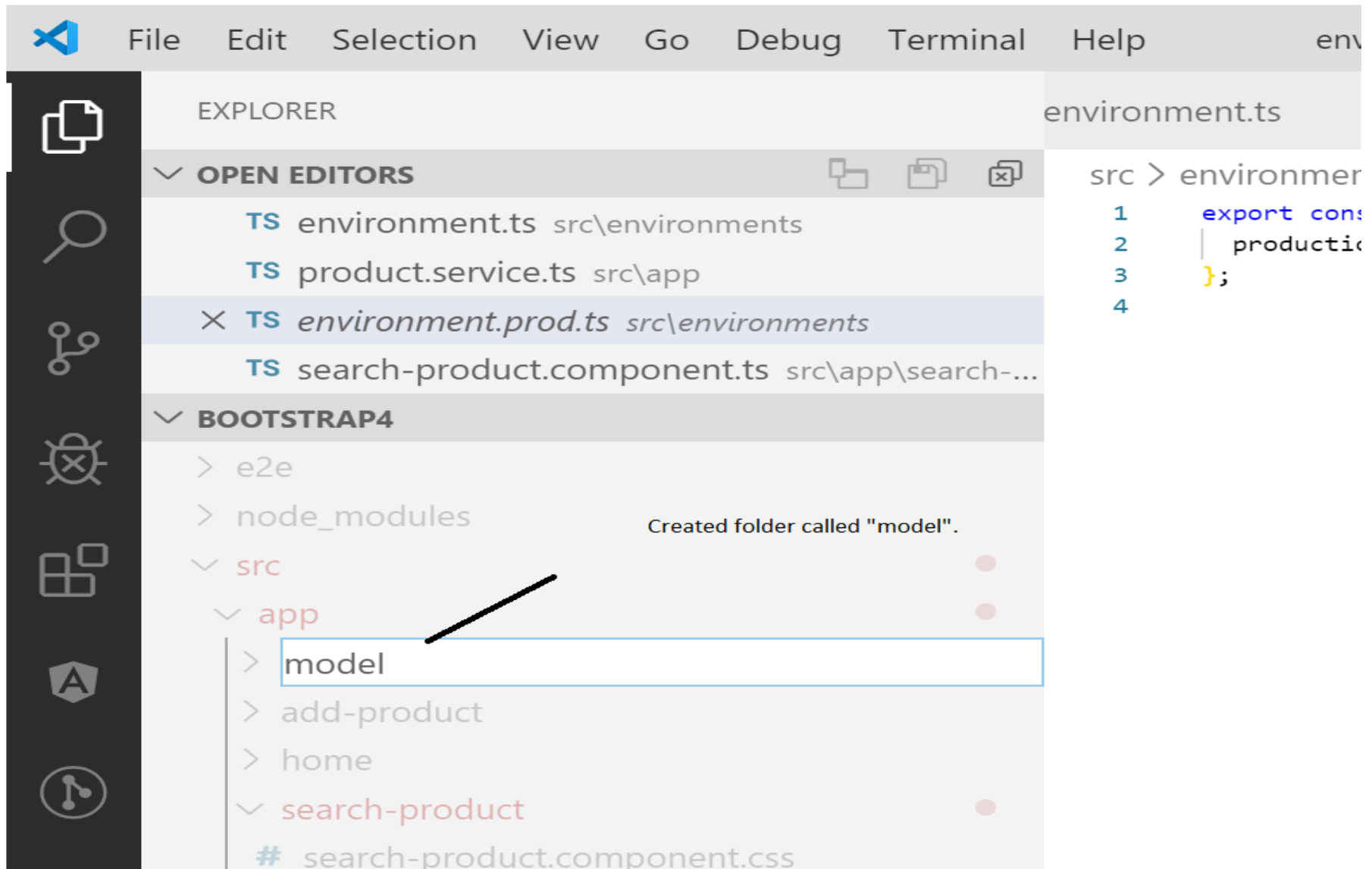
Copy Relative Path Ctrl+K Ctrl+Shift+C

Rename F2

Delete Delete

Angular: Generate a component

Create folder called model



The screenshot shows the Visual Studio Code interface. The Explorer sidebar on the left displays the project structure. The 'src' folder is expanded, showing 'app' and 'search-product' subfolders. The 'app' folder is further expanded, and a new folder named 'model' has been created, highlighted with a blue border. A black arrow points to the 'model' folder. A text annotation 'Created folder called "model".' is placed next to the 'model' folder. The 'OPEN EDITORS' section shows several files, including 'environment.prod.ts' which is selected. The 'BOOTSTRAP4' section shows the 'src' folder expanded. The main editor area on the right shows the content of 'environment.ts'.

File Edit Selection View Go Debug Terminal Help

EXPLORER

environment.ts

src > environmer

```
1 export cons
2 | productio
3 };
4
```

OPEN EDITORS

- TS environment.ts src\environments
- TS product.service.ts src\app
- TS environment.prod.ts src\environments
- TS search-product.component.ts src\app\search-...

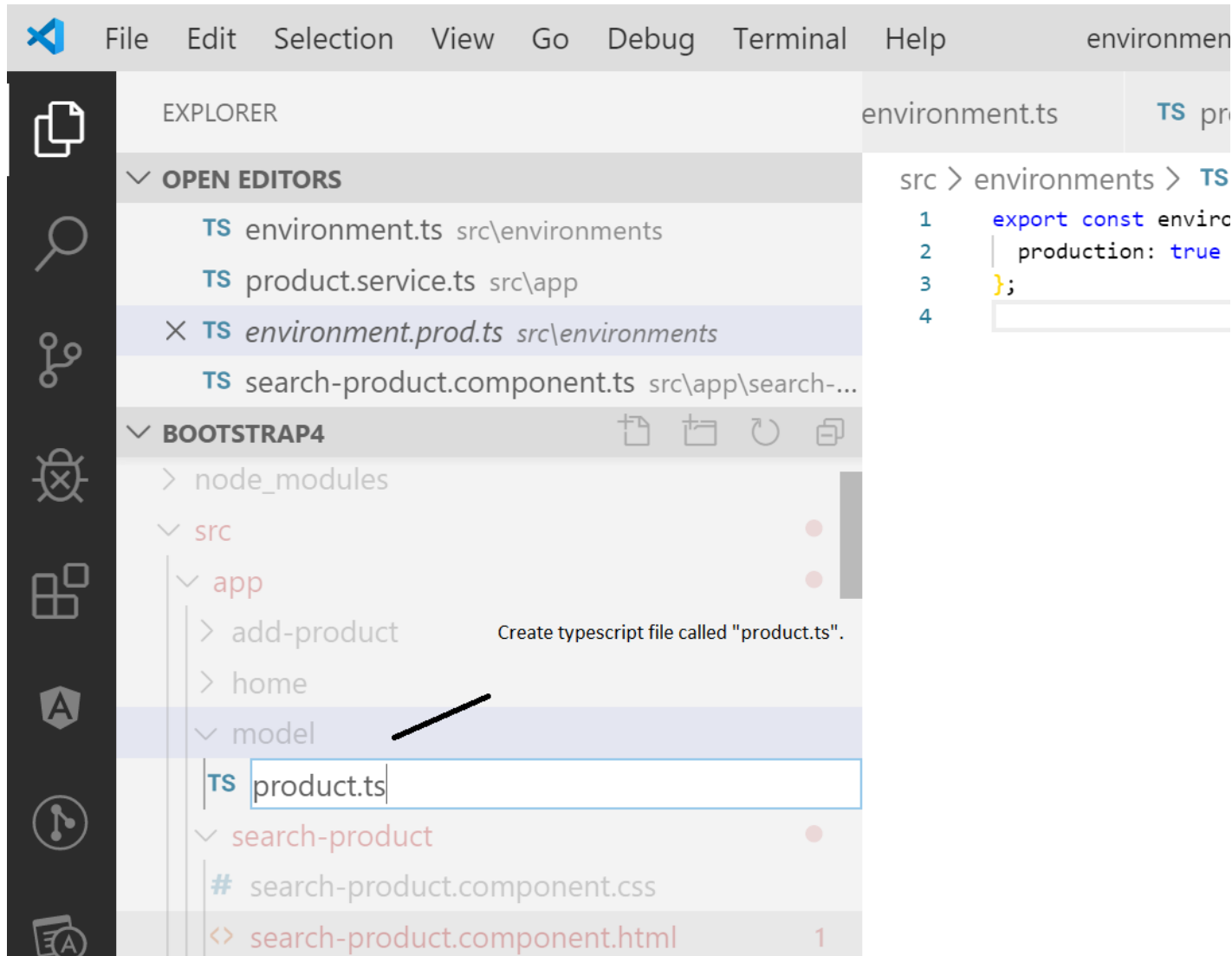
BOOTSTRAP4

- > e2e
- > node_modules
- src
 - app
 - model
 - add-product
 - home
 - search-product

search-product.component.css

Created folder called "model".

Create model typescript file called product.ts



Visual Studio Code interface showing the Explorer and Editor views.

EXPLORER

- OPEN EDITORS
 - TS environment.ts src\environments
 - TS product.service.ts src\app
 - TS environment.prod.ts src\environments
 - TS search-product.component.ts src\app\search-...
- BOOTSTRAP4
 - > node_modules
 - > src
 - > app
 - > add-product
 - > home
 - > model
 - TS product.ts
 - > search-product
 - # search-product.component.css
 - <> search-product.component.html

Create typescript file called "product.ts".

Editor View: src > environments > TS

```
1 export const enviro
2   production: true
3 };
4
```

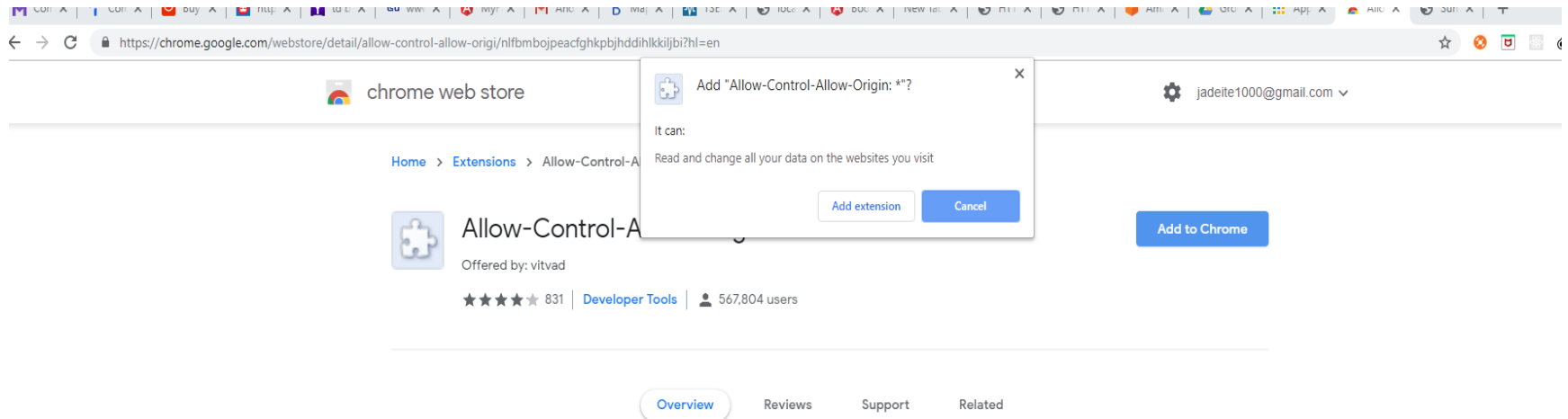
Create model typescript file called product.ts

```
export class Product {  
  
  constructor(  
    public id: number,  
    public productDescriptionEnglish: string,  
    public productDescriptionFrench: string,  
    public brandNameEnglish: string,  
    public brandNameFrench: string,  
    public productType: string,  
    public additionalProductIdentification: string,  
    public targetMarket: string,  
    public productImageUrl: string,  
    public status: string  
  ) {  
  
  }  
  
}
```

}

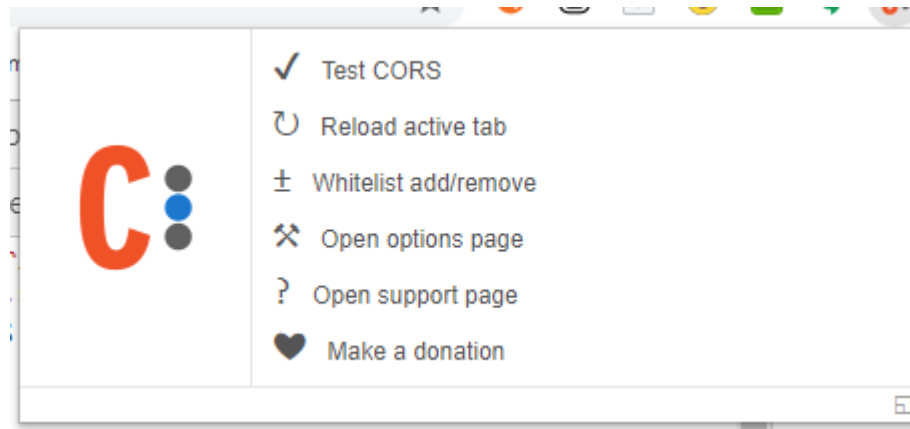
Create new service called “Product”

- Installed “Access Control Allow Origin”:
- <https://chrome.google.com/webstore/detail/allow-cors-access-control/lhobafahddgcelffkeicbaginieeejlf?hl=en>



Create new service called “Product”

- Installed “Access Control Allow Origin”:
- <https://chrome.google.com/webstore/detail/allow-cors-access-control/lhobafahddgcelffkeicbaginigeelj?hl=en>
- Click on it to make sure it is red.



Create new service called “Product”

- Edit C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version2\bootstrap4\src\app\product.service.ts



```
search Document Project Tools Window Help
1 import { Injectable } from '@angular/core';
2 import { HttpClient } from '@angular/common/http';
3 import { environment } from '../environments/environment';
4 import { Product } from '../model/product';
5
6 @Injectable({
7   providedIn: 'root'
8 })
9 export class ProductService {
10   baseUrl: string = environment.baseUrl;
11   constructor(private httpClient: HttpClient) { }
12
13   public getProducts() {
14     return this.httpClient.get(`${this.baseUrl}products`);
15   }
16
17 }
```

Edit product.service.ts

```
import { Injectable } from '@angular/core';
import { HttpClient } from '@angular/common/http';
import { environment } from '../environments/environment';
import { Product } from '../model/product';
```

```
@Injectable({
  providedIn: 'root'
})
```

```
export class ProductService {
  baseUrl: string = environment.baseUrl;
  constructor(private httpClient: HttpClient) { }
```

```
  public getProducts() {
    return this.httpClient.get(`${this.baseUrl}products`);
  }
```

```
}
```

search-product.component.ts

```
import { Component, OnInit } from '@angular/core';
import { ProductService } from '../product.service';
import { Product } from '../model/product';

@Component({
  selector: 'app-search-product',
  templateUrl: './search-product.component.html',
  styleUrls: ['./search-product.component.css']
})
export class SearchProductComponent implements OnInit {
  productId: number;
  productDescriptionEnglish: string;
  products: Product[];

  constructor(private productService: ProductService) {}

  ngOnInit() {
  }

  search() {

    this.productService.getProducts().subscribe((data: any) => {

      console.log(data);
      this.products = <Product[]>data;

    }, (err: any) => {
      console.log(err.error.status);

    });

  }
}
```

search-product.component.html

```
<div class="container">
  <div class="row">
    <div class="col-12">
      <h1>Search Products</h1>
    </div>
  </div>

  <div class="row">
    <div class="col-12">
      <input type="text" name="productId" placeholder="Product ID" class="form-control" [(ngModel)]="productId">
    </div>
    <div class="col-12">
      <input type="text" name="productDescriptionEnglish" placeholder="Product Description" class="form-control" [(ngModel)]="productDescriptionEnglish">
    </div>
    <div class="col-12">
      <br/>
      <input (click)="search()" type="submit" id="submit" class="Ybutton" name="submit" value="Search">
    </div>
  </div>

  <!--Begin Result-->
  <hr>

  <table class="table table-striped">
    <thead class="thead-dark">
      <tr>
        <th scope="col">#</th>
        <th scope="col">Description English</th>
        <th scope="col">Description French</th>
        <th scope="col">BrandName English</th>
        <th scope="col">BrandName French</th>
        <th scope="col">Type</th>
        <th scope="col">Product ID</th>
        <th scope="col">Target Market</th>
        <th scope="col">Image Url</th>
        <th scope="col">Status</th>
      </tr>
    </thead>
    <tbody>

      <tr *ngFor="let prod of products" id="{{prod.id}}" #tr>
        <th scope="row">{{prod.id}}</th>
        <td>{{prod.productDescriptionEnglish}}</td>
        <td>{{prod.productDescriptionFrench}}</td>
        <td>{{prod.brandNameEnglish}}</td>
        <td>{{prod.brandNameFrench}}</td>
        <td>{{prod.productType}}</td>
        <td>{{prod.additionalProductIdentification}}</td>
        <td>{{prod.targetMarket}}</td>
        <td>{{prod.productImageUrl}}</td>
        <td>{{prod.status}}</td>
      </tr>
    </tbody>
  </table>

  <h5 *ngIf="products?.length == 0">No records available!</h5>
  <!--End Result-->
</div>
```



Search Products Browser Result

[Home](#)[Add Product](#)[Search Product](#)

Search Products

When click "Search" button got the following result

#	Description English	Description French	BrandName English	BrandName French	Type	Product ID	Target Market	Image Url	Status
1	Chicken Noodle Soup	French Chicken Noodle Soup	Campbell Chicken Noodle Soup	French Campbell Chicken Noodle Soup	Consumer or Base	It is a soup	Canada	http://www.campbellSoup.com	Active
2	Chocolate Chip Cookie	French Chocolate Chip Cookie	Mrs. Fields	French Mrs. Fields	Consumer or Base	It is a cookie	Canada	http://www.mrsfields.com	Active
3	Potato Chips	French Potato Chips	Lays	French Lays	Consumer or Base	It is a potato chip	Canada	http://www.lays.com	Active

Setup Web Service products-ut-wo-db

- Copy C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version2\bootstrap4 to C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version3
- Edit C:\workspace-UT-Angular8-SEPT-2020 \Group-Project\Group-Project-Version3\bootstrap4\src\app\add-product\add-product.component.html

Edit add-product.component.html

```
<div class="container">
  <div class="row">
    <div class="col-12">
      <h1>Add Product</h1>
    </div>
  </div>
</div>
<div class="container">
  <div class="row">
    <div class="col-12">
      <form (ngSubmit)="onSubmit(f)" #f="ngForm">
        <div id="user-data">
          <div class="row">
            <div class="col-lg-6">
              <label>Product Description (English)</label>
              <input type="text" id="productDescriptionEnglish" name="productDescriptionEnglish" class="form-control" [(ngModel)]="product.productDescriptionEnglish" class="form-control" required #productDescriptionEnglish="ngModel">
              <span class="help-block" *ngIf="(submitted && !productDescriptionEnglish.valid) || (!productDescriptionEnglish.valid && productDescriptionEnglish.touched)">Product Description (English) is required</span>
            </div>
            <div class="col-lg-6">
              <label>Production Description (French)</label>
              <input type="text" id="productDescriptionFrench" name="productDescriptionFrench" class="form-control" [(ngModel)]="product.productDescriptionFrench" required #productDescriptionFrench="ngModel">
            </div>
          </div>
        </div>
        <div class="row">
          <div class="col-lg-6">
            <label>Brand Name (English)</label>
            <input type="text" id="brandNameEnglish" name="brandNameEnglish" class="form-control" [(ngModel)]="product.brandNameEnglish" required #brandNameEnglish="ngModel">
          </div>
          <div class="col-lg-6">
            <label>Brand Name (French)</label>
            <input type="text" id="brandNameFrench" name="brandNameFrench" class="form-control" [(ngModel)]="product.brandNameFrench" class="form-control" required #brandNameFrench="ngModel">
          </div>
        </div>
        <div class="row">
          <div class="col-lg-6">
            <label>Target Market</label>
            <select id="targetMarket" name="targetMarket" [(ngModel)]="product.targetMarket" class="form-control" required #targetMarket="ngModel">
              <option value=""></option>
              <option value="Canada">Canada</option>
              <option value="US">US</option>
            </select>
          </div>
          <div class="col-lg-6">
            <label>Status</label>
            <select id="status" name="status" [(ngModel)]="product.status" class="form-control" required #status="ngModel">
              <option value=""></option>
              <option value="Active">Active</option>
              <option value="Draft">Draft</option>
            </select>
          </div>
        </div>
      </form>
    </div>
  </div>
</div>
```

Edit add-product.component.html

```
<div class="row">
  <div class="col-lg-6">
    <label>Product Type</label>
    <select id="productType" name="productType" [(ngModel)]="product.productType" class="form-control" required #productType="ngModel">
      <option value=""></option>
      <option value="Pallet">Pallet</option>
      <option value="Case">Case</option>
      <option value="Consumer or Base">Consumer or Base</option>
    </select>
  </div>
  <div class="col-lg-6">
    <label>Product Image (url)</label>
    <input type="text" id="productImageUrl" name="productImageUrl" class="form-control" [(ngModel)]="product.productImageUrl" class="form-control" required
#productImageUrl="ngModel">

    </div>
  </div>
  <div class="row">
    <div class="col-lg-6">
      <label>Product Identification</label>
      <input type="text" id="additionalProductIdentification" name="additionalProductIdentification" class="form-control" [(ngModel)]="product.additionalProductIdentification"
class="form-control" required #additionalProductIdentification="ngModel">

    </div>

  </div>
  <br/>
  <div class="row">
    <div class="col-lg-6">
      <button class="btn btn-primary" type="submit">Submit</button>
      <span class="message">{{msg}}</span>
    </div>

  </div>
</div>
</form>
</div>
</div>
```


Edit product.service.ts

```
import { Injectable } from '@angular/core';
import { HttpClient } from '@angular/common/http';
import { environment } from '../environments/environment';
import { Product } from '../model/product';

@Injectable({
  providedIn: 'root'
})
export class ProductService {
  baseUrl: string = environment.baseUrl;
  constructor(private httpClient: HttpClient) { }

  public getProducts() {
    return this.httpClient.get(`${this.baseUrl}/products`);
  }

  create(product: Product) {
    //http://localhost:8080/products-ut-wo-db/rest/product/create
    this.httpClient.post<Product>(`${this.baseUrl}/product/create`, product).subscribe(data => {
      console.log(data);
    },
    error =>
      console.log('Could not create product.'));
  }
}
```

Edit add-product.component.ts

```
import { Component, OnInit } from '@angular/core';
import { HttpClient } from '@angular/common/http';
import { NgForm } from '@angular/forms';
import { Router, ActivatedRoute } from '@angular/router';
import { ProductService } from '../product.service';
import { Product } from '../model/product';

@Component({
  selector: 'app-add-product',
  templateUrl: './add-product.component.html',
  styleUrls: ['./add-product.component.css']
})
export class AddProductComponent implements OnInit {
  public msg: string;
  public submitted: boolean = false;

  public product : Product = {
    id:null,
    productDescriptionEnglish:null,
    productDescriptionFrench:null,
    brandNameEnglish:null,
    brandNameFrench:null,
    productType:null,
    additionalProductIdentification:null,
    targetMarket:null,
    productImageUrl:null,
    status:null };
    public proldd: number;

  constructor(
    private http: HttpClient,
    private router: Router,
    private route: ActivatedRoute,
    private productService: ProductService
  ){

  }

  ngOnInit() {
  }

  onSubmit(myform: NgForm) {
    this.submitted = true;
    if (myform.valid)
    {
      if(confirm("You are about to submit this entry.\n Are you sure?")) {
        this.productService.create(myform.value);
        this.msg = "";
        this.submitted = false;
        myform.reset();
      }
    }
    else
    {
      this.msg = "Entry is not completed!";
    }
  }
}
```



Edit add-product.component.css

```
.help-block{  
    font-size: 12px;  
    color: red;  
}
```

Add Product Error Message

← → ↻ ⓘ localhost:4200/#/addProduct

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[Home](#) [Add Product](#) [Search Product](#)

Add Product

Product Description (English)

Product Description (English) is required

Production Description (French)

Brand Name (English)

Brand Name (French)

Target Market

Status

Product Type

Product Image (url)

Product Identification

Use TcpMonitor for Proxy

- Copy C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version3\bootstrap4 to C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version4
- Edit C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version4\bootstrap4\src\environments\environment.ts file:

```
export const environment = {  
  production: false,  
  //baseUrl: 'http://localhost:8080/products-ut-wo-db/rest'  
  baseUrl: 'http://localhost:8081/products-ut-wo-db/rest'  
};
```

Use TcpMonitor for Proxy

Admin Sender

Create a new TCPMon...

Listen Port # 8081

Act as a...

☒ Listener

Target Hostname 127.0.0.1

Target Port # 8080

☐ Proxy

Options

☐ HTTP Proxy Support

Hostname

Port #

☐ Simulate Slow Connection

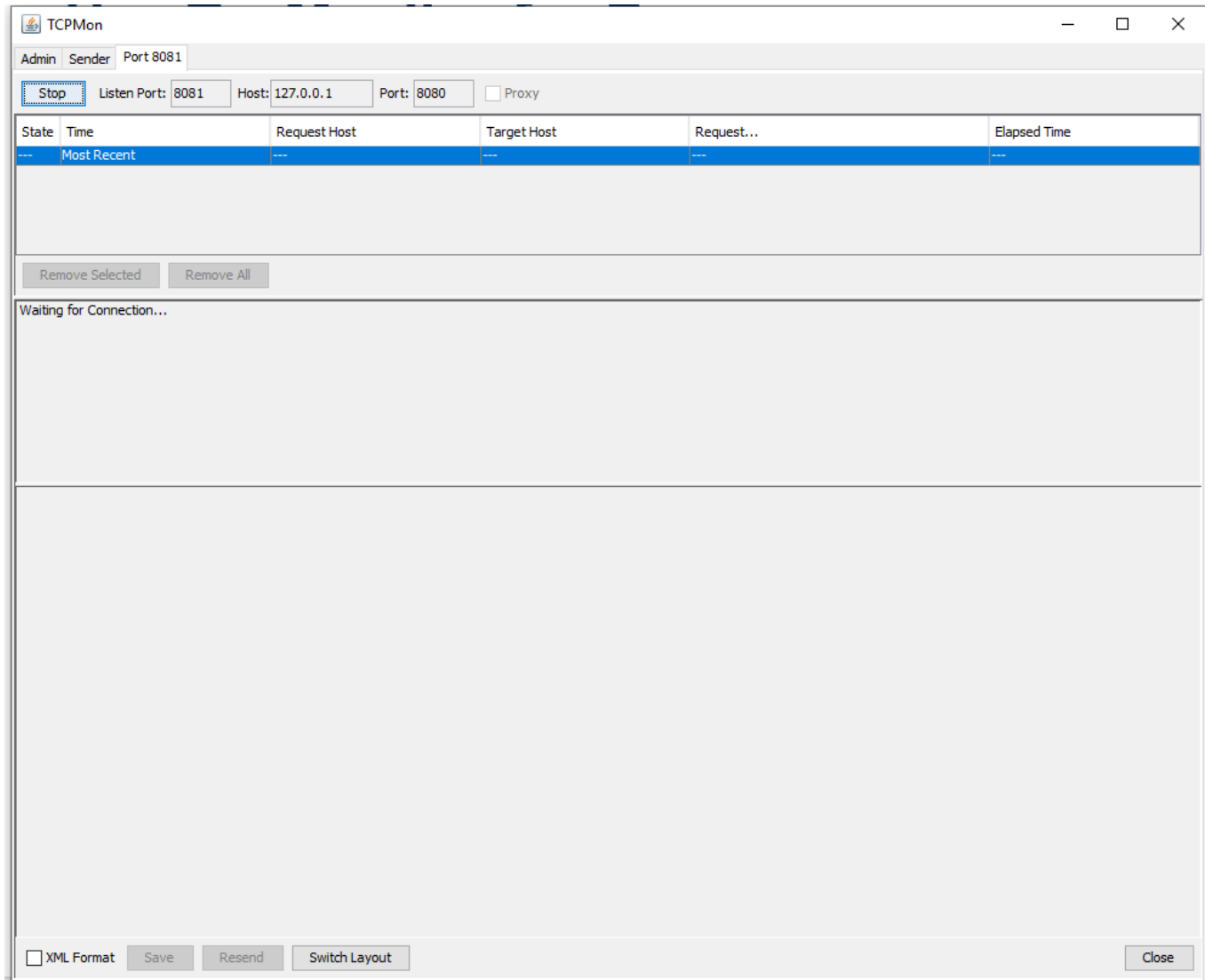
Bytes per Pause

Delay in Milliseconds

Add

Click "Add".

Use TcpMonitor for Proxy



Use TcpMonitor for Proxy(Search)

TcpMonitor

Admin Sender Port 8081

Stop Listen Port: 8081 Host: localhost Port: 8080 ☐ Proxy

State	Time	Request Host	Target Host	Request...	Elapsed Time
Req	2019-11-19 01:39:27	0:0:0:0:0:0:1	localhost	GET /products-ut-wo-db/rest/products HTTP/1.1	2072

Remove Selected Remove All

Sec-Fetch-Site: same-site
Sec-Fetch-Mode: cors
Referer: http://localhost:4200/
Accept-Encoding: gzip, deflate, br
Accept-Language: en,fr;q=0.9,en-US;q=0.8

HTTP/1.1 200
Content-Type: application/json;charset=UTF-8
Transfer-Encoding: chunked
Date: Tue, 19 Nov 2019 06:39:29 GMT

43#
[{"id":1,"productDescriptionEnglish":"Chicken Noodle Soup","productDescriptionFrench":"French Chicken Noodle Soup","brandNameEnglish":"Campbell Chicken Noodle Soup","brandNameFrench":"French Campbell Chicken Noodle Soup","productType":"Co
0

Use TcpMonitor for Proxy(Search Request)

GET /products-ut-wo-db/rest/products HTTP/1.1

Host: localhost:8081

Connection: keep-alive

Accept: application/json, text/plain, */*

Origin: http://localhost:4200

User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64)

AppleWebKit/537.36 (KHTML, like Gecko) Chrome/78.0.3904.97

Safari/537.36

DNT: 1

Sec-Fetch-Site: same-site

Sec-Fetch-Mode: cors

Referer: http://localhost:4200/

Accept-Encoding: gzip, deflate, br

Accept-Language: en,fr;q=0.9,en-US;q=0.8

Use TcpMonitor for Proxy(Search Response)

HTTP/1.1 200

Content-Type: application/json;charset=UTF-8

Transfer-Encoding: chunked

Date: Tue, 19 Nov 2019 06:39:29 GMT

43f

```
[{"id":1,"productDescriptionEnglish":"Chicken Noodle Soup","productDescriptionFrench":"French Chicken Noodle Soup","brandNameEnglish":"Campbell Chicken Noodle Soup","brandNameFrench":"French Campbell Chicken Noodle Soup","productType":"Consumer or Base","additionalProductIdentification":"It is a soup","targetMarket":"Canada","productImageUrl":"http://www.campbellSoup.com","status":"Active"}, {"id":2,"productDescriptionEnglish":"Chocolate Chip Cookie","productDescriptionFrench":"French Chocolate Chip Cookie","brandNameEnglish":"Mrs. Fields","brandNameFrench":"French Mrs. Fields","productType":"Consumer or Base","additionalProductIdentification":"It is a cookie","targetMarket":"Canada","productImageUrl":"http://www.mrsfields.com","status":"Active"}, {"id":3,"productDescriptionEnglish":"Potato Chips","productDescriptionFrench":"French Potato Chips","brandNameEnglish":"Lays","brandNameFrench":"French Lays","productType":"Consumer or Base","additionalProductIdentification":"It is a potato chip","targetMarket":"Canada","productImageUrl":"http://www.lays.com","status":"Active"}]
```

0

Use TcpMonitor for Proxy(Add Product)

Bootstrap4 x +

localhost:4200/#/addProduct

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[Home](#) [Add Product](#) [Search Product](#)

Add Product

Product Description (English)	Production Description (French)
<input type="text" value="Chicken Noodle Soup English"/>	<input type="text" value="Chicken Noodle Soup French"/>
Brand Name (English)	Brand Name (French)
<input type="text" value="Campbell Soup English"/>	<input type="text" value="Campbell Soup French"/>
Target Market	Status
<input type="text" value="Canada"/>	<input type="text" value="Active"/>
Product Type	Product Image (url)
<input type="text" value="Pallet"/>	<input type="text" value="http://campbell.soup.com"/>
Product Identification	
<input type="text" value="13333333"/>	
<input type="button" value="Submit"/>	

Use TcpMonitor for Proxy(Add Product)

TCPMon

Admin Sender Port 8081

Stop Listen Port: 8081 Host: localhost Port: 8080 ☐ Proxy

State	Time	Request Host	Target Host	Request...	Elapsed Time
...	Most Recent
Done	2019-11-19 01:39:27	0:0:0:0:0:0:1	localhost	GET /products-ut-wo-db/rest/products HTTP/1.1	2072
Active	2019-11-19 01:42:35	0:0:0:0:0:0:1	localhost	OPTIONS /products-ut-wo-db/rest/product/create HTTP/1.1	2801

Remove Selected Remove All

OPTIONS /products-ut-wo-db/rest/product/create HTTP/1.1
Host: localhost:8081
Connection: keep-alive
Access-Control-Request-Method: POST
Origin: http://localhost:4200
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/78.0.3904.97 Safari/537.36
DNT: 1
<

HTTP/1.1 200
Allow: GET, HEAD, POST, PUT, DELETE, OPTIONS, PATCH
Content-Length: 0
Date: Tue, 19 Nov 2019 06:42:36 GMT

HTTP/1.1 200
Content-Type: application/json;charset=UTF-8
Transfer-Encoding: chunked
Date: Tue, 19 Nov 2019 06:42:38 GMT

189
{ "id": 1, "productDescriptionEnglish": "Chicken Noodle Soup", "productDescriptionFrench": "French Chicken Noodle Soup", "brandNameEnglish": "Campbell Chicken Noodle Soup", "brandNameFrench": "French Campbell Chicken Noodle Soup", "productType": "Con
0

Use TcpMonitor for Proxy(Add Product Request)

OPTIONS /products-ut-wo-db/rest/product/create HTTP/1.1

Host: localhost:8081

Connection: keep-alive

Access-Control-Request-Method: POST

Origin: http://localhost:4200

User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/78.0.3904.97 Safari/537.36

DNT: 1

Access-Control-Request-Headers: content-type

Accept: */*

Sec-Fetch-Site: same-site

Sec-Fetch-Mode: cors

Referer: http://localhost:4200/

Accept-Encoding: gzip, deflate, br

Accept-Language: en,fr;q=0.9,en-US;q=0.8

POST /products-ut-wo-db/rest/product/create HTTP/1.1

Host: localhost:8081

Connection: keep-alive

Content-Length: 354

Accept: application/json, text/plain, */*

Origin: http://localhost:4200

User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/78.0.3904.97 Safari/537.36

DNT: 1

Content-Type: application/json

Sec-Fetch-Site: same-site

Sec-Fetch-Mode: cors

Referer: http://localhost:4200/

Accept-Encoding: gzip, deflate, br

Accept-Language: en,fr;q=0.9,en-US;q=0.8

```
{"productDescriptionEnglish":"Chicken Noodle Soup English","productDescriptionFrench":"Chicken Noodle Soup French", "brandNameEnglish":"Campbell Soup English", "brandNameFrench":"Campbell Soup French", "targetMarket":"Canada", "status":"Active", "productType":"Pallet", "productImageUrl":"http://campbell.soup.com", "additionalProductIdentification": "13333333"}
```

Use TcpMonitor for Proxy(Add Product Response

HTTP/1.1 200

Allow: GET, HEAD, POST, PUT, DELETE, OPTIONS, PATCH

Content-Length: 0

Date: Tue, 19 Nov 2019 06:42:36 GMT

HTTP/1.1 200

Content-Type: application/json;charset=UTF-8

Transfer-Encoding: chunked

Date: Tue, 19 Nov 2019 06:42:38 GMT

189

```
{"id":1,"productDescriptionEnglish":"Chicken Noodle  
Soup","productDescriptionFrench":"French Chicken Noodle  
Soup","brandNameEnglish":"Campbell Chicken Noodle  
Soup","brandNameFrench":"French Campbell Chicken Noodle  
Soup","productType":"Consumer or Base","additionalProductIdentification":"It is a  
soup","targetMarket":"Canada","productImageUrl":"http://www.campbellSoup.com","sta  
tus":"Active"}
```

0

Production Deployment

- Copy C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version4\bootstrap4 to C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version5
- Available web service:

<http://ec2-52-14-130-217.us-east-2.compute.amazonaws.com:8080/products-ut-wodb/rest/products>

Environment.ts

- Edit C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version5\bootstrap4\src\environments\environment.prod.ts
- baseUrl: 'http://ec2-52-14-130-217.us-east-2.compute.amazonaws.com:8080/products-ut-wo-db/rest/'

```
is - [C:\workspace-UT-Angular7-Sept-2019\Group-Project\Group-Project-Version5\bootstrap4\src\environments\environment.prod.ts]
Edit View Search Document Project Tools Window Help
ClipText
vs
1 export const environment = {
2   production: true,
3   baseUrl: 'http://ec2-3-134-92-53.us-east-2.compute.amazonaws.com:8080/products-ut-wo-db/rest/'
4 }
5 };
6
```


Production Build

- C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version5\bootstrap4\ng build --prod --base-href .

```
C:\workspace-UT-Angular7-Sept-2019\Group-Project\Group-Project-Version5\bootstrap4>ng build --prod --base-href

Date: 2019-12-04T04:28:42.779Z
Hash: 9e9deef3ce9594c009c1
Time: 41185ms
chunk {0} runtime.26209474bfa8dc87a77c.js (runtime) 1.41 kB [entry] [rendered]
chunk {1} es2015-polyfills.e17997aea7f522b8d49d.js (es2015-polyfills) 56.6 kB [initial] [rendered]
chunk {2} main.cfd5cdcfad59c90b1458.js (main) 332 kB [initial] [rendered]
chunk {3} polyfills.8bbb231b43165d65d357.js (polyfills) 41 kB [initial] [rendered]
chunk {4} styles.3f900ab564f87f7d4272.css (styles) 124 kB [initial] [rendered]
chunk {scripts} scripts.d56c3d23fa0796bd398b.js (scripts) 136 kB [entry] [rendered]

C:\workspace-UT-Angular7-Sept-2019\Group-Project\Group-Project-Version5\bootstrap4>
```

Deploy to Tomcat 8.5

- Copy files from C:\workspace-UT-Angular8-SEPT-2020\Group-Project\Group-Project-Version5\bootstrap4\dist\bootstrap4 to C:\Tomcat85\webapps\ROOT
- <http://localhost:8080/#/searchProduct>

Deploy to Tomcat 8.5

Bootstrap4 x +

localhost:8080/#/searchProduct

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[Home](#) [Add Product](#) [Search Product](#)

Search Products

Product ID

Product Description

Search

#	Description English	Description French	BrandName English	BrandName French	Type	Product ID	Target Market	Image Url	Status
1	Chicken Noodle Soup	French Chicken Noodle Soup	Campbell Chicken Noodle Soup	French Campbell Chicken Noodle Soup	Consumer or Base	It is a soup	Canada	http://www.campbellSoup.com	Active
2	Chocolate Chip Cookie	French Chocolate Chip Cookie	Mrs. Fields	French Mrs. Fields	Consumer or Base	It is a cookie	Canada	http://www.mrsfields.com	Active
3	Potato Chips	French Potato Chips	Lays	French Lays	Consumer or Base	It is a potato chip	Canada	http://www.lays.com	Active

Deploy to AWS

- <http://ec2-52-14-130-217.us-east-2.compute.amazonaws.com:8080/>

android-ut-sept-2019 - sftp://ec2-user@ec2-3-134-105-137.us-east-2.compute.amazonaws.com - FileZilla

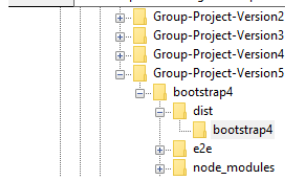
File Edit View Transfer Server Bookmarks Help New version available!



Host: Username: Password: Port: Quickconnect

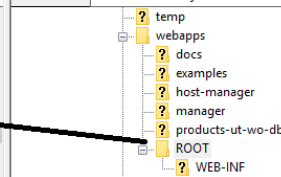
Status: Starting upload of C:\workspace-UT-Angular7-Sept-2019\Group-Project\Group-Project-Version5\bootstrap4\dist\bootstrap4.styles.3f900ab564f87f7d4272.css
Status: File transfer successful, transferred 126,749 bytes in 1 second
Status: File transfer successful, transferred 5,430 bytes in 1 second
Status: Retrieving directory listing of "/home/ec2-user/java/tomcat8/webapps/ROOT"...
Status: Listing directory /home/ec2-user/java/tomcat8/webapps/ROOT
Status: Directory listing of "/home/ec2-user/java/tomcat8/webapps/ROOT" successful

Local site: C:\workspace-UT-Angular7-Sept-2019\Group-Project\Group-Project-Version5\bootstrap4\dist\bootstrap4\



Copy files from
dist/bootstrap4 to /home/ec2-
user/java/tomcat8/webapps/R
OOT

Remote site: /home/ec2-user/java/tomcat8/webapps/ROOT



Filename	Filesize	Filetype	Last modified
..			
3rdpartylicenses.txt	24,779	Text Document	12/3/2019 11:28:42...
es2015-polyfills.e17997aea7f522b8d49d.js	57,931	JavaScript Sour...	12/3/2019 11:28:42...
favicon.ico	5,430	Icon	12/3/2019 11:28:42...
index.html	875	Chrome HTML...	12/3/2019 11:28:42...
main.cfd5cdcfad59c90b1458.js	339,805	JavaScript Sour...	12/3/2019 11:28:42...
polyfills.8bbb231b43165d65d357.js	41,994	JavaScript Sour...	12/3/2019 11:28:42...
runtime.26209474bfa8dc87a77c.js	1,440	JavaScript Sour...	12/3/2019 11:28:42...
scripts.d56c3d23fa0796bd398b.js	139,750	JavaScript Sour...	12/3/2019 11:28:42...
styles.3f900ab564f87f7d4272.css	126,749	Cascading Styl...	12/3/2019 11:28:42...

Filename	Filesize	Filetype	Last modified	Permissions	Owner/Gro...
..					
styles.3f900ab564f87f7d4272.css	126,749	Cascading ...	12/3/2019 11:4...	-rw-rw-r--	ec2-user e...
favicon.ico	5,430	Icon	12/3/2019 11:4...	-rwxrwxrwx	root root
scripts.d56c3d23fa0796bd398b.js	139,750	JavaScript ...	12/3/2019 11:4...	-rw-rw-r--	ec2-user e...
runtime.26209474bfa8dc87a77c.js	1,440	JavaScript ...	12/3/2019 11:4...	-rw-rw-r--	ec2-user e...
polyfills.8bbb231b43165d65d357.js	41,994	JavaScript ...	12/3/2019 11:4...	-rw-rw-r--	ec2-user e...
main.cfd5cdcfad59c90b1458.js	339,805	JavaScript ...	12/3/2019 11:4...	-rw-rw-r--	ec2-user e...
index.html	875	Chrome H...	12/3/2019 11:4...	-rw-rw-r--	ec2-user e...
es2015-polyfills.e17997aea7f522b8d49d.js	57,931	JavaScript ...	12/3/2019 11:4...	-rw-rw-r--	ec2-user e...
3rdpartylicenses.txt	24,779	Text Docu...	12/3/2019 11:4...	-rw-rw-r--	ec2-user e...
tomcat.svg	67,795	SVG Docu...	11/17/2019 1:4...	-rwxrwxrwx	root root
tomcat.css	5,481	Cascading ...	11/17/2019 1:4...	-rwxrwxrwx	root root

Deploy to AWS

- <http://ec2-52-14-130-217.us-east-2.compute.amazonaws.com:8080/#/searchProduct>

4 x Apache Tomcat/8.5.49 x Bootstrap4 x +

Not secure | ec2-3-134-105-137.us-east-2.compute.amazonaws.com:8080/#/searchProduct

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Search Products

Product ID

Product Description

Search

#	Description English	Description French	BrandName English	BrandName French	Type	Product ID	Target Market	Image Url	Status
1	Chicken Noodle Soup	French Chicken Noodle Soup	Campbell Chicken Noodle Soup	French Campbell Chicken Noodle Soup	Consumer or Base	It is a soup	Canada	http://www.campbellSoup.com	Active
2	Chocolate Chip Cookie	French Chocolate Chip Cookie	Mrs. Fields	French Mrs. Fields	Consumer or Base	It is a cookie	Canada	http://www.mrsfields.com	Active
3	Potato Chips	French Potato Chips	Lays	French Lays	Consumer or Base	It is a potato chip	Canada	http://www.lays.com	Active