CÁC BƯỚC TIẾN HÀNH MỘT DỰ ÁN ANGULAR FRAMEWORK CRUD

Bước 1 : Khởi tạo dự án bằng câu lệnh **ng new project-name**

Bước 2 : Cài đặt bootstrap về dự án bằng câu lệnh  **npm i bootstrap -s**

Bước 3 :  Trong file src/styles.css thêm đoạn code sau để import thư viện bootstrap vào trong dự án:

@import "~bootstrap/dist/css/bootstrap.css";

Bước 4 : Trong file src/app tạo file project-name.

Bước 5 : Trong file src/app/project-name mở cửa sổ terminal và gõ lệnh ***ng g s service/service-name***

* Vì theo mô hình MVC và kết nối data nên chúng ta cần xây dựng đủ service, model, controller(app.component.ts ), view, data.
* Cấu hình trong sevice

Bước 6 : Tạo đối tượng trong file src/app/model bằng cách mở cửa sổ terminal và gõ lệnh ***ng g m routing --routing***

Bước 7 : Tạo đối tượng trong file src/app/model bằng cách mở cửa sổ terminal và gõ lệnh ***ng g i model-name***

Tạo thuộc tính cùa các đối tượng như dạng sau:

export interface Product {  
 id?: number;  
 name?: string;  
 price?: number;  
 description?: string;  
 category?: Category;  
}

Bước 8 : Tạo đối tượng trong file src/app/data bằng cách mở cửa sổ terminal và gõ lệnh **:**

**---cài đặt json---**

**npm i json-server**

**--- chạy json---**

**npm install -g json-server**

**--- tạo file json và chạy lại---**

**json-server --watch data.json**

---Bắt đầu hiển thị List---

Bước 1 : Trong file src/app/project-name mở cửa sổ terminal và gõ lệnh ***ng g c* *component*-name-list .**

Bước 2 : Trong file src/app/project-name/service/ project-name.service.ts

Ta khai báo :

private urlProduct = 'http://localhost:3000/product';  
urlCategory = 'http://localhost:3000/category';  
product?: Product;  
  
constructor(private httpClient:HttpClient) { }  
  
getAll(): Observable<Product[]> {  
 return this.httpClient.get<Product[]>(this.urlProduct);  
}

Sau khai báo ta có file như sau :

import {***Injectable***, OnInit} from '@angular/core';  
import {Product} from "../model/product";  
import {HttpClient} from "@angular/common/http";  
import {Observable} from "rxjs";  
  
@Injectable({  
 providedIn: 'root'  
})  
export class ProductService implements OnInit {  
 private urlProduct = 'http://localhost:3000/product';  
 urlCategory = 'http://localhost:3000/category';  
 product?: Product;  
  
 constructor(private httpClient:HttpClient) { }  
  
 getAll(): Observable<Product[]> {  
 return this.httpClient.get<Product[]>(this.urlProduct);  
 }

Bước 3 : Trong file src/app/project-name/ ***component*-name-list.** **component.ts** khai báo như sau :

products: Product[] = [];  
 temp: Product = {};  
  
 constructor(private productService: ProductService) {  
 }  
  
 ngOnInit(): void {  
 this.getAll()  
 }  
  
 getAll() {  
 this.productService.getAll().subscribe(data => {  
 this.products = data;  
 }, error => {  
 }, () => {  
 });  
 }  
  
  
 reload() {  
 this.getAll();  
 }  
}

Sau khai báo ta có file như sau :

import {***Component***, OnInit} from '@angular/core';  
import {Product} from "../model/product";  
import {HttpClient} from "@angular/common/http";  
import {ProductService} from "../service/product.service";  
  
@Component({  
 selector: 'app-product-list',  
 templateUrl: './product-list.component.html',  
 styleUrls: ['./product-list.component.css']  
})  
export class ProductListComponent implements OnInit {  
  
 products: Product[] = [];  
 temp: Product = {};  
  
 constructor(private productService: ProductService) {  
 }  
  
 ngOnInit(): void {  
 this.getAll()  
 }  
  
 getAll() {  
 this.productService.getAll().subscribe(data => {  
 this.products = data;  
 }, error => {  
 }, () => {  
 });  
 }  
  
  
 reload() {  
 this.getAll();  
 }  
}

Bước 4 : Trong file src/app/ ***app-routing.module*.ts** khai báo như sau :

const routes: Routes = [  
 {path:'product/productList',component: ProductListComponent}  
];

Sau khai báo ta có file như sau :

import { ***NgModule*** } from '@angular/core';  
import { Routes, RouterModule } from '@angular/router';  
import {ProductListComponent} from "./product/product-list/product-list.component";  
  
const routes: Routes = [  
 {path:'product/productList',component: ProductListComponent}  
];  
  
@NgModule({  
 imports: [RouterModule.*forRoot*(routes)],  
 exports: [RouterModule]  
})  
export class AppRoutingModule { }

Bước 5 : Trong file src/app/ ***app.module*.ts** khai báo như sau :

imports: [  
 BrowserModule,  
 AppRoutingModule,  
 FormsModule,  
 ReactiveFormsModule,  
 HttpClientModule  
],

Sau khai báo ta có file như sau :

import { BrowserModule } from '@angular/platform-browser';  
import { ***NgModule*** } from '@angular/core';  
import { AppRoutingModule } from './app-routing.module';  
import { AppComponent } from './app.component';  
import { ProductListComponent } from './product/product-list/product-list.component';  
import {HttpClientModule,HttpClient} from "@angular/common/http";  
import {RouterModule, Routes} from "@angular/router";  
import {FormsModule,ReactiveFormsModule} from "@angular/forms";  
import { ProductCreateComponent } from './product/product-create/product-create.component';  
import { ProductEditComponent } from './product/product-edit/product-edit.component';  
import { ProductDeleteComponent } from './product/product-delete/product-delete.component';  
  
const routes: Routes = [  
 {path:'product',component: ProductListComponent}  
]  
@NgModule({  
 declarations: [  
 AppComponent,  
 ProductListComponent,  
 ProductCreateComponent,  
 ProductEditComponent,  
 ProductDeleteComponent  
  
 ],  
 imports: [  
 BrowserModule,  
 AppRoutingModule,  
 FormsModule,  
 ReactiveFormsModule,  
 HttpClientModule  
 ],  
 providers: [],  
 bootstrap: [AppComponent]  
})  
export class AppModule { }

Bước 6 : Trong file src/app/project-name/ ***app.component*.html**

Ta khai báo như sau :

<app-product-list></app-product-list>

Sau khai báo ta có file như sau :

<app-product-list></app-product-list>

---Bắt đầu thêm mới đối tượng---

Bước 1 : Trong file src/app/project-name mở cửa sổ terminal và gõ lệnh ***ng g c* *component*-name-create .**

Bước 2 : Trong file src/app/project-name/service/ project-name.service.ts

Ta khai báo :

saveProduct(product: Product) {  
 return this.httpClient.post<Product>(this.urlProduct, product);  
}

Sau khai báo ta có file như sau :

import {***Injectable***, OnInit} from '@angular/core';  
import {Product} from "../model/product";  
import {HttpClient} from "@angular/common/http";  
import {Observable} from "rxjs";  
  
@Injectable({  
 providedIn: 'root'  
})  
export class ProductService implements OnInit {  
 private urlProduct = 'http://localhost:3000/product';  
 urlCategory = 'http://localhost:3000/category';  
 product?: Product;  
  
 constructor(private httpClient:HttpClient) { }  
  
 getAll():Observable<Product[]>{  
 return this.httpClient.get<Product[]>(this.urlProduct)  
 }  
  
 saveProduct(product: Product) {  
 return this.httpClient.post<Product>(this.urlProduct, product);  
 }  
  
 ngOnInit(): void {  
 }  
}

Bước 3 : Trong file src/app/project-name/ ***component*-name-create.** **component.ts**

Ta khai báo như sau :

export class ProductCreateComponent implements OnInit {

  productForm: FormGroup;

  category: Category[] = [

    {id: 1, name: "IPhone"},

    {id: 2, name: "Samsung"},

    {id: 3, name: "LG"},

  ]

  constructor(private formBuilder: FormBuilder, private productService: ProductService, private route: Router) {

    this.productForm = this.formBuilder.group({

      id: [''],

      name: [''],

      price: [''],

      description: [''],

      category: ['']

    });

  }

  ngOnInit(): void {

  }

  saveProduct() {

    let product: Product;

    product = this.productForm.value;

    this.productService.saveProduct(product).subscribe(data => {

      this.route.navigateByUrl('/product/list');

      this.productForm.reset();

    }, error => {

    }, () => {

    });

  }

}

Sau khai báo ta có file như sau :

import {***Component***, OnInit} from '@angular/core';  
import {FormBuilder, FormGroup} from "@angular/forms";  
import {Category} from "../model/category";  
import {ProductService} from "../service/product.service";  
import {Router} from "@angular/router";  
import {Product} from "../model/product";  
  
@Component({  
 selector: 'app-product-create',  
 templateUrl: './product-create.component.html',  
 styleUrls: ['./product-create.component.css']  
})  
export class ProductCreateComponent implements OnInit {  
  
 productForm: FormGroup;  
 category: Category[] = [  
 {id: 1, name: "IPhone"},  
 {id: 2, name: "Samsung"},  
 {id: 3, name: "LG"},  
 ]  
  
 constructor(private formBuilder: FormBuilder, private productService: ProductService, private route: Router) {  
 this.productForm = this.formBuilder.group({  
 id: [''],  
 name: [''],  
 price: [''],  
 description: [''],  
 category: ['']  
 });  
 }  
  
 ngOnInit(): void {  
 }  
  
 saveProduct() {  
 let product: Product;  
 product = this.productForm.value;  
 this.productService.saveProduct(product).subscribe(data => {  
 this.route.navigateByUrl('/product/list');  
 this.productForm.reset();  
 }, error => {  
 }, () => {  
 });  
  
  
 }  
}

Bước 4 : Trong file src/app/project-name/ ***component*-name-create.** **component.html**

Ta khai báo như sau :

<form [formGroup]="productForm" (ngSubmit)="saveProduct()">

Sau khai báo ta có file như sau :

<h1>Tạo sản phẩm mới</h1>  
<form [formGroup]="productForm" (ngSubmit)="saveProduct()">  
 <table>  
 <tr>  
 <td>Mã sản phẩm:</td>  
 <td><input type="number" formControlName="id"></td>  
 </tr>  
 <tr>  
 <td>Tên sản phẩm:</td>  
 <td><input type="text" formControlName="name"></td>  
 </tr>  
 <tr>  
 <td>Giá sản phẩm</td>  
 <td><input type="number" formControlName="price"></td>  
 </tr>  
 <tr>  
 <td>Mô tả về sản phẩm</td>  
 <td><input type="text" formControlName="description"></td>  
 </tr>  
 <tr>  
 <td>Hang</td>  
 <td><select formControlName="category" id="">  
 <option *\*ngFor*="let ***item*** of category" [ngValue]="***item***">{{***item***.name}}</option>  
 </select></td>  
 </tr>  
 <tr>  
 <td></td>  
 <td><button type="submit">Tạo mới</button></td>  
 </tr>  
 </table>  
</form>

Bước 5 : Trong file src/app/project-name/ ***app-routing.module*.ts**

Ta khai báo như sau :

const routes: Routes = [  
 {path:'product/productList',component: ProductListComponent},  
 {path:'product/productCreate',component: ProductCreateComponent}  
];

Sau khai báo ta có file như sau :

import { ***NgModule*** } from '@angular/core';  
import { Routes, RouterModule } from '@angular/router';  
import {ProductListComponent} from "./product/product-list/product-list.component";  
import {ProductCreateComponent} from "./product/product-create/product-create.component";  
  
const routes: Routes = [  
 {path:'product/productList',component: ProductListComponent},  
 {path:'product/productCreate',component: ProductCreateComponent}  
];  
  
@NgModule({  
 imports: [RouterModule.*forRoot*(routes)],  
 exports: [RouterModule]  
})  
export class AppRoutingModule { }

Bước 6 : Trong file src/app/project-name/ ***app.component*.html**

Ta khai báo như sau :

<app-product-create></app-product-create>

Sau khai báo ta có file như sau :

<app-product-list></app-product-list>  
<app-product-create></app-product-create>

---Bắt đầu edit đối tượng---

Bước 1 : Trong file src/app/project-name mở cửa sổ terminal và gõ lệnh ***ng g c* *component*-name-** **edit.**

Bước 2 : Trong file src/app/project-name/service/ project-name.service.ts

Ta khai báo :

findById(number: number): Observable<Product> {  
 return this.httpClient.get(this.urlProduct+"/"+ number);  
}  
  
updateProduct(product: Product) {  
 return this.httpClient.patch(this.urlProduct+"/"+ product.id, product);  
}

Sau khai báo ta có file như sau :

import {***Injectable***, OnInit} from '@angular/core';  
import {Product} from "../model/product";  
import {HttpClient} from "@angular/common/http";  
import {Observable} from "rxjs";  
  
@Injectable({  
 providedIn: 'root'  
})  
export class ProductService implements OnInit {  
 private urlProduct = 'http://localhost:3000/product';  
 urlCategory = 'http://localhost:3000/category';  
 product?: Product;  
  
 constructor(private httpClient:HttpClient) { }  
  
 getAll():Observable<Product[]>{  
 return this.httpClient.get<Product[]>(this.urlProduct)  
 }  
  
 saveProduct(product: Product) {  
 return this.httpClient.post<Product>(this.urlProduct, product);  
 }  
  
 findById(number: number): Observable<Product> {  
 return this.httpClient.get(this.urlProduct+"/"+ number);  
 }  
  
 updateProduct(product: Product) {  
 return this.httpClient.patch(this.urlProduct+"/"+ product.id, product);  
 }  
  
 ngOnInit(): void {  
 }  
}

Bước 3 : Trong file src/app/project-name/ ***component*-name-edit.** **component.ts**

Ta khai báo như sau :

productForm: FormGroup = new FormGroup({});  
product: Product = {};  
category: Category[] = [  
 {id: 1, name: 'IPhone'},  
 {id: 2, name: 'Samsung'},  
 {id: 3, name: 'LG'},  
];  
constructor(private formBuilder: FormBuilder, private productService: ProductService, private activatedRoute: ActivatedRoute, private route: Router) {  
 this.productForm = this.formBuilder.group({  
 id: [''],  
 name: [''],  
 price: [''],  
 description: [''],  
 category: ['']  
 });  
 this.activatedRoute.paramMap.subscribe(data => {  
 const id = data.get('id');  
 if (id != null) {  
 this.productService.findById(parseInt(id)).subscribe(data1 => {  
 this.productForm.patchValue(data1);  
 }, error => {  
 }, () => {  
 });  
 }  
 ***console***.log(id);  
 }, error => {  
  
 }, () => {  
 });  
}  
  
ngOnInit(): void {  
}  
  
compareCategory(o1: Category, o2: Category): boolean {  
 return o1 && o2 ? o1.id === o2.id : o1 === o2;  
}  
  
updateProduct() {  
 let product: Product;  
 product = this.productForm.value;  
 this.productService.updateProduct(product).subscribe(data => {  
 this.productForm.reset();  
 this.route.navigateByUrl('/product/list');  
 alert('Cập nhập thành công');  
 }, error => {  
 }, () => {  
 });  
}

Sau khai báo ta có file như sau :

import { ***Component***, OnInit } from '@angular/core';  
import {FormBuilder, FormGroup} from "@angular/forms";  
import {Product} from "../model/product";  
import {Category} from "../model/category";  
import {ProductService} from "../service/product.service";  
import {ActivatedRoute, Router} from "@angular/router";  
  
@Component({  
 selector: 'app-product-edit',  
 templateUrl: './product-edit.component.html',  
 styleUrls: ['./product-edit.component.css']  
})  
export class ProductEditComponent implements OnInit {  
 productForm: FormGroup = new FormGroup({});  
 product: Product = {};  
 category: Category[] = [  
 {id: 1, name: 'IPhone'},  
 {id: 2, name: 'Samsung'},  
 {id: 3, name: 'LG'},  
 ];  
  
 constructor(private formBuilder: FormBuilder, private productService: ProductService, private activatedRoute: ActivatedRoute, private route: Router) {  
 this.productForm = this.formBuilder.group({  
 id: [''],  
 name: [''],  
 price: [''],  
 description: [''],  
 category: ['']  
 });  
 this.activatedRoute.paramMap.subscribe(data => {  
 const id = data.get('id');  
 if (id != null) {  
 this.productService.findById(parseInt(id)).subscribe(data1 => {  
 this.productForm.patchValue(data1);  
  
 }, error => {  
 }, () => {  
 });  
 }  
 }, error => {  
  
 }, () => {  
 });  
 }  
  
 ngOnInit(): void {  
 }  
  
 compareCategory(o1: Category, o2: Category): boolean {  
 return o1 && o2 ? o1.id === o2.id : o1 === o2;  
 }  
  
 updateProduct() {  
 let product: Product;  
 product = this.productForm.value;  
 this.productService.updateProduct(product).subscribe(data => {  
 this.productForm.reset();  
 this.route.navigateByUrl('/product/productList');  
 alert('Cập nhập thành công');  
 }, error => {  
 }, () => {  
 });  
 }  
}

Bước 4 : Trong file src/app/project-name/ ***component*-name-create.** **component.html**

Ta khai báo như sau :

<form [formGroup]="productForm" (ngSubmit)="updateProduct()">

Sau khai báo ta có file như sau :

<h1>Sửa sản phẩm</h1>  
<form [formGroup]="productForm" (ngSubmit)="updateProduct()">  
 <table>  
 <tr>  
 <td>Mã sản phẩm:</td>  
 <td><input type="number" formControlName="id"></td>  
 </tr>  
 <tr>  
 <td>Tên sản phẩm:</td>  
 <td><input type="text" formControlName="name"></td>  
 </tr>  
 <tr>  
 <td>Giá sản phẩm</td>  
 <td><input type="number" formControlName="price"></td>  
 </tr>  
 <tr>  
 <td>Mô tả về sản phẩm</td>  
 <td><input type="text" formControlName="description"></td>  
 </tr>  
 <tr>  
 <td>Hang</td>  
 <td><select formControlName="category" id="" [compareWith]="compareCategory">  
 <option *\*ngFor*="let ***item*** of category" [ngValue]="***item***">{{***item***.name}}</option>  
 </select></td>  
 </tr>  
 <tr>  
 <td></td>  
 <td><button type="submit">Tạo mới</button></td>  
 </tr>  
 </table>  
</form>

Bước 5 : Trong file src/app/project-name/ ***app-routing.module*.ts**

Ta khai báo như sau :

const routes: Routes = [  
 {path:'product/productList',component: ProductListComponent},  
 {path:'product/productCreate',component: ProductCreateComponent},  
 {path:'product/productEdit/:id', component:ProductEditComponent}  
];

Sau khai báo ta có file như sau :

import { ***NgModule*** } from '@angular/core';  
import { Routes, RouterModule } from '@angular/router';  
import {ProductListComponent} from "./product/product-list/product-list.component";  
import {ProductCreateComponent} from "./product/product-create/product-create.component";  
import {ProductEditComponent} from "./product/product-edit/product-edit.component";  
  
const routes: Routes = [  
 {path:'product/productList',component: ProductListComponent},  
 {path:'product/productCreate',component: ProductCreateComponent},  
 {path:'product/productEdit/:id', component:ProductEditComponent}  
];  
  
@NgModule({  
 imports: [RouterModule.*forRoot*(routes)],  
 exports: [RouterModule]  
})  
export class AppRoutingModule { }

Bước 6 : Trong file src/app/project-name/ ***app.component*.html**

Ta khai báo như sau :

<app-product-edit></app-product-edit>

Sau khai báo ta có file như sau :

<app-product-list></app-product-list>  
<app-product-create></app-product-create>  
<app-product-edit></app-product-edit>

---Bắt đầu delete đối tượng---

Bước 1 : Trong file src/app/project-name mở cửa sổ terminal và gõ lệnh ***ng g c* *component*-name-delete**

Bước 2 : Trong file src/app/project-name/service/ project-name.service.ts

Ta khai báo :

deleteProduct(id: number):Observable<Product> {  
 return this.httpClient.delete(this.urlProduct +"/"+ id)  
}

Sau khai báo ta có file như sau :

import {***Injectable***, OnInit} from '@angular/core';  
import {Product} from "../model/product";  
import {HttpClient} from "@angular/common/http";  
import {Observable} from "rxjs";  
  
@Injectable({  
 providedIn: 'root'  
})  
export class ProductService implements OnInit {  
 private urlProduct = 'http://localhost:3000/product';  
 urlCategory = 'http://localhost:3000/category';  
 product?: Product;  
  
 constructor(private httpClient:HttpClient) { }  
  
 getAll():Observable<Product[]>{  
 return this.httpClient.get<Product[]>(this.urlProduct)  
 }  
  
 saveProduct(product: Product) {  
 return this.httpClient.post<Product>(this.urlProduct, product);  
 }  
  
 findById(number: number): Observable<Product> {  
 return this.httpClient.get(this.urlProduct+"/"+ number);  
 }  
  
 updateProduct(product: Product) {  
 return this.httpClient.patch(this.urlProduct+"/"+ product.id, product);  
 }  
  
 deleteProduct(id: number):Observable<Product> {  
 return this.httpClient.delete(this.urlProduct +"/"+ id)  
 }  
  
 ngOnInit(): void {  
 }  
}

Bước 3 : Trong file src/app/project-name/ ***component*-name-delete.** **component.ts**

Ta khai báo như sau :

@Input('product') product: Product = {};  
  
constructor(private productService: ProductService, private route: Router) {  
}  
  
@Output() eventDelete = new ***EventEmitter***();  
  
ngOnInit(): void {  
}  
  
deleteProduct(id: number | undefined) {  
 if (id != undefined) {  
 this.productService.deleteProduct(id).subscribe(data => {  
 this.eventDelete.emit();  
 });  
 }  
}

Sau khai báo ta có file như sau :

import {***Component***,***EventEmitter***, ***Input***, OnInit, ***Output***} from '@angular/core';  
import {Product} from "../model/product";  
import {ProductService} from "../service/product.service";  
import {Router} from "@angular/router";  
  
@Component({  
 selector: 'app-product-delete',  
 templateUrl: './product-delete.component.html',  
 styleUrls: ['./product-delete.component.css']  
})  
export class ProductDeleteComponent implements OnInit {  
  
 @Input('product') product: Product = {};  
  
 constructor(private productService: ProductService, private route: Router) {  
 }  
  
 @Output() eventDelete = new ***EventEmitter***();  
  
 ngOnInit(): void {  
 }  
  
 deleteProduct(id: number | undefined) {  
 if (id != undefined) {  
 this.productService.deleteProduct(id).subscribe(data => {  
 this.eventDelete.emit();  
 });  
 }  
 }  
}

Bước 4 : Trong file src/app/project-name/ ***component*-name-delete.** **component.html**

Ta khai báo như sau :

<form>  
 <div class="modal fade" id="deleteModal" tabindex="-1" aria-labelledby="exampleModalLabel" aria-hidden="true">  
 <div class="modal-dialog">  
 <div class="modal-content">  
 <div class="modal-header">  
 <h5 class="modal-title" id="exampleModalLabel">Modal title</h5>  
 <button type="button" class="btn-close" data-bs-dismiss="modal" aria-label="Close"></button>  
 </div>  
 <div class="modal-body">  
 Bạn có muốn xoá sản phẩm <span>{{product.name}}</span>  
 </div>  
 <div class="modal-footer">  
 <form>  
 <button type="button" class="btn btn-secondary" data-bs-dismiss="modal">Close</button>  
 <button type="button" class="btn btn-primary" (click)="deleteProduct(product.id)" data-bs-dismiss="modal">Delete</button>  
 </form>  
 </div>  
 </div>  
 </div>  
 </div>  
</form>

Bước 5 : Trong file src/app/project-name/project-name-list/ project-name-list.component.html

Ta khai báo như sau :

<table class="table">  
 <thead>  
 <tr>  
 <th>id</th>  
 <th>name</th>  
 <th>price</th>  
 <th>description</th>  
 <th>category</th>  
 <td>edit</td>  
 <td>delete</td>  
 </tr>  
 </thead>  
 <tbody>  
 <tr *\*ngFor*="let ***product*** of productList">  
 <td scope="row">{{***product***.id}}</td>  
 <td scope="row">{{***product***.name}}</td>  
 <td scope="row">{{***product***.price}}</td>  
 <td scope="row">{{***product***.description}}</td>  
 <td scope="row">{{***product***.category.name}}</td>  
 <td><a [routerLink]="['/product/productEdit',***product***.id]">edit</a></td>  
 <td><button type="button" (click)="temp = ***product***" data-bs-toggle="modal" data-bs-target="#deleteModal">delete</button></td>  
 </tr>  
 </tbody>  
</table>  
<app-product-delete [product]="temp" (eventDelete)="reload()"></app-product-delete>  
<a routerLink="/product/productCreate">Tạo mới sản phẩm</a>

---Bắt đầu cấu hình lại cha con ---

Bước 1 : Trong file src/app/project-name/routing/ ***routing.module*.ts**

Ta khai báo như sau :

import { ***NgModule*** } from '@angular/core';  
import { CommonModule } from '@angular/common';  
  
import { RoutingRoutingModule } from './routing-routing.module';  
import {ProductListComponent} from "../product-list/product-list.component";  
import {ProductCreateComponent} from "../product-create/product-create.component";  
import {ProductEditComponent} from "../product-edit/product-edit.component";  
import {ProductDeleteComponent} from "../product-delete/product-delete.component";  
import {FormsModule, ReactiveFormsModule} from "@angular/forms";  
  
  
@NgModule({  
 declarations: [  
 ProductListComponent,  
 ProductCreateComponent,  
 ProductEditComponent,  
 ProductDeleteComponent  
 ],  
 exports: [  
 ProductDeleteComponent  
 ],  
 imports: [  
 CommonModule,  
 RoutingRoutingModule,  
 FormsModule,  
 ReactiveFormsModule  
 ]  
})  
export class RoutingModule { }

Bước 2 : Trong file src/app/project-name/routing/ ***routing-routing.module*.ts**

Ta khai báo như sau :

import { ***NgModule*** } from '@angular/core';  
import { Routes, RouterModule } from '@angular/router';  
import {ProductListComponent} from "../product-list/product-list.component";  
import {ProductCreateComponent} from "../product-create/product-create.component";  
import {ProductEditComponent} from "../product-edit/product-edit.component";  
  
const routes: Routes = [  
 {path:'product/productList',component: ProductListComponent},  
 {path:'product/productCreate',component: ProductCreateComponent},  
 {path:'product/productEdit/:id', component:ProductEditComponent}  
];  
  
@NgModule({  
 imports: [RouterModule.*forChild*(routes)],  
 exports: [RouterModule]  
})  
export class RoutingRoutingModule { }

Bước 3 : Trong file src/app/ app.module

Ta khai báo như sau :

import { BrowserModule } from '@angular/platform-browser';  
import { ***NgModule*** } from '@angular/core';  
import { AppRoutingModule } from './app-routing.module';  
import { AppComponent } from './app.component';  
import {HttpClientModule,HttpClient} from "@angular/common/http";  
import {FormsModule,ReactiveFormsModule} from "@angular/forms";  
  
@NgModule({  
 declarations: [  
 AppComponent  
 ],  
 imports: [  
 BrowserModule,  
 AppRoutingModule,  
 FormsModule,  
 ReactiveFormsModule,  
 HttpClientModule  
 ],  
 providers: [],  
 bootstrap: [AppComponent]  
})  
export class AppModule { }

Bước 4 : Trong file src/app/ app-routing.module.ts

Ta khai báo như sau :

import { ***NgModule*** } from '@angular/core';  
import { Routes, RouterModule } from '@angular/router';  
  
const routes: Routes = [  
 {path: '', loadChildren: () => import('./product/routing/routing.module').then(module => module.RoutingModule)},  
];  
  
@NgModule({  
 imports: [RouterModule.*forRoot*(routes)],  
 exports: [RouterModule]  
})  
export class AppRoutingModule { }

Bước 5 : Trong file src/app/ app.component.html

Ta khai báo như sau :

<a routerLink="product/productList">Danh sách sản phẩm</a>|  
<router-outlet></router-outlet>