

## Lesson 02 Demo 03

### Using ngFor and ngIf

**Objective:** To use ngFor and ngIf in Angular

**Tools required:** Visual Studio Code

**Prerequisites:** JavaScript

Steps to be followed:

1. Create a structure of the Product objects
2. Create a list of products in the service
3. Use ngFor to display products
4. Use ngIf in the div tag

#### Step 1: Create a structure of the Product objects

1.1 Create a new folder by the name of **modal** in the **src** folder



## 1.2 Create a file **product.ts** in the **modal** folder and create an **export** class in it

The screenshot shows the Visual Studio Code interface. In the Explorer panel on the left, the file `ts product.ts` is highlighted under the `modal` folder. The main editor displays the content of `src > modal > ts product.ts`, which contains the following TypeScript code:

```
1 export class Product {
2
3   pid: number;
4   name: string;
5   price: number;
6   ratings: number;
7
8   constructor(pid: number, name: string, price: number, ratings: number){
9     this.pid = pid;
10    this.name = name;
11    this.price = price;
12    this.ratings = ratings;
13  }
14
15  showProduct(){
16    console.log("[Product]: "+this.pid+" "+this.name+" "+this.price+" "+this.ratings);
17  }
18 }
19
```

## 1.3 Generate a **products** service by using the following command:

**ng g s products**

The screenshot shows the Visual Studio Code interface with the `ts products.service.ts` file highlighted in the Explorer panel. The main editor displays the content of `src > app > ts products.service.ts`, which contains the following TypeScript code:

```
1 import { Injectable } from '@angular/core';
2
3 @Injectable({
4   providedIn: 'root'
5 })
6 export class ProductsService {
7
8   constructor() { }
9 }
10
```

The terminal at the bottom shows the command `ng g s products` being executed, along with the output:

```
Node.js version v17.2.0 detected.
Odd numbered Node.js versions will not enter LTS status and should not be used for production. For more information, please see https://nodejs.org/en/about/releases/.
srijanighataksi@ip-172-31-27-104:~/Documents/estores$ ng g s products
Node.js version v17.2.0 detected.
Odd numbered Node.js versions will not enter LTS status and should not be used for production. For more information, please see https://nodejs.org/en/about/releases/.
CREATE src/app/products.service.spec.ts (367 bytes)
CREATE src/app/products.service.ts (137 bytes)
srijanighataksi@ip-172-31-27-104:~/Documents/estores$
```

## Step 2: Create a list of products in the service

### 2.1 Create an array of **Product** objects

```

src > app > ts products.service.ts > ProductsService > getProducts
5  @Injectable({
6    providedIn: 'root'
7  })
8  export class ProductService {
9
10     products: Product[] = [
11       new Product(101, "Water Bottle", 500, 5.0),
12       new Product(201, "Sports Shoe", 3000, 4.5),
13       new Product(301, "LED TV", 3500, 4.7),
14       new Product(401, "Chocolate", 100, 4.5),
15       new Product(501, "Smart Phone", 50000, 5.0),
16       new Product(601, "Laptop", 13000, 4.5),
17     ];
18
19     constructor() { }
20
21     getProducts(): Product[] {
22       return this.products;
23     }
24   }

```

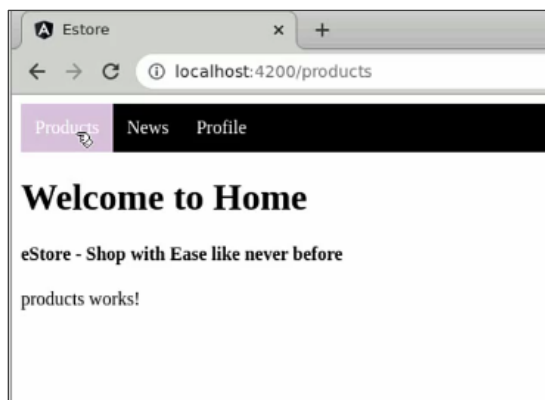
### 2.2 Inject **products** service in **products.component.ts**

```

src > app > products > ts products.component.ts > ProductsComponent > products
1  import { Component, OnInit } from '@angular/core';
2  import { ProductService } from '../products.service';
3
4  @Component({
5    selector: 'app-products',
6    templateUrl: './products.component.html',
7    styleUrls: ['./products.component.css']
8  })
9  export class ProductsComponent implements OnInit {
10
11     constructor(private productService: ProductService) { }
12
13     products = this.productService.getProducts();
14
15     ngOnInit(): void {
16     }
17
18   }

```

### 2.3 Rerun the project

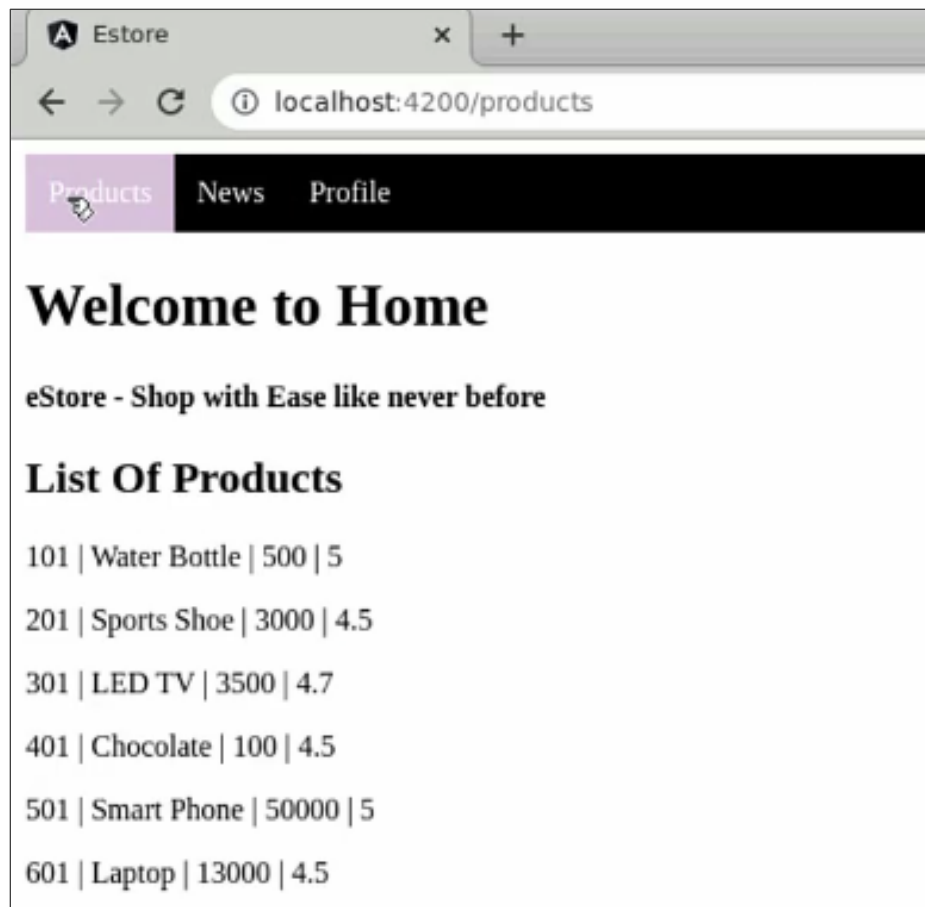


### Step 3: Use ngFor to display products

3.1 Use **ngFor** in the **products.component.html** to display products on the products page

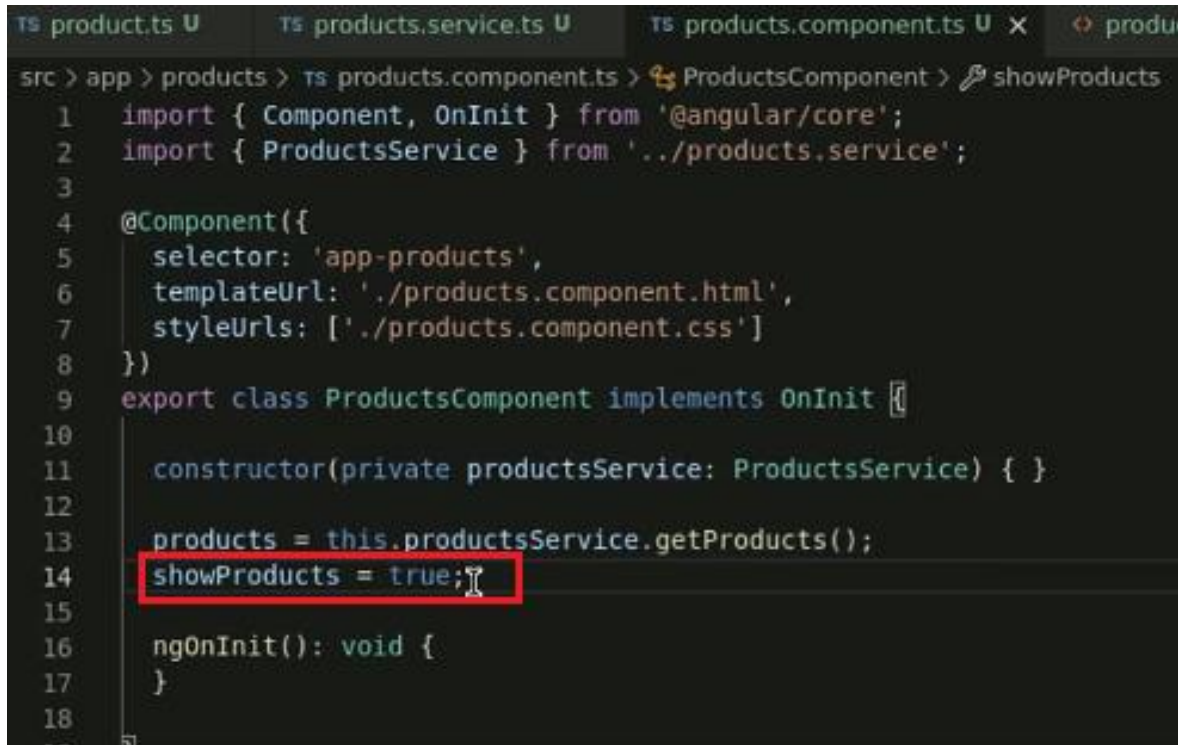
```
src > app > products > products.component.html > p
Go to component
1 <h2>List Of Products</h2>
2 <p *ngFor="let product of products">
3   | {{product.pid}} | {{product.name}} | {{product.price}} | {{product.ratings}}
4 </p>
5
```

3.2 Rerun the project



## Step 4: Use ngIf in the div tag

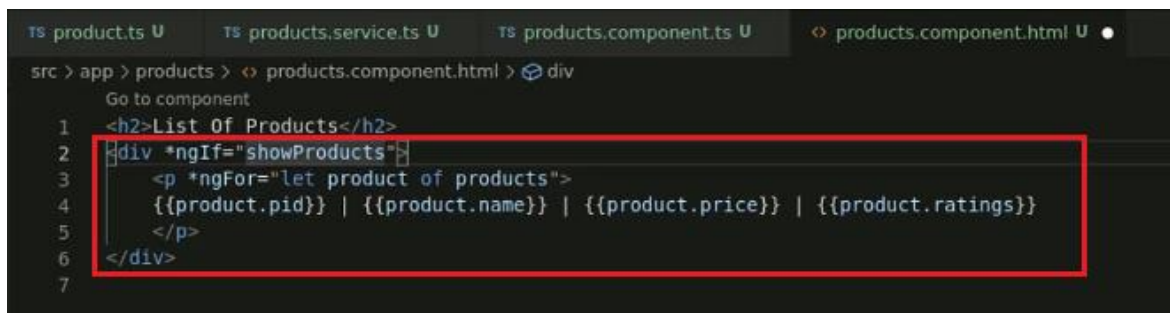
4.1 Create a variable **showProducts** in **products.component.ts** with a **true** value



```

src > app > products > ts products.component.ts > ProductsComponent > showProducts
1  import { Component, OnInit } from '@angular/core';
2  import { ProductsService } from '../products.service';
3
4  @Component({
5    selector: 'app-products',
6    templateUrl: './products.component.html',
7    styleUrls: ['./products.component.css']
8  })
9  export class ProductsComponent implements OnInit {
10
11    constructor(private productService: ProductsService) { }
12
13    products = this.productService.getProducts();
14    showProducts = true;
15
16    ngOnInit(): void {
17    }
18
19  }
  
```

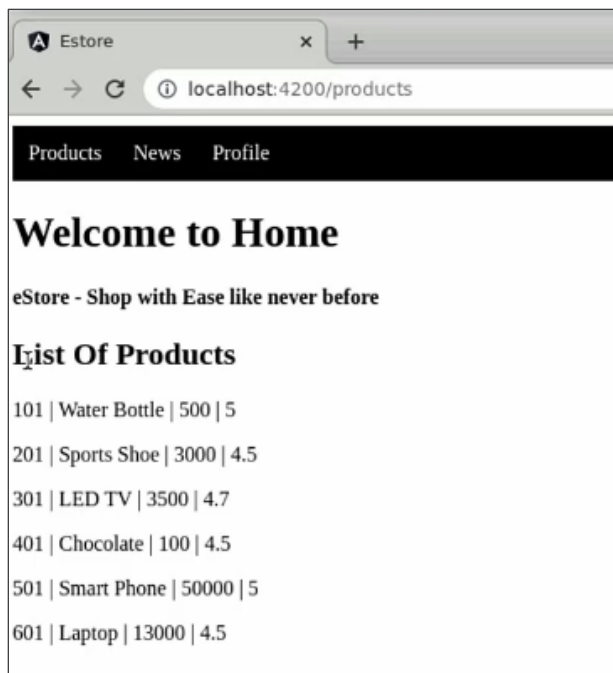
4.2 Create a div tag in **products.component.html** with **ngIf**



```

src > app > products > products.component.html > div
Go to component
1  <h2>List Of Products</h2>
2  <div *ngIf="showProducts">
3    <p *ngFor="let product of products">
4      {{product.pid}} | {{product.name}} | {{product.price}} | {{product.ratings}}
5    </p>
6  </div>
7
  
```

#### 4.3 Rerun the project



#### 4.4 Change the value of the **showProducts** variable in **products.component.ts** to **false**

```

src > app > products > ts products.component.ts > ProductsComponent > showProducts
1  import { Component, OnInit } from '@angular/core';
2  import { ProductsService } from '../products.service';
3
4  @Component({
5    selector: 'app-products',
6    templateUrl: './products.component.html',
7    styleUrls: ['./products.component.css']
8  })
9  export class ProductsComponent implements OnInit {
10
11    constructor(private productService: ProductsService) { }
12
13    products = this.productService.getProducts();
14    showProducts = false;
15
16    ngOnInit(): void {
17    }
18

```

#### 4.5 Rerun the project

