

Module 4 – Angular Directives and Pipes

Demo Document 1 –Use of Directives for shopping list

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In this demo, we will see how to use built in Directives and create Custom Directives and add it to the shopping list component created earlier.

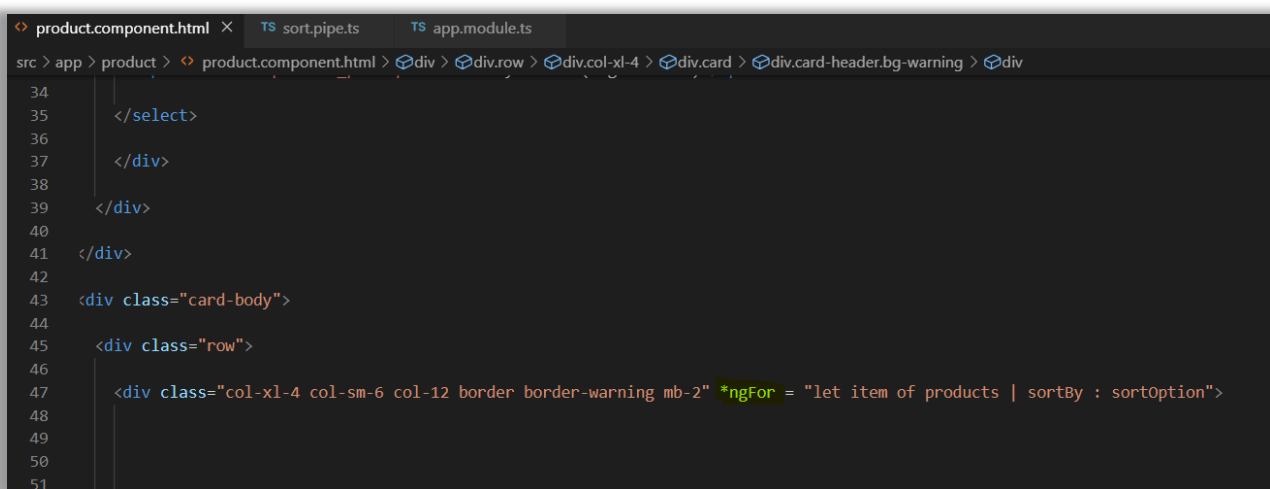
Step 1 – Open visual studio code, Open project folder created in Module 3 Demo1.

Step 2 – Navigate to src → app → product folder, open product.component.html file

Step 3 – We are using different built in directives in this component as mentioned below.

e.g. *ngFor , *ngIf etc.

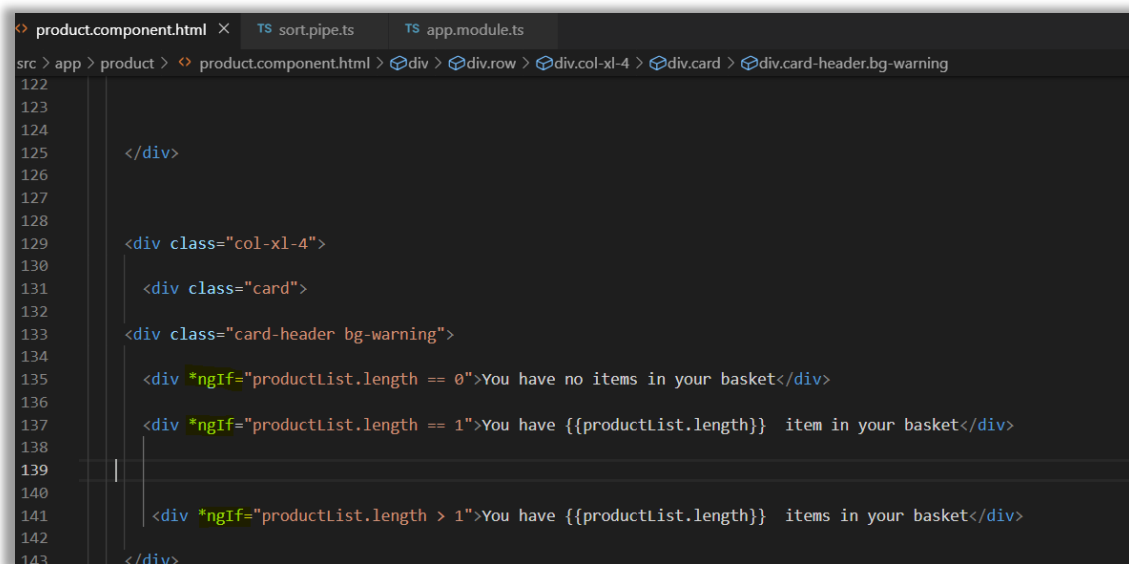
Below screenshot shows directives used in product component



The screenshot shows the Visual Studio Code editor with the file `product.component.html` open. The breadcrumb navigation at the top indicates the path: `src > app > product > product.component.html > div > div.row > div.col-xl-4 > div.card > div.card-header.bg-warning > div`. The code editor shows the following HTML structure:

```
34
35   </select>
36
37   </div>
38
39 </div>
40
41 </div>
42
43 <div class="card-body">
44
45   <div class="row">
46
47     <div class="col-xl-4 col-sm-6 col-12 border border-warning mb-2" *ngFor = "let item of products | sortBy : sortOption">
48
49
50
51
```

- *ngFor is used to loop through product array and display each item



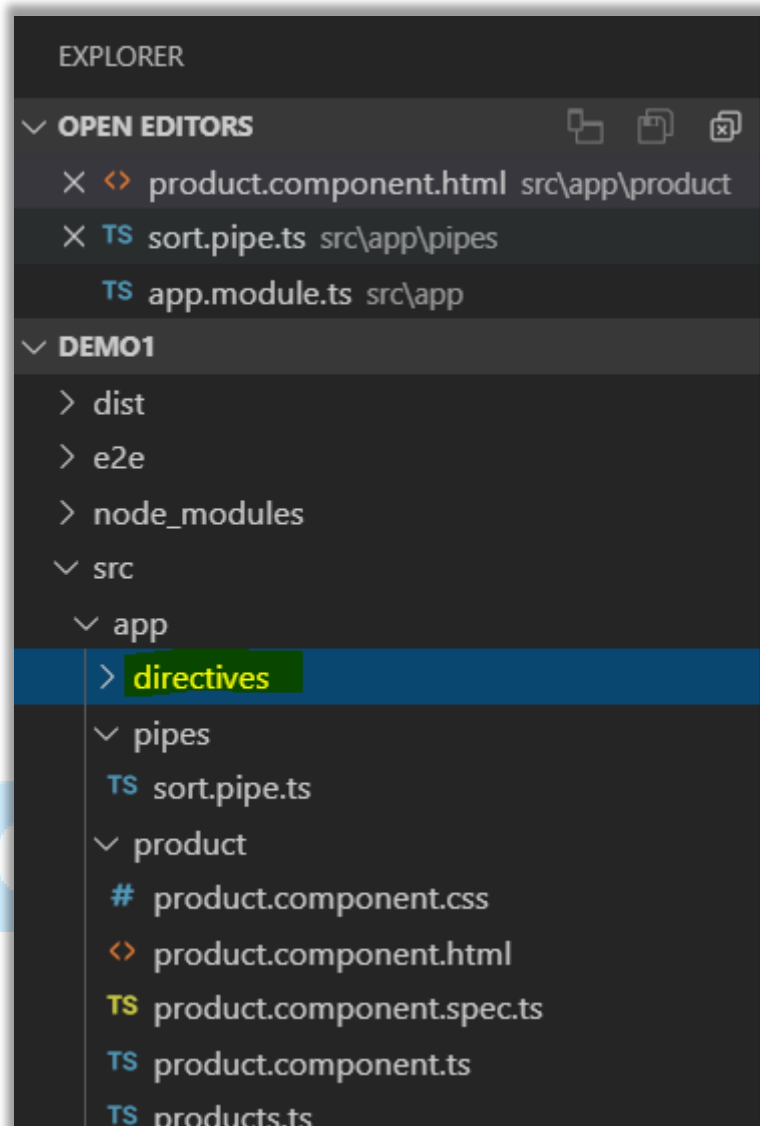
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```
122
123
124
125   </div>
126
127
128
129   <div class="col-xl-4">
130
131     <div class="card">
132
133       <div class="card-header bg-warning">
134
135         <div *ngIf="productList.length == 0">You have no items in your basket</div>
136
137         <div *ngIf="productList.length == 1">You have {{productList.length}} item in your basket</div>
138
139
140
141         <div *ngIf="productList.length > 1">You have {{productList.length}} items in your basket</div>
142
143       </div>
144     </div>
145   </div>
```

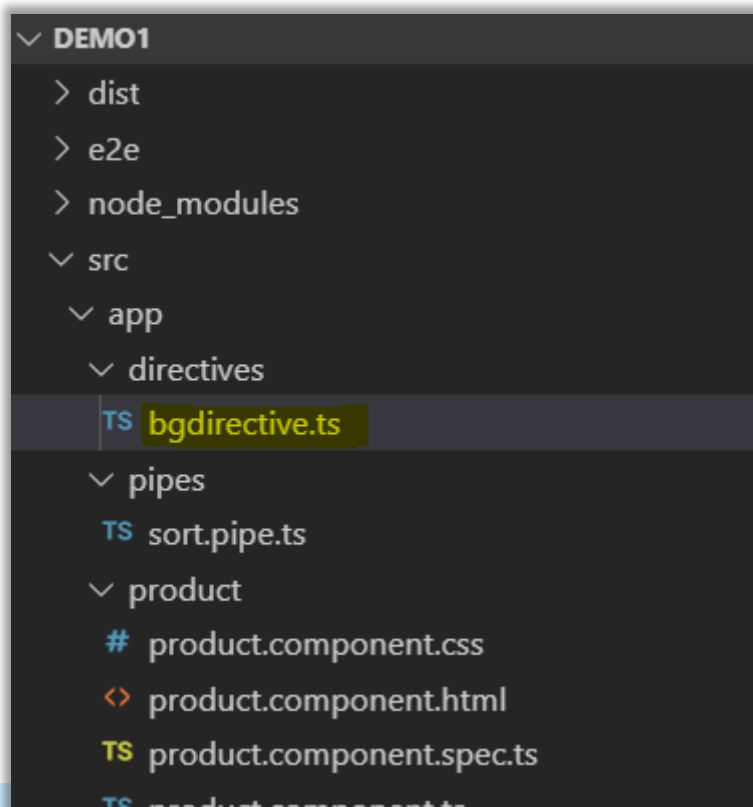
- *ngIf is used to check if condition

Step 4 – Now we will create custom Directive for changing background color of products added to cart, when we hover mouse on a product.

Right click on src/app folder and create new folder. Name this new folder as 'directives' as shown below.



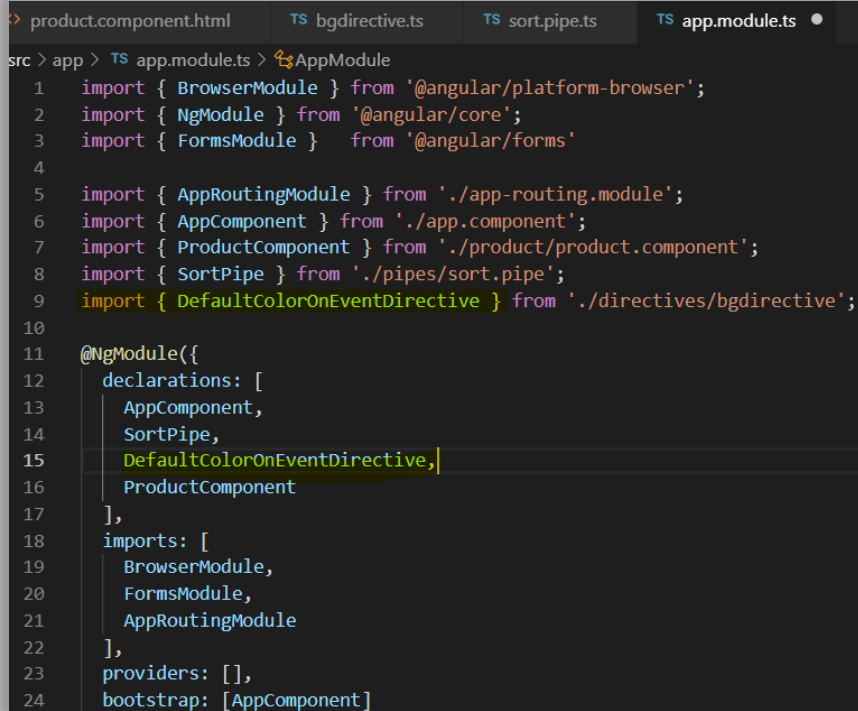
Step 5 – Create new file under the directives folder, name this new file as 'bgdirective.ts'



Step 6 – In the new file 'bgdirective.ts', write the logic to change background colour on mouse hover as shown below

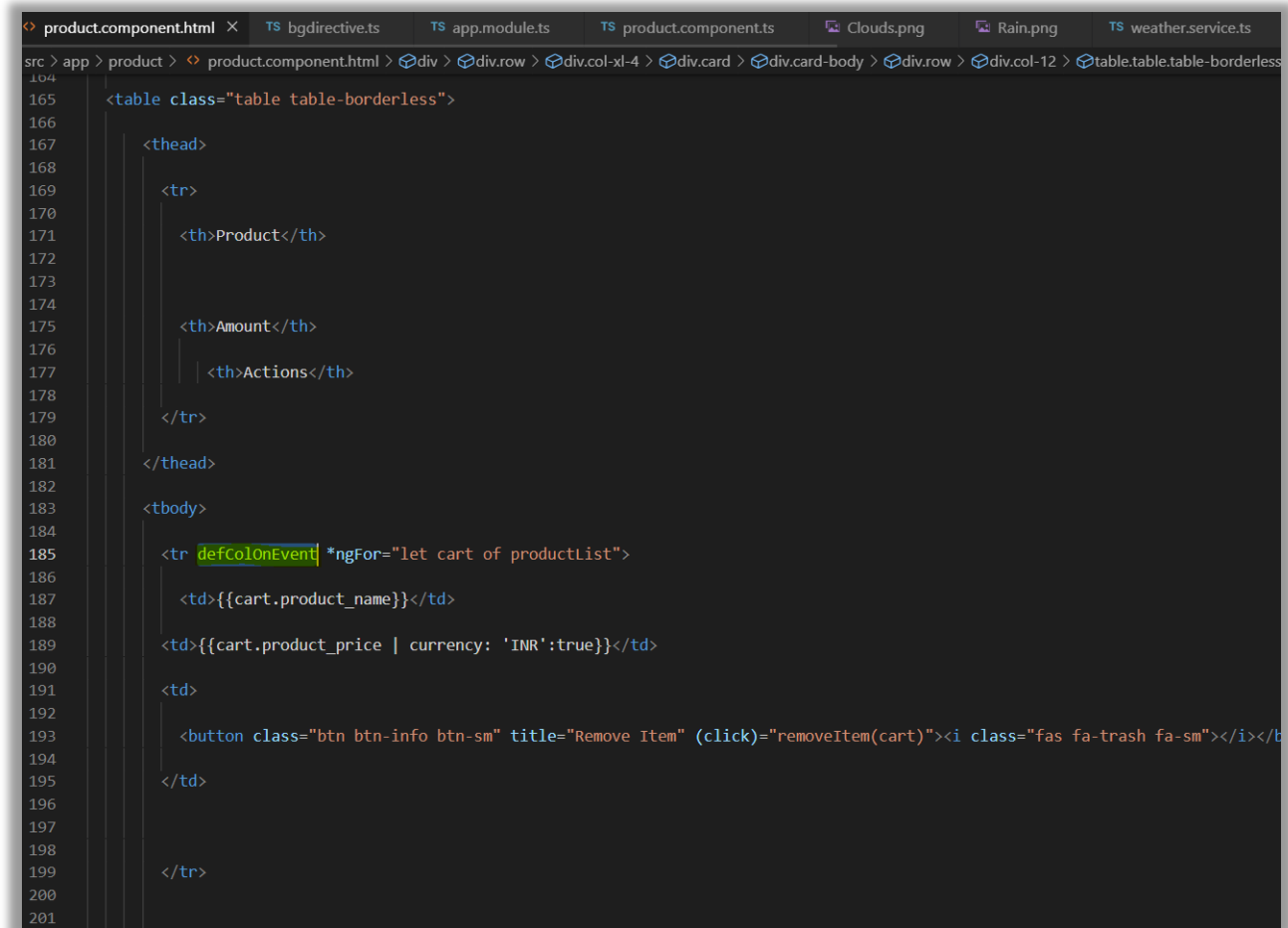
```
src > app > directives > TS bgdirective.ts > ...
1  import { Directive, ElementRef, HostListener } from '@angular/core';
2
3  @Directive({
4    selector: '[defColOnEvent]'
5  })
6  export class DefaultColorOnEventDirective {
7    constructor(private elRef: ElementRef) {
8    }
9    @HostListener('mouseover') onMouseOver() {
10     this.changeColor('#B2D732');
11   }
12   @HostListener('mouseleave') onMouseLeave() {
13     this.changeColor('');
14   }
15   private changeColor(color: string) {
16     this.elRef.nativeElement.style.backgroundColor = color;
17   }
18 }
```

Step 7 – Open app.module.ts file and import newly created directive in it



```
src > app > TS app.module.ts > AppModule
1  import { BrowserModule } from '@angular/platform-browser';
2  import { NgModule } from '@angular/core';
3  import { FormsModule } from '@angular/forms'
4
5  import { AppRoutingModule } from './app-routing.module';
6  import { AppComponent } from './app.component';
7  import { ProductComponent } from './product/product.component';
8  import { SortPipe } from './pipes/sort.pipe';
9  import { DefaultColorOnEventDirective } from './directives/bgdirective';
10
11 @NgModule({
12   declarations: [
13     AppComponent,
14     SortPipe,
15     DefaultColorOnEventDirective,
16     ProductComponent
17   ],
18   imports: [
19     BrowserModule,
20     FormsModule,
21     AppRoutingModule
22   ],
23   providers: [],
24   bootstrap: [AppComponent]
```

Step 8 – Open product.component.ts file and add custom directive to div tag as shown below



```
product.component.html X TS bgdirective.ts TS app.module.ts TS product.component.ts Clouds.png Rain.png TS weather.service.ts
src > app > product > product.component.html > div > div.row > div.col-xl-4 > div.card > div.card-body > div.row > div.col-12 > table.table.table-borderless
104
165 <table class="table table-borderless">
166
167   <thead>
168
169     <tr>
170
171       <th>Product</th>
172
173
174
175       <th>Amount</th>
176
177       <th>Actions</th>
178
179     </tr>
180
181   </thead>
182
183   <tbody>
184
185     <tr defColOnEvent *ngFor="let cart of productList">
186
187       <td>{{cart.product_name}}</td>
188
189       <td>{{cart.product_price | currency: 'INR':true}}</td>
190
191       <td>
192
193         <button class="btn btn-info btn-sm" title="Remove Item" (click)="removeItem(cart)"><i class="fas fa-trash fa-sm"></i></button>
194
195       </td>
196
197
198     </tr>
199
200
201
```

Step 09 – Run the Angular application by using command 'ng serve --open'

```
PS D:\Work\TapChief\Edureka\Angular8Demo\Module3\Demo1> ng serve --open
```

Step 10 – This will open our shopping list app with directive which changes background colour of products added to shopping cart as below.

