

Navigation and Routing

1. To setup routers you should start from index.html file. In index.html file include router library.

```
<!DOCTYPE html>
<html>

<head>
  <base href="/">
  <title>CAP Product Management</title>
  <meta name="viewport" content="width=device-width, initial-scale=1">

  <link href="node_modules/bootstrap/dist/css/bootstrap.css" rel="stylesheet"
/>
  <link href="app/app.component.css" rel="stylesheet" />

  <!-- 1. Load libraries -->
  <!-- IE required polyfills, in this exact order -->
  <script
src="node_modules/angular2/es6/dev/src/testing/shims_for_IE.js"></script>
  <script src="node_modules/es6-shim/es6-shim.min.js"></script>
  <script src="node_modules/systemjs/dist/system-polyfills.js"></script>

  <script src="node_modules/angular2/bundles/angular2-polyfills.js"></script>
  <script src="node_modules/systemjs/dist/system.src.js"></script>
  <script src="node_modules/rxjs/bundles/Rx.js"></script>
  <script src="node_modules/angular2/bundles/angular2.dev.js"></script>

  <!-- required for http -->
  <script src="node_modules/angular2/bundles/http.dev.js"></script>

  <!-- required for routing -->
  <script src="node_modules/angular2/bundles/router.dev.js"></script>

  <!-- 2. Configure SystemJS -->
  <script>
    System.config({
      packages: {
        app: {
          format: 'register',
          defaultExtension: 'js'
        }
      }
    })
  </script>
```

```
    }
  });
  System.import('app/main')
    .then(null, console.error.bind(console));
</script>
</head>

<body>
  <pm-app>Loading App..</pm-app>

</body>

</html>
```

2. Add product-details.component.html and product-details.component.ts file under products folders.
3. Include template in product-details.component.html file.

product-details.component.html

```
<div class='panel panel-primary'>
  <div class='panel-heading'>
    {{pageTitle}}
  </div>
</div>
```

4. Add below code in your product-details.component.ts file. This will include new component called product-details.component.

product-details.component.ts

```
import {Component} from 'angular2/core';

@Component({
  templateUrl: 'app/products/product-detail.component.html'
})

export class ProductDetailComponent{
  pageTitle: string = 'Product Detail';
}
```

5. Do the below changes in your app.component.ts file

app.component.ts file

```
import { Component } from 'angular2/core';
import { ProductListComponent } from './products/product-list.component';
```

```
import { ProductService } from './products/product.service';
import { HTTP_PROVIDERS } from 'angular2/http';
import 'rxjs/Rx'; //Load all features
import { ROUTER_PROVIDERS, RouteConfig, ROUTER_DIRECTIVES } from 'angular2/router';
import { WelcomeComponent } from './home/welcome.component';

@Component({
  selector: 'pm-app',
  template: `
    <div>
      <nav class='navbar navbar-default'>
        <div class='container-fluid'>
          <a class='navbar-brand'>{{pageTitle}}</a>
          <ul class='nav navbar-nav'>
            <li><a [routerLink]="['Welcome']">Home</a></li>
            <li><a [routerLink]="['Products']">Product List</a></li>
          </ul>
        </div>
      </nav>
    </div>
  `,
  directives: [ ROUTER_DIRECTIVES ],
  providers: [ ProductService, HTTP_PROVIDERS, ROUTER_PROVIDERS ]
})

@RouteConfig([
  { path: '/welcome', name: 'Welcome', component: WelcomeComponent,
    useAsDefault: true },
  { path: '/products', name: 'Products', component: ProductListComponent }
])

export class AppComponent {
  pageTitle: string = 'CAP Product Management';
}
```

6. If you look at the browser you will get menu, but it will not load appropriate view.
7. To place the view include <router-outlet> in your app.component.ts file.

app.component.ts

```
import { Component } from 'angular2/core';
import { ProductListComponent } from './products/product-list.component';
```

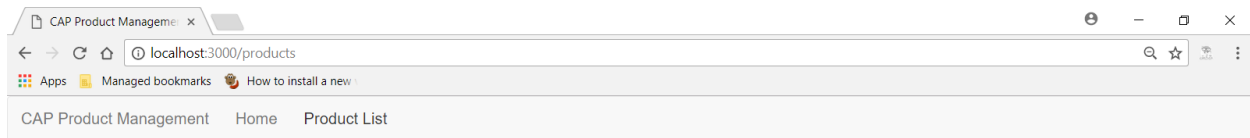
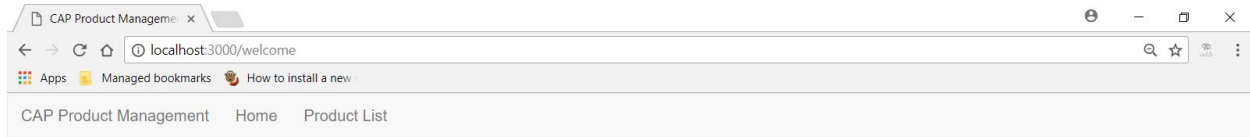
```
import { ProductService } from './products/product.service';
import { HTTP_PROVIDERS } from 'angular2/http';
import 'rxjs/Rx'; //Load all features
import { ROUTER_PROVIDERS, RouteConfig, ROUTER_DIRECTIVES } from 'angular2/router';
import { WelcomeComponent } from './home/welcome.component';

@Component({
  selector: 'pm-app',
  template: `
    <div>
      <nav class='navbar navbar-default'>
        <div class='container-fluid'>
          <a class='navbar-brand'>{{pageTitle}}</a>
          <ul class='nav navbar-nav'>
            <li><a [routerLink]="['Welcome']">Home</a></li>
            <li><a [routerLink]="['Products']">Product List</a></li>
          </ul>
        </div>
      </nav>
      <div class='container'>
        <router-outlet></router-outlet>
      </div>
    </div>
  `,
  directives: [ ROUTER_DIRECTIVES ],
  providers: [ ProductService, HTTP_PROVIDERS, ROUTER_PROVIDERS ]
})

@RouteConfig([
  {path: '/welcome', name: 'Welcome', component: WelcomeComponent,
  useAsDefault: true},
  {path: '/products', name: 'Products', component: ProductListComponent}
])

export class AppComponent{
  pageTitle: string= 'CAP Product Management';
}
```

Now if you click the menu it will show the page.



Product List

Filter by:

Filtered by:

Show Image

Product	Code	Available	Price	5 Star Rating
Leaf Rake	gdn-0011	March 19, 2016	\$19.95	★★★★
Garden Cart	gdn-0023	March 18, 2016	\$32.99	★★★★
Hammer	tbx-0048	May 21, 2016	\$8.90	★★★★★
Saw	tbx-0022	May 15, 2016	\$11.55	★★★★
Video Game Controller	gmg-0042	October 15, 2015	\$35.95	★★★★★

localhost:3000/products

Passing Parameters to Router:

8. Add one more path under @RouteConfig in your app.component.ts file.

app.component.ts

```
import { Component } from 'angular2/core';
import { ProductListComponent } from './products/product-list.component';
import { ProductService } from './products/product.service';
import { HTTP_PROVIDERS } from 'angular2/http';
import 'rxjs/Rx'; //Load all features
import { ROUTER_PROVIDERS, RouteConfig, ROUTER_DIRECTIVES } from 'angular2/router';
import { WelcomeComponent } from './home/welcome.component';
import { ProductDetailComponent } from './products/product-detail.component';

@Component({
  selector: 'pm-app',
  template: `
    <div>
      <nav class='navbar navbar-default'>
        <div class='container-fluid'>
          <a class='navbar-brand'>{{pageTitle}}</a>
          <ul class='nav navbar-nav'>
            <li><a [routerLink]="['Welcome']">Home</a></li>
            <li><a [routerLink]="['Products']">Product List</a></li>

          </ul>
        </div>
      </nav>
      <div class='container'>
        <router-outlet></router-outlet>
      </div>
    </div>
  `,
  directives: [ ROUTER_DIRECTIVES ],
  providers: [ ProductService, HTTP_PROVIDERS, ROUTER_PROVIDERS ]
})

@RouteConfig([
  {path: '/welcome', name: 'Welcome', component: WelcomeComponent,
  useAsDefault: true},
  {path: '/products', name: 'Products', component: ProductListComponent},
  {path: '/product/:id', name: 'ProductDetails', component:
  ProductDetailComponent}
])

export class AppComponent{
  pageTitle: string= 'CAP Product Management';
}
```

```
}
```

9. Add Router_providers in your product-list-component.ts file.

product-list-component.ts

```
import { Component,OnInit } from 'angular2/core';
import { IProduct} from './product';
import { ProductFilterPipe } from './product-filter.pipe';
import { StarComponent } from '../shared/star.component';
import { ProductService } from './product.service';
import {ROUTER_PROVIDERS, RouteConfig, ROUTER_DIRECTIVES} from 'angular2/router';

@Component({
  selector: 'pm-products',
  templateUrl: 'app/products/product-list.component.html',
  //styleUrls: ['app/products/product-list.component.css']
  styles: [ 'thead{ color: #337AB7; }'],
  pipes: [ProductFilterPipe],
  directives: [StarComponent, ROUTER_DIRECTIVES]
})
export class ProductListComponent implements OnInit{
  pageTitle: string = 'Products List';
  imageWidth: number = 50;
  imageMargin: number = 2;
  showImage: boolean = false;
  listFilter: string = 'cart';
  products: IProduct[];
  errorMessage: string;

  private _productService;

  constructor(productService: ProductService){
    this._productService=productService;
  }

  toggleImage(): void{
    this.showImage = !this.showImage;
  }
}
```

```
ngOnInit(): void{
  //console.log('Init Invoked!')
  //this.products = this._productService.getProducts();

  this._productService.getProducts()
    .subscribe(
      products => this.products= products,
      error => this.errorMessage = <any>error);
}

onRatingClicked(message: string): void{
  this.pageTitle = 'Product List: ' + message;
}
}
```

10. Modify your product-list.component.html file

product-list.component.html

```
<div class='panel panel-primary'>
  <div class='panel-heading'>
    {{pageTitle}}
  </div>
  <div class='panel-body'>
    <div class='row'>
      <div class='col-md-2'>Filter by:</div>
      <div class='col-md-4'>
        <input type='text' [(ngModel)]='listFilter'/>
      </div>
    </div>
    <div class='row'>
      <div class='col-md-6'>
        <h3>Filtered by: {{listFilter}} </h3>
      </div>
    </div>
    <div class='table-responsive'>
      <table class='table' *ngIf='products && products.length'>
        <thead>
          <tr>
```



```

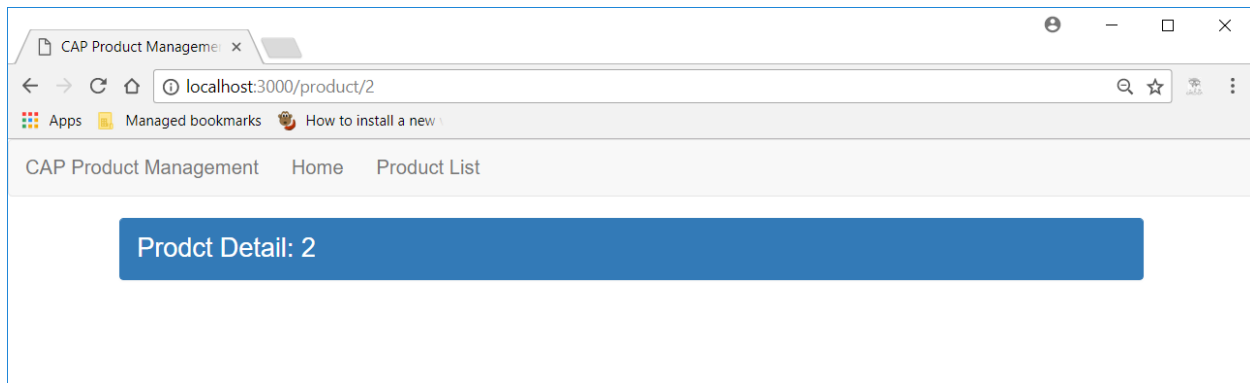
        <th>
            <button class='btn btn-primary'
                (click) = 'toggleImage()'>
                {{showImage ? 'Hide' : 'Show'}} Image
            </button>
        </th>
        <th>Product</th>
        <th>Code</th>
        <th>Available</th>
        <th>Price</th>
        <th>5 Star Rating</th>
    </tr>
</thead>
<tbody>
    <tr *ngFor='#product of products | productFilter:listFilter'>
        <td>
            <img *ngIf='showImage'
                [src]='product.imageUrl'
                [title]='product.productName'
                [style.width.px]='imageWidth'
                [style.margin.px]='imageMargin'>
            </td>
            <td>
                <a [routerLink]="['ProductDetail',{id: product.productId }]">
                    {{product.productName}}
                </a>
            </td>
            <td>{{product.productCode | lowercase }}</td>
            <td>{{product.releaseDate}}</td>
            <td>{{product.price | currency:'USD':true:'1.2-2'}}</td>
            <td>
                <ai-star [rating]='product.starRating'
                    (ratingClicked)='onRatingClicked($event)'></ai-
star>
            </td>
        </tr>
    </tbody>
</table>
</div>
</div>
</div>

```

product-detail.component.html

```
<div class='panel panel-primary'>
  <div class='panel-heading'>
    {{pageTitle}} : {{id}}
  </div>
</div>
```

When you click productname you can see below output:

**Activate route with code:**

11. Now we are going to add back button in the product-details.component page.

12. Add below code in your product-details.component.ts file.

product-details.component.ts

```
import {Component} from 'angular2/core';
import {RouteParams, Router} from 'angular2/router';

@Component({
  templateUrl: 'app/products/product-detail.component.html'
})

export class ProductDetailComponent{
  pageTitle: string = 'Prodct Detail';
```

```

    constructor(private _routeParams: RouteParams,
                 private _router: Router){
        let id = +this._routeParams.get('id');
        this.pageTitle += `: ${id}`;
    }

    onBack(): void{
        this._router.navigate(['Products']);
    }
}

```

13. Now include below code in **product-details.component.html** file.

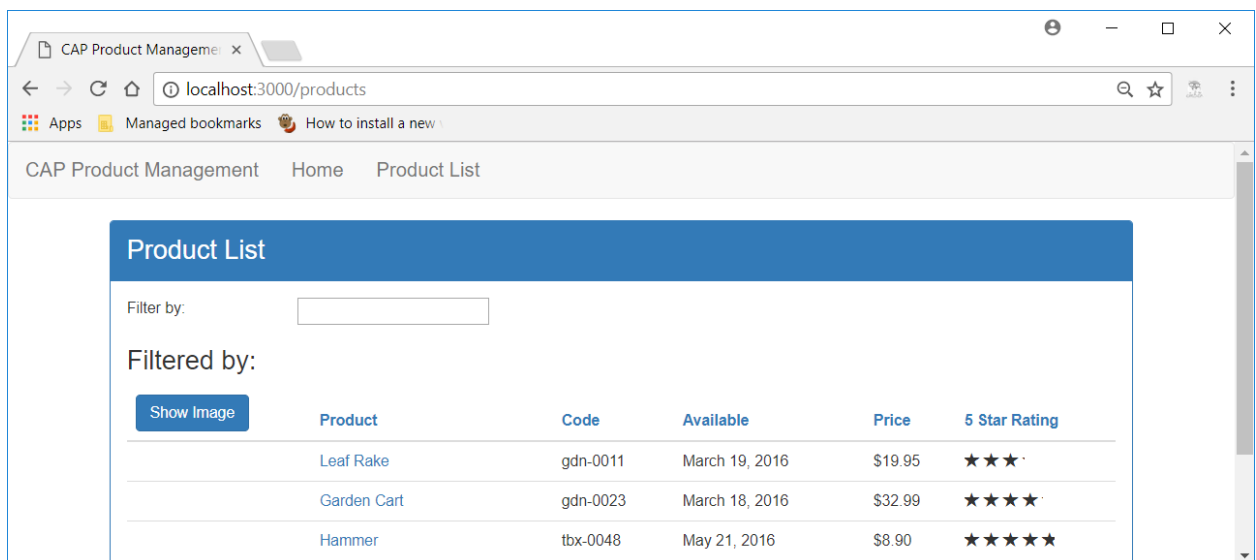
product-details.component.html

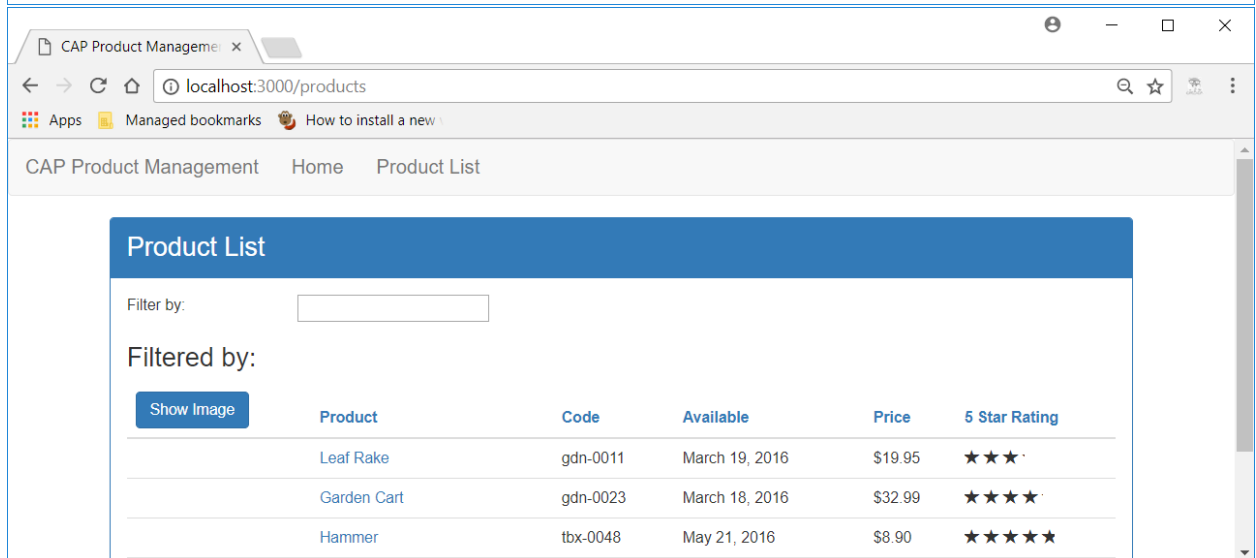
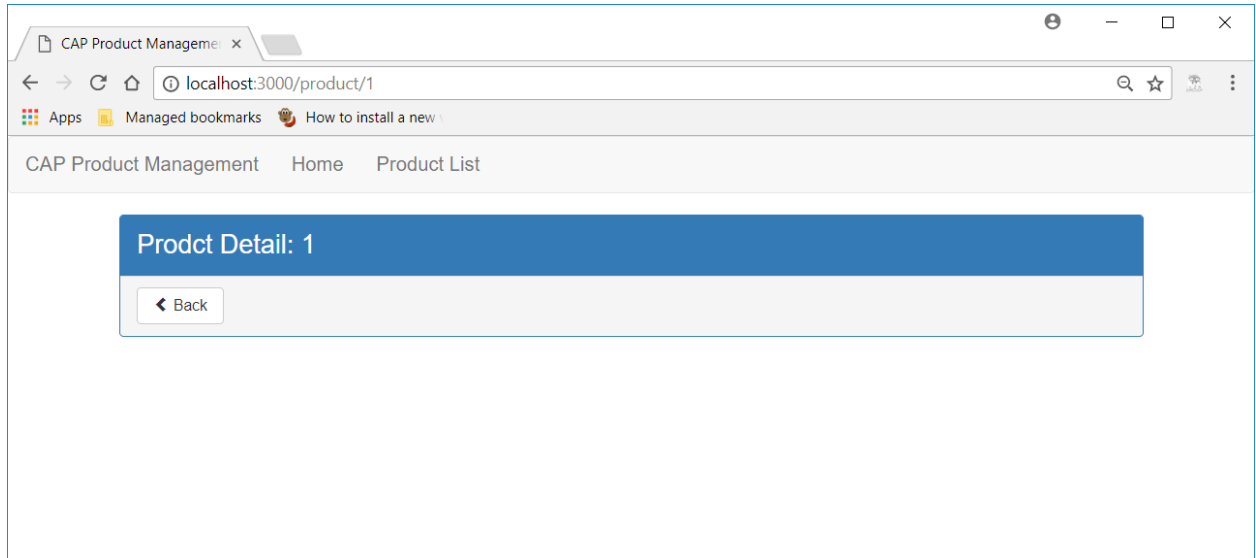
```

<div class='panel panel-primary'>
    <div class='panel-heading'>
        {{pageTitle}}
    </div>
    <div class='panel-footer'>
        <a class='btn btn-default' (click)='onBack()' style='width:80px'>
            <i class='glyphicon glyphicon-chevron-left'></i> Back
        </a>
    </div>
</div>

```

Now you can click any one of the productname in your productlist page it will show product details page with back button, and it works now.





Angular CLI:

```
npm install -g @angular-cli
```

```
ng new my-app
```

```
cd my-app
```

```
ng serve --open
```