

# Reactive Form in Context

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# Module Overview

**Sample Application**

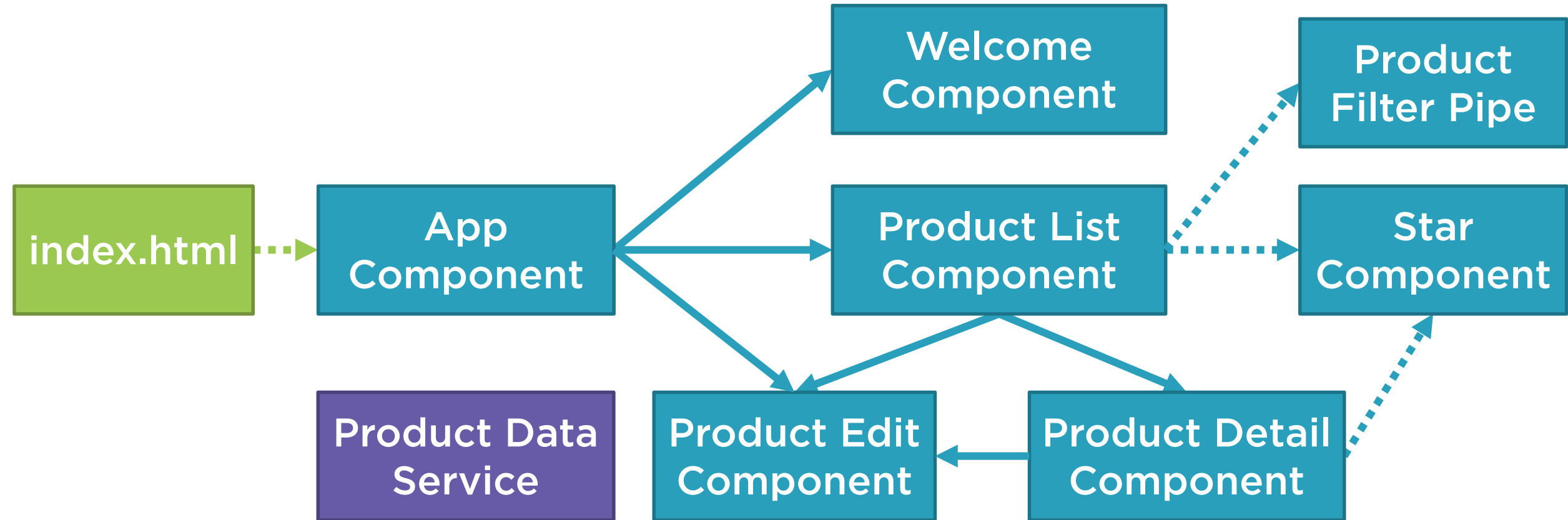
**Routing to the Form**

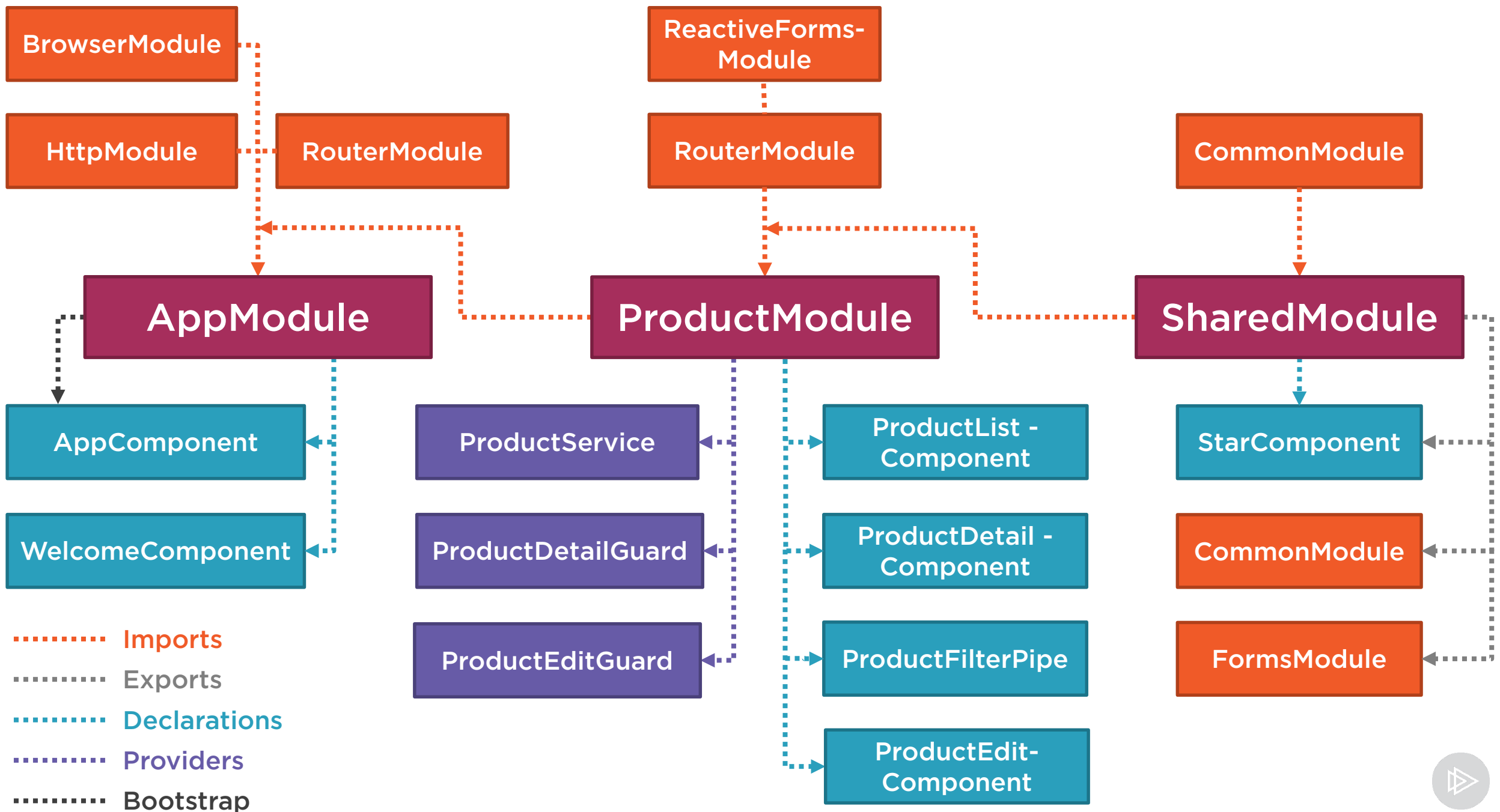
**Reading a Route Parameter**

**Setting a canDeactivate Guard**

**Refactoring to a Custom Validation Class**

# APM Sample Application Architecture





Product List

Filter by:

Hide Image



Product   Code   Available   Price   5 Star Rating

Leaf Rake   gdn-0011   March 19, 2016   \$19.95   ★★☆☆

Edit



Garden Cart   gdn-0023   March 18, 2016   \$32.99   ★★★★★

Edit



Hammer   tbx-0048   May 21, 2016   \$8.90   ★★★★★

Edit



Saw   tbx-0022   May 15, 2016   \$11.55   ★★★★★

Edit



Video Game Controller   gmg-0042   October 15, 2015   \$35.95   ★★★★★

Edit

Product Detail: Hammer

Name: Hammer  
Code: TBX-0048  
Description: Curved claw steel hammer  
Availability: May 21, 2016  
Price: \$8.90  
5 Star Rating: ★★★★★  
Tags: tools, hammer, construction



Back

Edit

Edit Product: Hammer

Product Name

Hammer

Product Code

TBX-0048

Star Rating (1-5)

4.8

Add Tag

Tag

tools

Tag

hammer

Tag

construction

Description

Curved claw steel hammer

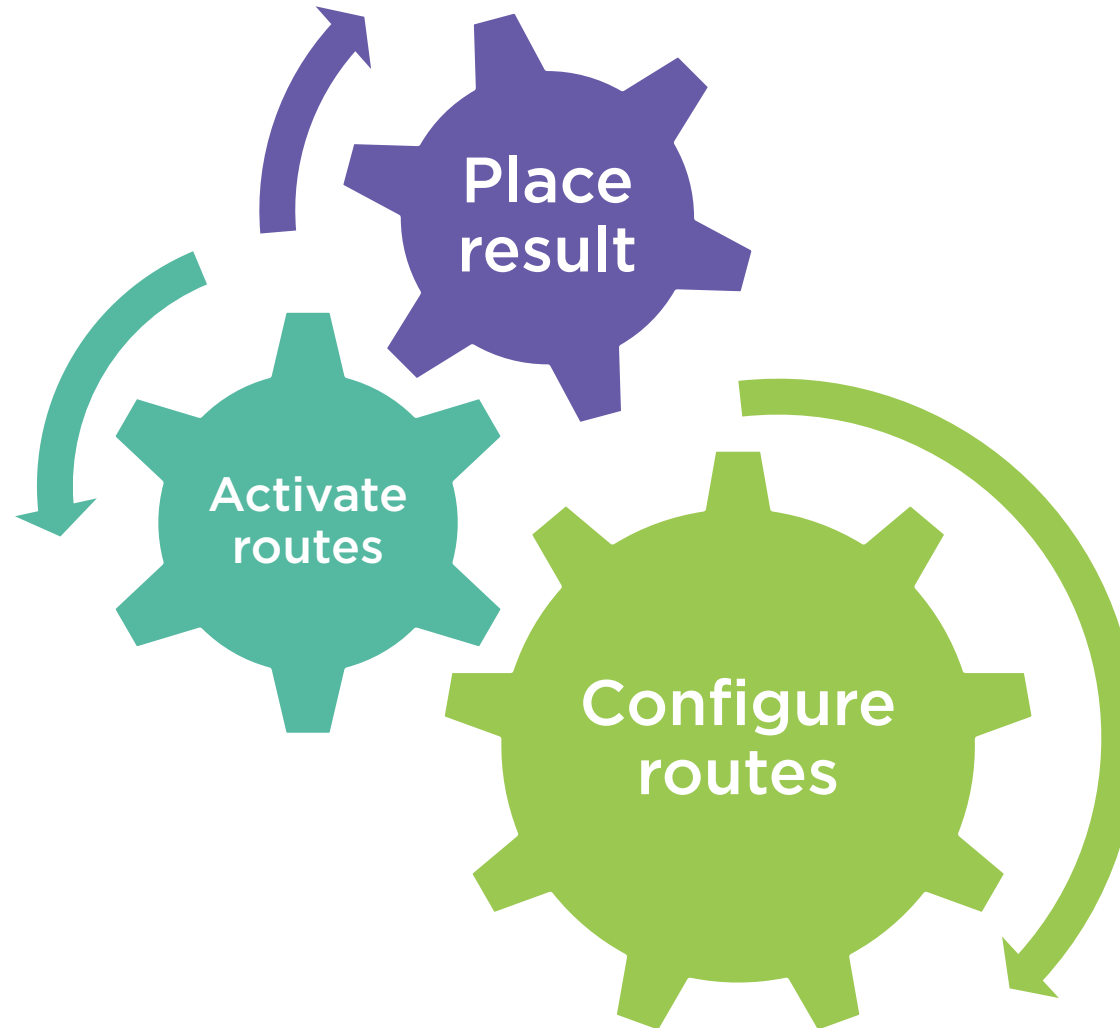
Save

Cancel

Delete



# Routing Steps





# Configuring Routes

```
[  
  { path: 'products', component: ProductListComponent },  
  { path: 'product/:id', component: ProductDetailComponent },  
  { path: 'productEdit/:id', component: ProductEditComponent }  
]
```






# Route Guards

```
[  
  { path: 'products', component: ProductListComponent },  
  { path: 'product/:id',  
    canActivate: [ ProductDetailGuard ],  
    component: ProductDetailComponent },  
  { path: 'productEdit/:id',  
    canDeactivate: [ ProductEditGuard ],  
    component: ProductEditComponent }  
]
```

Product List

Filter by:

<a href="#">Hide Image</a>	Product	Code	Available	Price	5 Star Rating	
	<a href="#">Leaf Rake</a>	gdn-0011	March 19, 2016	\$19.95	★★★★	<a href="#">Edit</a>
	<a href="#">Garden Cart</a>	gdn-0023	March 18, 2016	\$32.99	★★★★★	<a href="#">Edit</a>
	<a href="#">Hammer</a>	tbx-0048	May 21, 2016	\$8.90	★★★★★	<a href="#">Edit</a>
	<a href="#">Saw</a>	tbx-0022	May 15, 2016	\$11.55	★★★★★	<a href="#">Edit</a>
	<a href="#">Video Game Controller</a>	gmg-0042	October 15, 2015	\$35.95	★★★★★	<a href="#">Edit</a>

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[Edit](#)

Edit Product: Hammer

Product Name

Hammer

Product Code

TBX-0048

Star Rating (1-5)

4.8

Add Tag

Tag

tools

Tag

hammer

Tag

construction

Description

Curved claw steel hammer

Save

Cancel

Delete



# Tying Routes to Actions

app.component.ts

...

```
@Component({
  selector: 'pm-app',
  template: `
    <ul class='nav navbar-nav'>
      <li><a [routerLink]="['/welcome']">Home</a></li>
      <li><a [routerLink]="['/products']">Product List</a></li>
      <li><a [routerLink]="['/productEdit', '0']">Add Product</a></li>
    </ul>
  `
})
```



# Placing the Views

## app.component.ts

...

```
@Component({  
  selector: 'pm-app',  
  template: `  
    <ul class='nav navbar-nav'>  
      <li><a [routerLink]="['/welcome']">Home</a></li>  
      <li><a [routerLink]="['/products']">Product List</a></li>  
      <li><a [routerLink]="['/productEdit', '0']">Add Product</a></li>  
    </ul>  
    <router-outlet></router-outlet>  
  `,  
})
```



# Reading Parameters from a Route

```
{ path: 'productEdit/:id', component: ProductEditComponent }
```

```
import { ActivatedRoute } from '@angular/router';
```

```
constructor(private route: ActivatedRoute) {  
  let id = +this.route.snapshot.params['id'];  
  ...  
}
```

```
constructor(private route: ActivatedRoute) {  
  this.sub = this.route.params.subscribe(  
    params => {  
      let id = +params['id'];  
      ...  
    }  
  );  
}
```



# Building a Guard

product-guard.service.ts

```
import { Injectable } from '@angular/core';
import { CanDeactivate } from '@angular/router';

@Injectable()
export class ProductEditGuard
    implements CanDeactivate<ProductEditComponent> {

    canDeactivate(component: ProductEditComponent): boolean {
        ...
    }
}
```



# Custom Validator with Parameters

```
function range(min:number, max:number): ValidatorFn {  
    return (c: AbstractControl):  
        {[key: string]: boolean} | null => {  
        if (c.value < min || c.value > max) {  
            return { 'range': true };  
        }  
        return null;  
    }  
}
```





# Checklist: Reactive Form in Context



Add a route configuration

Add user interface element(s) to activate the route

Read the route parameter

Set up a canDeactivate guard

Refactor validators to a custom validation class for reuse



# Summary

**Sample Application**

**Routing to the Form**

**Reading a Route Parameter**

**Setting a canDeactivate Guard**

**Refactoring to a Custom Validation Class**