Communicating Using the Router

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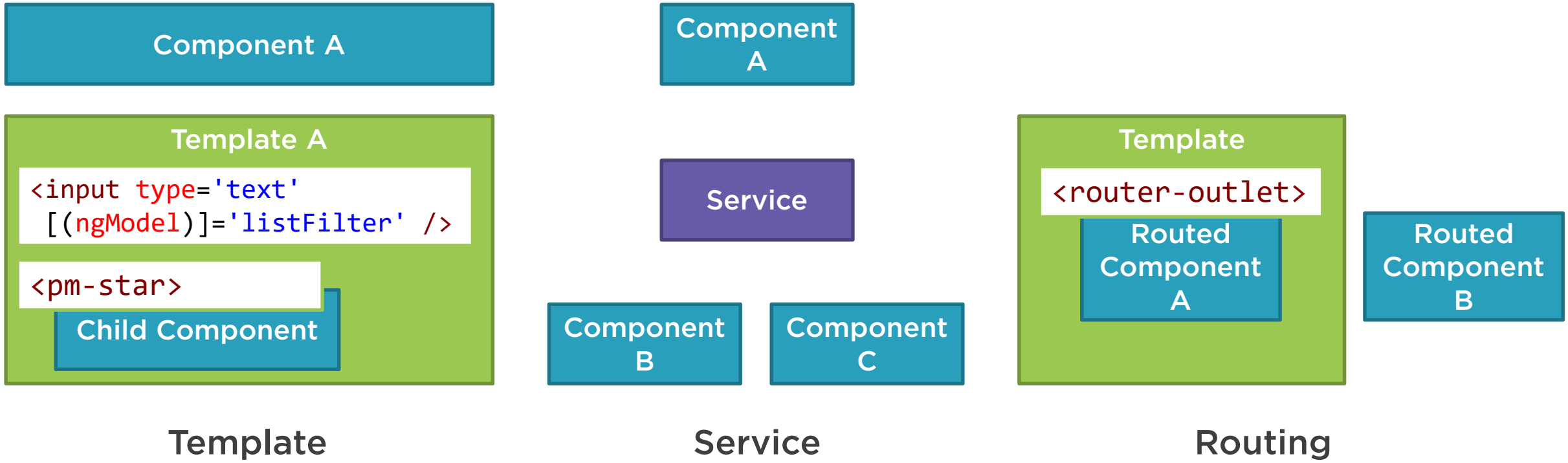
Component Communication

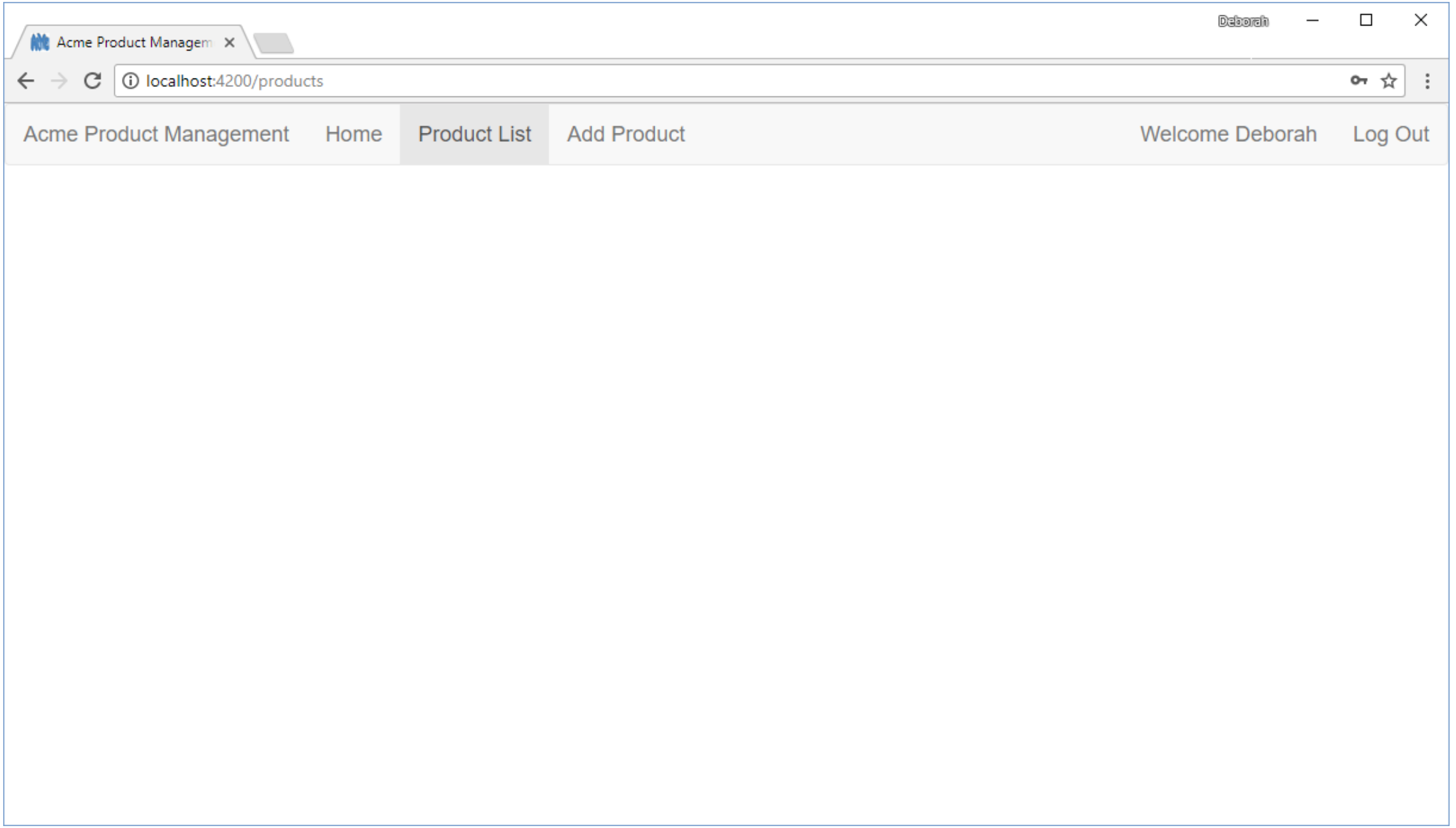


Module Overview

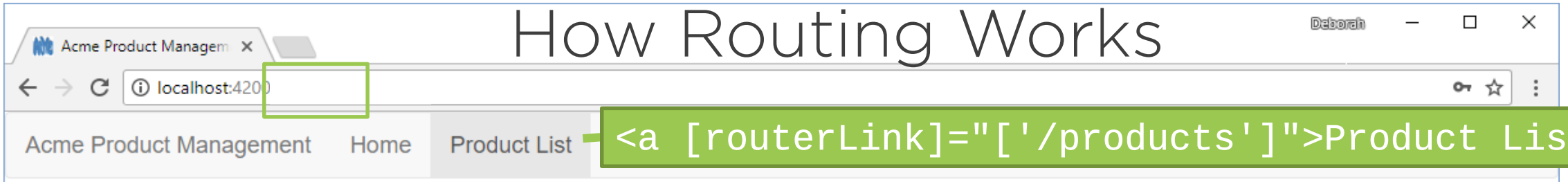
Routing Basics

Route Parameters

- Required
- Optional
- Query


Deborah
Acme Product Managem
localhost:4200/products
Acme Product Management
Home
Product List
Add Product
Welcome Deborah
Log Out

How Routing Works




```
<a [routerLink]="['/products']">Product List</a>
```

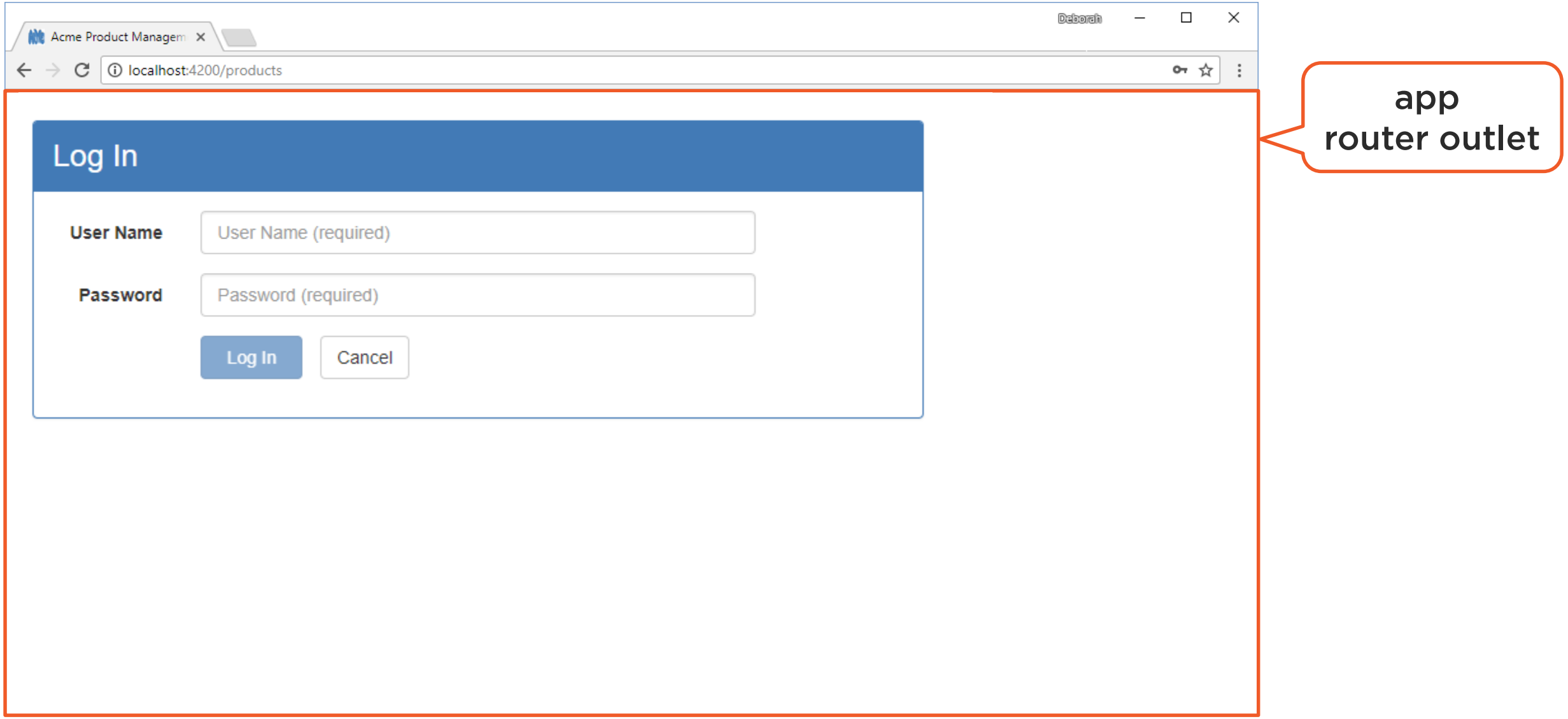
```
{ path: 'welcome', component: WelcomeComponent },
{ path: 'products', component: ProductListComponent },
{ path: 'products/:id', component: ProductDetailComponent }
```

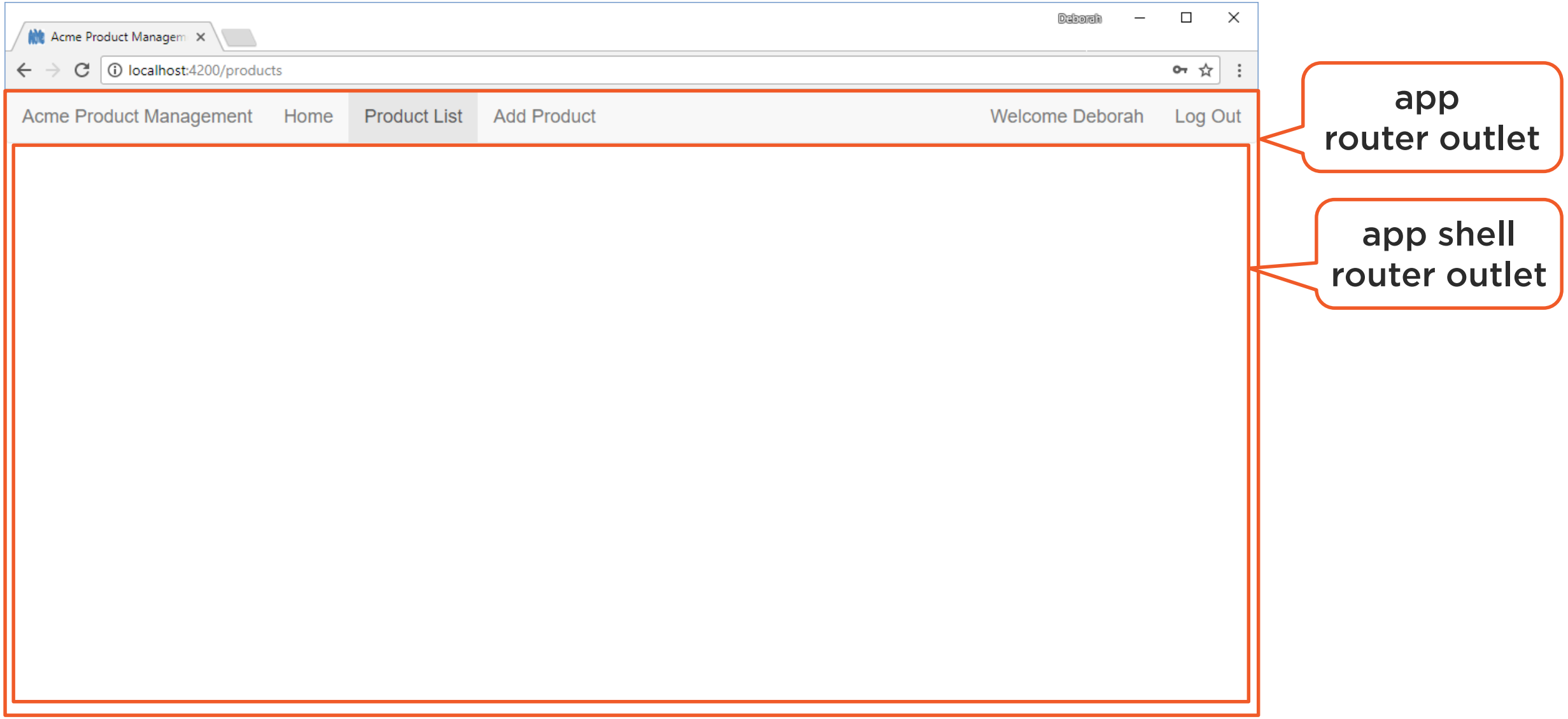
```
<router-outlet></router-outlet>
```

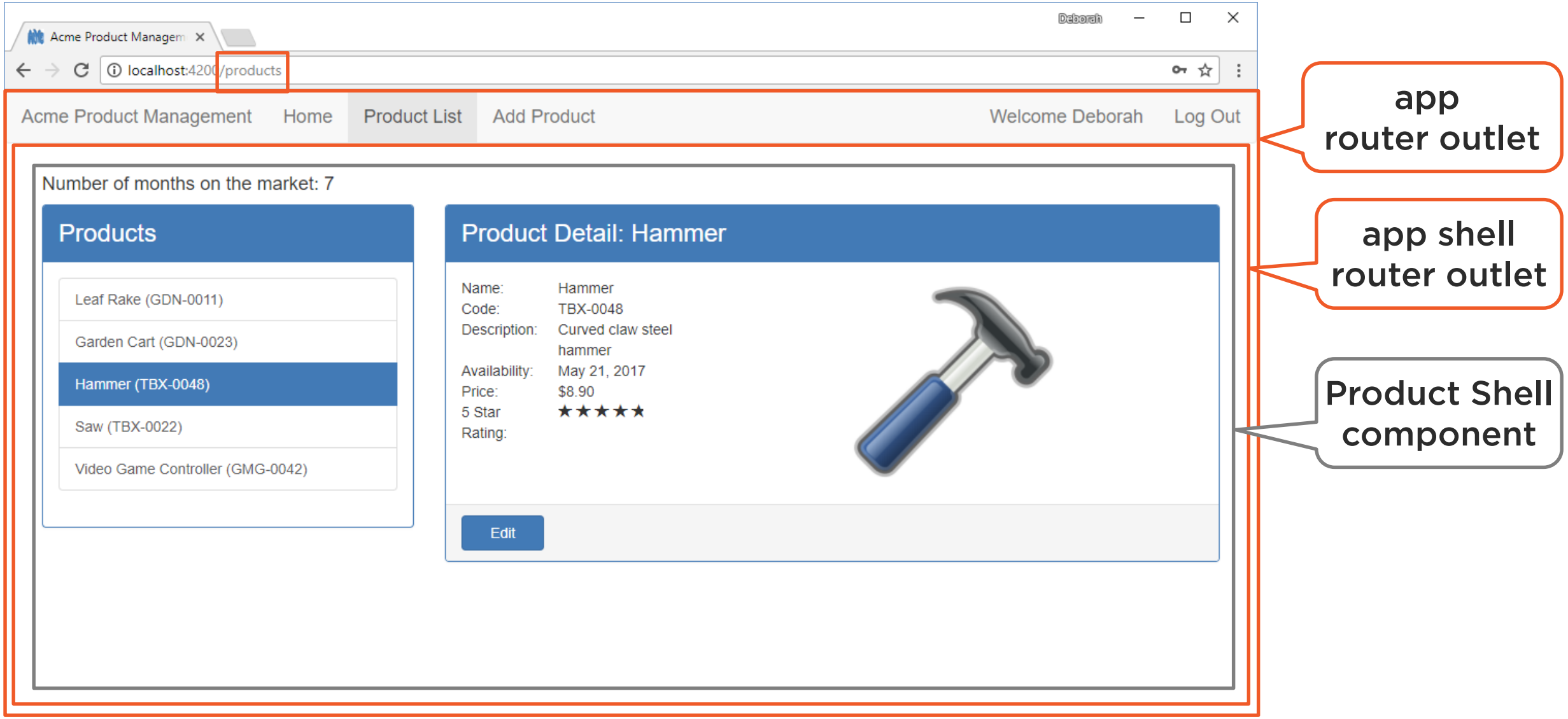
product-list.component.ts

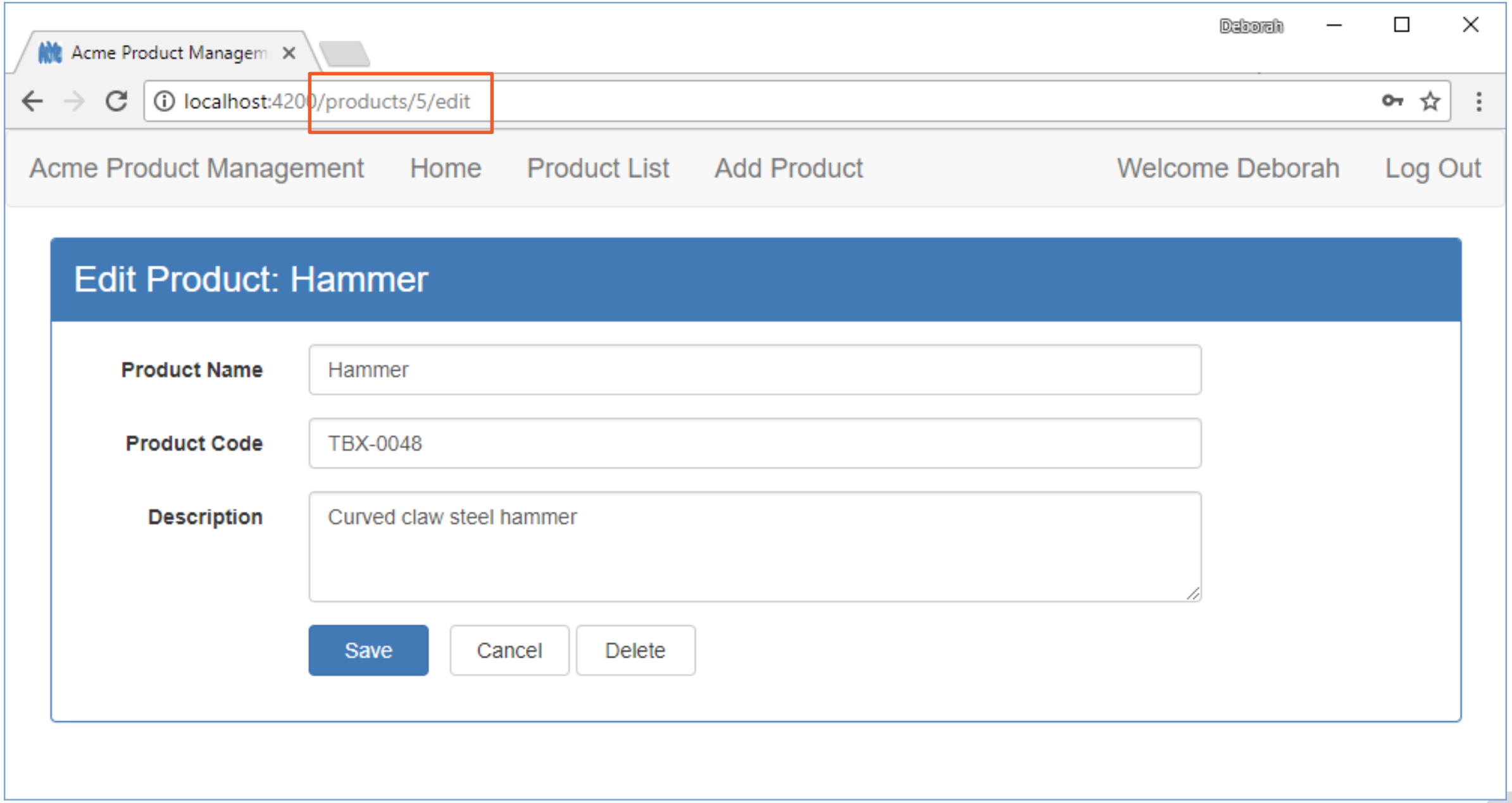
```
import { Component } from '@angular/core';

@Component({
  templateUrl: './product-list.component.html'
})
export class ProductListComponent { ... }
```


Deborah
Acme Product Managem
localhost:4200/products
Log In
User Name
User Name (required)
Password
Password (required)
Log In
Cancel
app
router outlet

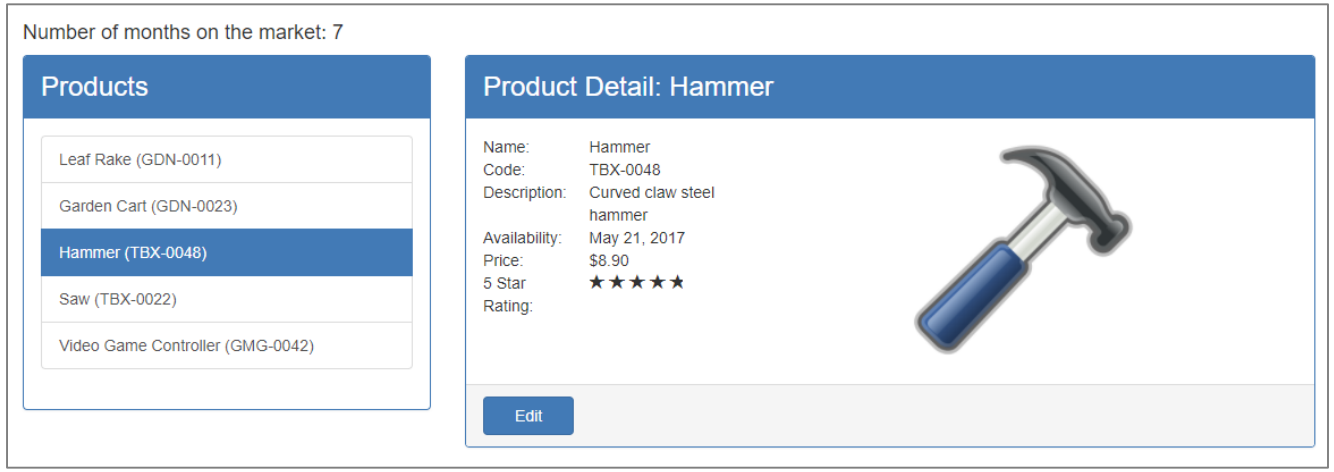

Acme Product Managem
Deborah
localhost:4200/products
Acme Product Management
Home
Product List
Add Product
Welcome Deborah
Log Out
app
router outlet
app shell
router outlet


Acme Product Managem
Deborah
localhost:4200/products
Acme Product Management
Home
Product List
Add Product
Welcome Deborah
Log Out
Number of months on the market: 7
Products
Leaf Rake (GDN-0011)
Garden Cart (GDN-0023)
Hammer (TBX-0048)
Saw (TBX-0022)
Video Game Controller (GMG-0042)
Product Detail: Hammer
Name: Hammer
Code: TBX-0048
Description: Curved claw steel hammer
Availability: May 21, 2017
Price: $8.90
5 Star Rating: ★★★★★
Edit
app router outlet
app shell router outlet
Product Shell component


Deborah
Acme Product Managem
localhost:4200/products/5/edit
Acme Product Management
Home
Product List
Add Product
Welcome Deborah
Log Out
Edit Product: Hammer
Product Name
Hammer
Product Code
TBX-0048
Description
Curved claw steel hammer
Save
Cancel
Delete

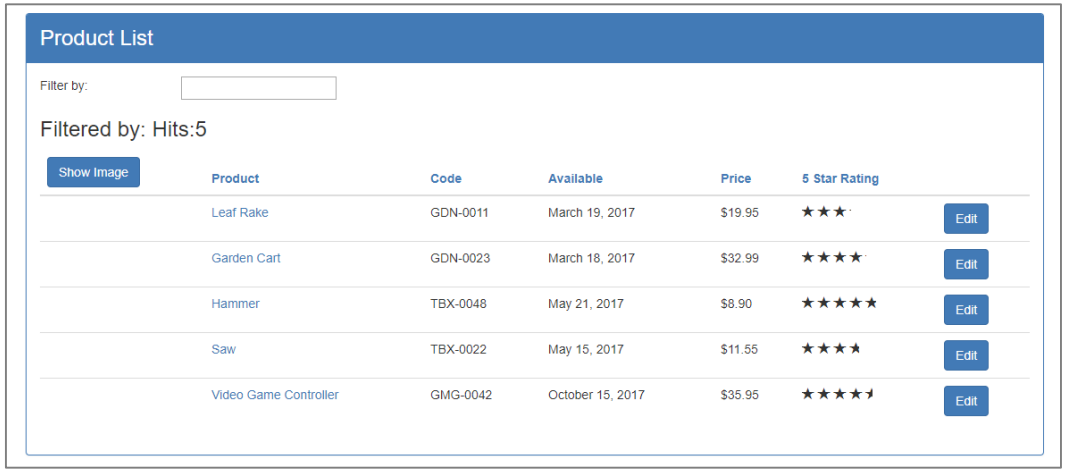
product-module.ts

```
RouterModule.forChild([
  { path: '',
    component: ProductShellComponent },
  { path: ':id',
    component: ProductDetailComponent },
  { path: ':id/edit',
    canDeactivate: [ ProductEditGuard ],
    component: ProductEditComponent
  }
])
```



product-module.ts

```
RouterModule.forChild([
  { path: '',
    component: ProductListComponent },
  { path: ':id',
    component: ProductDetailComponent },
  { path: ':id/edit',
    canDeactivate: [ ProductEditGuard ],
    component: ProductEditComponent
  }
])
```



Learning More

Pluralsight Angular Course

- "Angular Routing"

Book

- "Angular Router" by Victor Savkin
  - https://leanpub.com/router

The user picked item 7!
I'll add that to the Url.
Got it! I'll display detail for item 7.
Component A
Router
Component B

Route Parameters

Product List

Filter by:

Filtered by: Hits:5

Show Image

Product	Code	Available	Price	5 Star Rating	
Leaf Rake	GDN-0011	March 19, 2017	$19.95	★★★	Edit
Garden Cart	GDN-0023	March 18, 2017	$32.99	★★★★	Edit
Hammer	TBX-0048	May 21, 2017	$8.90	★★★★★	Edit
Saw	TBX-0022	May 15, 2017	$11.55	★★★★	Edit
Video Game Controller	GMG-0042	October 15, 2017	$35.95	★★★★½	Edit

http://localhost:4200/products/5

Product Detail: Hammer

Name: Hammer
Code: tbx-0048
Description: Curved claw steel hammer
Availability: May 21, 2017
Price: $8.90
5 Star Rating: ★★★★★

Back | Edit

Route Parameters

Required Parameters

Configure

```
{ path: 'products/:id', component: ProductDetailComponent }
```

Activate

```
<a [routerLink]="['/products', product.id]">...</a>
```

```
this.router.navigate(['/products', this.product.id]);
```

Resulting Url

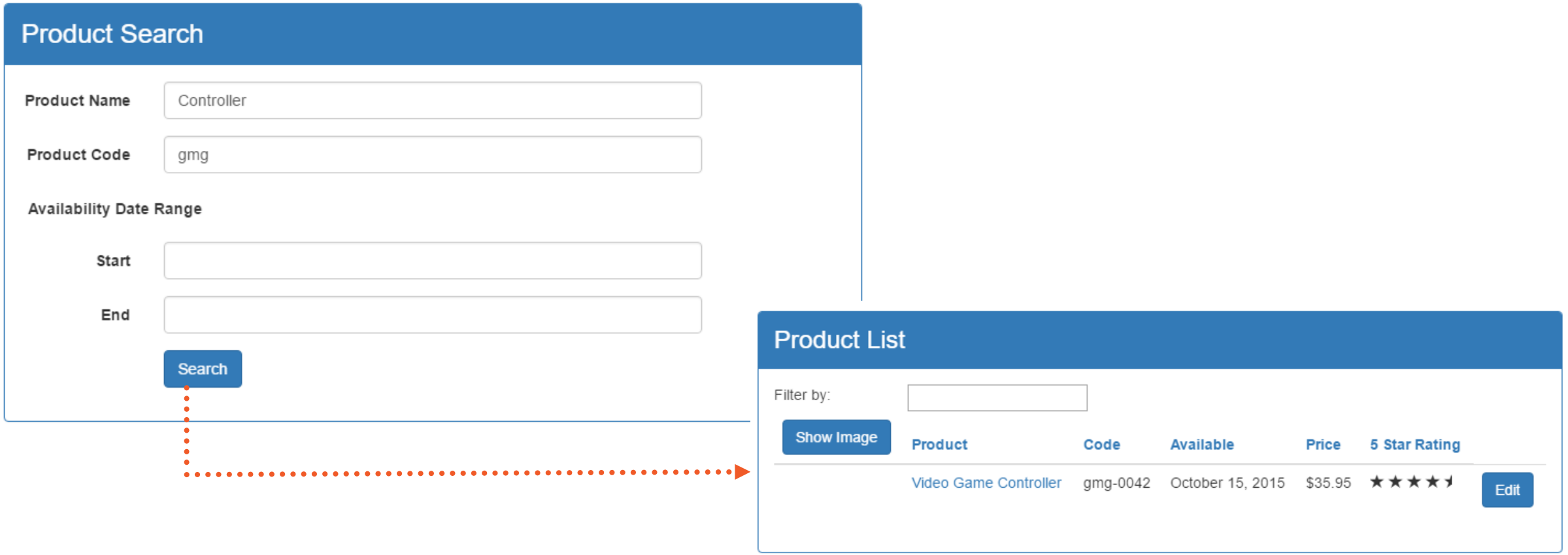
http://localhost:4200/products/5

Read

```
this.route.snapshot.paramMap.get('id');
```

I may have search params for you.
If you provide them I'll pass them along.
If I get params, I'll use them.
Component A
Router
Component B

Optional or Query Parameters



Optional Parameters

Configure

```
{ path: 'products', component: ProductListComponent }
```

Activate

```
<a [routerLink]="['/products',{name: cart,code: g}]">...</a>
```

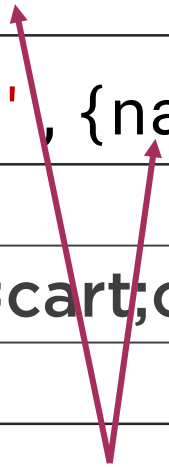
```
this.router.navigate(['/products',{name: 'cart',code:'g'}]);
```

Resulting Url

```
http://localhost:4200/products;name=cart;code=g
```

Read

```
this.route.snapshot.paramMap.get('name');
```



Query Parameters

Configure

```
{ path: 'products', component: ProductListComponent }
```

Activate

```
<a [routerLink]="['/products']"
   [queryParams]= "{name: cart, code: g}">...</a>
```

```
this.router.navigate(['/products'],
                     {queryParams: {name: 'cart', code:'g'}});
```

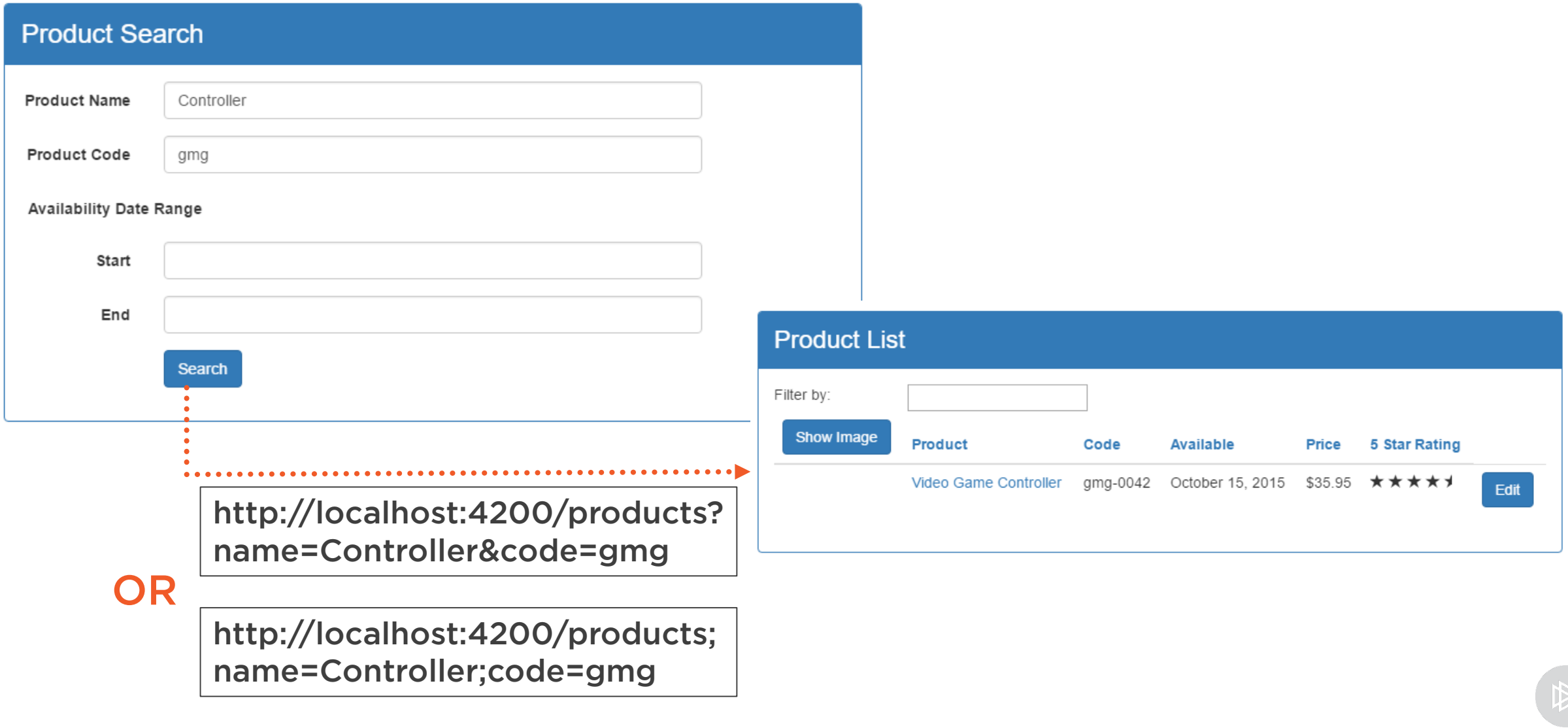
Resulting Url

```
http://localhost:4200/products?name=cart&code=g
```

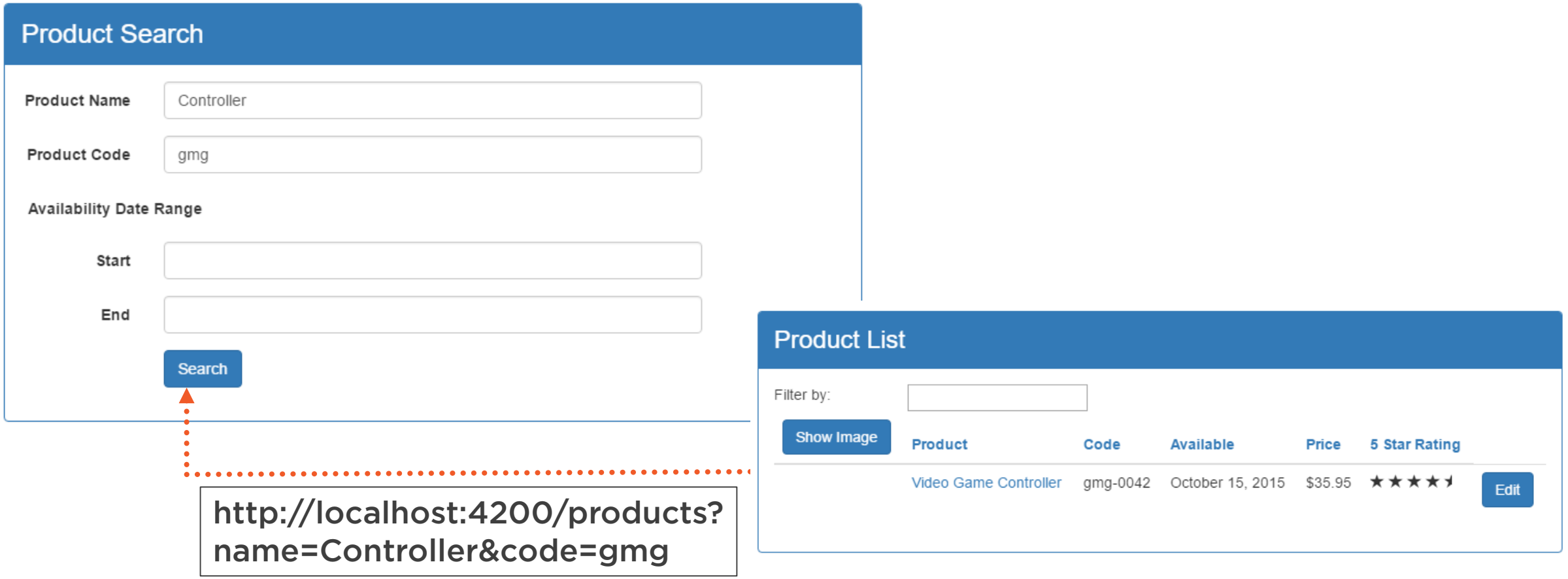
Read

```
this.route.snapshot.queryParamMap.get('name');
```

Query or Optional Parameters



Query Parameters



Route Parameters

- Required
- Optional
- Query

"Angular Routing"

Guidelines & Summary: Communicating Using the Router

Route Parameters

Benefits:

- Simple
- Straightforward
- Resulting Urls are bookmarkable and sharable

Considerations:

- Parameters appear in the Url
- Not good for large amounts of data

Which Kind to Use?

Required parameters:

- When the data must be provided to the routed component

Optional parameters:

- When the data is optionally provided to the routed component

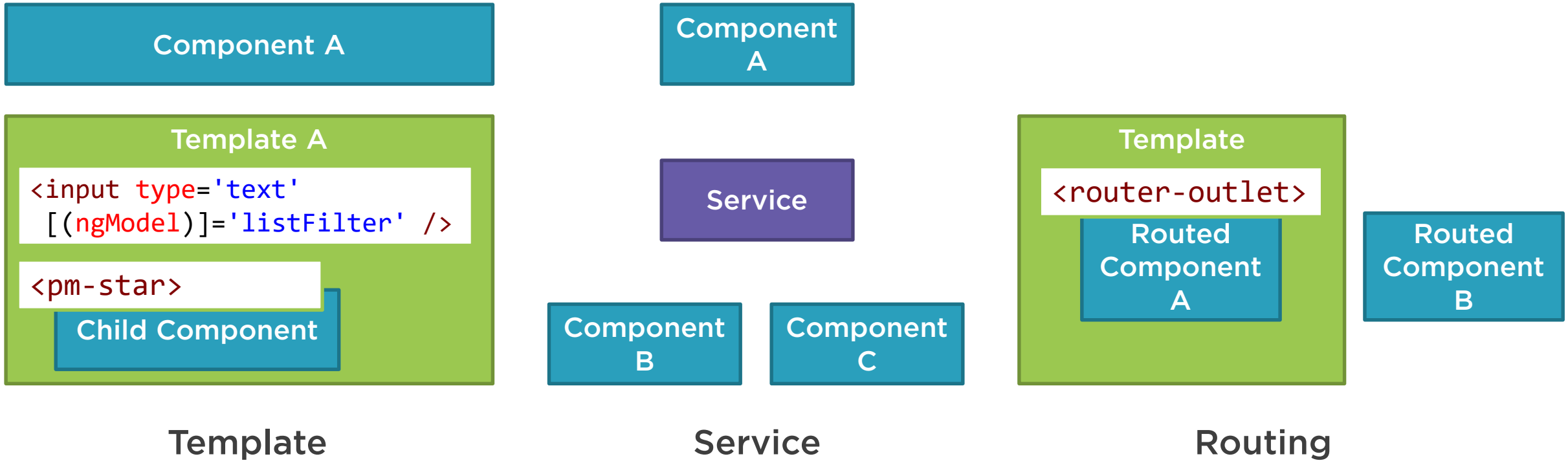
Query parameters:

- When the data is optionally provided to the routed component
- When a query style URL is desired
- When the data should be retained across routes

Summary

Routing Basics

Route Parameters

- Required
- Optional
- Query

Component Communication