Navigation and Routing Additional Techniques

Deborah Kurata
CONSULTANT | SPEAKER | AUTHOR

@deborahkurata | blogs.msmvps.com/deborahk/

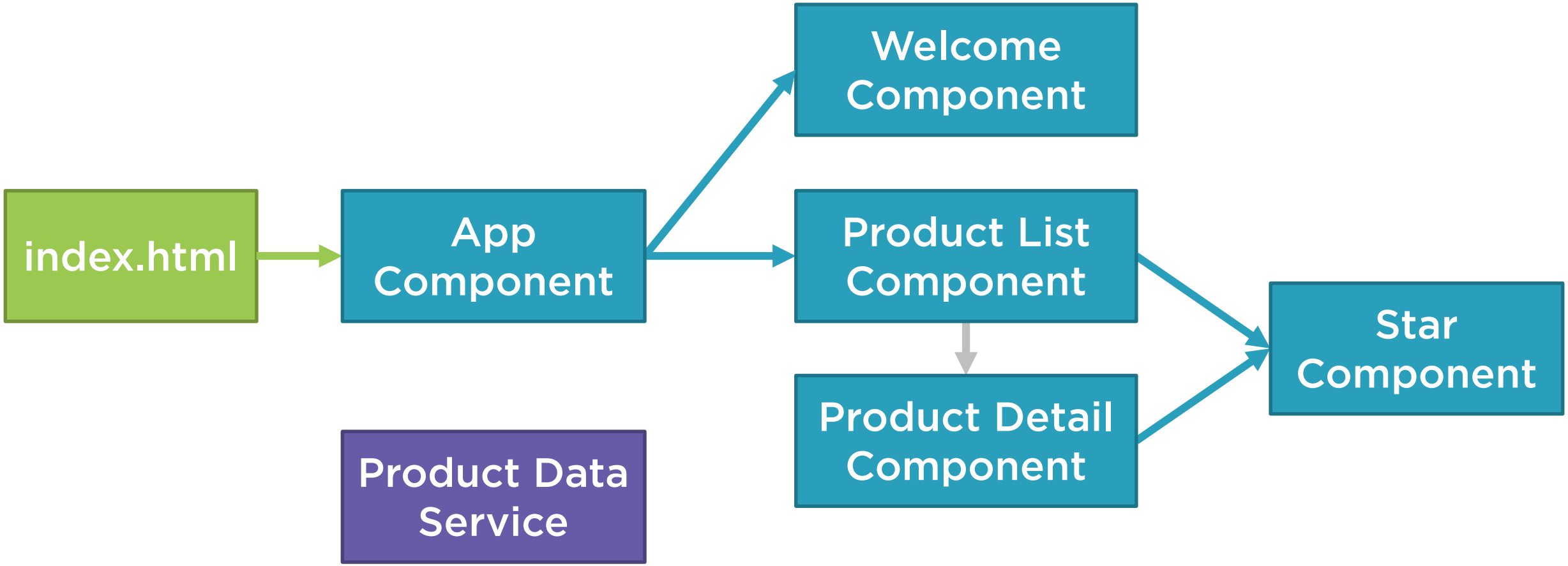
Module Overview

Passing Parameters to a Route

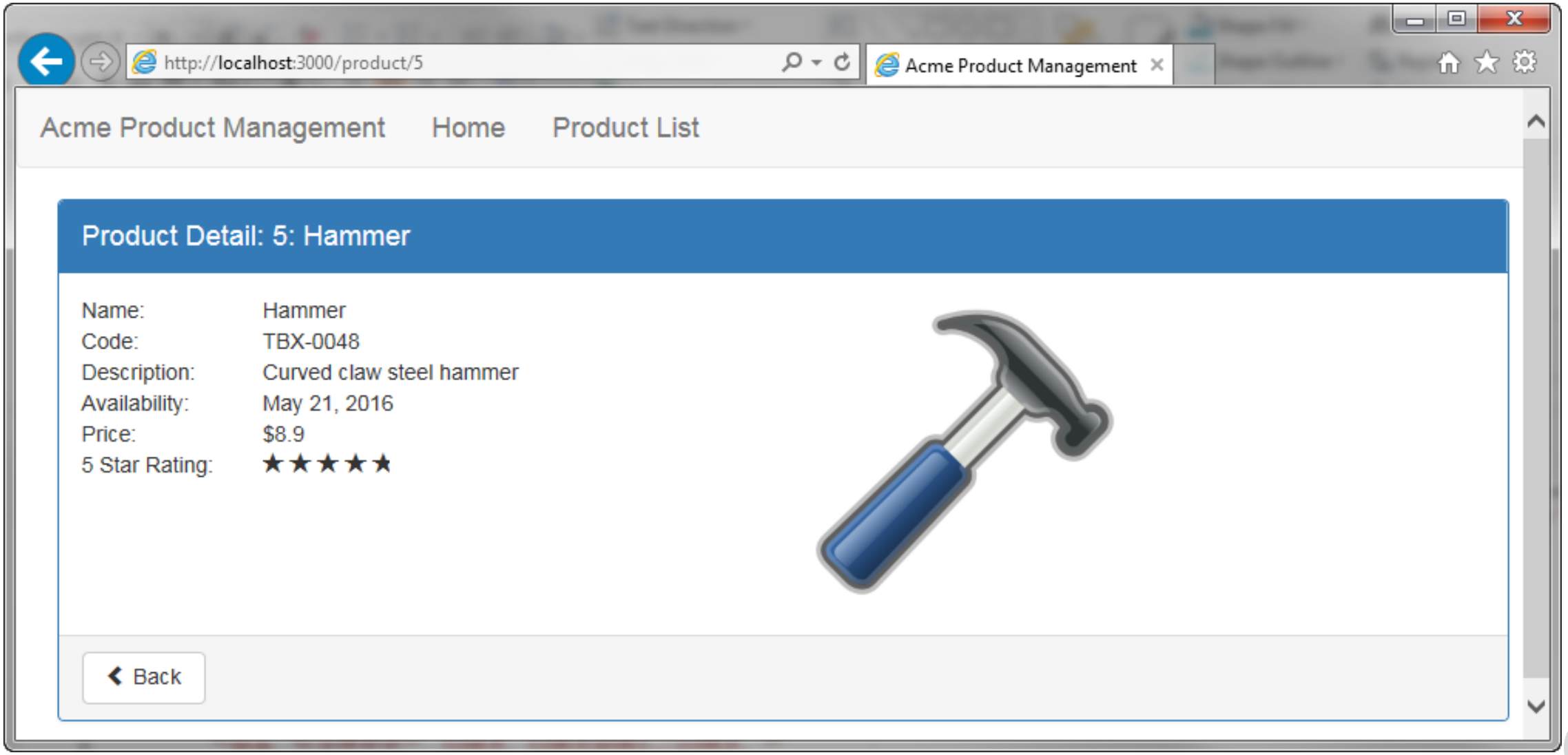
Activating a Route with Code

Protecting Routes with Guards

Application Architecture



Passing Parameters to a Route



Passing Parameters to a Route

app.module.ts

```
@NgModule({
  imports: [
    ...,
    RouterModule.forRoot([
      { path: 'products', component: ProductListComponent },
      { path: 'product/:id', component: ProductDetailComponent },
      { path: 'welcome', component: WelcomeComponent },
      { path: '', redirectTo: 'welcome', pathMatch: 'full' },
      { path: '**', redirectTo: 'welcome', pathMatch: 'full' }
    ])
  ],
  declarations: [...],
  bootstrap: [ AppComponent ]
})
export class AppModule { }
```

Passing Parameters to a Route

product-list.component.html

```
<td>
  <a [routerLink]="['/product', product.productId]">
     {{product.productName}}
  </a>
</td>
```

app.module.ts

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

Reading Parameters from a Route

product-detail.component.ts

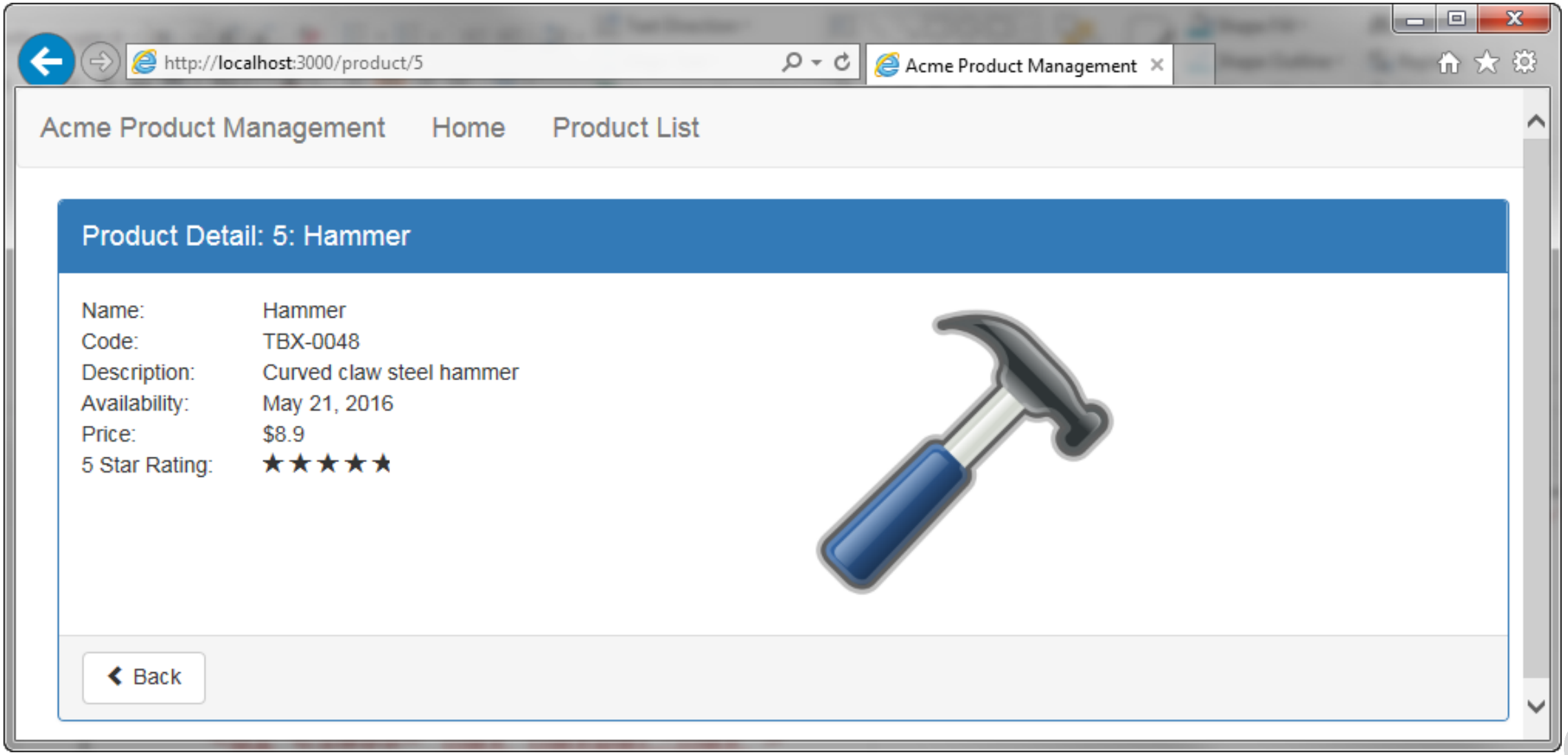
```
import { ActivatedRoute } from '@angular/router';

    constructor(private _route: ActivatedRoute) {
       console.log(this._route.snapshot.params['id']);
    }
```

app.module.ts

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

Activating a Route with Code



Activating a Route with Code

product-detail.component.ts

```
import { Router } from '@angular/router';
...
    constructor(private _router: Router) { }

    onBack(): void {
      this._router.navigate(['/products']);
    }
```

Protecting Routes with Guards

CanActivate

- Guard navigation to a route

CanDeactivate

- Guard navigation from a route

Resolve

- Pre-fetch data before activating a route

CanLoad

- Prevent asynchronous routing

Building a Guard

product-guard.service.ts

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

@Injectable()
export class ProductDetailGuard implements CanActivate {

    canActivate(): boolean {
      ...
    }
}
```

Registering a Guard

app.module.ts

```
...
import { ProductDetailGuard } from './products/product-guard.service';

@NgModule({
  imports: [...],
  declarations: [...],
  providers: [ ProductDetailGuard ],
  bootstrap: [ AppComponent ]
})
export class AppModule { }
```

Using a Guard

app.module.ts

```
@NgModule({
  imports: [
    ...,
    RouterModule.forRoot([
      { path: 'products', component: ProductListComponent },
      { path: 'product/:id',
        canActivate: [ ProductDetailGuard ],
        component: ProductDetailComponent },
    ...])
  ],
  declarations: [...],
  bootstrap: [ AppComponent ]
})
export class AppModule { }
```

Routing Checklist: Passing Parameters

app.module.ts

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

product-list.component.html

```
<a [routerLink]="['/product', product.productId]">
   {{product.productName}}
</a>
```

product-detail.component.ts

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

constructor(private _route: ActivatedRoute) {
   console.log(this._route.snapshot.params['id']);
}
```

Routing Checklist: Activate a Route with Code

Use the Router service

- Import the service
- Define it as a dependency

Create a method that calls the navigate method of the Router service

- Pass in the link parameters array

Add a user interface element

- Use event binding to bind to the created method

Routing Checklist: Protecting Routes with Guards

Build a guard service

- Implement the guard type (CanActivate)
- Create the method (canActivate())

Register the guard service provider

- Must be in an Angular module

Add the guard to the desired route

Summary

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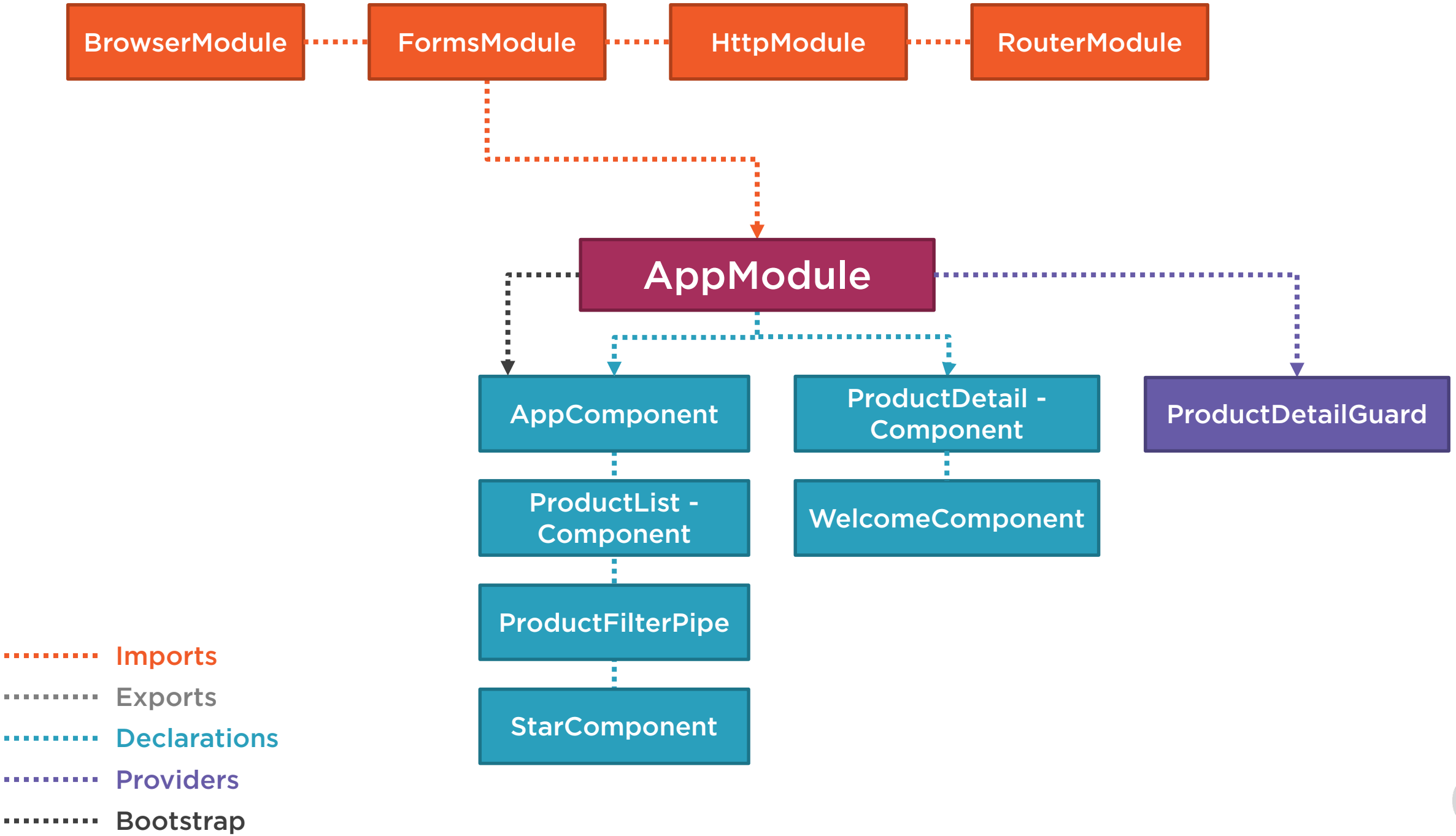
BrowserModule
FormsModule
HttpModule
RouterModule
AppModule
AppComponent
ProductDetail - Component
ProductDetailGuard
ProductList - Component
WelcomeComponent
ProductFilterPipe
StarComponent
Imports
Exports
Declarations
Providers
Bootstrap