AngularJS

Building Nested Components

Using a Component

As a Directive

```
<body>
  <nat-app>Loading app...</nat-app>
</body>
```

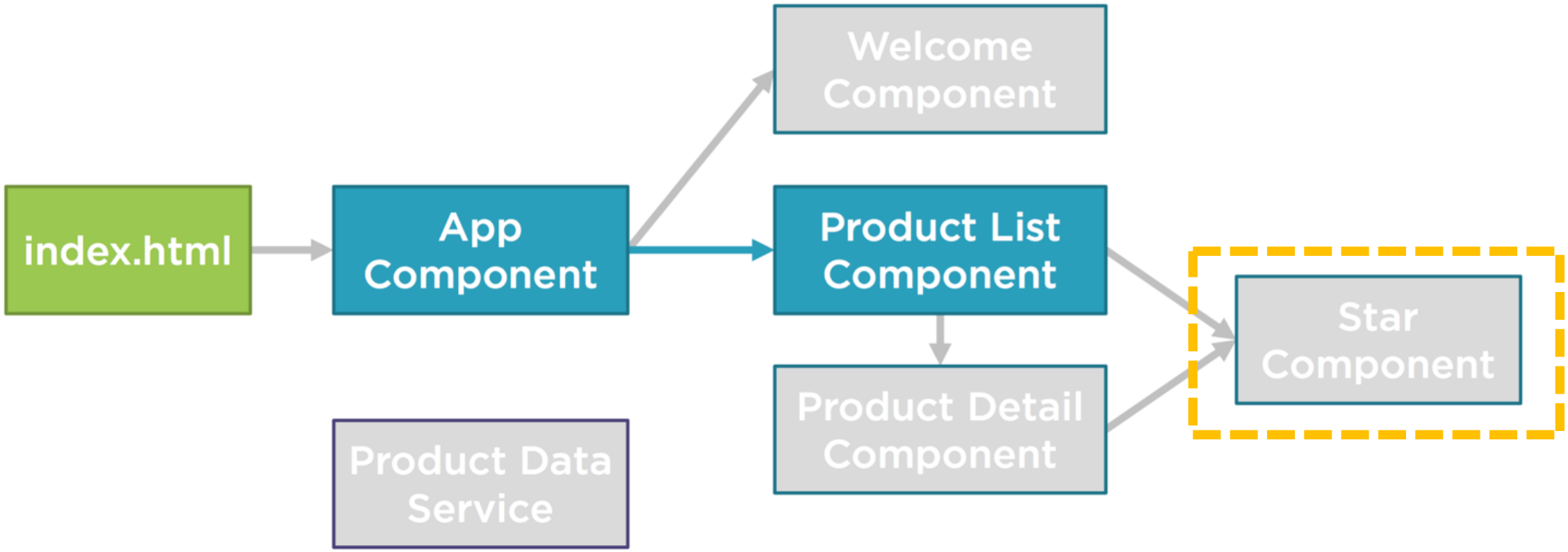
As a Routing Target

```
// Routes config
{ path: 'products', component:
ProductListComponent }
```

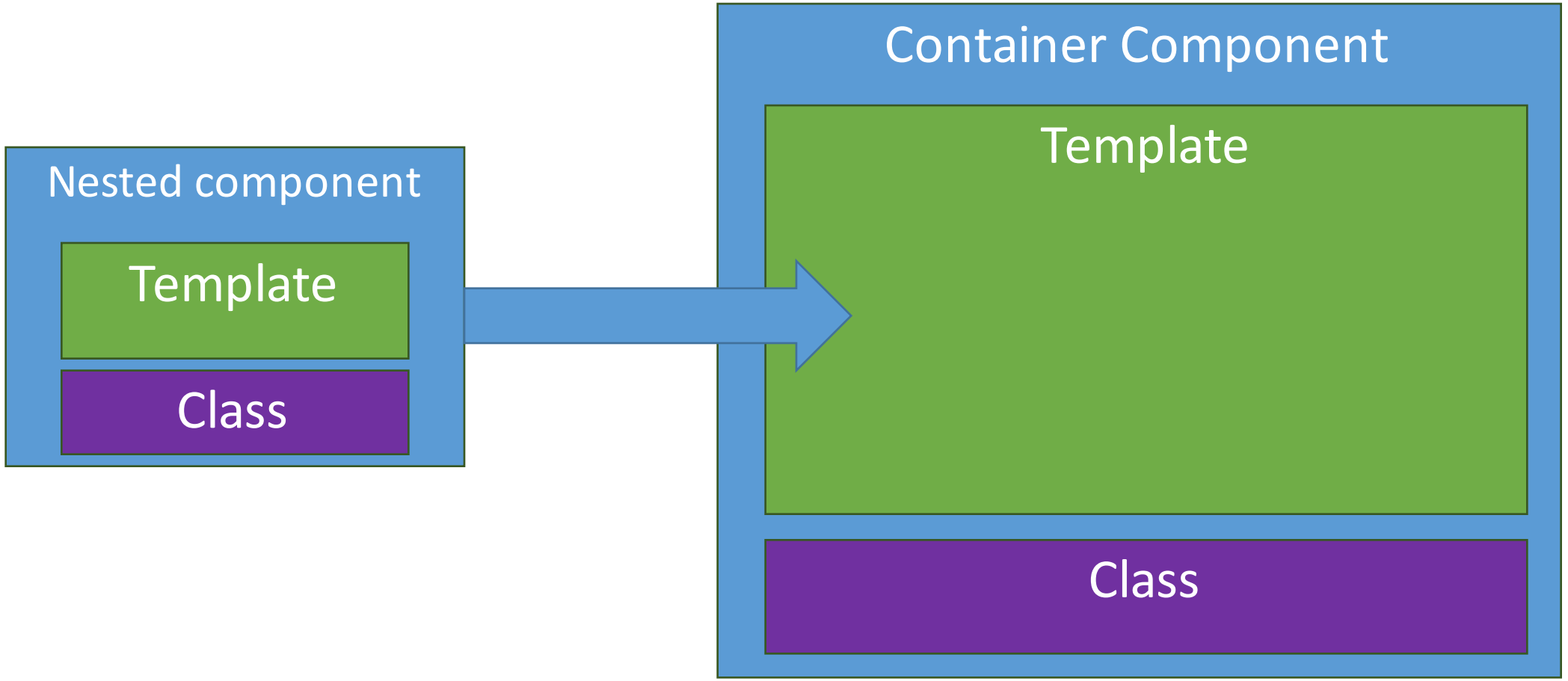
Module Overview

- Building a Nextes Component
- Using a Nested Component
- Passing data to a Nested Component using @Input
- Raising an Event from a Nested Component using @Output

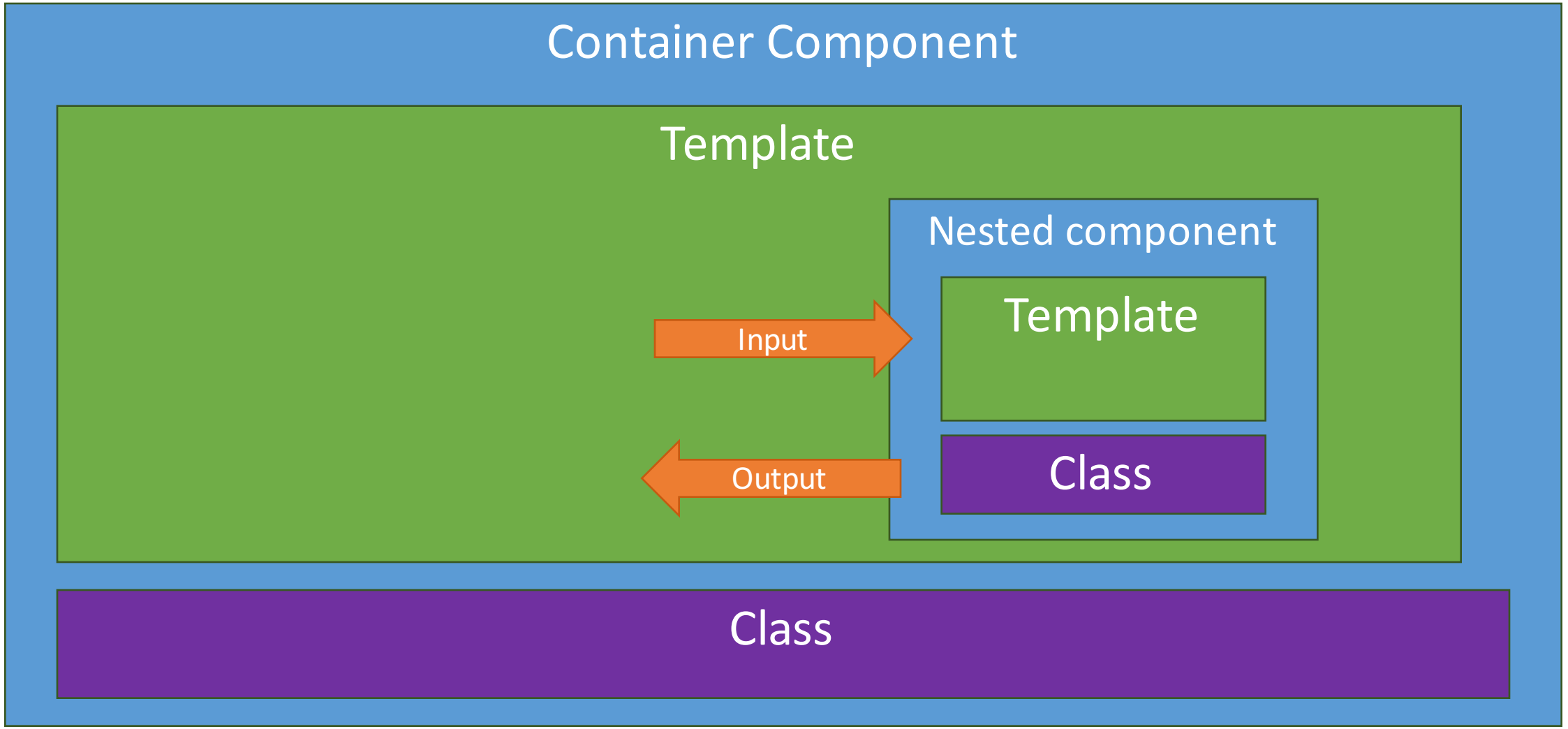
Application Architecture



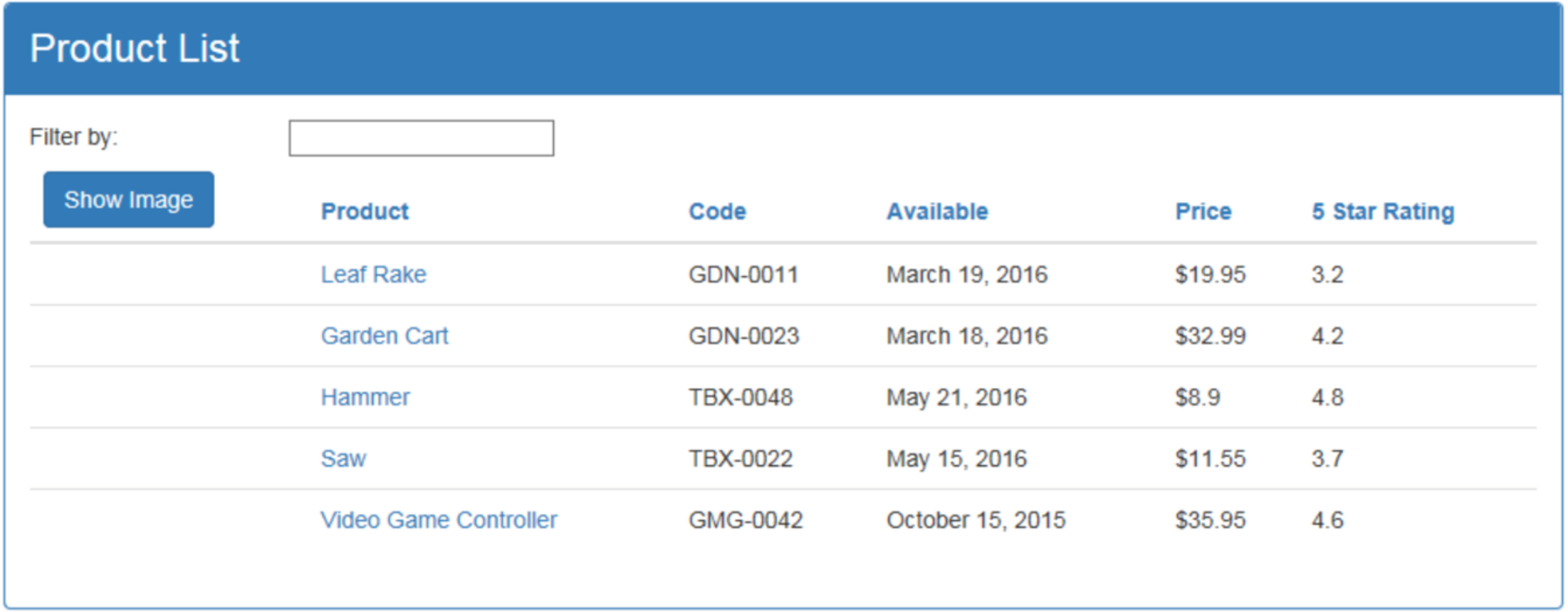
Building a Nested Component



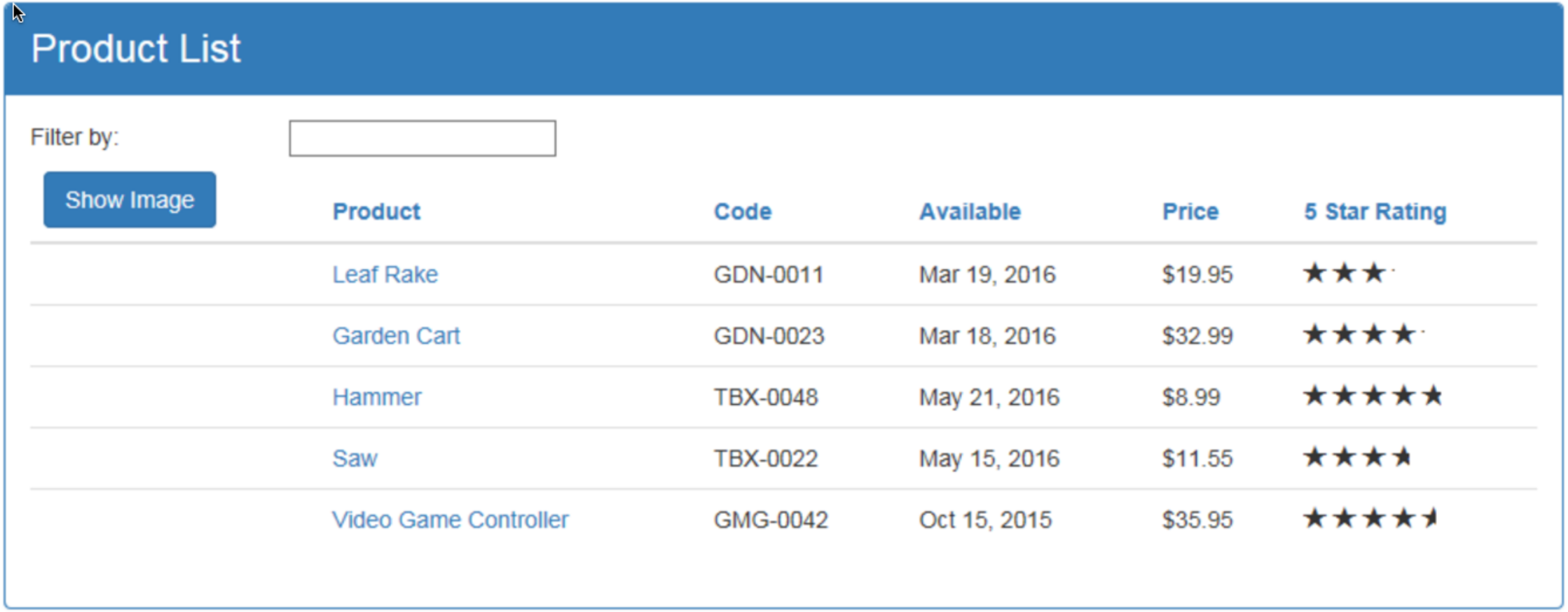
Building a Nested Component



Product list view



Product list view



Using a nested component as a directive

```
// product-list.components.ts

import { Component } from '@angular/core';
@Component({
  selector: 'nat-products',
  templateUrl: 'app/products/product-
list.component.html'
})
export class ProductListComponent {}


// product-list.component.html

<td>
  {{ product.starRating | number }}
</td>
```

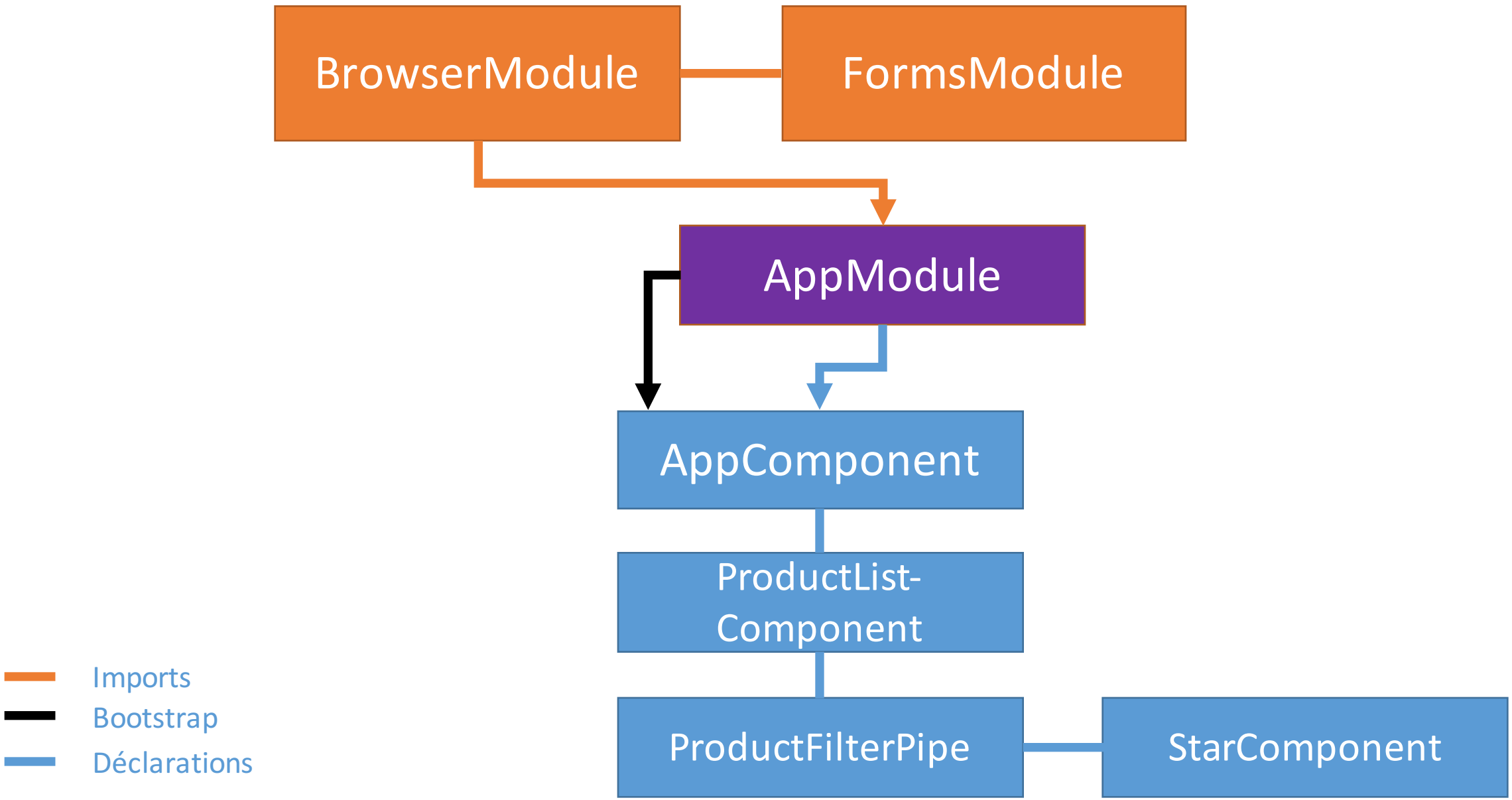
```
// star.component.ts

import { Component } from '@angular/core';
@Component({
  selector: 'nat-star',
  templateUrl: 'app/shared/star.component.html'
})
export class StarComponent {
  rating: number;
  starWidth: number;
}
```

Using a nested component as a directive

```
// product-list.components.ts

import { Component } from '@angular/core';
@Component({
  selector: 'nat-products',
  templateUrl: 'app/products/product-
list.component.html'
})
export class ProductListComponent {}
```

```
// product-list.component.html

<td>
  <nat-star></nat-star>
</td>
```

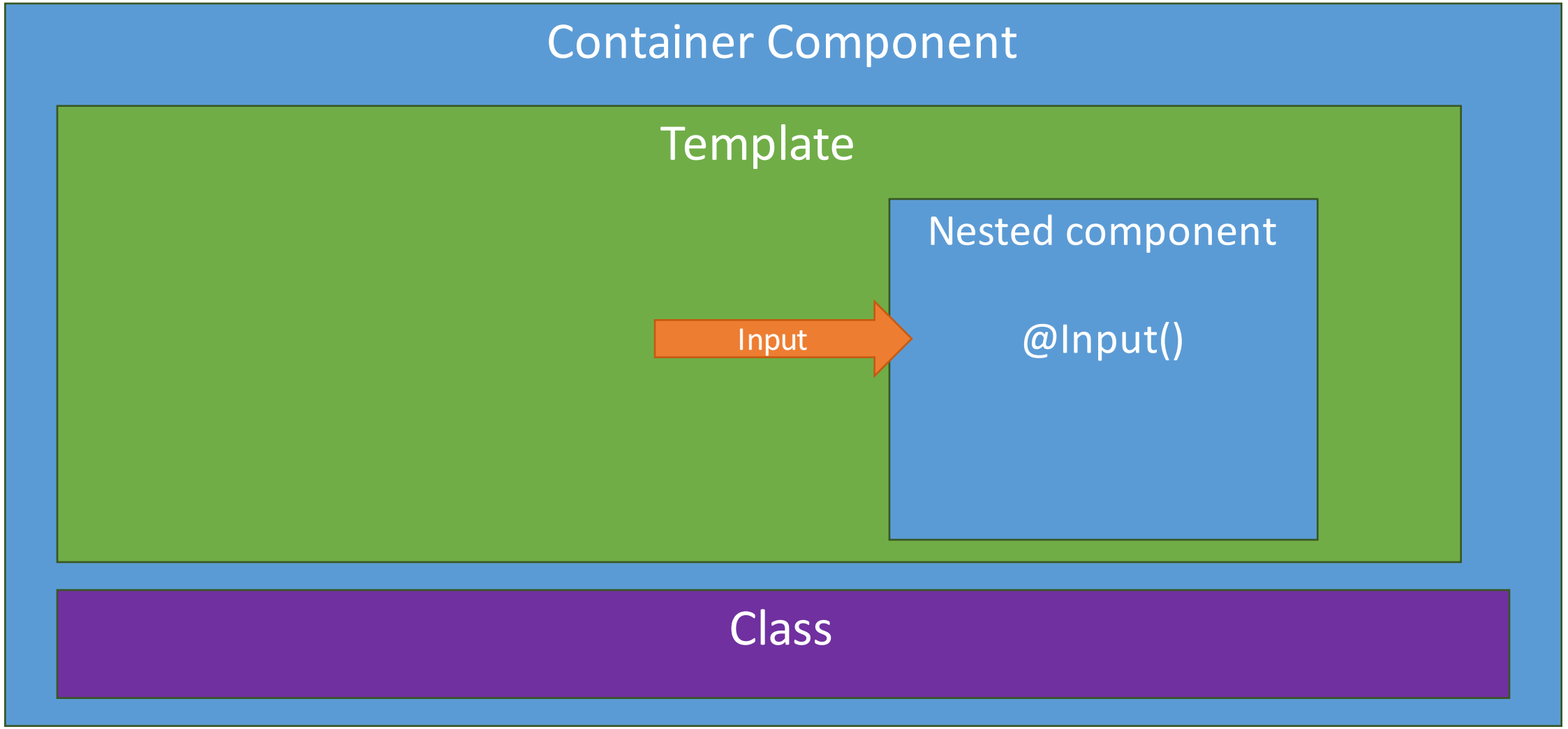
```
// star.component.ts

import { Component } from '@angular/core';
@Component({
  selector: 'nat-star',
  templateUrl: 'app/shared/star.component.html'
})
export class StarComponent {
  rating: number;
  starWidth: number;
}
```


BrowserModule
FormsModule
AppModule
AppComponent
ProductList-
Component
ProductFilterPipe
StarComponent
Imports
Bootstrap
Déclarations

Declare our component into AppModule

```
// app.module.ts
import { StarComponent} from 'shared/star.component';
@NgModule({
  imports: [
    BrowserModule, FormsModule
  ],
  declarations: [
    AppComponent, ProductListComponent,
    ProductFilterPipe, StarComponent
  ],
  bootstrap: [ AppComponent ]
})
export class AppModule {}
```

Passing data to a nested component (@Input)



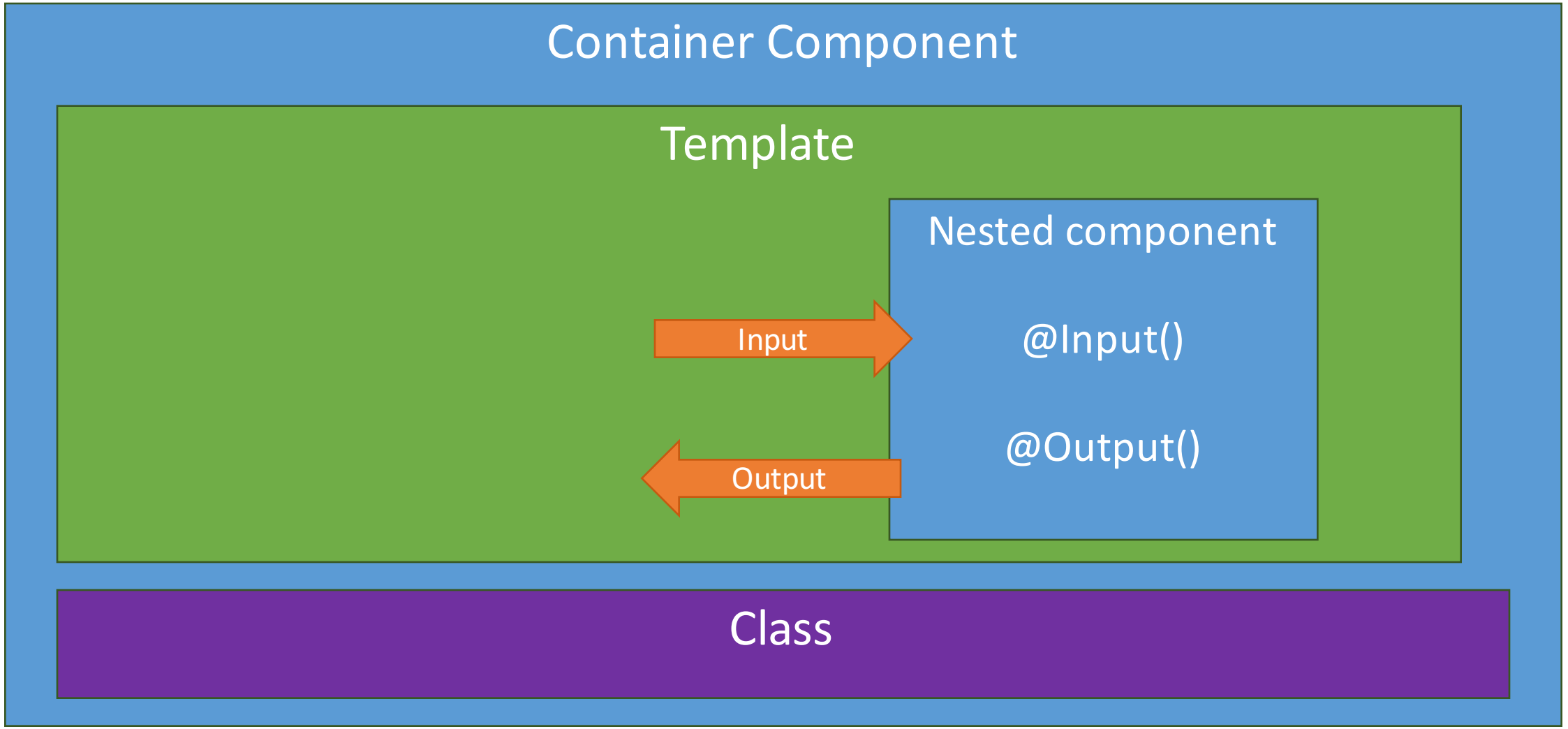
Passing data to a nested component (@Input)

```
// product-list.components.ts

import { Component } from '@angular/core';
@Component({
  selector: 'nat-products',
  templateUrl: 'app/products/product-
list.component.html'
})
export class ProductListComponent {}
```

```
// star.component.ts

import { Component, Input } from
'@angular/core';
@Component({
  selector: 'nat-star',
  templateUrl: 'app/shared/star.component.html'
})
export class StarComponent {
  @Input() rating: number;
  starWidth: number;
}
```

```
// product-list.component.html

<td>
  <nat-star [rating]="product.starRating"></nat-star>
</td>
```

Passing data to a nested component (@Input)



Raising an Event (@Output)

```
// product-list.components.ts
import { Component } from '@angular/core';
@Component({
  selector: 'nat-products',
  templateUrl: 'app/products/product-
list.component.html'
})
export class ProductListComponent {
  onNotify(message: string): void {}
}
```

```
// product-list.component.html
<td>
  <nat-star [rating]="product.starRating »
    (notify)='onNotify($event)'>
  </nat-star>
</td>
```

```
// star.component.ts
import { Component, Input } from '@angular/core';
@Component({
  selector: 'nat-star',
  templateUrl: 'app/shared/star.component.html'
})
export class StarComponent {
  @Input() rating: number;
  starWidth: number;
  @Output notify: EventEmitter<string> = new
EventEmitter<string>();

  onClick() {
    this.notify.emit('clicked');
  }
}
```

```
// star.component.html
<div (click)='onClick()’>
  … stars ...
</div>
```

Checklist: Nested Component

- ✓ Input decorator
  - ✓ Attached to a property of any type
  - ✓ Prefix with @; suffic with (à
- ✓ Output decorator
  - ✓ Attached to a property declared as an EventEmitter
  - ✓ Use the generic argument to define the event payload type
  - ✓ Use the new keyword to create an instance of the EventEmitter
  - ✓ Prefix with @; Suffix with ()

Checklist: Container Component

- ✓ Use
- ✓Use the directive
  - ✓ Directive name -> nested component's selector
- ✓ Use property binding to pass data to the nested component
- ✓ Use event binding to respond to events from the nested component
  - ✓ Use $event to access the event payload passed from the nested component

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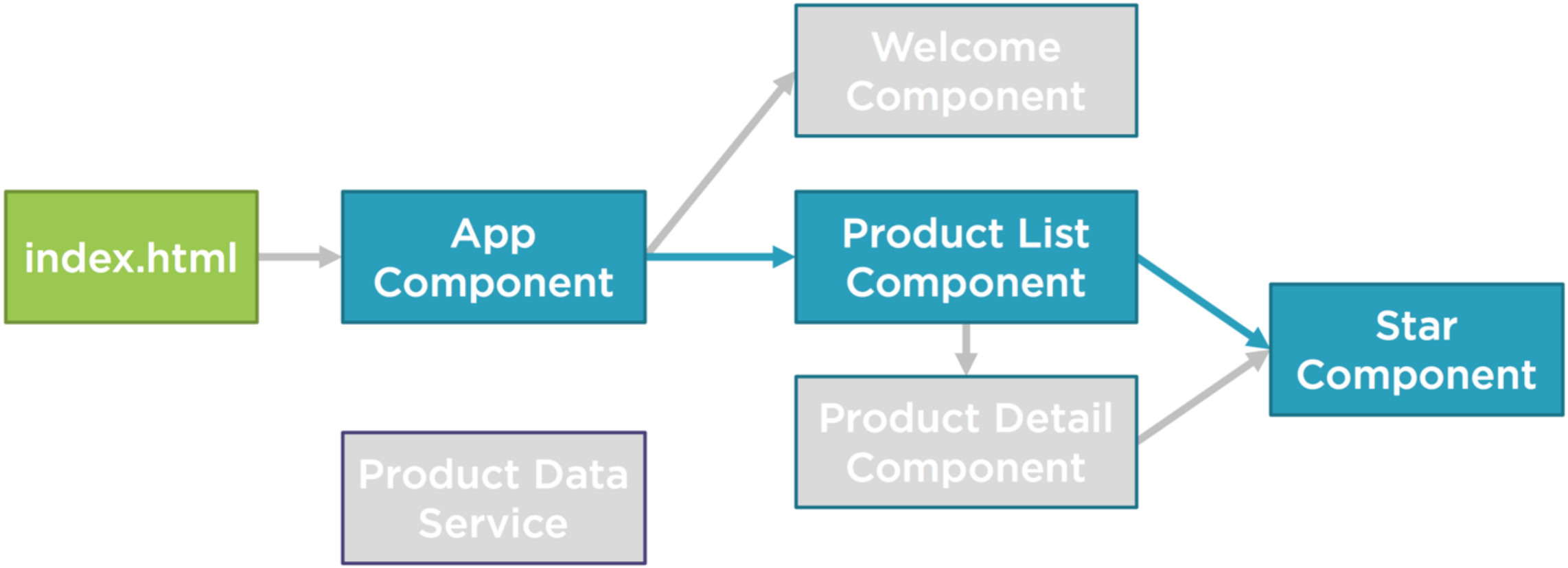
Application Architecture