What Makes a Component Nest-able?

Its template only manages a fragment of a larger view

It has a selector

It optionally communicates with its container

Module Overview

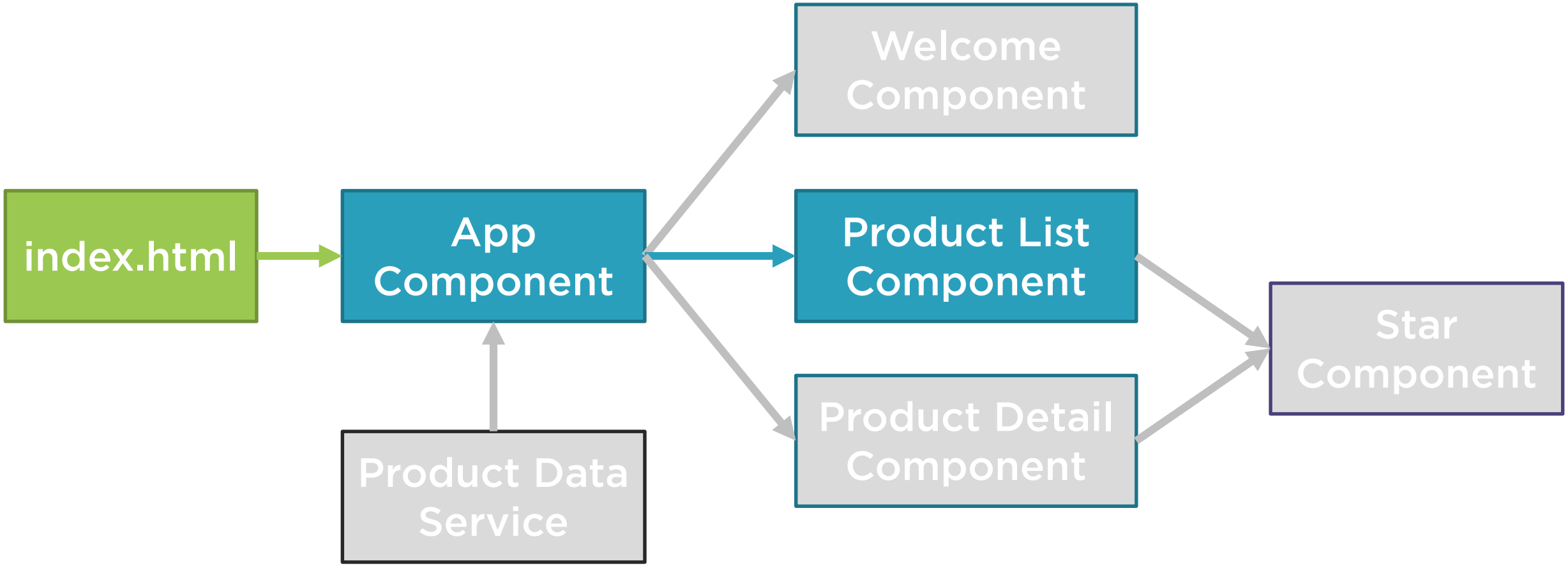
Building a Nested Component

Using a Nested Component

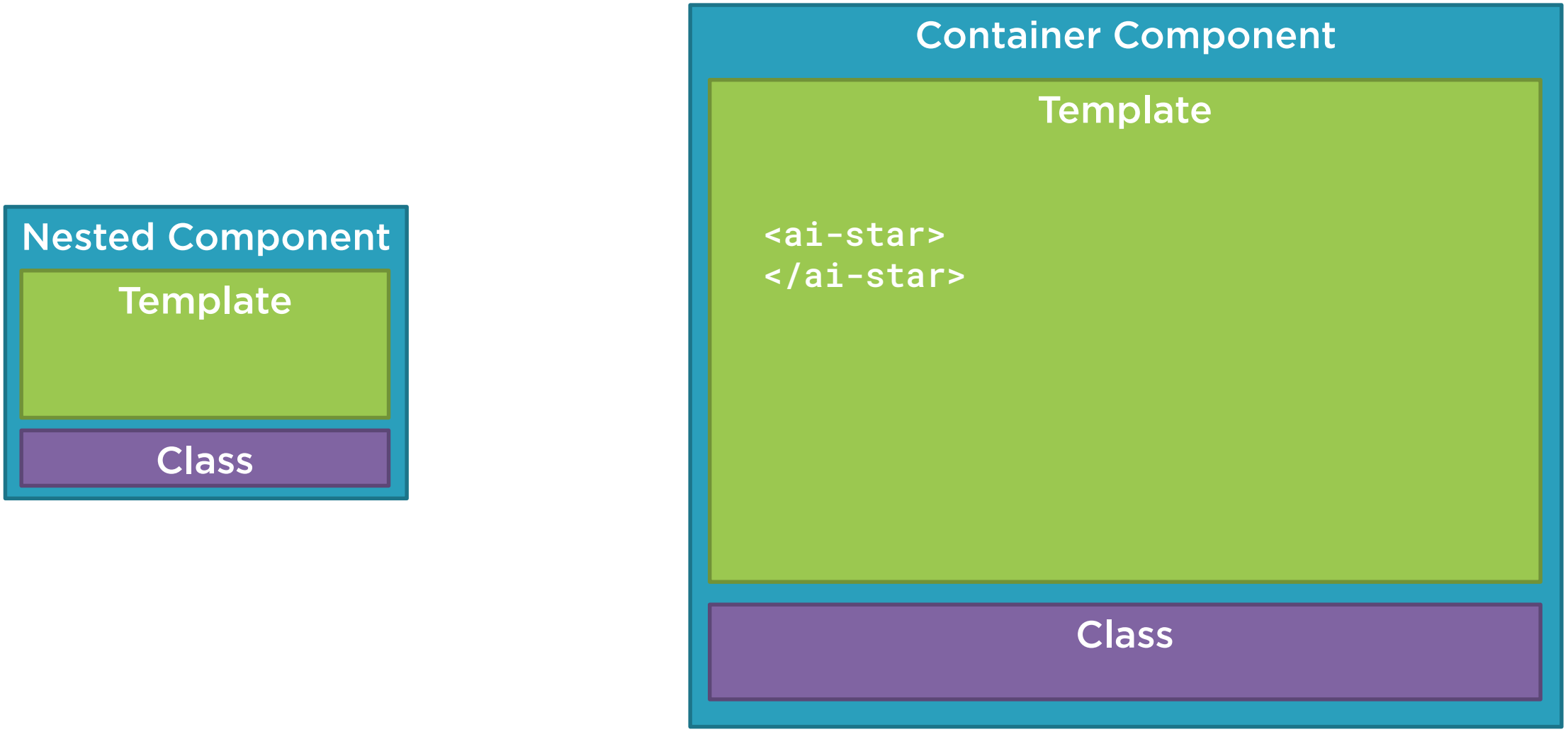
Passing Data to a Nested Component Using @Input

Raising an Event from a Nested Component Using @Output

Application Architecture



Building a Nested Component



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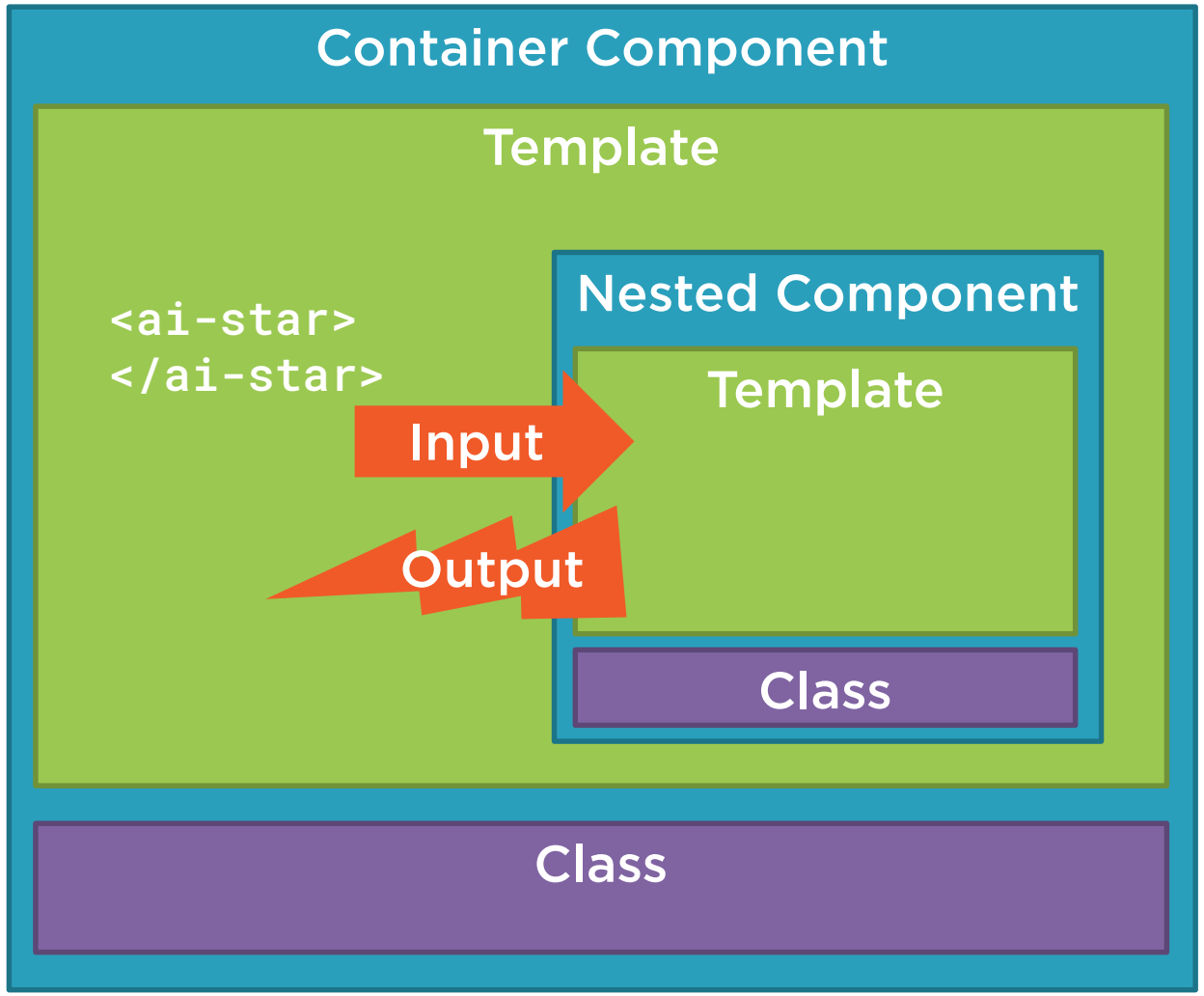

Product List View

Product List

Filter by:

Show Image

Product	Code	Available	Price	5 Star Rating
Leaf Rake	GDN-0011	March 19, 2016	$19.95	3.2
Garden Cart	GDN-0023	March 18, 2016	$32.99	4.2
Hammer	TBX-0048	May 21, 2016	$8.9	4.8
Saw	TBX-0022	May 15, 2016	$11.55	3.7
Video Game Controller	GMG-0042	October 15, 2015	$35.95	4.6

Product List View

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Filter by:

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Product	Code	Available	Price	5 Star Rating
Leaf Rake	GDN-0011	Mar 19, 2016	$19.95	★★★
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Using a Nested Component as a Directive

product-list.component.ts

```
@Component({
  selector: 'pm-products',
  templateURL: 'product-list.component.html'
})
export class ProductListComponent { }
```

product-list.component.html

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

star.component.ts

```
@Component({
  selector: 'ai-star',
  templateURL: 'star.component.html'
})
export class StarComponent {
  rating: number;
  starWidth: number;
}
```

Using a Nested Component as a Directive

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@Component({
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```

product-list.component.html

```
<td>
   <ai-star></ai-star>
</td>
```

star.component.ts

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@Component({
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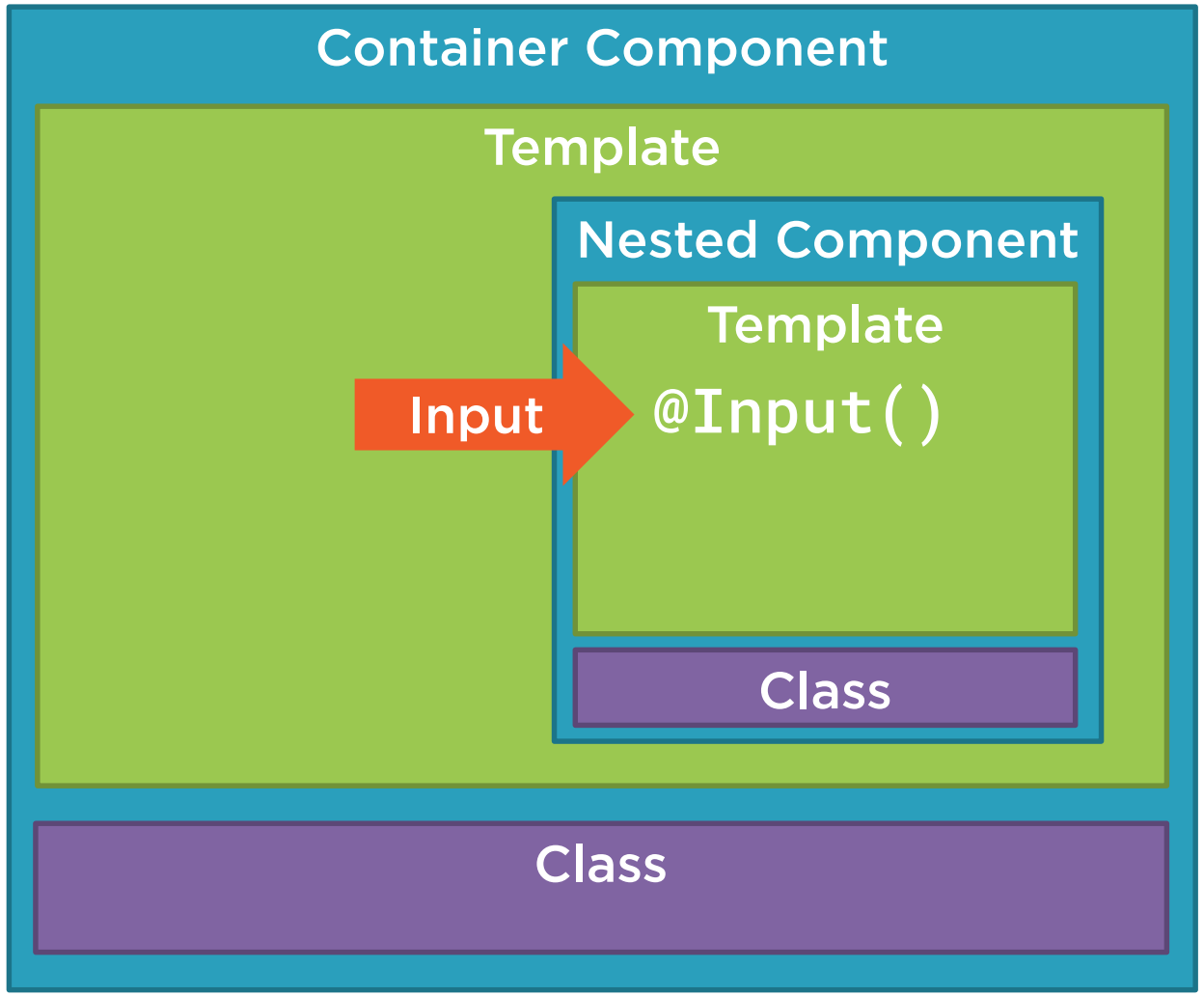
Passing Data to a Nested Component (@Input)



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<td>
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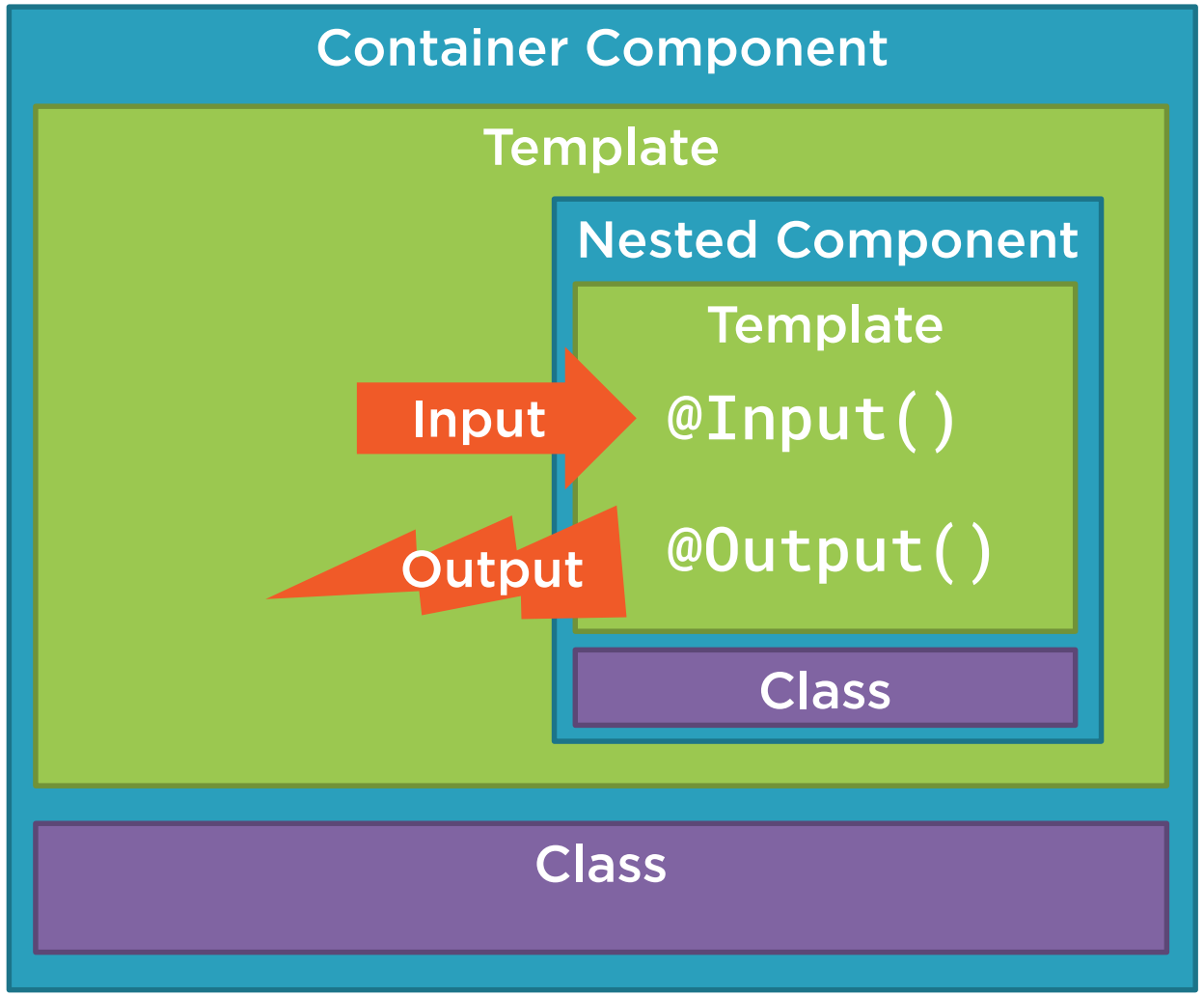
Raising an Event (@Output)



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 @Input() rating: number;
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 @Output() notify: EventEmitter<string> =
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 onClick() {
   this.notify.emit('clicked!');
 }
}
```

product-list.component.html

```
<td>
  <ai-star [rating]='product.starRating'>
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```
<div (click)='onClick()'>
  ... stars ...
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Raising an Event (@Output)

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product-list.component.html

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<td>
  <ai-star [rating]='product.starRating'
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  </ai-star>
</td>
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<div (click)='onClick()'>
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Raising an Event (@Output)

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@Component({
  selector: 'pm-products',
  templateURL: 'product-list.component.html',
  directives: [StarComponent]
})
export class ProductListComponent {
 onNotify(message: string): void { }
}
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  ... stars ...
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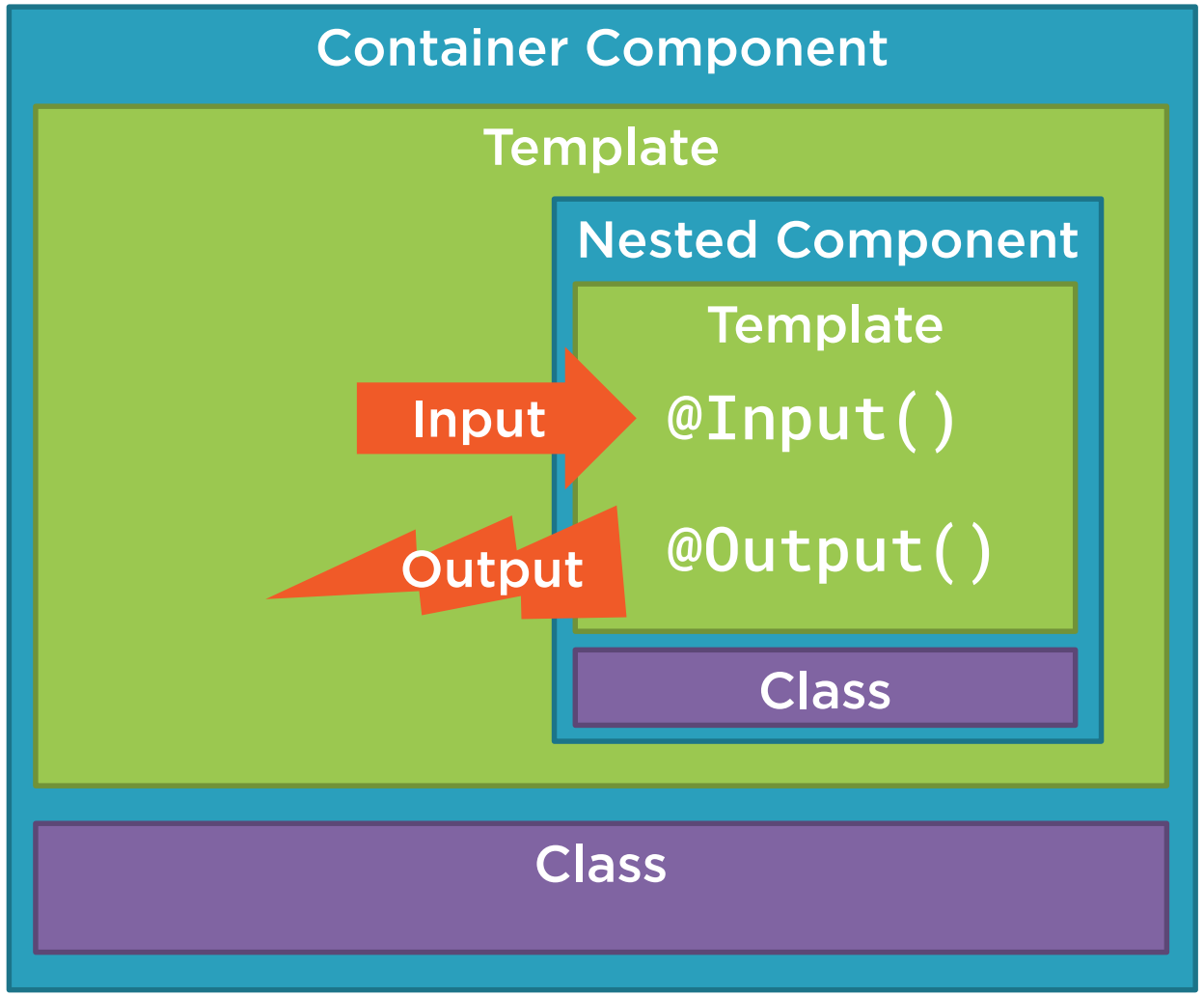
Nest-able Component's Public API



Checklist: Nested Component

Input decorator

- Attached to a property of any type
- Prefix with @; Suffix with ()

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 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

Summary

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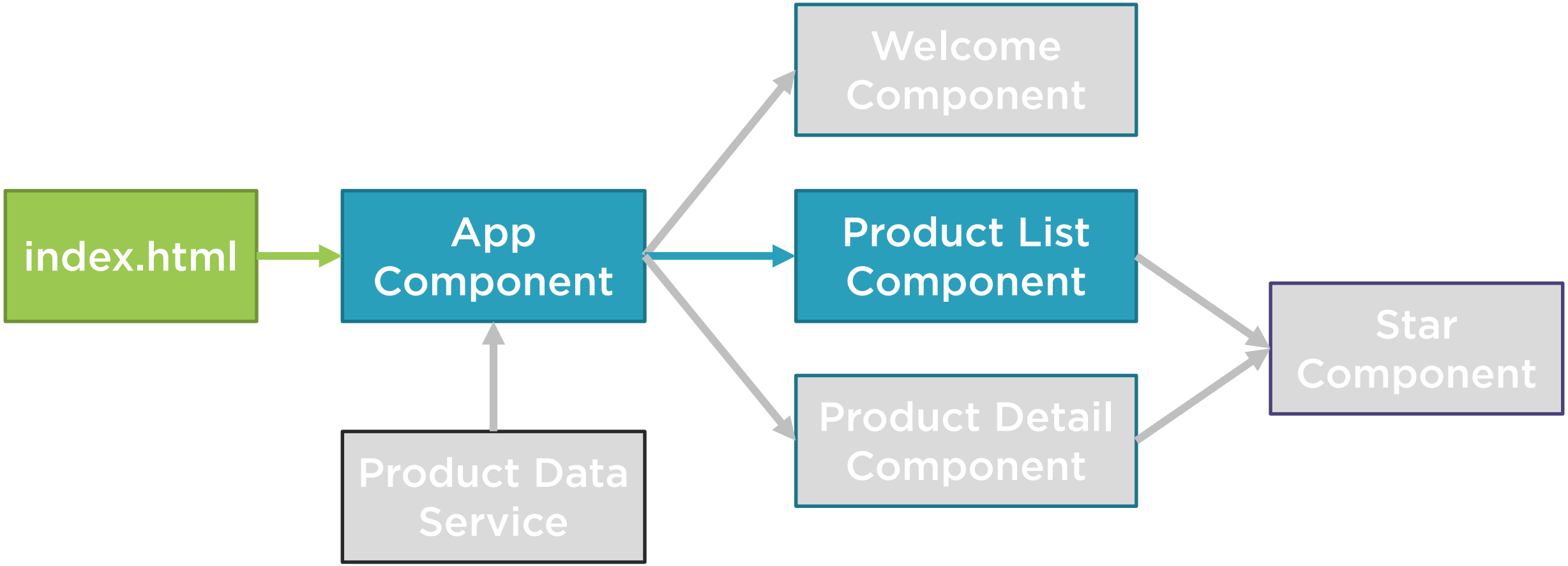
Application Architecture



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