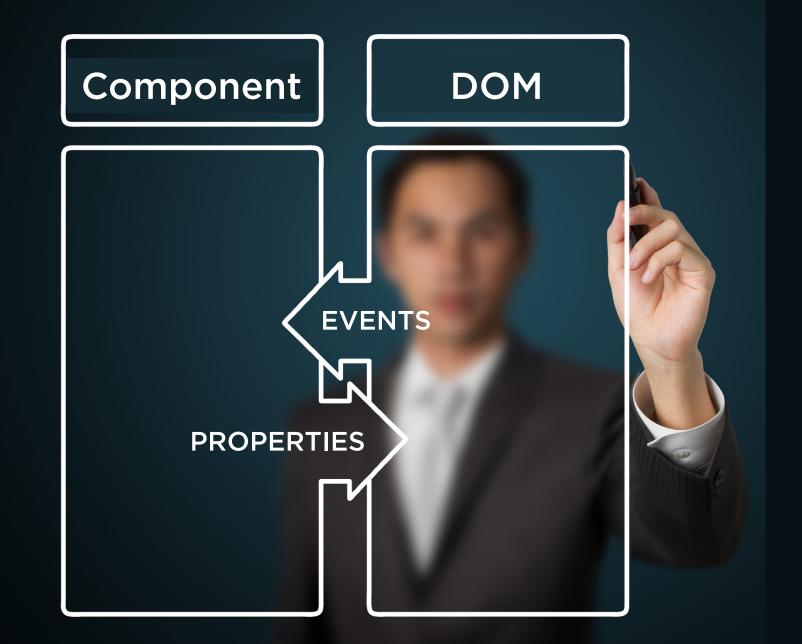
Data Binding & Pipes



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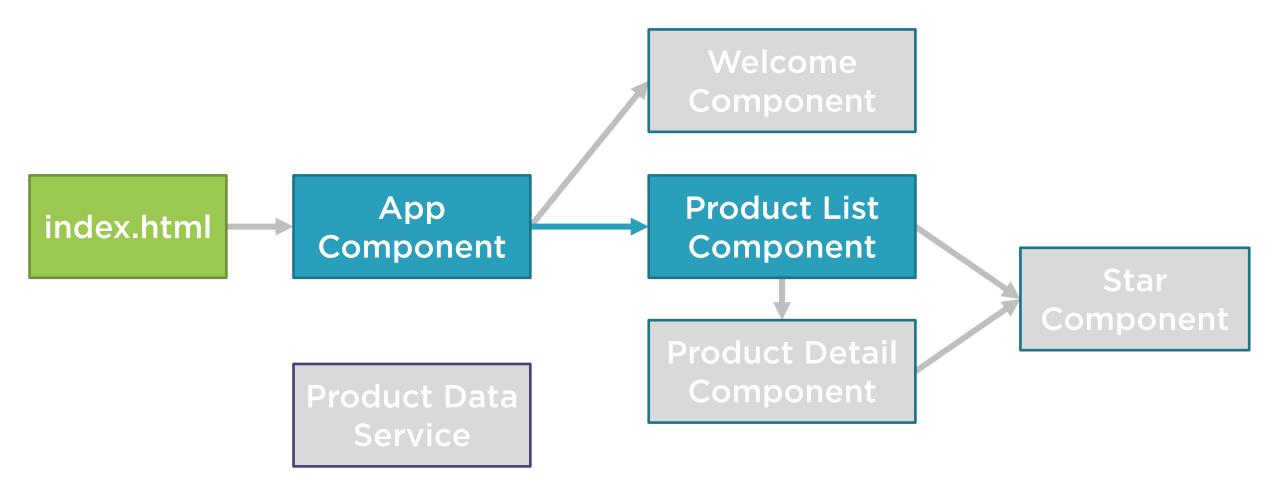
Module Overview



Property Binding
Handling Events with Event Binding
Handling Input with Two-way Binding
Transforming Data with Pipes



Application Architecture





Property Binding



Event Binding

```
Template
                                         Class
<h1>{{pageTitle}}</h1>
<img [src]='product.imageUrl'>
<button (click)='toggleImage()'>
                         export class ListComponent {
https://developer.mozilla.org/en-US/docs/Web/Events
                        Template
   Target Event
                        Statement
```

Change Detection





```
export class ProductListComponent {
   pageTitle = 'Product List';
   showImage = false;

   toggleImage(): void {
      this.showImage = !this.showImage;
   }
}
```

Template

Class

```
<input [(ngModel)]='listFilter'>
```

```
export class ListComponent {
  listFilter: string = 'cart';
}
```

Template

Class

```
<input [(ngModel)]='listFilter'>
```

```
export class ListComponent {
  listFilter: string = 'cart';
}
```

Template

Class

```
<input [(ngModel)]='listFilter'>
```

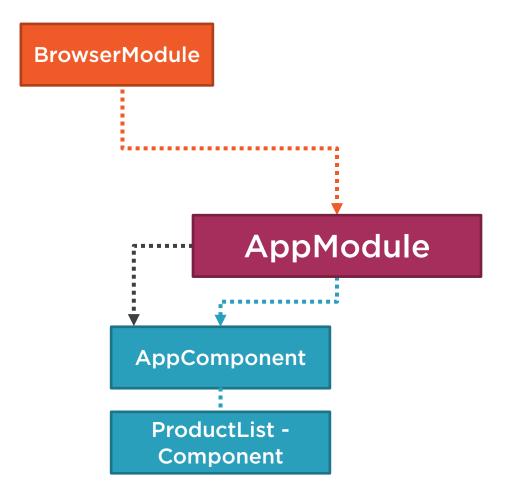
```
export class ListComponent {
  listFilter: string = 'cart';
}
```

Template

Class

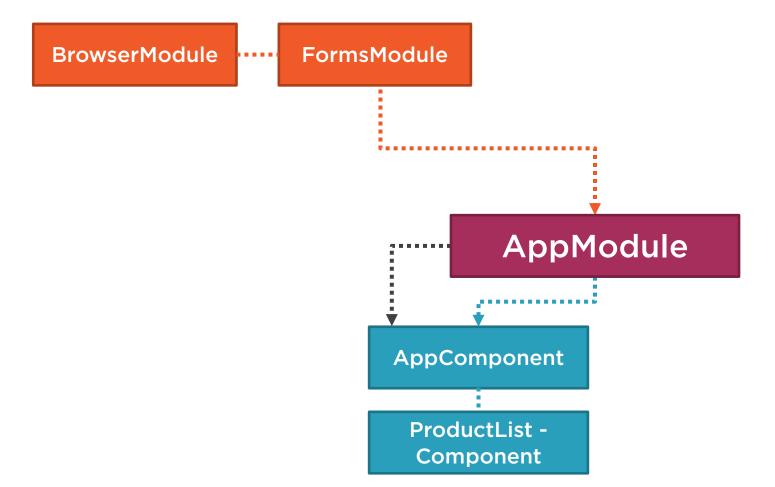
[()] Banana in a Box











Imports
Exports
Declarations
Providers
Bootstrap



Transforming Data with Pipes

Transform bound properties before display

Built-in pipes

- date
- number, decimal, percent, currency
- json, slice
- etc

Custom pipes



Pipe Examples

```
{{ product.productCode | lowercase }}

<img [src]='product.imageUrl'
     [title]='product.productName | uppercase'>

{{ product.price | currency | lowercase }}

{{ product.price | currency:'USD':'symbol':'1.2-2' }}
```



Data Binding

DOM

```
▼<pm-root ng-version="6.0.5">
 ▼<div>
    <h1>Acme Product Management</h1>
   ▼<pm-products>
    ▼<div class="card">
       <div class="card-header"> Product List </div>
      ▼<div class="card-body">
       \div class="row">...</div>
       ▶ <div class="row">...</div>
       ▼<div class="table-responsive">
         ▼
          <thead>...</thead>
            </div>
       </div>
     </div>
    </div>
 </pm-root>
```

product-list.component.ts

```
@Component({
    selector: 'pm-products',
    templateURL: './product-list.component.html'
})
export class ProductListComponent {
    pageTitle: string = 'Product List';
    listFilter: string = 'cart';
    products: any[] = [...];
    toggleImage(): void {...}
}
```



Data Binding

Interpolation: {{pageTitle}} Property Binding: DOM Component Event Binding: <button (click)='toggleImage()'> Two-Way Binding: <input [(ngModel)]='listFilter'/>



Checklist: ngModel

product-list.component.html

```
<div class='col-md-4'>
     <input type='text'
        [(ngModel)]='listFilter' />
</div>
```

app.module.ts

```
@NgModule({
   imports: [
      BrowserModule,
      FormsModule ],
   declarations: [
      AppComponent,
      ProductListComponent ],
   bootstrap: [ AppComponent ]
})
export class AppModule { }
```

Checklist: Pipes



Pipe character

Pipe name

Pipe parameters

- Separated with colons

Example

```
- {{ product.price |
   currency:'USD':'symbol':'1.2-2' }}
```



Summary



Property Binding

Handling Events with Event Binding

Handling Input with Two-way Binding

Transforming Data with Pipes



Application Architecture

