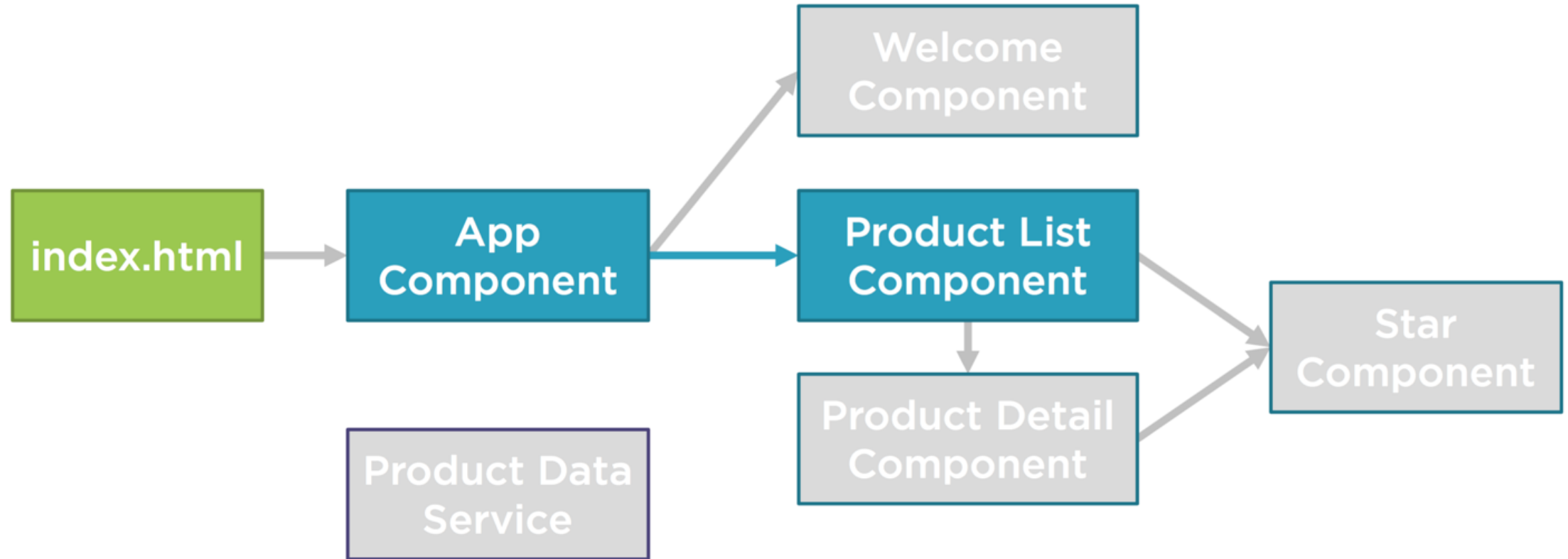# AngularJS

Data bindings & Pipes

Module Overview

- Property Binding
- Event Binding
- Two-way binding
- Transforming data with Pipes

Application Architecture

Property Binding

```
<img [src]='product.imageUrl'>

<img src={{product.imageUrl}}>

<img src='http://mydomain.com/{{imageUrl}}'>
```

Target Property
[]

Template Expresion
'' or {{}}

Event Binding

Template

Class

```html
<h1>{{pageTitle}}</h1>
<img [src]='product.imageUrl'>
<button (click)='toggleImage()'>
```

```typescript
export class ListComponent {
  pageTitle: string = 'Title';
  toggleImage(): void {}
}
```

Event Property
()

Template statement
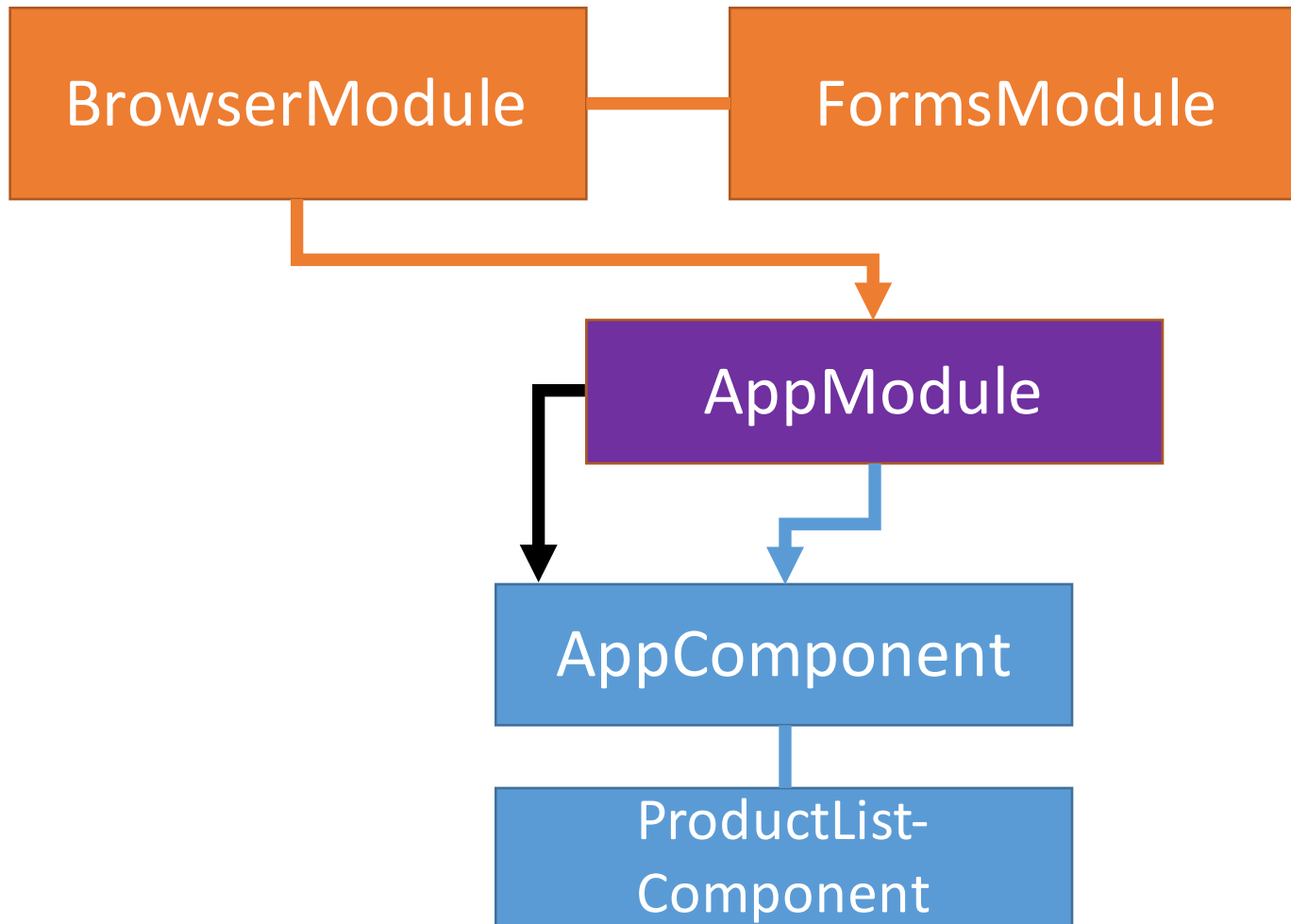''

Two-way Binding

Template

Class

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

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

Banana in a box
[()]

Component property
''

BrowserModule	FormsModule

AppModule

AppComponent

ProductList-Component

Imports
Bootstrap
Déclarations

Transforming Data with Pipes

- Pure functions which transform properties before display
- Built-in pipes
  - date
  - number, decimal, percent, currency
  - json, slice,
  - More on the angular.io documentation
    http://
- Custom pipes

Pipe Examples

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

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

{{ product.price | currency | lowercase }}

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

Data Binding

```
// DOM
```

```
▼<nat-products>
  ▼<div class="panel panel-primary">
    <div class="panel-heading">
            Product list
    </div>
    ▼<div class="panel-body">
      ::before
      ▼<div class="table-responsive">
        <!--template bindings={
          "ng-reflect-ng-if": "5"
        }-->
        ▼<table class="table">
          ▼<thead>
          ►<tr>…</tr>
          </thead>
          ▼<tbody>
            <!--template bindings={
              "ng-reflect-ng-for-of": "[object
            Object],[object Object],[object Object],
            [object Object],[object Object]"
            }-->
            ►<tr>…</tr>
            ►<tr>…</tr>
            ►<tr>…</tr>
            ►<tr>…</tr>
            ►<tr>…</tr>
          </tbody>
        </table>
      </div>
      ::after
    </div>
  </div>
</nat-products>
```
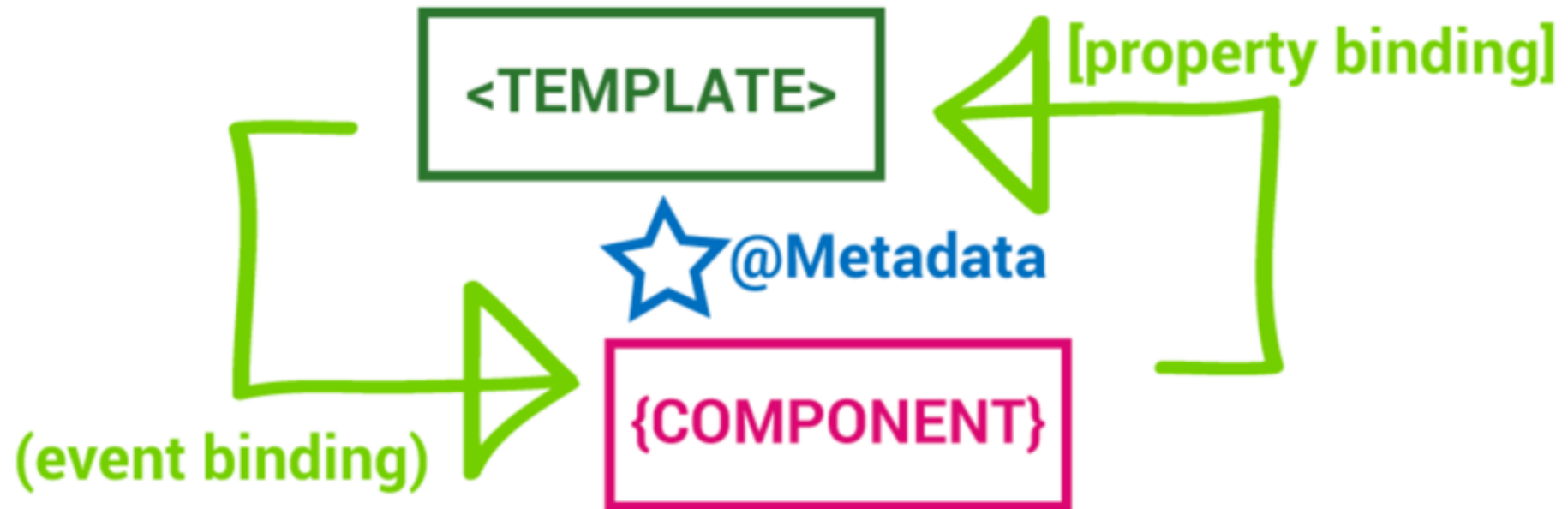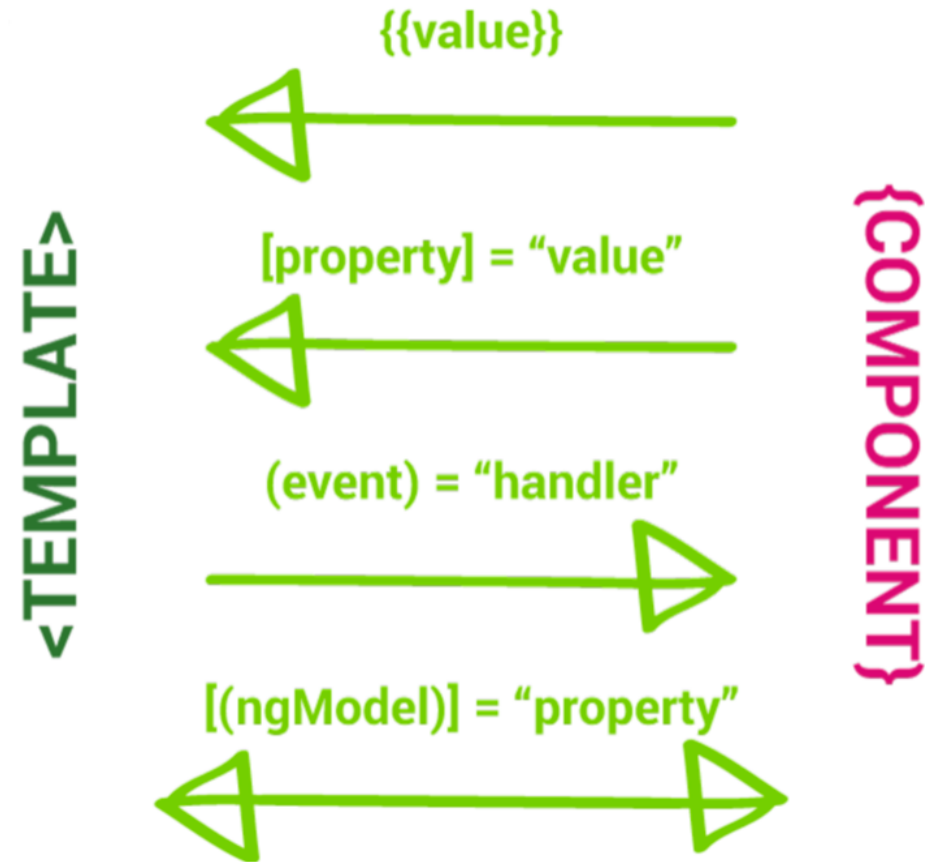
```
// product-list.components.ts

import { Component } from '@angular/core';
@Component({
    selector: 'nat-products',
    templateUrl: 'app/products/product-
list.component.html'
})
export class ProductListComponent {
    pageTitle: string = 'Product List';
    listFilter: string = 'cart';
    products: Array<any> = [...];
    toggleImage(): void {...}
}
```

Data Binding

Data Binding

Checklist: [(ngModel)]

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

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

```
// app.module.ts

import { NgModule } from '@angular/core';
@NgModule({
  imports: [
    BrowserModule,
    FormsModule
  ],
  declarations: [
    AppComponent,
    ProductListComponent
  ],
  bootstrap: [ AppComponent ]
})
export class AppModule {}
```

Checklist: Pipes

✓ Pipe character is **|**

✓ Pipe name

✓ Pipe parameters
  ✓ Colons-separated

✓ Example
  ✓ {{ product.price | currency:'USD':true:'1.2-2'

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Application Architecture