

Data Binding & Pipes



Deborah Kurata

CONSULTANT | SPEAKER | AUTHOR

@deborahkurata | blogs.msmvps.com/deborahk/



Component

DOM

EVENTS

PROPERTIES



Module Overview



Property Binding

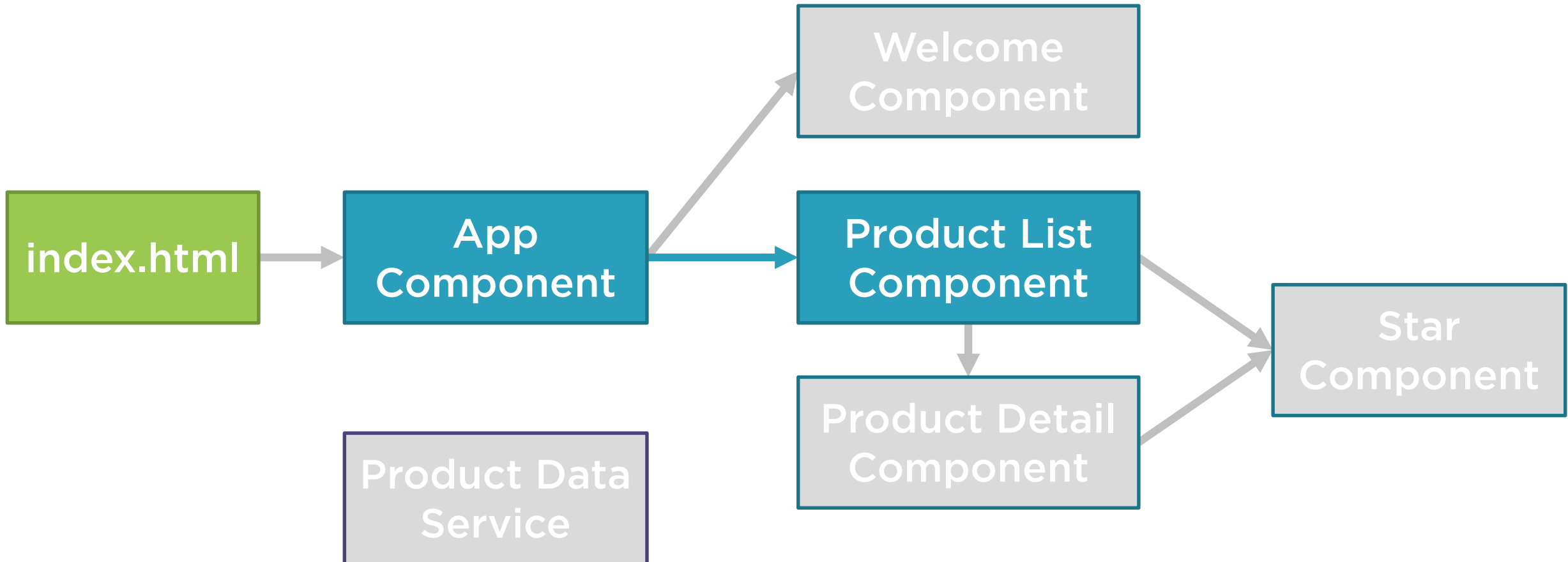
Handling Events with Event Binding

Handling Input with Two-way Binding

Transforming Data with Pipes



Application Architecture



Property Binding

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

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

Element
Property

Dependency

Template
Expression

```
product.imageUrl}}'>
```



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
```

()

Target Event

''

Template
Statement



Two-way Binding

Template

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

Class

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



Two-way Binding

Template

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

Class

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



Two-way Binding

Template

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

Class

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



Two-way Binding

Template

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

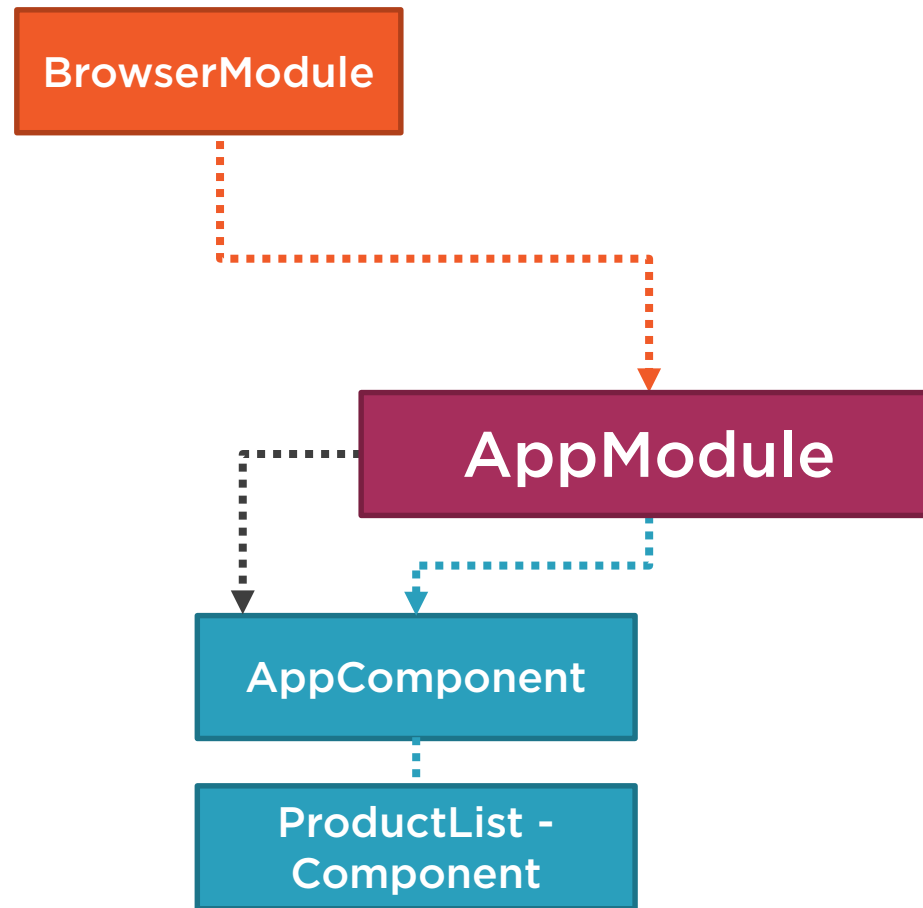
Class

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

`[()]`

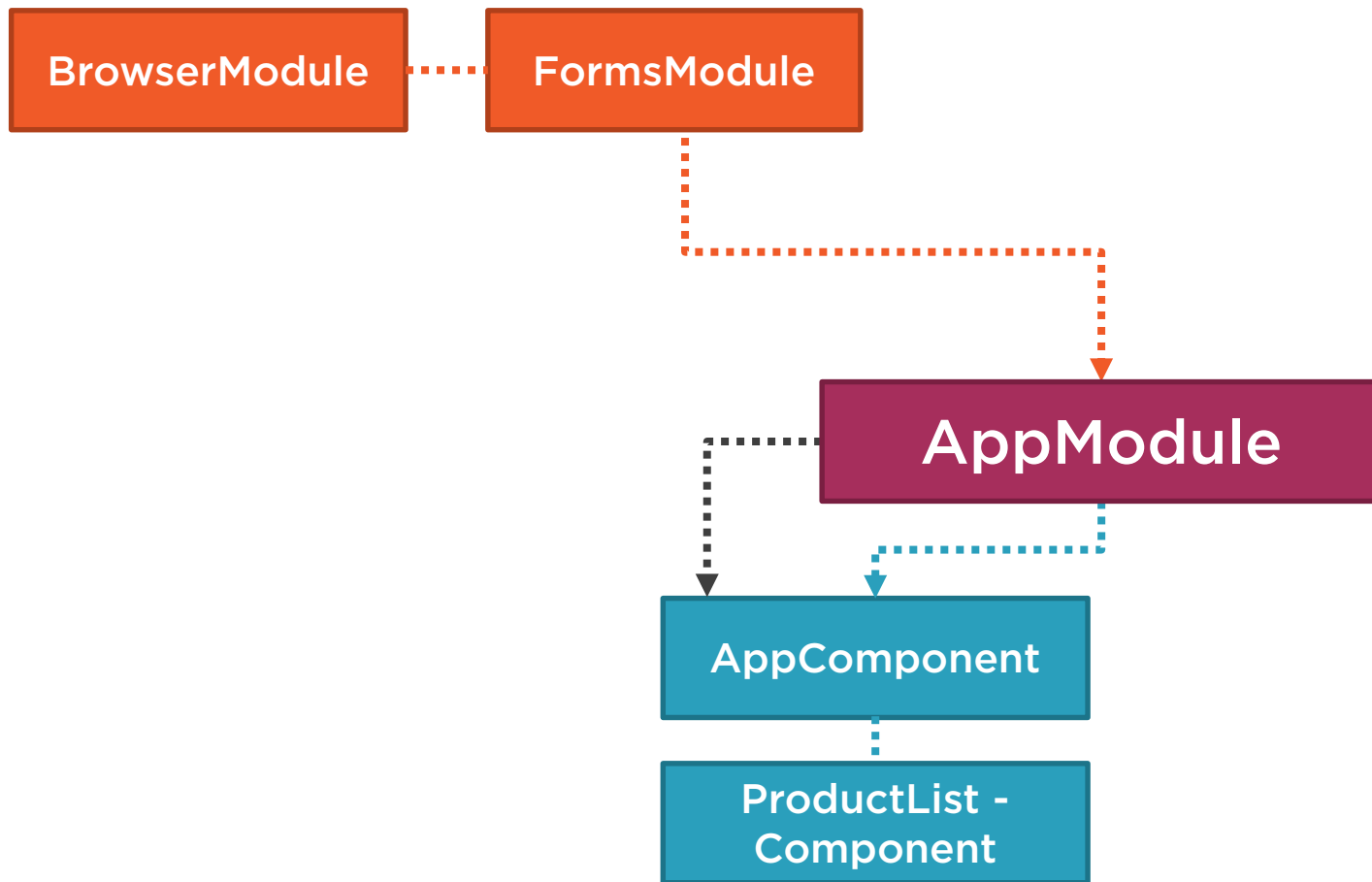
Banana in a Box





- Imports
- Exports
- Declarations
- Providers
- Bootstrap





- 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':true:'1.2-2' }}
```



Data Binding

DOM

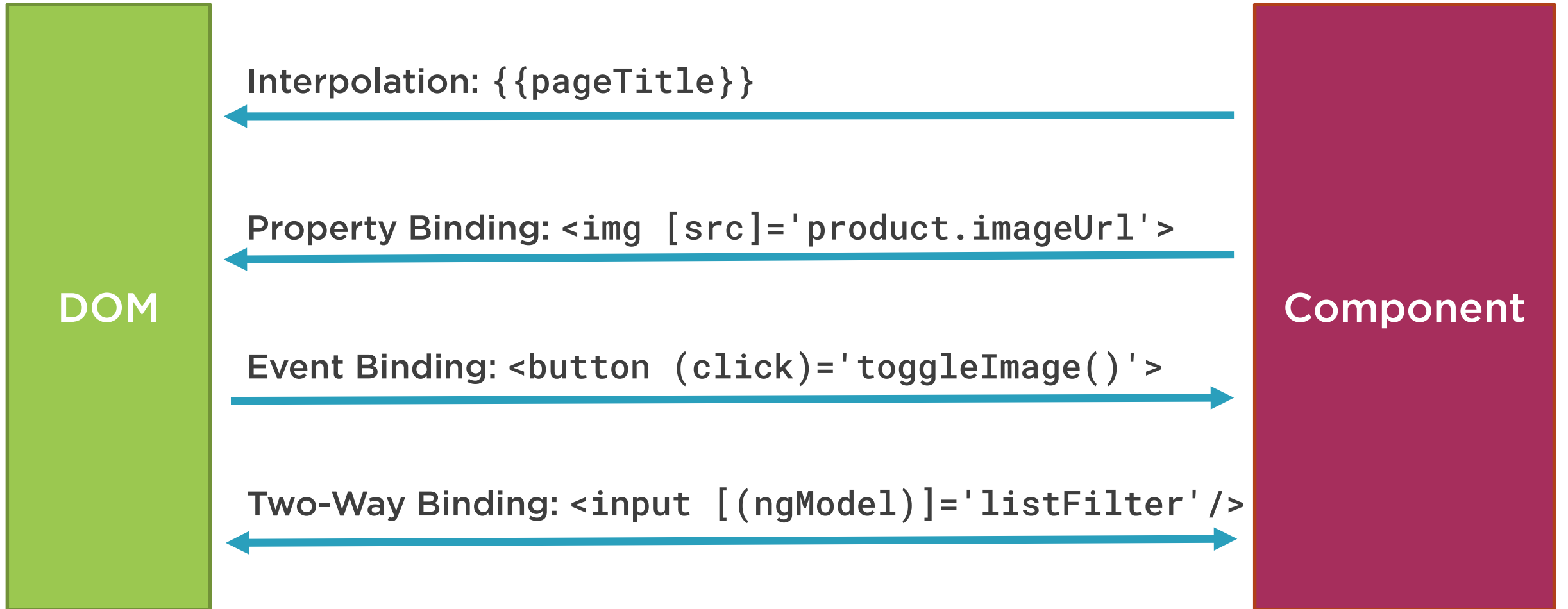
```
▼ <pm-app>
  ▼ <div>
    <h1>Acme Product Management</h1>
    ▼ <pm-products>
      ▼ <div class="panel panel-primary">
        <div class="panel-heading">
          Product List
        </div>
        ▼ <div class="panel-body">
          ::before
          ▶ <div class="row">...</div>
          ▶ <div class="row">...</div>
          ▼ <div class="table-responsive">
            <!--template bindings={}-->
            ▼ <table class="table">
              ▶ <thead>...</thead>
              ▶ <tbody>...</tbody>
            </table>
          </div>
          ::after
        </div>
      </div>
    </pm-products>
  </div>
</pm-app>
```

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



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':true:'1.2-2' }}`



Summary



Property Binding

Handling Events with Event Binding

Handling Input with Two-way Binding

Transforming Data with Pipes

Application Architecture

