

# Data Binding & Pipes

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**Component**

**DOM**

**EVENTS**

**PROPERTIES**



# Module Overview



**Property Binding**

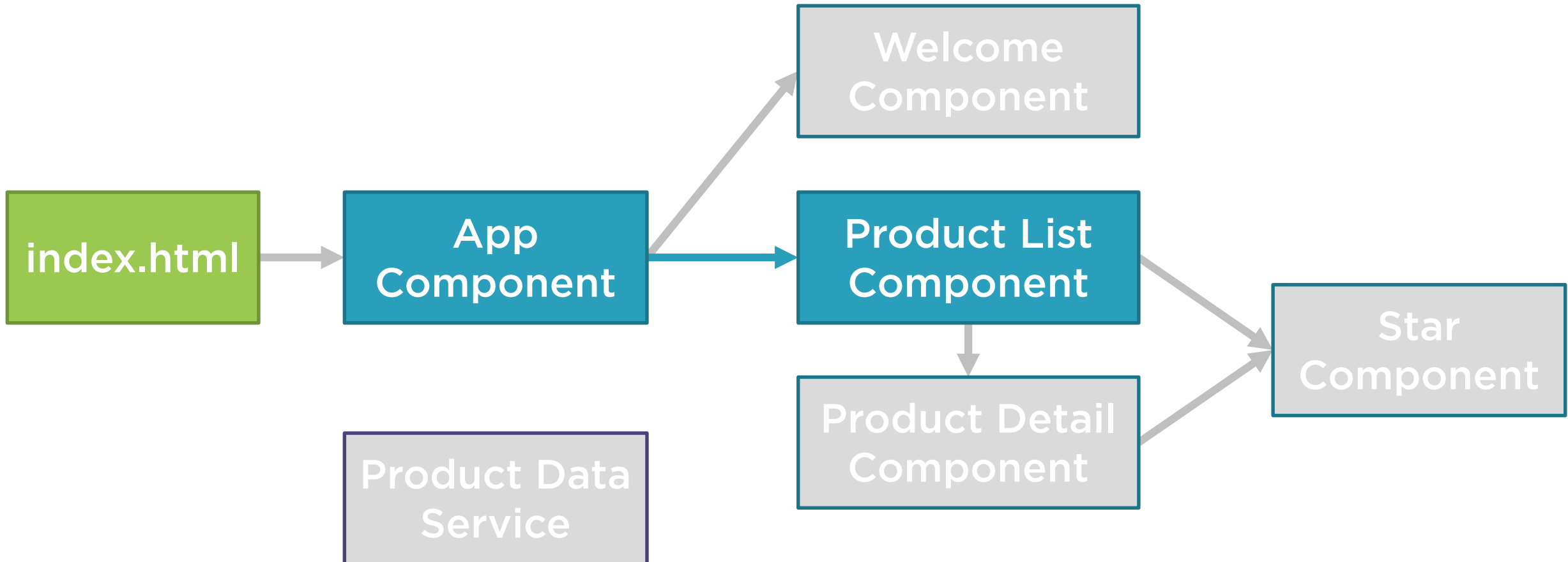
**Handling Events with Event Binding**

**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'>`

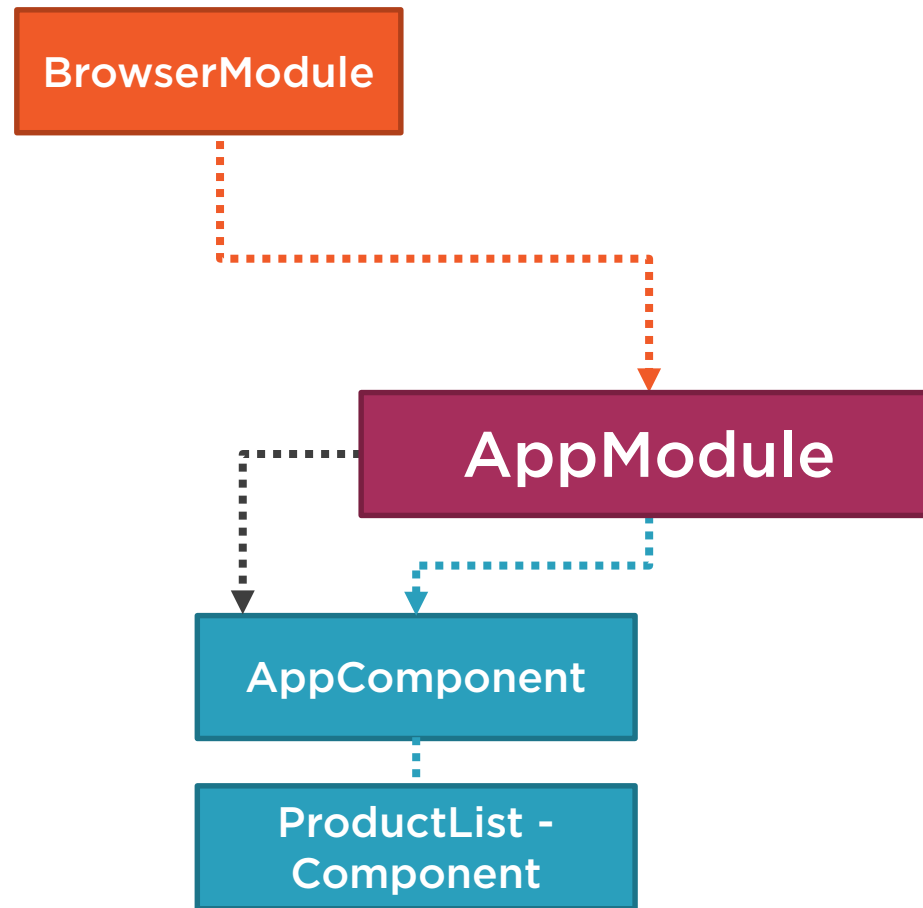
Class

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

`[( )]`

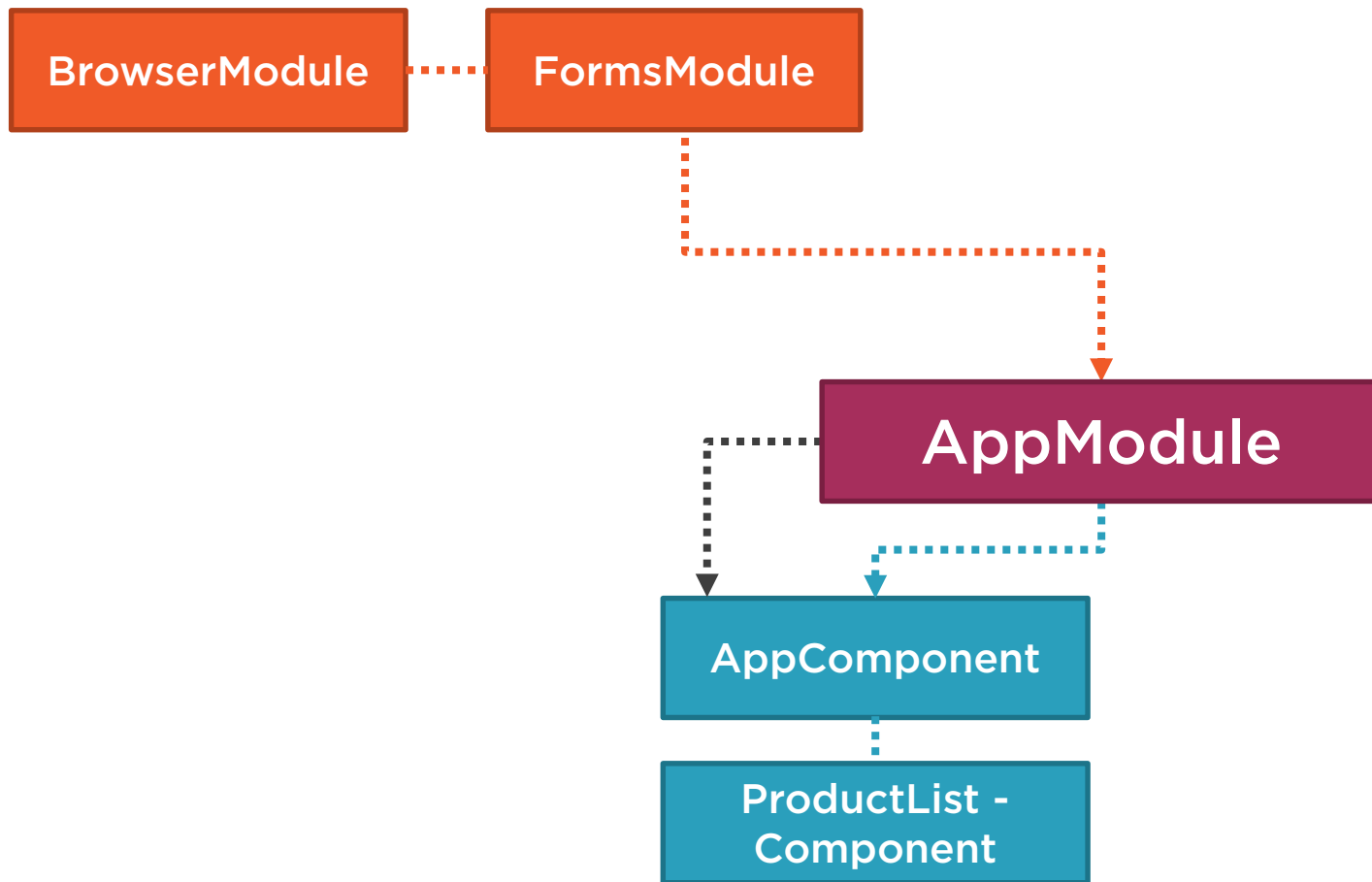
Banana in a Box





- ..... Imports
- ..... Exports
- ..... Declarations
- ..... Providers
- ..... Bootstrap





- ..... Imports
- ..... Exports
- ..... Declarations
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# 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>
```

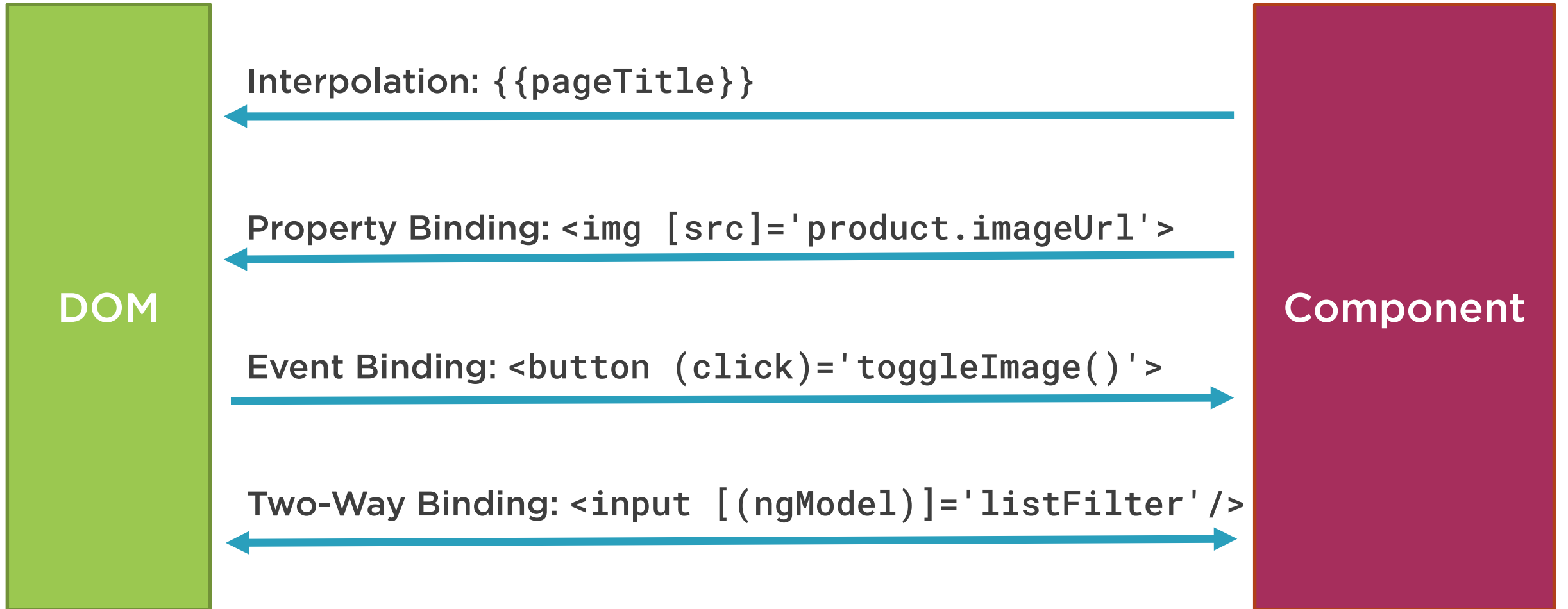


## product-list.component.ts

```
@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**

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# Application Architecture

