
ANGULAR
One framework. Mobile and desktop

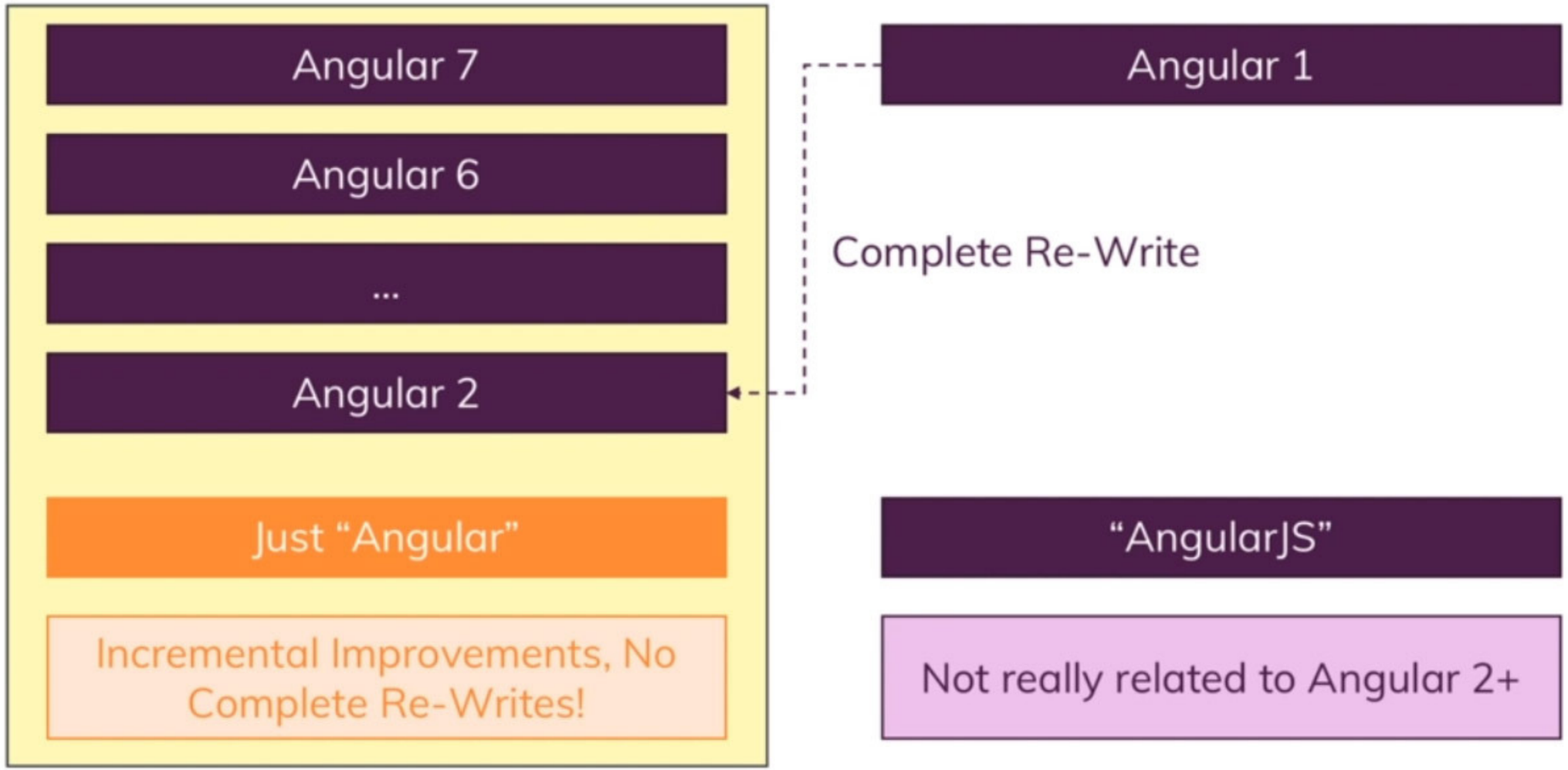
**AKASH**

CTO and Co-founder, GetSetGo Fitness.
At my core, I am still a software architect who likes to write 'good code'

# SO,
# WHAT IS ANGULAR ANYWAY?

MV-VM FRAMEWORK?

# Angular 7 vs Angular 6 vs Angular 2 vs Angular 1



# LET US START AN APP REAL QUICK

https://angular.io/guide/quickstart

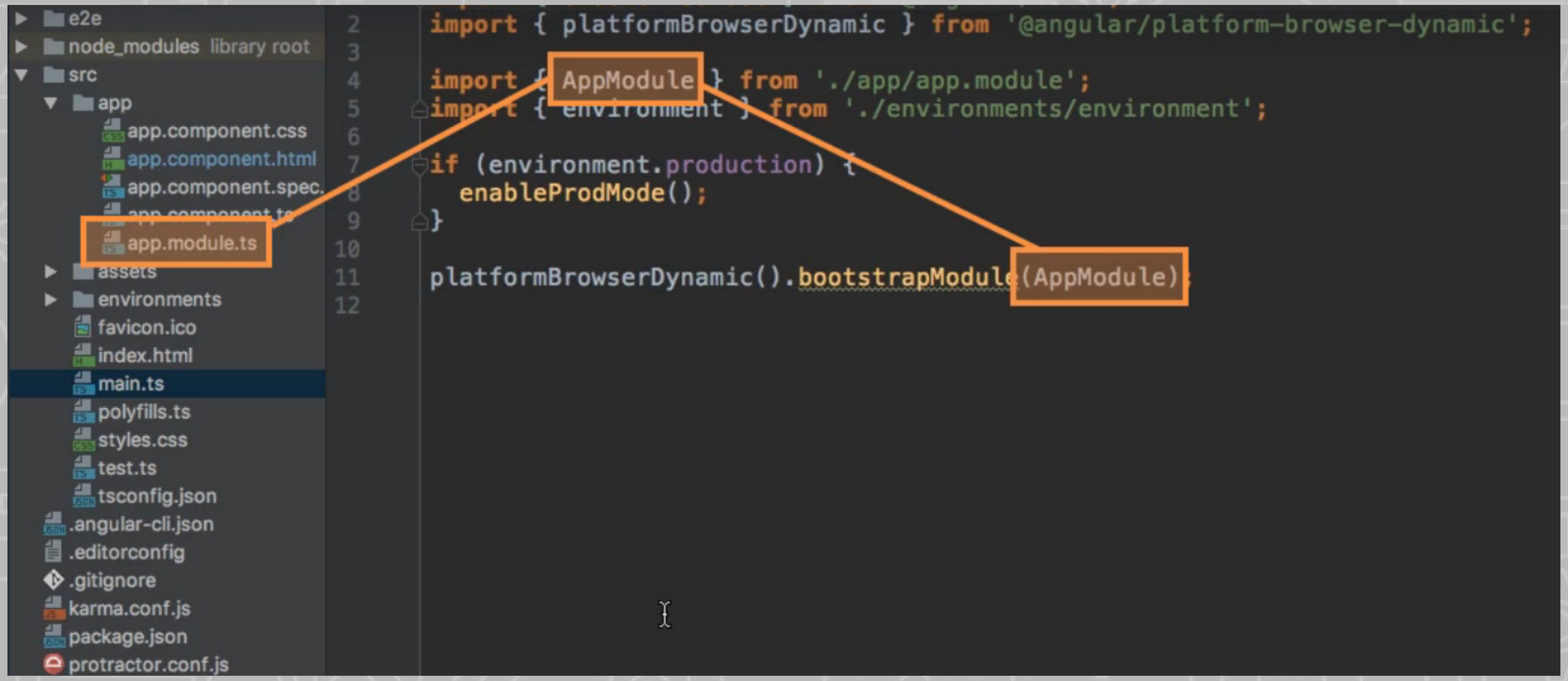
# SOME MAGIC - NGMODEL

Let the code do the talking ...

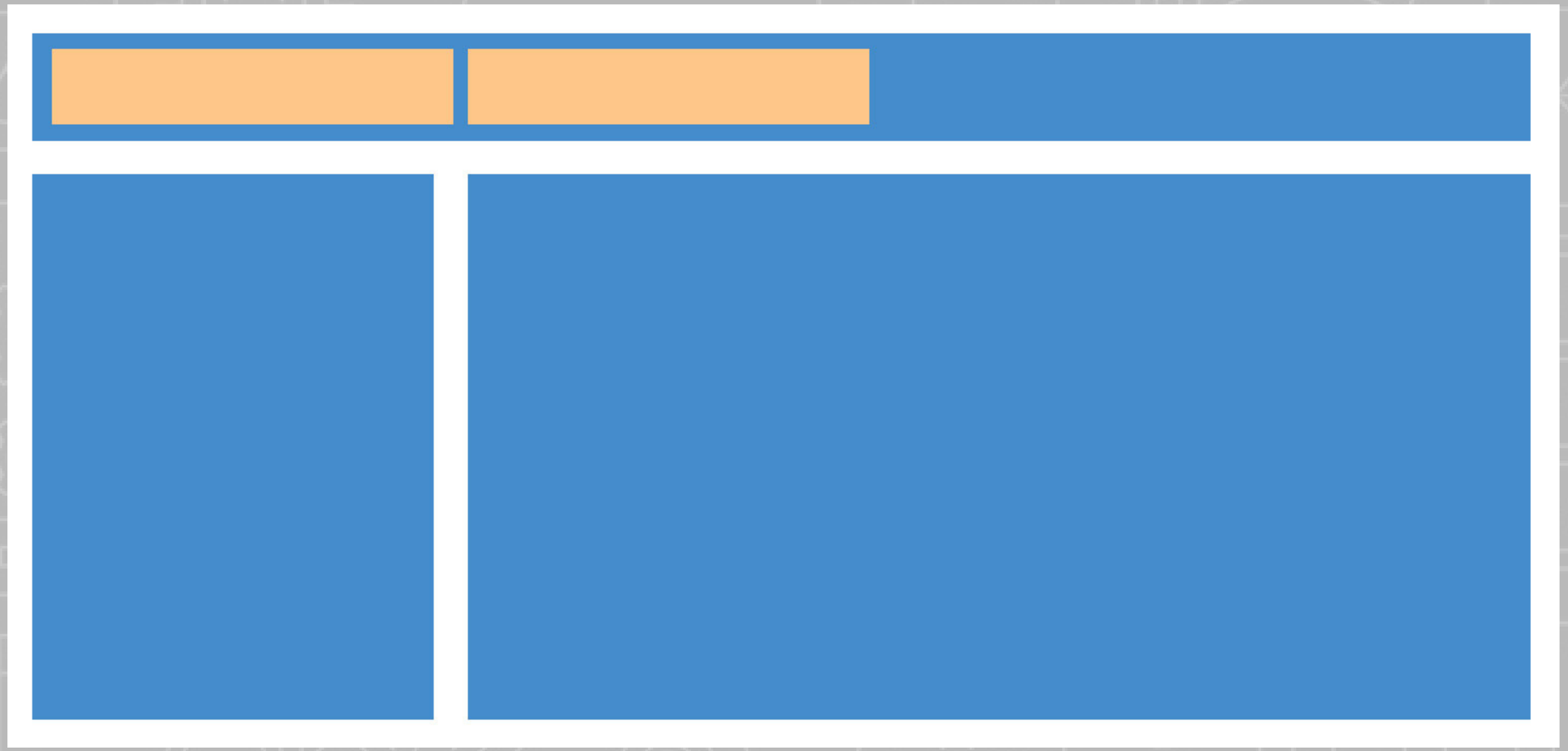
# ANGULAR MATERIAL - THE PRESENTATION LIBRARY

https://material.angular.io/

# A WORD ON SPA AND A PEEK BEHIND THE SCENE



# LET'S TALK COMPONENTS



# ENOUGH TALKING ... LET'S ADD ONE

Err ... one small step before we move ahead - let's discuss some JS and ES6 ...

... Okay, now, the component

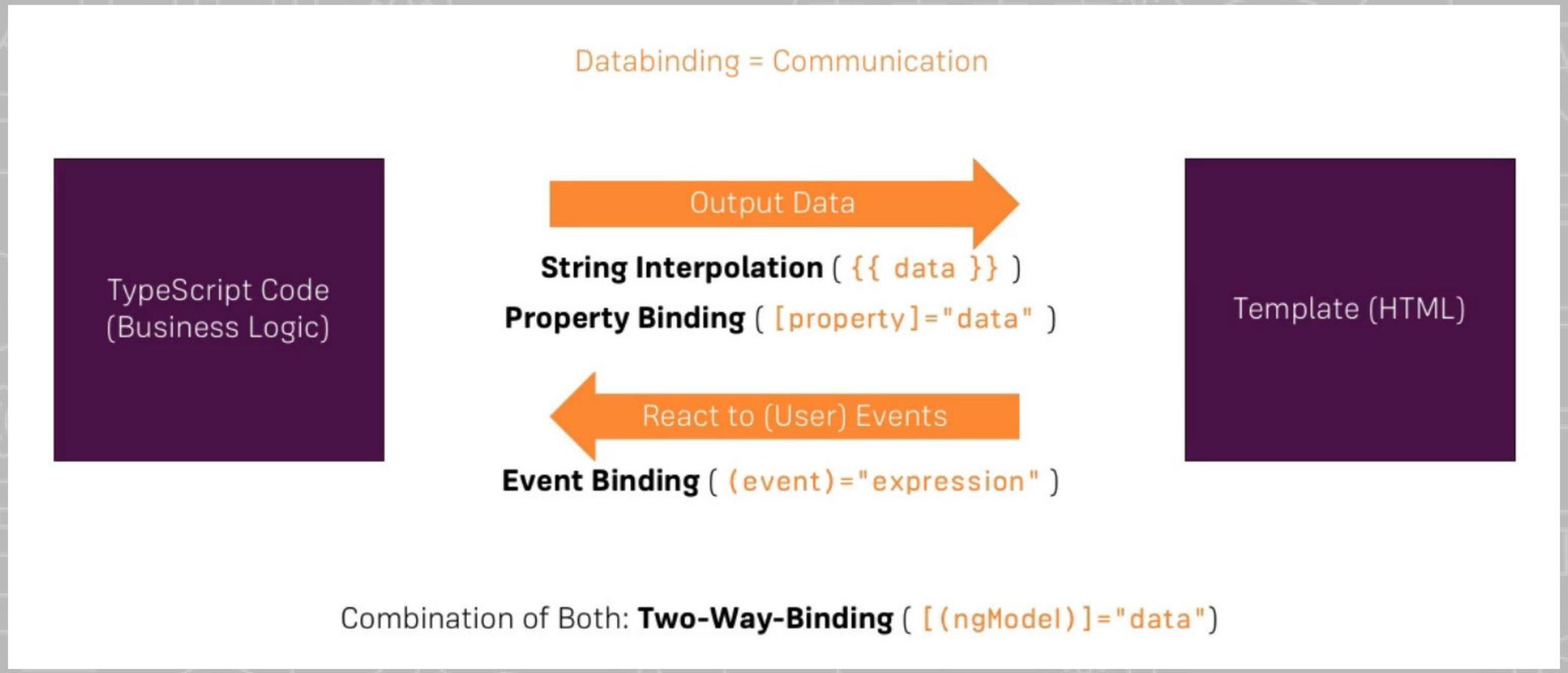
... And now for something cool - create components using CLI

... and while we're at it, let's look at template (over templateURL) with template strings

... oh, and some styling is in order, right? A discussion on styles and stylesUrl

Component selectors - attribute selectors, class selectors

# LET'S MAKE THINGS INTERESTING WITH DATABINDING



# DIRECTIVES - MAKE THINGS HAPPEN

## Directives are Instructions in the DOM!

```
<p appTurnGreen>Receives a green background!</p>
```

```
@Directive({
    selector: '[appTurnGreen]'
})
export class TurnGreenDirective {
    ...
}
```

# TYPES OF DIRECTIVES

Structural directives - ngIf, ngFor
attribute directives - ngStyle, ngClass

Getting index in ngFor

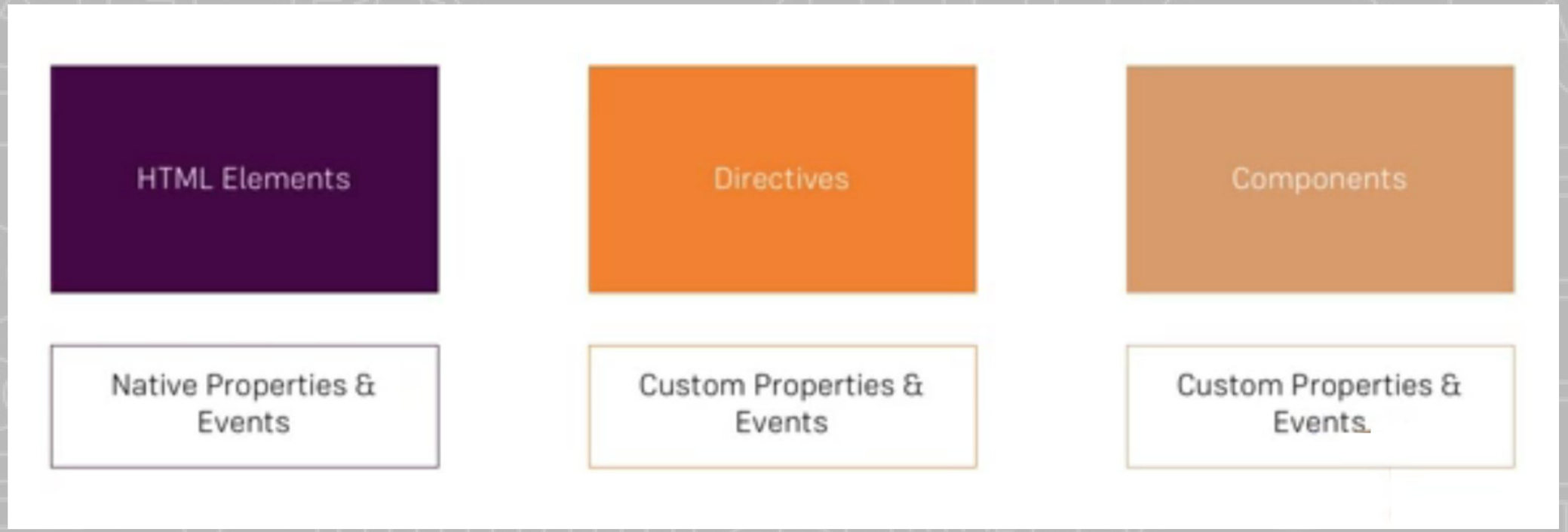
# LET'S CATCH THEM WHEN THEY'RE YOUNG - ERRORS

Understanding the error messages

Debugging code in browser using sourcemaps

Using Augury to dive into Angular apps

# PROPERTY AND EVENT BINDING



# COMPONENTS AND PROPERTIES - DEEP DIVE

Splitting an app into components

Binding to custom properties

Assigning an alias to custom properties

Binding to custom events

Assigning an alias to custom events

Understanding view encapsulation

Using local references in templates

Projecting contents in components using ng-content

Explore ContentChild

# COMPONENT LIFECYCLE

| | |
|---|---|
| ngOnChanges | Called after a bound input property changes |
| ngOnInit | Called once the component is initialized |
| ngDoCheck | Called during every change detection run |
| ngAfterContentInit | Called after content (ng-content) has been projected into view |
| ngAfterContentChecked | Called every time the projected content has been checked |
| ngAfterViewInit | Called after the component's view (and child views) has been initialized |
| ngAfterViewChecked | Called every time the view (and child views) have been checked |
| ngOnDestroy | Called once the component is about to be destroyed |

# DIRECTIVES - DEEP DIVE

A basic directive

Improving with renderer

Using the host listener to bind events

Using the host binding to bind properties

Binding to directive properties with @Input

Behind the scenes of structural directives

Let's build a structural directive

ngSwitch

# STRUCTURAL DIRECTIVE - BEHIND THE SCENE

```
        [ngClass]="{odd: odd % 2 !== 0}"
        [ngStyle]="{backgroundColor: odd % 2 !== 0 ? 'yellow' : 'transparent'}"
        *ngFor="let odd of oddNumbers">
        {{ odd }}
      </li>
    </div>
    <div *ngIf="!onlyOdd">
      <li
        class="list-group-item"
        [ngClass]="{odd: even % 2 !== 0}"
        [ngStyle]="{backgroundColor: even % 2 !== 0 ? 'yellow' : 'transparent'}"
        *ngFor="let even of evenNumbers">
        {{ even }}
      </li>
    </div>
    <ng-template [ngIf]="!onlyOdd">
      <div>
        <li
          class="list-group-item"
          [ngClass]="{odd: even % 2 !== 0}"
          [ngStyle]="{backgroundColor: even % 2 !== 0 ? 'yellow' : 'transparent'}"
          *ngFor="let even of evenNumbers">
          {{ even }}
```

# SERVICES

Why do we need them?

Creating a logging service

Injecting a service in a component

Data services

Hierarchical injection of services

Inject service in module

Inject service in service

Cross component communication with services

# HIERARCHICAL SERVICES

| | |
|---|---|
| AppModule | Same Instance of Service is available **Application-wide** |
| AppComponent | Same Instance of Service is available for **all Components** (but **not for other Services**) |
| Any other Component | Same Instance of Service is available for **the Component and all its child components** |

# ROUTER

Setting up and loading routes

Navigating with router links

Understanding links - absolute vs relative path

Active class for active route

Navigating programatically

Navigating programatically - Issue in relative path

Adding parameters to routes

Fetching routes reactively - caching issues and observables

Query parameters and fragments

Nesting of routes

# ROUTER CONTD...

Redirection and wildcard routes

Protecting routes with canActivate

Protecting child with canActivateChild

Using a fake auth service

# FORMS

Reactive vs template-driven

Form-control

Form group

setvalue

Nesting form group

setValue vs patchValue

Form-builder

Form validation

Form status