Angular 2

Better or worse?

[redacted]

Why Angular 2.0?

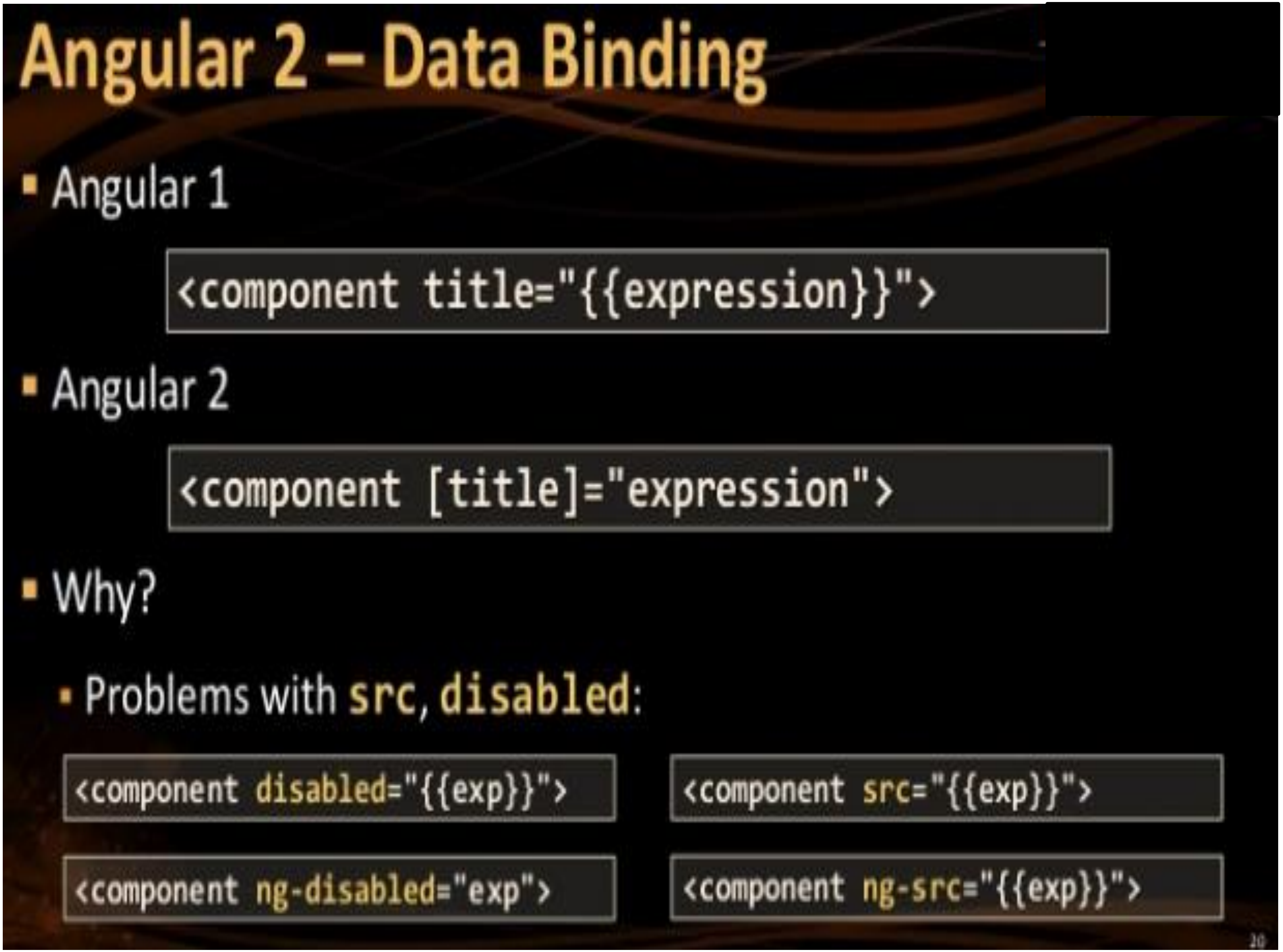
[redacted]

- Performance
- The Changing Web
- Mobile
- Ease of Use

Angular 2 Themes

[redacted]

- Simpler
- Flexible
- Productive developers
- Fast
- Consistent



Angular 2 – Data Binding

[redacted]

- Angular 1

```
<component title="{{expression}}">
```

- Angular 2

```
<component [title]="expression">
```

- Why?
  - Problems with `src`, `disabled`:

```
<component disabled="{{exp}}">
```

```
<component src="{{exp}}">
```

```
<component ng-disabled="exp">
```

```
<component ng-src="{{exp}}">
```

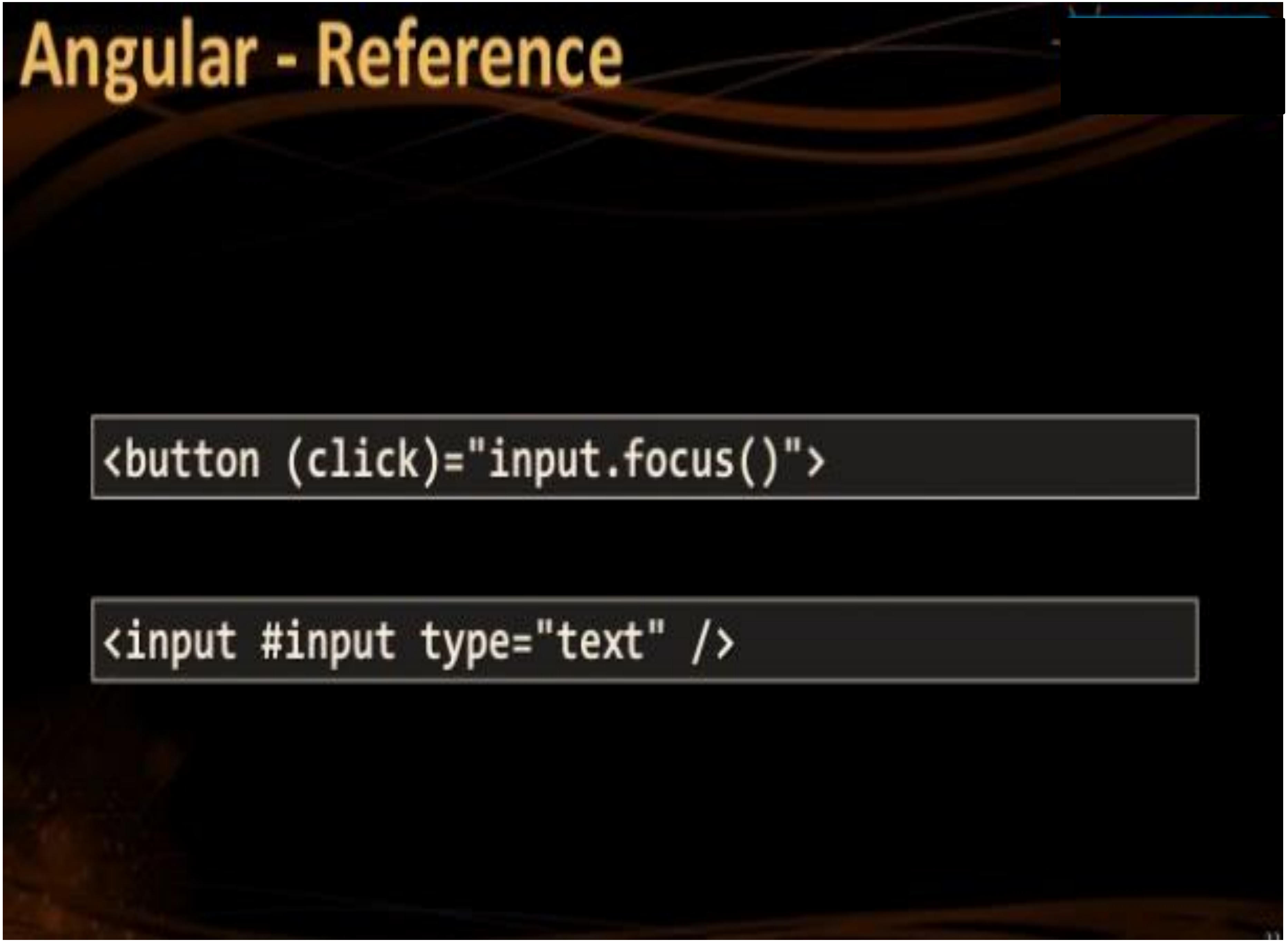
Angular 2 – Event Binding

- Expression
  - Driven by change detection

```
<component [prop]="user.name(current)">
```

- Statement
  - Driven by event

```
<component (event)="user.name(current)">
```

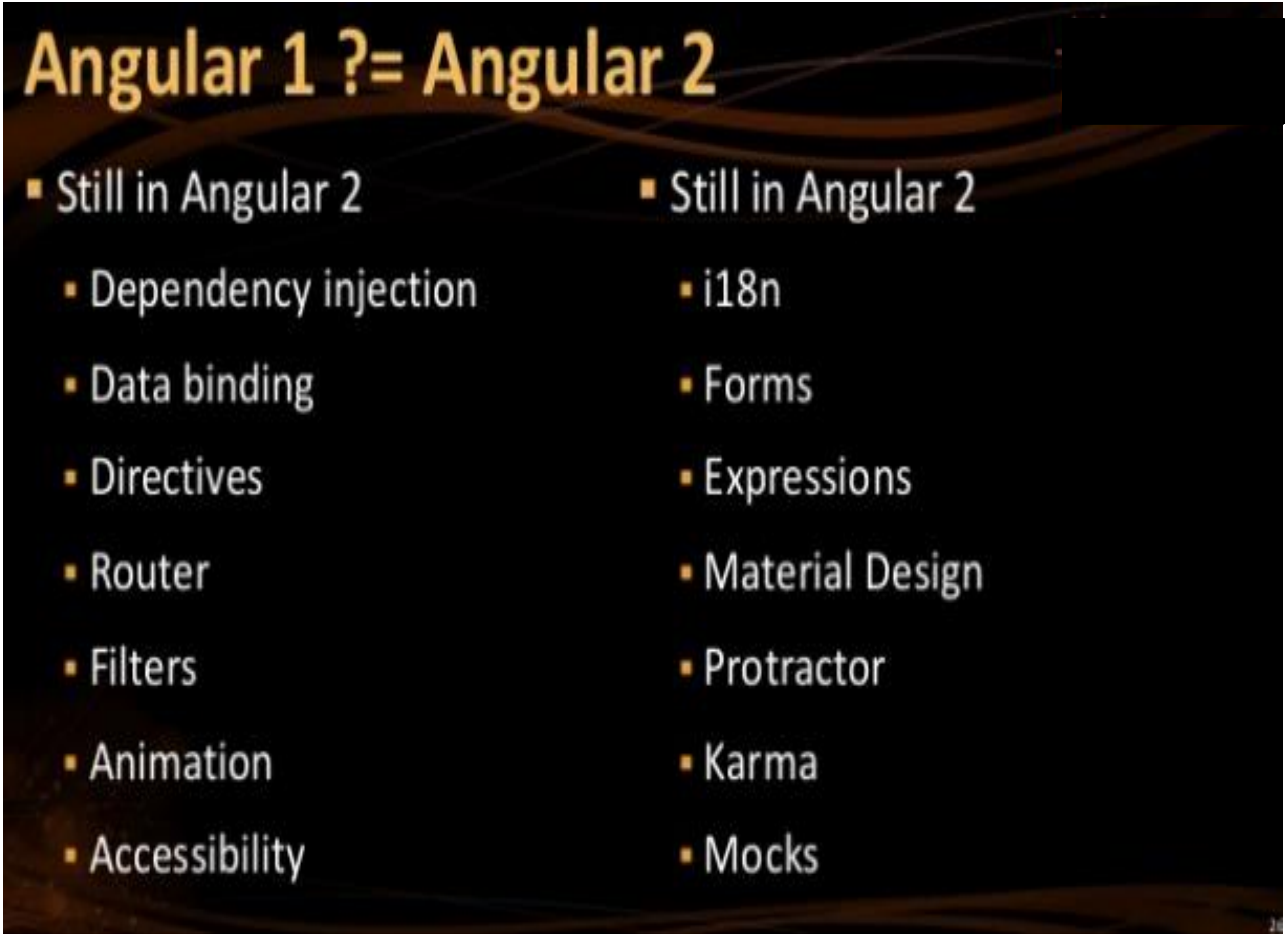


Angular - Reference

[redacted]

```
<button (click)="input.focus()">
```

```
<input #input type="text" />
```



Angular 1 ?= Angular 2

[redacted]

- Still in Angular 2
  - Dependency injection
  - Data binding
  - Directives
  - Router
  - Filters
  - Animation
  - Accessibility
- Still in Angular 2
  - i18n
  - Forms
  - Expressions
  - Material Design
  - Protractor
  - Karma
  - Mocks

Angular 2 is Based on:

- ES6/TypeScript
- Module Loaders
- DOM
- Web Components
- Observables
- ZoneJS
- AngularJS 1.x

ES6/TypeScript - Resources

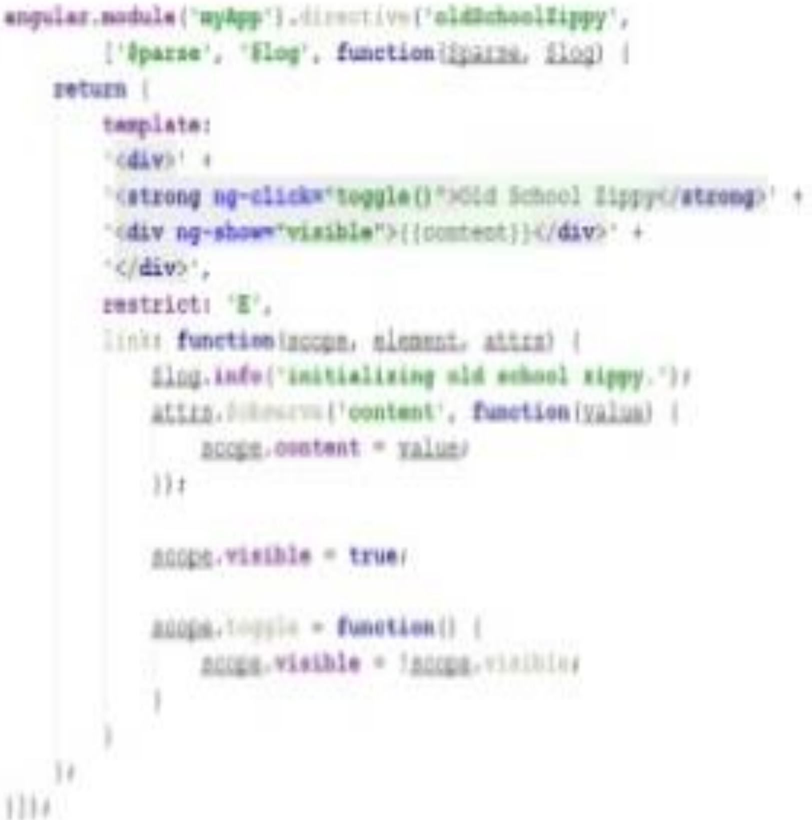
- ES6 Feature overview
- Egghead ES6 videos
- Thoughtram - dependency-injection-in-angular-2
- TypeScript Deep Dive
- Victor Savkin - writing-angular-2-in-typescript
- TypeScript Tutorial

Components

Angular 1.x: http://plnkr.co/edit/fZKUdNpN3k2joBVrXz5r?p=preview

Angular 2.0: http://plnkr.co/edit/GA57df9esLI7MyPbyXjb?p=preview

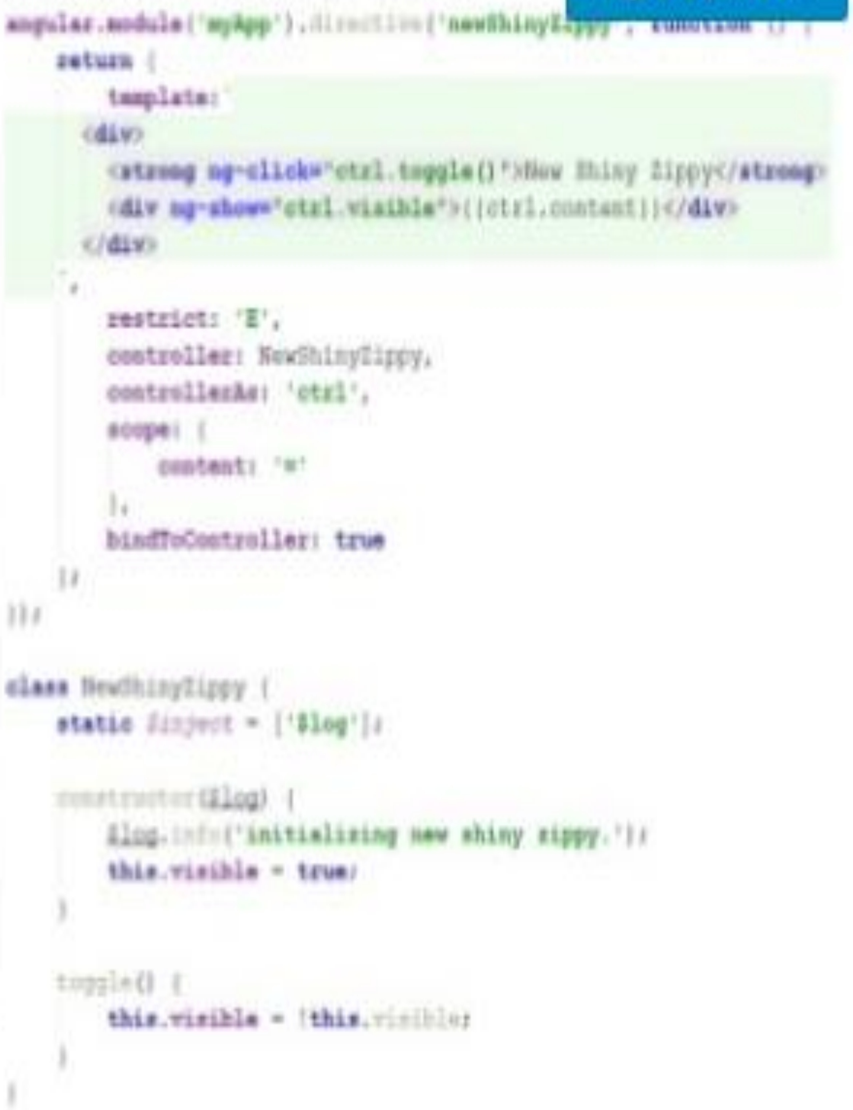
AngularJS 1.x Component: Best Practices



```
angular.module('myApp').directive('oldSchoolZippy',
        ['$parse', '$log', function($parse, $log) {
    return {
        template:
        '<div>' +
        '<strong ng-click="toggle()">Old School Zippy</strong>' +
        '<div ng-show="visible">{{content}}</div>' +
        '</div>',
        restrict: 'E',
        link: function(scope, element, attrs) {
            $log.info('initializing old school zippy.');
            attrs.$observe('content', function(value) {
                scope.content = value;
            });

            scope.visible = true;

            scope.toggle = function() {
                scope.visible = !scope.visible;
            }
        }
    };
}]);
```



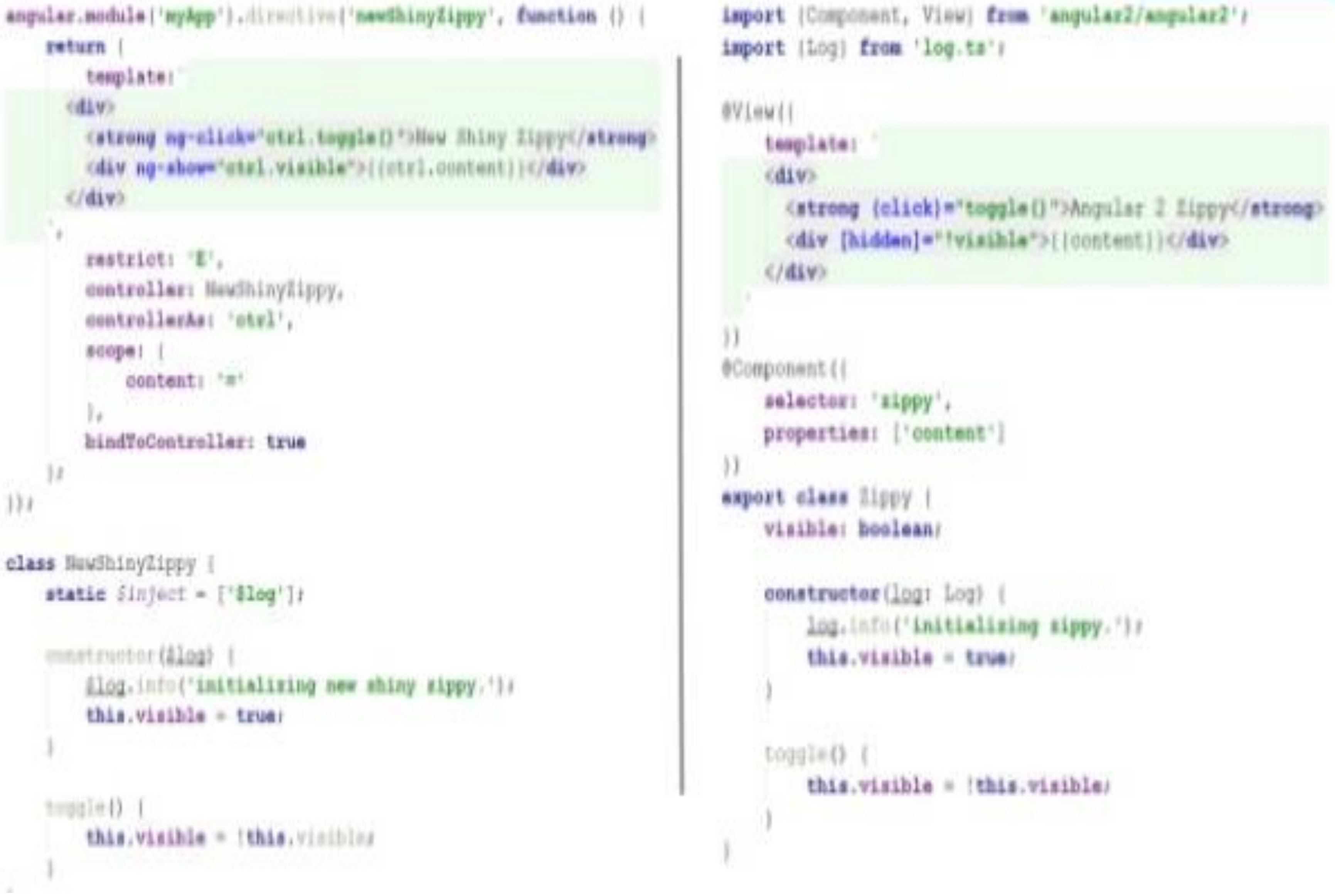
```
angular.module('myApp').directive('newShinyZippy', function () {
    return {
        template:`
      <div>
        <strong ng-click="ctrl.toggle()">New Shiny Zippy</strong>
        <div ng-show="ctrl.visible">{{ctrl.content}}</div>
      </div>
    `,
        restrict: 'E',
        controller: NewShinyZippy,
        controllerAs: 'ctrl',
        scope: {
            content: '@'
        },
        bindToController: true
    };
});

class NewShinyZippy {
    static $inject = ['$log'];

    constructor($log) {
        $log.info('initializing new shiny zippy.');
        this.visible = true;
    }

    toggle() {
        this.visible = !this.visible;
    }
}
```

Angular 1 to 2: Component



```
angular.module('myApp').directive('newShinyZippy', function () {
    return {
      template: `
    <div>
      <strong ng-click="ctrl.toggle()">New Shiny Zippy</strong>
      <div ng-show="ctrl.visible">{{ctrl.content}}</div>
    </div>
    `,
      restrict: 'E',
      controller: NewShinyZippy,
      controllerAs: 'ctrl',
      scope: {
          content: '='
      },
      bindToController: true
    };
});

class NewShinyZippy {
    static $inject = ['$log'];

    constructor($log) {
      $log.info('initializing new shiny zippy.');
      this.visible = true;
    }

    toggle() {
      this.visible = !this.visible;
    }
```

```
import {Component, View} from 'angular2/angular2';
import {Log} from 'log.ts';

@View({
    template: `
    <div>
      <strong (click)="toggle()">Angular 2 Zippy</strong>
      <div [hidden]="!visible">{{content}}</div>
    </div>
    `
})
@Component({
    selector: 'zippy',
    properties: ['content']
})
export class Zippy {
    visible: boolean;

    constructor(log: Log) {
        log.info('initializing zippy.');
        this.visible = true;
    }

    toggle() {
        this.visible = !this.visible;
    }
}
```

Angular 1 Components Best Practices

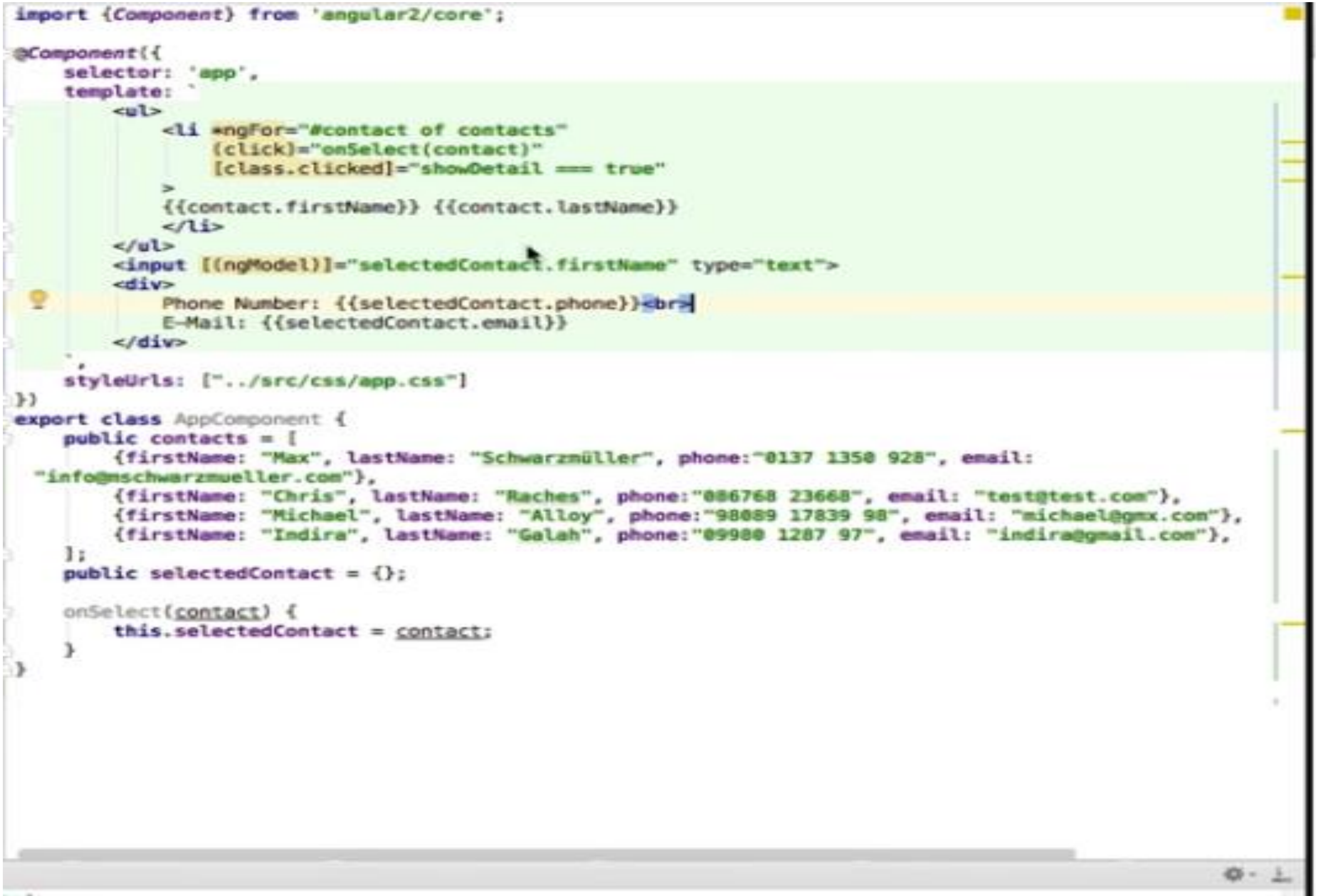
Avoid

- $scope
- $scope
- $scope
- The link function
- $parse, $observe, $eval

Use

- Isolated Scope
- ControllerAs
- BindToController
- ES6 classes

Model with Component

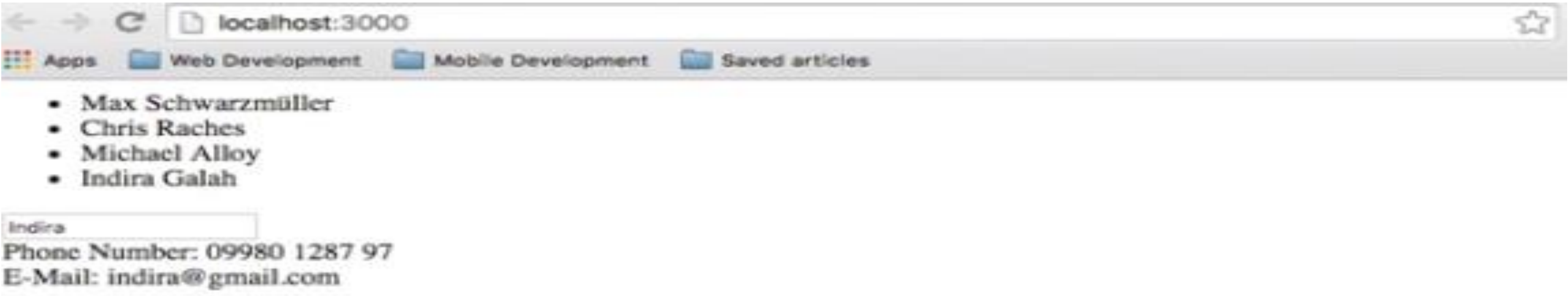


```
import {Component} from 'angular2/core';

@Component({
    selector: 'app',
    template: `
        <ul>
            <li *ngFor="#contact of contacts"
                (click)="onSelect(contact)"
                [class.clicked]="showDetail === true"
            >
            {{contact.firstName}} {{contact.lastName}}
            </li>
        </ul>
        <input [(ngModel)]="selectedContact.firstName" type="text">
        <div>
            Phone Number: {{selectedContact.phone}}<br>
            E-Mail: {{selectedContact.email}}
        </div>
    `,
    styleUrls: ["../src/css/app.css"]
})
export class AppComponent {
    public contacts = [
        {firstName: "Max", lastName: "Schwarzmüller", phone:"0137 1350 928", email:
  "info@mschwarzmueller.com"},
        {firstName: "Chris", lastName: "Raches", phone:"086768 23668", email: "test@test.com"},
        {firstName: "Michael", lastName: "Alloy", phone:"98089 17839 98", email: "michael@gmx.com"},
        {firstName: "Indira", lastName: "Galah", phone:"09980 1287 97", email: "indira@gmail.com"},
    ];
    public selectedContact = {};

    onSelect(contact) {
        this.selectedContact = contact;
    }
}
```

Output



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Thanks