

# Controllers and Markup in AngularJS

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# Controllers and \$scope



# Controllers and \$scope

- Controllers in Angular
  - Have all the logic about a page
  - Control the `$scope` object
- `$scope` object
  - Two-way bound to the view
  - Tracks any changes in view and updates itself
  - Tracks any changes in JS and updates the view

# Controllers and \$scope

- ## Controllers

```
myApp.controller('myController',  
  function myController($scope, /* services */) {  
    $scope.hello = "Hi, guys!";  
  }  
);
```

- ## View (HTML)

```
<div ng-app="myApp">  
  <div ng-controller="myController">  
    <h1>{{hello}}</h1>  
  </div>  
</div>
```

# Constants and Values

- Values

```
myApp.value('someValue', {  
  name: 'Doncho',  
  number: 5,  
  date: new Date()  
});
```

- Constants

```
myApp.constant('PI', 3.14);
```

# Directives



# Directives

- Directives
  - Adds additional markup to the view
  - Extends HTML functionality
  - Three ways to declare
  - Start with ng (from Angular)

```
<ng-form />  
<div ng-form />  
<div class="ng-form" />
```



# Other Directives

- Other Directives

ngApp // which module "compiles" the element  
ngRepeat // repeats an element  
ngBind // same as curly brackets  
ngBindTemplate // template to bind  
ngBindHtml // binds HTML directly (sanitizes it)  
ngHide // hides an element when true  
ngShow // shows an element when true  
ngCloak // does not show until compiled  
ngStyle // styles as JS object  
ngClass // puts styling by class  
ngClassEven // class on all even elements  
ngClassOdd // class on all uneven elements

# Other Directives

- Other Directives

ngDisabled // disables an element

ngChecked // checks an element

ngMultiple // used with select element

ngReadOnly // can't be changed

ngSelected // selected option from select element

ngForm // allows nesting of forms

ngSubmit // disables the default submit

ngHref // url bound to the \$scope

ngSrc // image source bound to the \$scope

ngNonBindable // tells angular to ignore

ngPluralize // easy edit of text

ngSwitch // easy switch HTML templates

# Event Directives

- ## Event Directives

```
ngClick // mouse click
ngDbClick // double mouse click
ngMousedown // mouse down
ngMouseenter // mouse over the element
ngMouseleave // mouse leaves the element
ngMouseup // mouse up
ngChange // changing a value
```

```
<input type="checkbox" ng-
change="handleChange()"
ng-model="property" />
```

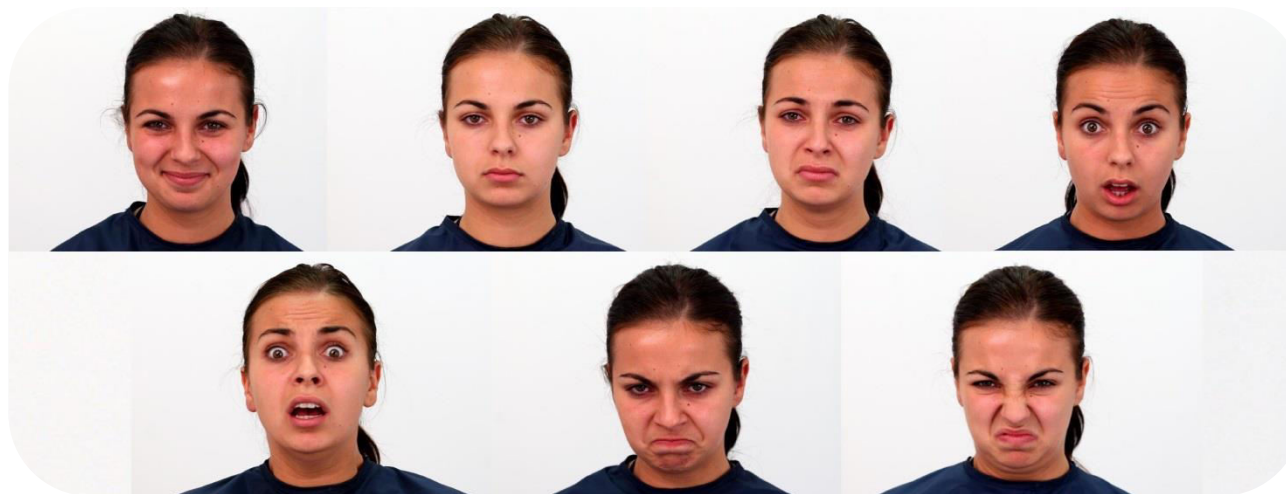
# IE Restrictions

- If you support old IE versions
  - Polyfil JSON.stringify (google it)
  - No NG tags (only attributes)

```
<ng-pluralize count="..." when"..."></ng-pluralize>
```

```
<div ng-pluralize count="..." when"..."></div>
```

# Expressions



# Expressions

- You can write expressions
  - Use curly brackets
  - You can evaluate some JS expressions
  - You can create arrays

```
{{ expression }}  
{{ name }}  
{{ amount * 100 + 3 }}  
{{ number in [1, 2, 3, 4, 5, 6, 7, 8, 9] }}
```

# Filters



# Filters

- Filters:
  - Can modify the output
  - Can format output
  - Can sort data
  - Can filter data



# Filters

- Using filters

```
{{ expression | filter }}
```

- Built-in filters

- uppercase, lowercase
- number
- currency
- json
- orderBy, limitTo, filter

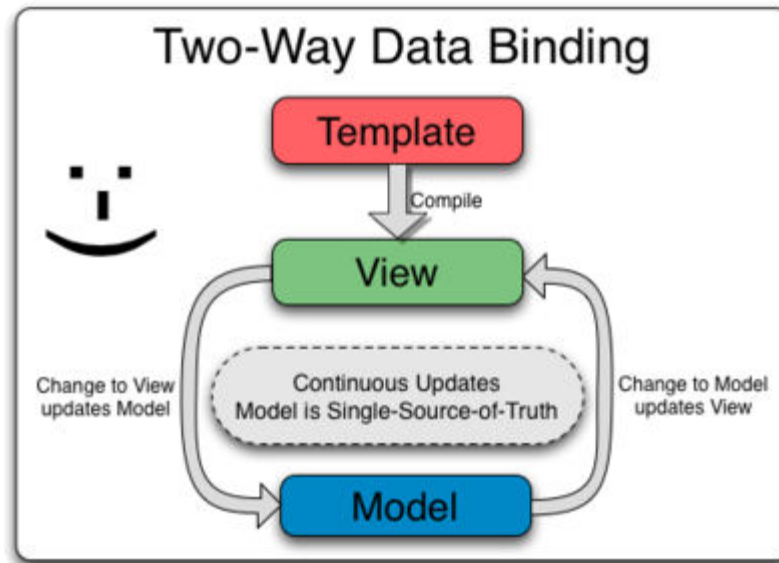


# Filters

- Writing custom filters

```
module.filter('name', function() {  
    return function(input /*,filter parameters*/) {  
        // modify input  
        return modifiedOutput;  
    }  
});
```

# Two Way Binding



# Two Way Binding

- Using **ngModel**
  - On input
  - On select
  - On textarea



```
<input type="text" ng-model="object.property" />
```

```
<input type="text" ng-model="property" />
```

```
<input type="text" ng-model="object.container.property" />
```

# Validation



# Validation

- Default validation
  - `Required` – makes property required
  - `ngPattern` – regex pattern
  - Form Properties – `$valid` / `$invalid`
  - CSS Classes – classes can be styled

# Summary

- Controllers – main logic
- \$scope – bound to the view
- Markup – HTML++
- Binding – two way
- Filters – sort, filter, format
- Validation – validate user input

# Controllers and Markup in AngularJS

Questions?

