

AngularJS Fundamentals

Markup and Controllers

Joe Eames

www.pluralsight.com



Agenda

Controllers & Scope

Markup & Binding

Filters

Validation

Modifying Angular Seed



Testing

Bootstrap

Web Server

Quiz

Can modules depend on other modules?

Yes

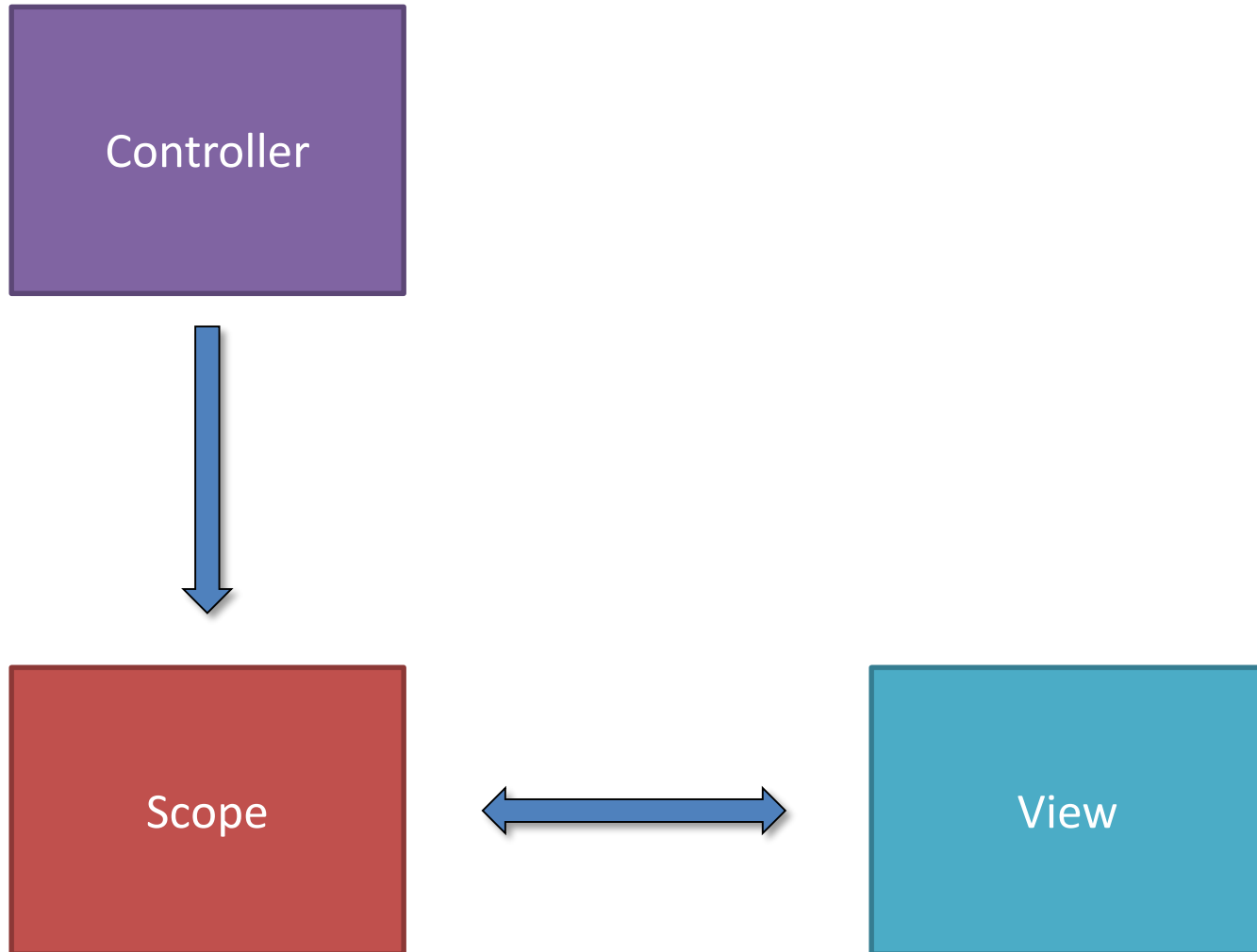
Should a small application use multiple modules?

No

Does Pluralsight have a course on Twitter Bootstrap that you should watch?

Yes

Controllers & Scope



Quiz

What is the primary responsibility of the controller?

Create the scope

Is the scope the model?

No

Can the view bind to functions on the scope?

Yes

Quiz

Can you use basic JavaScript objects as your model in Angular?

Yes

What is the markup indicator for binding data to a view?

Double Curly Brace

Which directive do you use to bind an image's src?

ngSrc

Built-In Directives

New HTML Functionality

```
<ng-form />
```

```
<div ng-form />
```

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


Quiz

In how many ways can an angular directive be written?

Four

Can all directives be written all four ways?

No

Can Angular dig down into your model?

Yes

Event Directives

- `ngClick`
- `ngDbClick`
- `ngMousedown`
- `ngMouseenter`
- `ngMouseleave`
- `ngMousemove`
- `ngMouseover`
- `ngMouseup`
- `ngChange`

ngChange

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

Quiz

True or False: The ngChange directive requires the ngModel directive to also be present.

True

True or False: Angular includes a ngRightMouseClicked directive

False

Other Directives

- ngApp
- ngBind
- ngBindTemplate
- ngBindHtml
- ngBindHtmlUnsafe
- ngHide
- ngShow
- ngCloak
- ngStyle
- ngClass
- ngClassEven
- ngClassOdd
- ngDisabled
- ngChecked
- ngMultiple
- ngReadonly
- ngSelected
- ngForm
- ngSubmit
- ngHref
- ngSrc
- ngNonBindable

Quiz

What is the purpose of the ngCloak directive?

To avoid a flash of unbound html

True or False: ngBind supports multiple bindings?

False. The ngBindTemplate directive does.

The ngClass directive has two companion directives.
What are they?

ngClassEven & ngClassOdd

Quiz

What does ngForm allow you to do?

Nest forms

Which directive delays fetching an image until after binding has occurred?

ngSrc

Why do we need the ngDisabled directive?

Because of ambiguities in the HTML spec

ngPluralize

Ease Pluralization
of Text

```
<ng-pluralize count="personCount"  
  when="{ '0': 'Nobody has voted.',  
    'one': '1 person has voted.',  
    'other': '{} people has voted.' }">  
</ng-pluralize>
```


ngPluralize - offset

```
<ng-pluralize count="personCount" offset=2  
when="{ '0': 'Nobody has voted.',  
  '1': '{{person1}} has voted.',  
  '2': '{{person1}} and {{person2}} has voted.',  
  'one': '{{person1}}, {{person2}} and one other person has  
    voted.',  
  'other': '{{person1}}, {{person2}} and {} other people has  
    voted.' }">  
</ng-pluralize>
```

ngSwitch

```
<div ng-switch on="editMode" >  
  <div ng-switch-when="0">Not Editing</div>  
  <input ng-switch-when="1" type="text" />  
  <textarea ng-switch-when="2" ></textarea>  
</div>
```

IE Restrictions

Polyfill JSON.stringify

No NG tags

IE Custom Tag Restrictions

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

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

Quiz

What do you need to do to support older versions of IE with Angular?

Polyfill `JSON.stringify` and avoid custom tag name directives

What are the three ways directives can be written?

Tag, attribute, class name

Expressions

Code Snippets

```
{{ expression }}
```

```
{{ name }}
```

```
{{ amount * 100 }}
```

Quiz

True or False: Expressions support all JavaScript syntax.

False

True or False: You can create an array in an expression.

True

Filters

Modifying Output

Formatting

Sorting Dataset

Filtering Dataset

Using Filters

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

Built-in Filters

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

Quiz

How do you indicate a parameter to a filter?

Colon

Can you limit a filter to only search in a specific field?

Yes

Can you specify custom date formats with the date filter?

Yes

Writing Custom Filters

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

Two Way Binding

ngModel

ngModel



input

select

textarea

Using ngModel

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

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

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

Quiz

True or false: two way binding will update on every key stroke?

True

Which HTML elements work with two way binding?

Input, Select, Textarea

What will happen if you reference a property that doesn't exist in a ngModel directive?

The property will be created automatically

Validation

Required

ngPattern

Form Properties

CSS Classes

Quiz

In form validation, what is the opposite property to dirty?

Pristine

Which directive lets you create a regex for validation?

ngPattern

What property does a form require in order to check validity?

a name

Summary

Controllers & Scope

Markup & Binding

Filters

Validation

Homework

- More comprehensive validation
- Implement the ng-Cloak directive
- Use a filter to display an icon for the session level instead