

td

Angular Bootcamp

td

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Setup

- Verify that you have Node
(node -v)
- Install Lineman
(npm install -g lineman)
- **Pair Up**
- Browse to this Github repo and clone it
bit.ly/oredev-td-angular

Lineman.js

- Build tool + Development server
- Not a production framework.

Today's Itinerary

- **Presentation**
- **Exercise #1**
30 minutes
Mandatory pairing
- **Exercise #2**
60 minutes
Mandatory pairing
- **Exercise #3**
Remaining Time (Most of the workshop)
Optional pairing

Exercises

- 3 flavors of objectives
- There is video of me completing some objectives.
Everyone should be able to complete these.
- **Some of you** should be able to complete a few more of the “regular” objectives.
- **A few of you** will complete the bonus objectives.

Today's Philosophy

- Drill the essentials repeatedly.
(Cover less, but cover it better.)
- Combine Angular with software craftsmanship
Testing
UI Prototyping

Angular (What)

- Very large JavaScript library, or framework.
- It adds words, or extends, HTML
- Helps organize your JavaScript
- Less opinionated than EmberJS
- More opinionated than jQuery

Angular (Why)

- I'm too busy not to use it. - Backbone requires 5 times as much code to do the same thing.
- It's about as lightweight/ heavyweight as jQuery.
- Works well with Plain Old JavaScript Objects (POJOs) - You can use Angular without being married to it.

Exercise 1 Concepts

- handlebars
- built in directives
- ng-app
- ng-model

Built-in directives

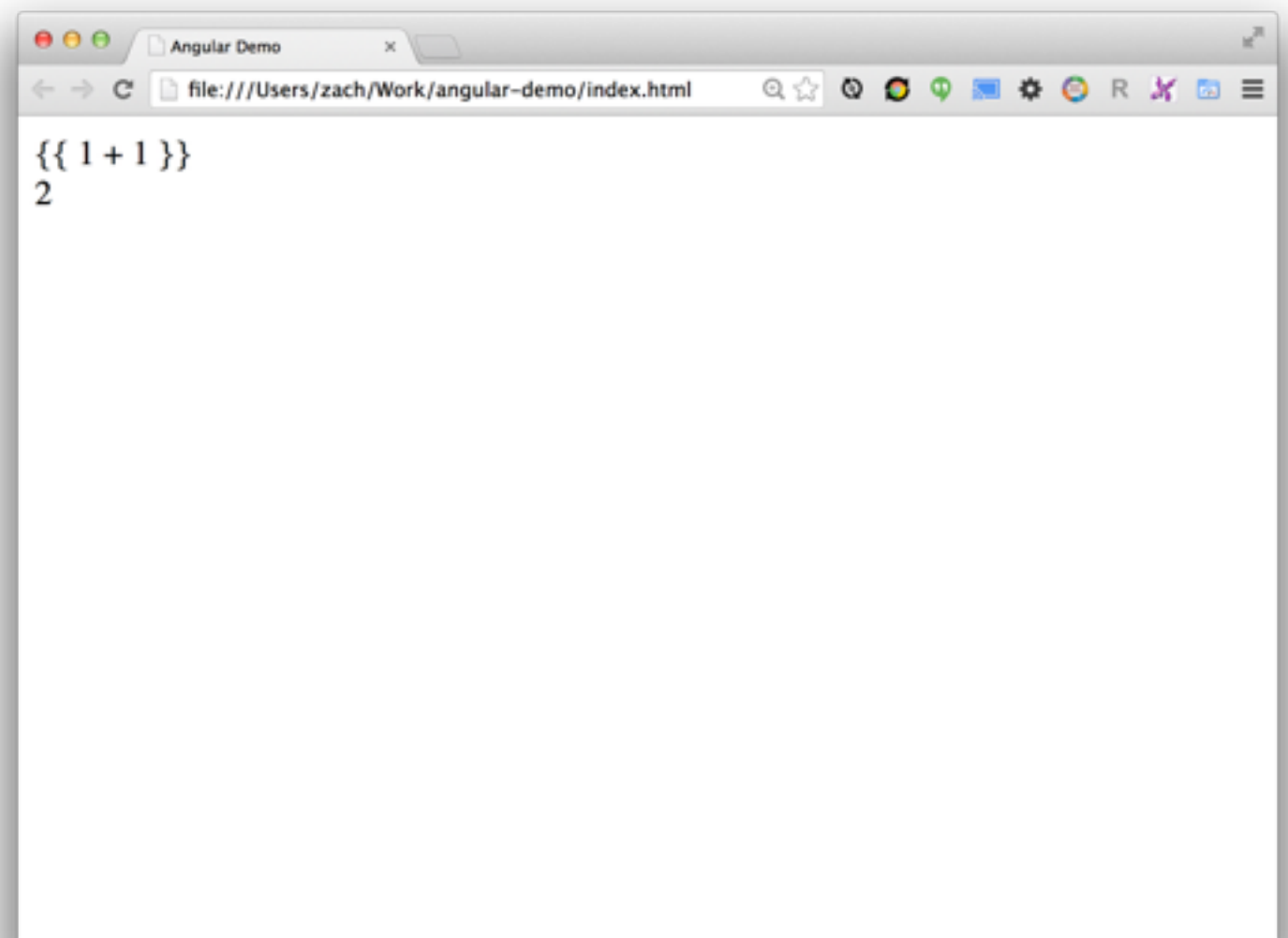
- Extends HTML
- Begins with “ng-“
- Examples:
 - ng-app
 - ng-model

ng-app

- “Scopes” Angular. Angular only pays attention to children elements.
- Typically is set to an angular module name. (We’ll cover this later.)

ng-app tells angular.js what to compile

```
{{ 1 + 1 }}  
<div ng-app>  
  {{ 1 + 1 }}  
</div>
```



<https://docs.angularjs.org/guide/expression>

ng-model

- Binds HTML input elements to JavaScript objects
- 2 way binding. If the JS object changes then so does the input. If the input changes then so does the JS object.

“My Name Is” Objectives

- **(Video Walkthrough)** The user should be able to enter their name.
- Replace the name field with first, middle, and last name fields. Display the full name.
- **(Bonus)** The user may omit the middle name. If they do, ensure there is only a single space between the first and last name.

angular module getters and setters

```
angular.module("app", []); //setter
```

```
angular.module("app"); //getter
```

```
angular.module("app").controller("fooCtrl", function($scope) {  
    $scope.bar = "Hello world.";  
});
```


\$scope exposes “stuff” to the template

```
<div ng-app="app">  
  <div ng-controller="fooCtrl">  
    {{ bar }}  
    {{ baz() }}  
  </div>  
</div>
```

```
angular.module("app").controller("fooCtrl", function($scope) {  
  $scope.bar = "Hello world.";  
  
  $scope.baz = function() {  
    return "Hi there again, world";  
  };  
});  
});
```

ng-repeat renders arrays

```
<tr ng-repeat="row in rows">  
  <th>{{ row.name }}</th>  
  <td>o</td>  
</tr>
```

```
$scope.rows = [{  
  name: "A",  
},{  
  name: "B",  
},{  
  name: "C",  
}];
```

	1
A	o
B	o
C	o

Exercise 2: “List”

“Airstrike” Exercise

1. Single player Battleship
2. Player fires shots until the enemy fleet is sunk
3. Enemy fleet cannot fire back
4. The player has no ships



http://

**MISS**

C3

Fire

	1	2	3	4	5	6	7
A	MISS						
B		MISS					
C			HIT	HIT	HIT	MISS	
D			MISS				
E							
F							
G							MISS

UI Prototyping

1. Start with a mockup
2. Identify components
3. List the minimum essential state
4. List components that change as a function of that state
5. Example: mockup.png

Exercise 3 Airstrike Objectives:

Make the prototype work

A Web Page

http://

MISS

C3 Fire

	1	2	3	4	5	6	7
A	MISS						
B		MISS					
C			HIT	HIT	HIT	MISS	
D			MISS				
E							
F							
G							MISS

Calculated from what changes

Status

Before the first shot:
You may fire when ready.

After each shot:
HIT / MISS

After the player sinks the ships:
You won.

Note

Before each shot:
Blank or o to represent an empty peg hole

After each shot:
HIT / MISS