



Shaping Up with Angular.JS

Level 2: Filters, Directives, and Cleaner Code



Directives We Know & Love

ng-app - attach the Application Module to the page

```
<html ng-app="store">
```

ng-controller - attach a Controller function to the page

```
<body ng-controller="StoreController as store">
```

ng-show / ng-hide - display a section based on an Expression

```
<h1 ng-show="name"> Hello, {{name}}! </h1>
```

ng-repeat - repeat a section for each item in an Array

```
 {{product.name}}
```



Our Current Code



Our First Filter

```
<body ng-controller="StoreController as store">
 <h3>
     {{product.name}}
     <em class="pull-right">{{product.price | currency }}</em>
   </h3>
  </body>
                                       index.html
 AngularJS
```

AngularJS
angular/rocks/mysocks.com

Dodecahedron

\$2.00

Pentagonal Gem \$5.95

Format this into currency

Pipe - "send the output into" Notice it gives the dollar sign (localized) Specifies number of decimals



Formatting with Filters

```
*Our Recipe {{ data* | filter:options*}}
date
                                     12/27/2013 @ 12:50AM
               date:'MM/dd/yyyy @ h:mma'}}
{{ '1388123412323 '
uppercase & lowercase
                                      OCTAGON GEM
{{\doctagon gem' | uppercase}}
limitTo
                                     My Descr
{{'My Description'
                limitTo:8}}
limitTo:3">
                           Will list products by descending price.
orderBy
Without the - products would list in ascending order.
```



Adding an Image Array to our Product Array

```
var gems = [
  { name: 'Dodecahedron Gem',
    price: 2.95,
    description: '. . .',
    images: [ ----- Our New Array
                                                 Image Object
        full: 'dodecahedron-01-full.jpg',
        thumb: 'dodecahedron-01-thumb.jpg'
        full: "dodecahedron-02-full.jpg",
                                                            app.js
```

To display the first image in a product:

{{product.images[0].full}}



Using ng-src for Images

Using Angular Expressions inside a src attribute causes an error!

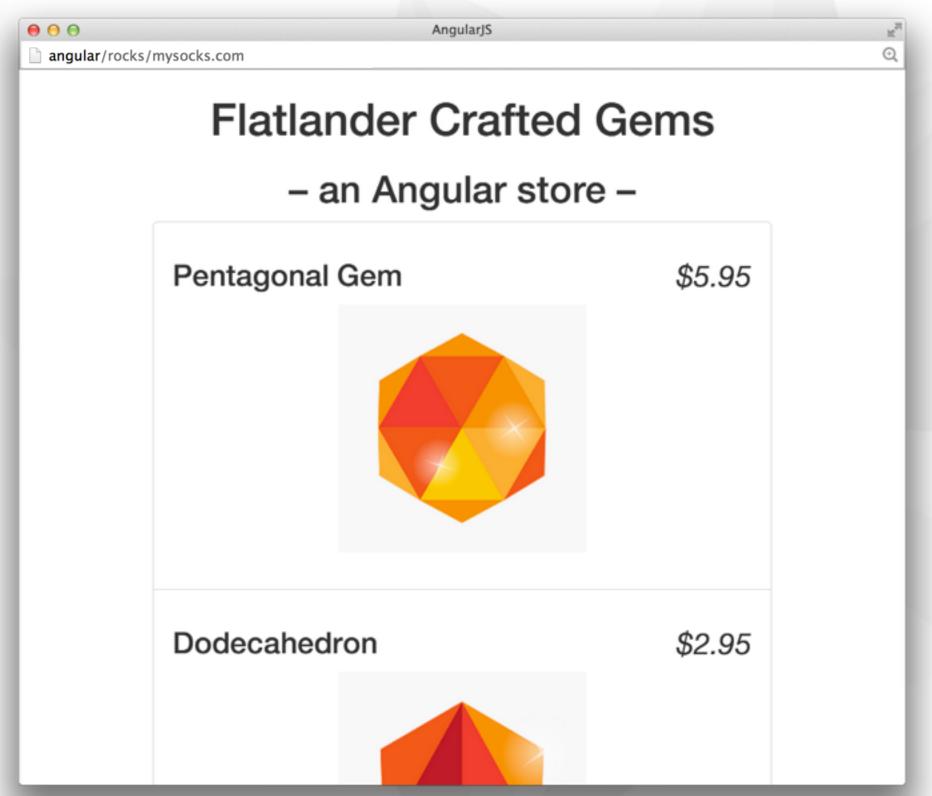
```
<img src="{{product.images[0].full}}"/>
```

...the browser tries to load the image before the Expression evaluates.

```
<body ng-controller="StoreController as store">
 <h3>
     {{product.name}}
     <em class="pull-right">{{product.price | currency}}</em>
     <img ng-src="{{product.images[0].full}}"/>
                                     NG-SOURCE
to the rescue!
    </h3>
  </body>
                                           index.html
```



Our Products with Images





Challenges

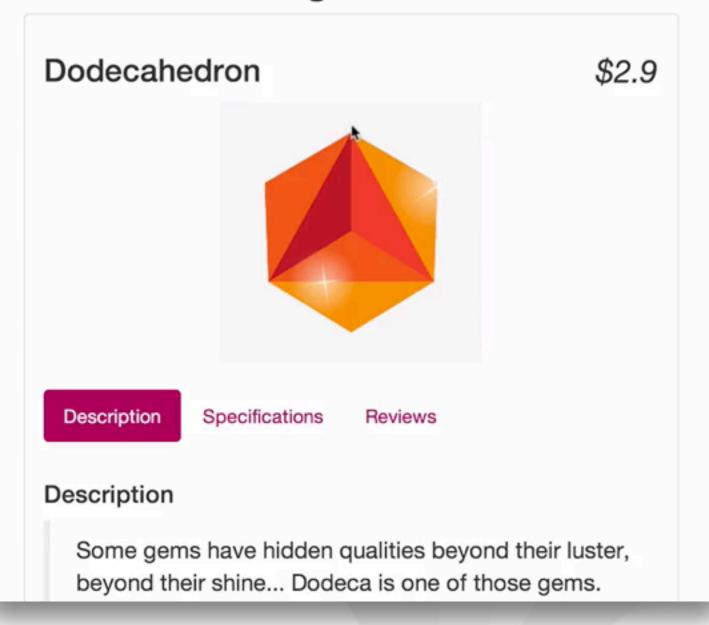


More With Directives



Flatlander Crafted Gems

an Angular store -



How can I make my application more interactive?



A Simple Set of Tabs

Description

Specifications

Reviews

Description

Some gems have hidden qualities beyond their luster, beyond their shine... Dodeca is one of those gems.



Introducing a new Directive!

```
<section>
 <a href ng-click="tab = 1">Description</a> 
   <a href ng-click="tab = 2">Specifications</a> 
   <a href ng-click="tab = 3">Reviews</a> 
 {{tab}}
</section>
                                                 index.html
              Assigning a value to tab.
For now just print this value to the screen.
```



Introducing a new Directive!

Flatlander Crafted Gems - an Angular store -\$5.95 Pentagonal Gem Description Specifications Reviews Dodecahedron \$2.95



Whoa, it's dynamic and stuff...

When ng-click changes the value of tab ...

... the {{tab}} expression automatically gets updated!

Expressions define a 2-way Data Binding ...

this means Expressions are re-evaluated when a property changes.



Let's add the tab content panels

```
tabs are up here...
<div class="panel">
 <h4>Description</h4>
 {product.description}}
</div>
<div class="panel">
 <h4>Specifications</h4>
 <blockquote>None yet</ple>
</div>
<div class="panel">
 <h4>Reviews</h4>
 <blockquote>None yet</ple>
</div>
```

How do we make the tabs trigger the panel to show?



Let's add the tab content panels

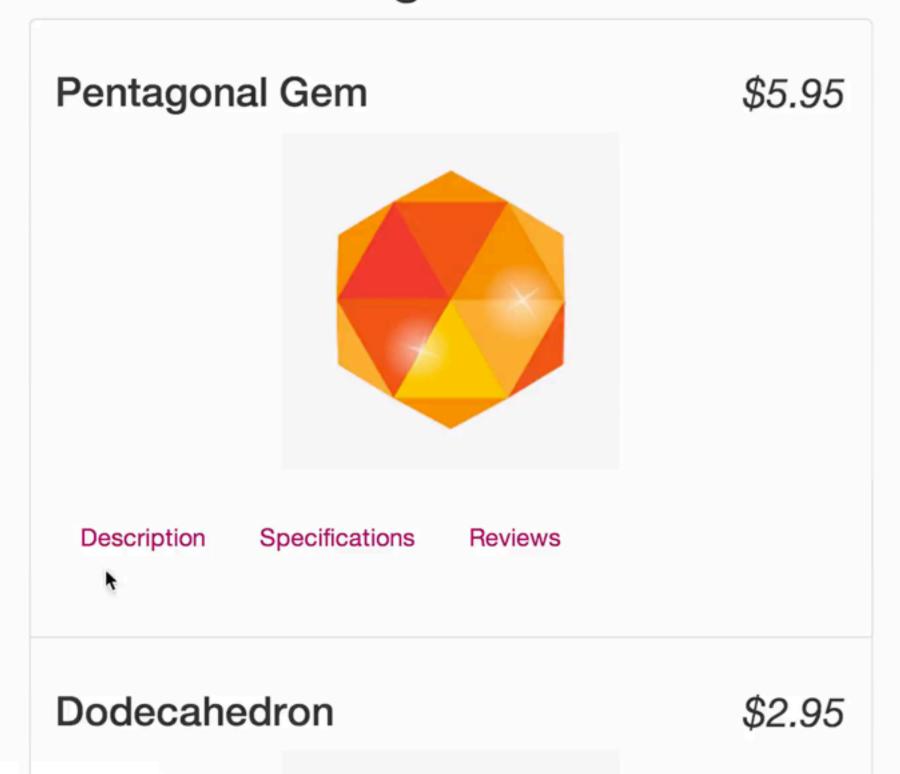
```
<div class="panel" ng-show="tab === 1">
                                              show the panel if tab is the
  <h4>Description</h4>
  {p>{{product.description}}
</div>
<div class="panel" ng-show="tab === 2">
  <h4>Specifications</h4>
 <blockquote>None yet</ple>
</div>
<div class="panel" ng-show="tab === 3">
 <h4>Reviews</h4>
  <blockquote>None yet</ple>
</div>
```

Now when a tab is selected it will show the appropriate panel!



Flatlander Crafted Gems

an Angular store –



But how do we set an initial value for a tab?



Setting the Initial Value

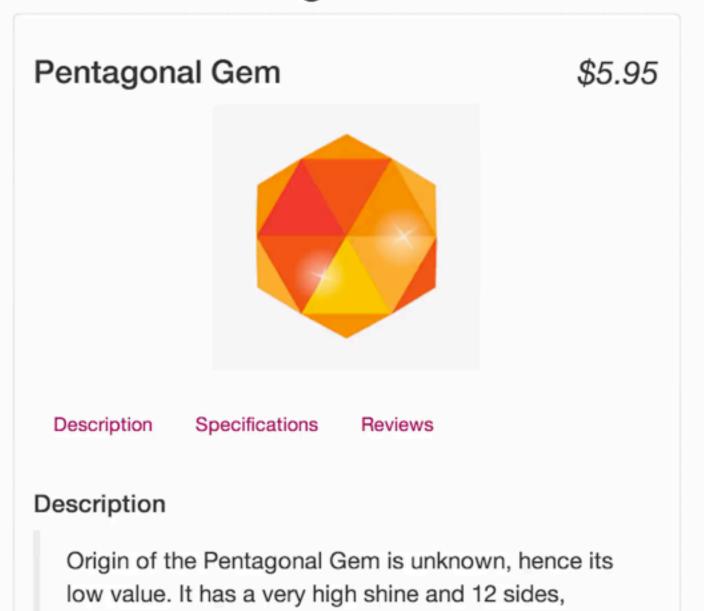
ng-init allows us to evaluate an expression in the current scope.



Now with the Initial Tab

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- an Angular store -





Setting the Active Class

We need to set the class to active if current tab is selected ...



The ng-class directive

```
<section ng-init="tab = 1">
 Expression to evaluate
    <a href ng-click="tab = 1">Description</a>
  If true, set class to "active",
   ng-class="{ active:tab === 2 }">
                                           otherwise nothing.
    <a href ng-click="tab = 2">Specifications</a>
  ng-class="{ active:tab === 3 }">
    <a href ng-click="tab = 3">Reviews</a>
   index.htm
```

Name of the class to set.

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an Angular store –

Pentagonal Gem

\$5.95



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Origin of the Pentagonal Gem is unknown, hence its low value. It has a very high shine and 12 sides,



Feels dirty, doesn't it?

All our application's logic is inside our HTML.

```
<section ng-init="tab = 1">
 <a href ng-click="tab = 1">Description</a>
  <a href ng-click="tab = 2">Specifications</a>
  <a href ng-click="tab = 3">Reviews</a>
  <div class="panel" ng-show="tab === 1">
  <h4>Description </h4>
  {p>{{product.description}}
 </div>
```

How might we pull this logic into a Controller?



Creating our Panel Controller

```
<section ng-init="tab = 1" ng-controller="PanelController as panel">
 ng-class="{ active:tab === 1 }">
    <a href ng-click="tab = 1">Description</a>
  <a href ng-click="tab = 2">Specifications</a>
  <a href ng-click="tab = 3">Reviews</a>
  <div class="panel" ng-show="tab === 1">
  <h4>Description </h4>
  {product.description}}
 </div>
                                app.controller("PanelController", function(){
                                });
```



Moving our tab initializer

```
<section ng-controller="PanelController as panel">
 ng-class="{ active:tab === 1 }">
    <a href ng-click="tab = 1">Description</a>
   <a href ng-click="tab = 2">Specifications</a>
   '\i ng-class="{ active:tab === 3 }">
    <a href ng-click="tab = 3">Reviews</a>
   <div class="panel" ng-show="tab === 1">
   <h4>Description </h4>
   {p>{{product.description}}
 </div>
                                    app.controller("PanelController", function(){
                                     this.tab = 1;
                                    });
```



Creating our selectTab function

```
<section ng-controller="PanelController as panel">
 <a href ng-click="panel.selectTab(1)">Description</a>
  <a href ng-click="panel.selectTab(2)">Specifications</a>
  <a href ng-click="panel.selectTab(3)" >Reviews</a>
  app.controller("PanelController", function(){
 <div class="panel" ng-show="tab === 1">
                                 this.tab = 1;
  <h4>Description </h4>
  {product.description}}
                                 this.selectTab = function(setTab) {
 </div>
                                   this.tab = setTab;
                                });
```



Creating our isSelected function

```
<section ng-controller="PanelController as panel">
 <a href ng-click="panel.selectTab(1)">Description</a>
  <a href ng-click="panel.selectTab(2)">Specifications</a>
  <a href ng-click="panel.selectTab(3)">Reviews</a>
  app.controller("PanelController", function(){
 this.tab = 1;
 <div class="panel" ng-show="panel.isSelected(1)">
  <h4>Description </h4>
                                        this.selectTab = function(setTab) {
  {product.description}}
                                          this.tab = setTab;
 </div>
                                        this.isSelected = function(checkTab){
                                          return this.tab === checkTab;
                                        };
```

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- an Angular store -

Pentagonal Gem

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Challenges

