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# Content

- Introduction to AngularJS
  - What is AngularJS?
  - Why should we use it?
  - AngularJS Features
- Tips

# What is AngularJS?



“Superheroic JavaScript MVW Framework”

“HTML enhanced for web apps”

“Pretty sure that HTML6 is going under the codename @angularjs”



# Why should we use it?



“Use AngularJS 😊”

# Why should we use it?



**10,374 stars (2,149 forks)**



**12,149 subscribers**



**13,098 followers, 4,836 community**



**15,378 followers**

**as of 4th June 2013**

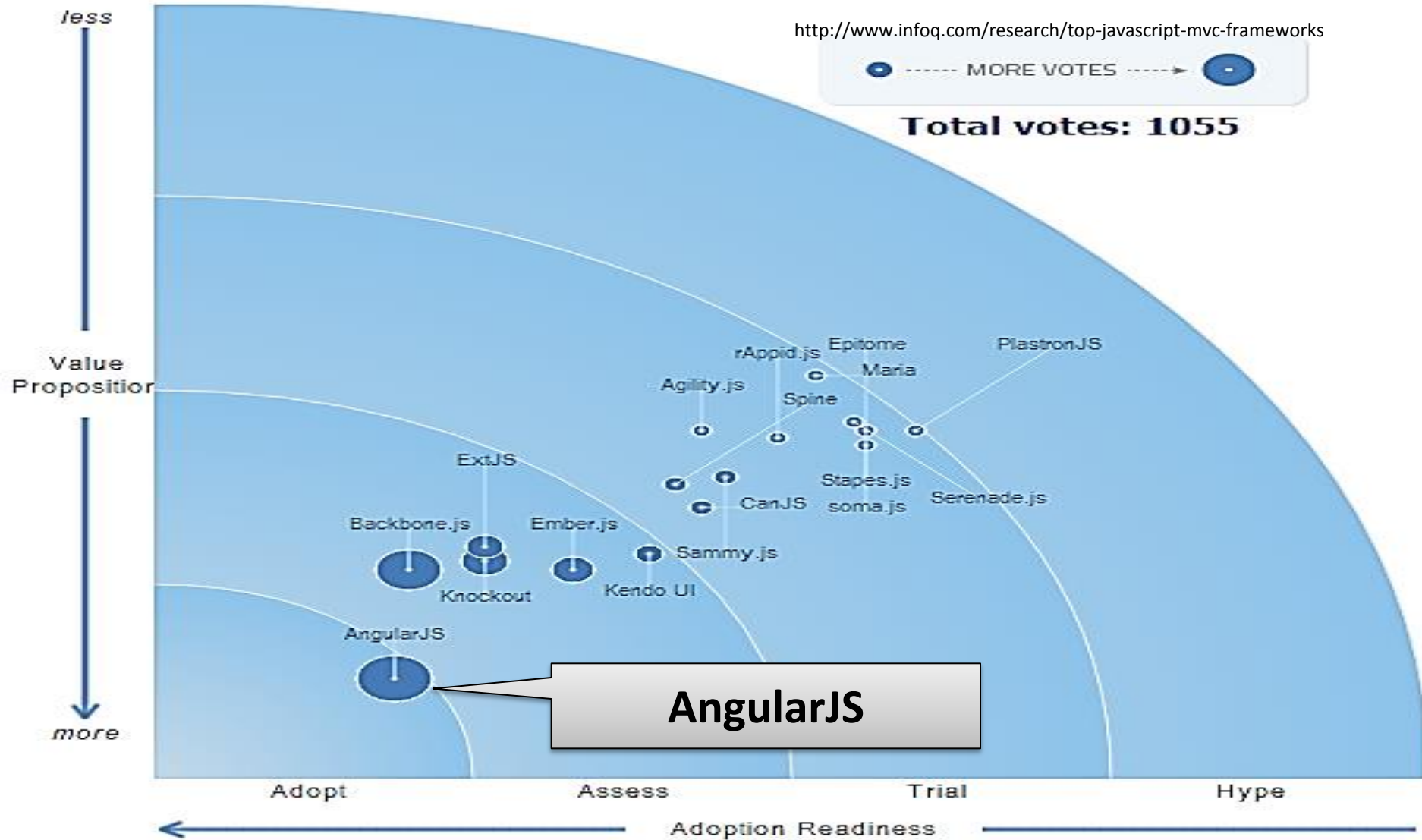


# Why should we use it?

<http://www.infoq.com/research/top-javascript-mvc-frameworks>

----- MORE VOTES ----->

**Total votes: 1055**



**AngularJS**

# AngularJS Features

```
1 <html ng-app>
2 <body ng-controller="TodoCtrl">
3   <ul>
4     <li ng-repeat="todo in todos | orderBy: ['done','text']">
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**Model**



# AngularJS Features

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**Controller**

# AngularJS Features

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**View**

# AngularJS Features

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```

## Templating

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## Dependency Injection

# AngularJS Features

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**Data Binding**



# AngularJS Features

## Directive

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```

# AngularJS Features

## Filter

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```

# AngularJS Features

- What else?
  - Service
  - Deep Linking / Routing
  - Form Validation
  - Server communication
  - Modular architecture
  - Unit Test

# Create an UI component

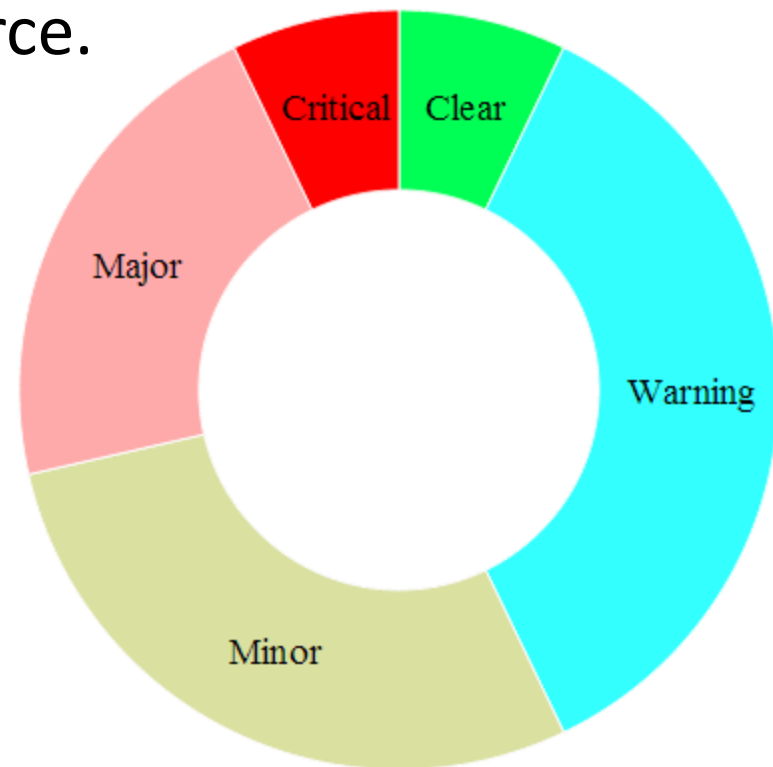
- This is equivalent to creating a custom directive

```
app.directive('myDirective', function ( /* dependencies */ ) {  
  // define constants and helpers used for the directive  
  // ...  
  return {  
    restrict: 'E', // the directive can be invoked only by using <my-directive> tag in the template  
    scope: { // attributes bound to the scope of the directive  
      val: '='  
    },  
    link: function (scope, element, attrs) {  
      // initialization, done once per my-directive tag in template. If my-directive is within an  
      // ng-repeat-ed template then it will be called every time ngRepeat creates a new copy of the template.  
  
      // ...  
  
      // whenever the bound 'exp' expression changes, execute this  
      scope.$watch('exp', function (newVal, oldVal) {  
        // ...  
      });  
    }  
  };  
});
```

# E.g. Create a pie chart using d3.js

Our goal:

- Create a custom UI element: `<ng-piechart />`
  - Support data-binding to a source.
  - Use d3.js to draw the chart
- ➔ Use AngularJS directive





## References:

- <http://www.aliaspooryorik.com/presentations/angularjs2013> (this is actually most of this slide 😊)
- <http://angularjs.slides.agavee.com>
- <http://latentflip.com/imperative-vs-declarative/>
- <http://docs.angularjs.org>

## Useful links:

- <http://briantford.com/blog/>
- <http://www.bennadel.com/>
- <http://www.yearofmoo.com/>
- <http://www.egghead.io/>
- <https://github.com/angular/angular.js/wiki/JsFiddle-Examples>
- <http://docs.angularjs.org/api/>

## Popular modules

- <http://ngmodules.org/>
  - angular-ui
  - angular-bootstrap
  - http-auth-interceptor
  - ng-grid
  - ...

## Project Template:

- <https://github.com/angular/angular-seed>
- <http://joshdmiller.github.io/ng-boilerplate>

## How to organize your code in a large project:

- <http://cliffmeyers.com/blog/2013/4/21/code-organization-angularjs-javascript>

# Development Environment

- A Text Editor (prefer syntax highlighting, auto-complete).
- Node.js (server)
- Karma (node.js package, unit test runner)
- Jasmine (javascript Unit Test library)
- Internet browsers
- Chrome add-on: Batarang (spying AngularJS scopes and models)



*Challenge  
Accepted!*



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