

# AngularJS Services

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# What is a Service?

The Term Service  
Is Overloaded

A Worker Object

Not Necessarily  
Over-the-Wire

Often Stateless

# Built-In and Custom Services

**Built-In Services**

**Custom Services**

# Why Use Services?

Reusable

SRP

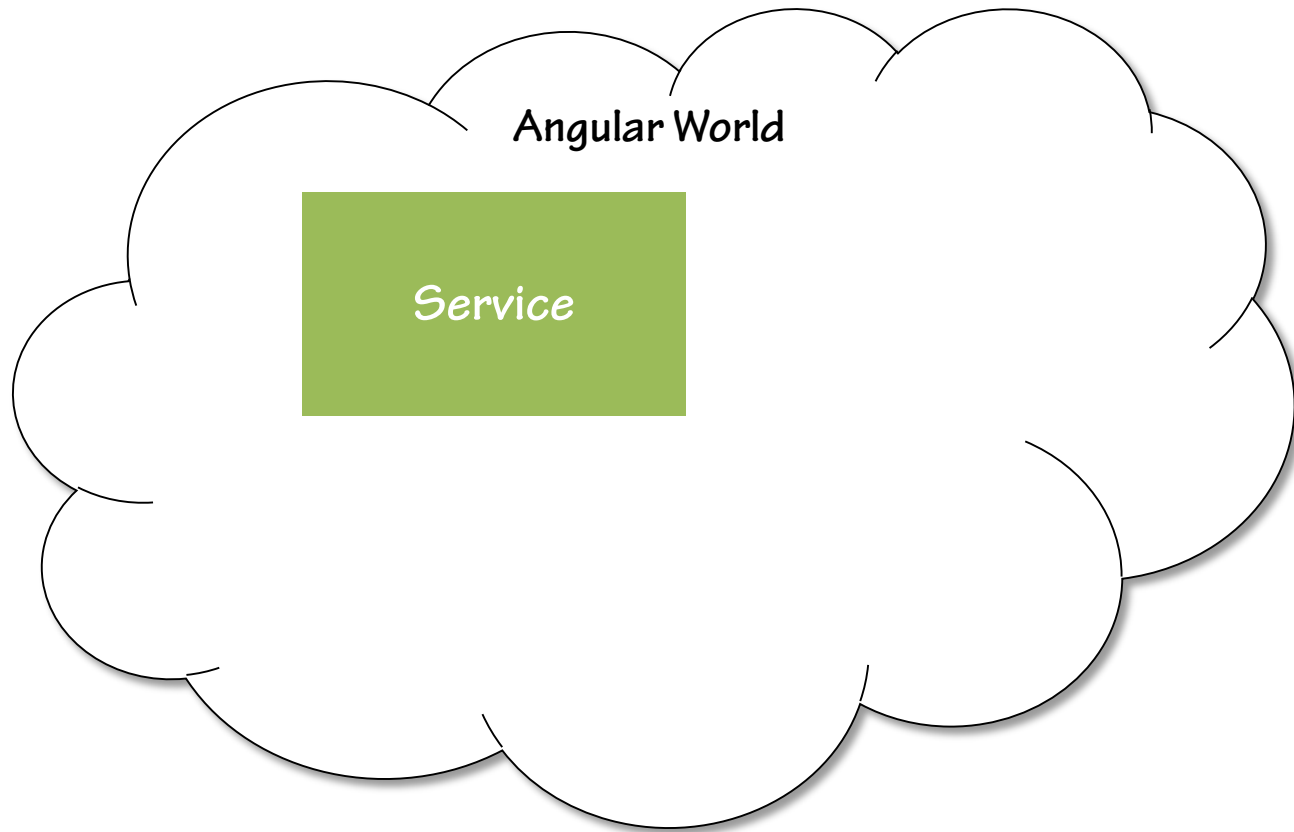
Dependency Injection

Testable

[http://en.wikipedia.org/wiki/SOLID\\_\(object-oriented\\_design\)](http://en.wikipedia.org/wiki/SOLID_(object-oriented_design))



# What is an AngularJS Service?



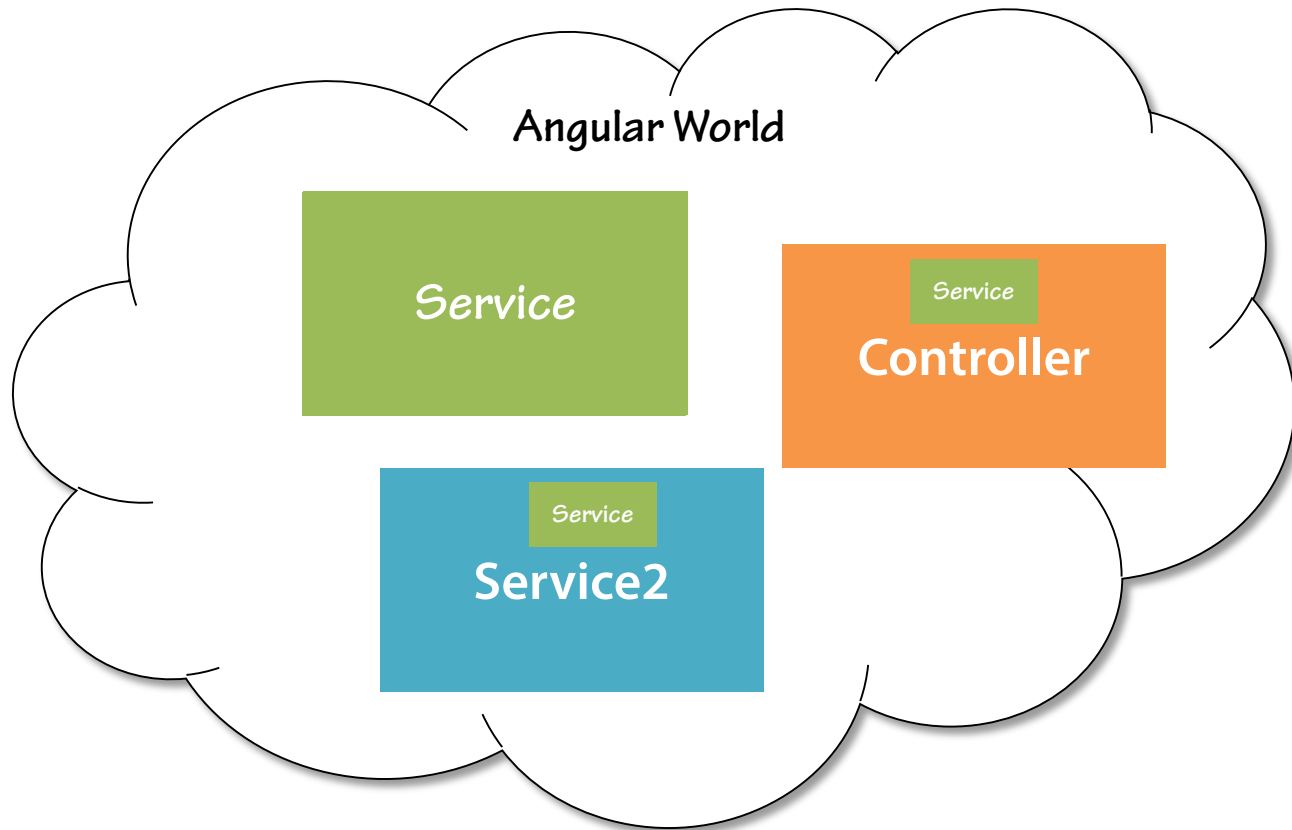
# What is an AngularJS Service?

*Service*

Angular World

A diagram illustrating the concept of an AngularJS Service. On the left, there is a solid green rectangular box containing the word "Service" in a white, italicized font. A thin black line extends from the right side of this box, pointing towards a large, white, cloud-like shape on the right. The cloud shape has a black outline and a subtle drop shadow. Inside the cloud, the words "Angular World" are written in a black, sans-serif font.

# What is an AngularJS Service?



# Quiz

**True or False: In Angular, the term “Service” refers to an over-the-network service like a restful web service.**

False

**Why do we need services?**

Reusable, SRP, Testability (Due to DI)

**How is an Angular service different than any other service?**

It is registered with Angular so that Angular can inject it



# Services

Custom Services

Built-In Services

# Built-In Services

- `$http`
  - `$resource`
  - `$q`
  - `$anchorScroll`
  - `$cacheFactory`
  - `$compile`
  - `$parse`
  - `$locale`
  - `$timeout`
  - `$exceptionHandler`
  - `$filter`
  - `$cookieStore`
- `$interpolate`
  - `$log`
  - `$rootScope`
  - `$window`
  - `$document`
  - `$rootElement`
  - 
  - `$route`
  - `$routeParams`
  - `$location`
  - 
  - `$httpBackend`
  - `$controller`

# Quiz

Which would be the best fit for accessing a restful web service: `$http` or `$resource`?

`$resource`

Is it possible to bind to promises returned by `$q`?

Yes

In which module does `$resource` reside?

`ngResource`

# Quiz

**Which service would you use to display localization based date-time or numeric formats?**

**\$locale**

**Why would you use \$timeout vs. setTimeout?**

**Angular is aware of model changes made by \$timeout**

**Which service does Angular use internally to process a page and handle directives on the page?**

**\$compile**

# Built-In Services

- `$http`
- `$resource`
- `$q`
- `$anchorScroll`
- `$cacheFactory`
- `$compile`
- `$parse`
- `$locale`
- `$timeout`
- `$exceptionHandler`
- `$filter`

`$interpolate`  
`$log`  
`$rootScope`  
`$window`  
`$document`  
`$rootElement`

`$route`  
`$routeParams`  
`$location`

`$httpBackend`  
`$controller`

# \$interpolate

- Used internally by \$compile

```
module.config(function($interpolateProvider) {  
    $interpolateProvider  
        .startSymbol('[[').endSymbol(']]');  
});
```

# \$log

- Used for diagnostic logging

```
$log.log("Log some info");  
$log.info("Here's some information");  
$log.warn("Danger, Will Robinson!");  
$log.error("Error");
```

# \$rootScope

One per App

Prototypal Inheritance

Injectable

Avoid as a Best Practice



# DOM Services

- `$window`
- `$document`
- `$rootElement`

# Quiz

**Which service would you modify if you want to change the {{ }} expression delimiters?**

**`$interpolateProvider`**

**How many root scopes are there in an application?**

**Just One**

**Can child scopes access items on the root scope?**

**Yes, due to prototypal inheritance**

# Exercises

1. Update the save method of the eventData service to lookup next eventId by finding the highest event id of all existing events and incrementing by one (instead of just setting it to 999).
2. Wire up the Save button on the EditProfile page to save the user using a new service called userData. Use a \$resource and save them to the url: '/data/user/:userName'
3. Store the user's session-upvotes in a cookie and only allow the user to upvote each session once.
4. Or, for a more advanced challenge, allow users to log in after storing their user profile and when they upvote, track their upvotes in their user profile object.