AngularJS Services

[« Previous](http://www.w3schools.com/angular/angular_filters.asp)

[Next Chapter »](http://www.w3schools.com/angular/angular_http.asp)

In AngularJS you can make your own service, or use one of the many built-in services.

What is a Service?

In AngularJS, a service is a function, or object, that is available for, and limited to, your AngularJS application.

AngularJS has about 30 built-in services. One of them is the $location service.

The $location service has methods which return information about the location of the current web page:

Example

Use the $location service in a controller:

var app = angular.module('myApp', []);  
app.controller('customersCtrl', function($scope, $location) {  
    myUrl = $location.absUrl();  
});

[Try it Yourself »](http://www.w3schools.com/angular/tryit.asp?filename=try_ng_services)

Note that the $location service is passed in to the controller as an argument. In order to use the service in the controller, it must be defined as a dependency.

Why use Services?

For many services, like the $location service, it seems like you could use objects that are already in the DOM, like thewindow.location object, and you could, but it would have some limitations, at least for your AngularJS application.

AngularJS constantly supervise your application, and for it to handle changes and events properly, AngularJS prefers that you use the $location service instead of the window.location object.

The $http Service

The $http service is one of the most common used services in AngularJS applications. The service makes a request to the server, and lets your application handle the response.

Example

Use the $http service to request data from the server:

var app = angular.module('myApp', []);  
app.controller('myCtrl', function($scope, $http) {  
    $http.get("welcome.htm").then(function (response) {  
        $scope.myWelcome = response.data;  
    });  
});

[Try it Yourself »](http://www.w3schools.com/angular/tryit.asp?filename=try_ng_services_http)

This example demonstrates a very simple use of the $http service. Learn more about the $http service in the[AngularJS Http Tutorial](http://www.w3schools.com/angular/angular_http.asp).

The $timeout Service

The $timeout service is AngularJS' version of the window.setTimeout function.

Example

Display a new message after two seconds:

var app = angular.module('myApp', []);  
app.controller('myCtrl', function($scope, $timeout) {  
    $scope.myHeader = "Hello World!";  
    $timeout(function () {  
        $scope.myHeader = "How are you today?";  
    }, 2000);  
});

[Try it Yourself »](http://www.w3schools.com/angular/tryit.asp?filename=try_ng_services_timeout)

The $interval Service

The $interval service is AngularJS' version of the window.setInterval function.

Example

Display the time every second:

var app = angular.module('myApp', []);  
app.controller('myCtrl', function($scope, $interval) {  
    $scope.theTime = new Date().toLocaleTimeString();  
    $interval(function () {  
        $scope.theTime = new Date().toLocaleTimeString();  
    }, 1000);  
});

[Try it Yourself »](http://www.w3schools.com/angular/tryit.asp?filename=try_ng_services_interval)

Create Your Own Service

To create your own service, connect your service to the module:

Create a service named hexafy:

app.service('hexafy', function() {  
    this.myFunc = function (x) {  
        return x.toString(16);  
    }  
});

To use your custom made service, add it as a dependency when defining the filter:

Example

Use the custom made service named hexafy to convert a number into a hexadecimal number:

app.controller('myCtrl', function($scope, **hexafy**) {  
    $scope.hex = **hexafy**.myFunc(255);  
});

[Try it Yourself »](http://www.w3schools.com/angular/tryit.asp?filename=try_ng_services_custom)

Use a Custom Service Inside a Filter

Once you have created a service, and connected it to your application, you can use the service in any controller, directive, filter, or even inside other services.

To use the service inside a filter, add it as a dependency when defining the filter:

The service hexafy used in the filter myFormat:

app.filter('myFormat',[**'hexify'**, function(**hexify**) {  
    return function(x) {  
        return **hexify**.myFunc(x);  
    };  
}]);

[Try it Yourself »](http://www.w3schools.com/angular/tryit.asp?filename=try_ng_services_filter)

You can use the filter when displaying values from an object, or an array:

Create a service named hexafy:

<ul>  
<li ng-repeat="x in counts">{{x | myFormat}}</li>  
</ul>

[Try it Yourself »](http://www.w3schools.com/angular/tryit.asp?filename=try_ng_services_filter2)