AngularJS Introduction

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

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

AngularJS is a **JavaScript framework**. It can be added to an HTML page with a <script> tag.

AngularJS extends HTML attributes with **Directives**, and binds data to HTML with **Expressions**.

AngularJS is a JavaScript Framework

AngularJS is a JavaScript framework. It is a library written in JavaScript.

AngularJS is distributed as a JavaScript file, and can be added to a web page with a script tag:

<script src="http://ajax.googleapis.com/ajax/libs/angularjs/1.4.8/angular.min.js"></script>

AngularJS Extends HTML

AngularJS extends HTML with **ng-directives**.

The **ng-app** directive defines an AngularJS application.

The **ng-model** directive binds the value of HTML controls (input, select, textarea) to application data.

The **ng-bind** directive binds application data to the HTML view.

AngularJS Example

<!DOCTYPE html>  
<html>  
<script src="http://ajax.googleapis.com/ajax/libs/angularjs/1.4.8/angular.min.js"></script>  
<body>  
  
<div ng-app="">  
  <p>Name: <input type="text" ng-model="name"></p>  
  <p ng-bind="name"></p>  
</div>  
  
</body>  
</html>

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

Example explained:

AngularJS starts automatically when the web page has loaded.

The **ng-app** directive tells AngularJS that the <div> element is the "owner" of an AngularJS **application**.

The **ng-model** directive binds the value of the input field to the application variable **name**.

The **ng-bind** directive binds the **innerHTML** of the <p> element to the application variable **name**.

AngularJS Directives

As you have already seen, AngularJS directives are HTML attributes with an **ng** prefix.

The **ng-init** directive initialize AngularJS application variables.

AngularJS Example

<div ng-app="" ng-init="firstName='John'">  
  
<p>The name is <span ng-bind="firstName"></span></p>  
  
</div>

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

Alternatively with valid HTML:

AngularJS Example

<div data-ng-app="" data-ng-init="firstName='John'">  
  
<p>The name is <span data-ng-bind="firstName"></span></p>  
  
</div>

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

|  |  |
| --- | --- |
| **Note** | You can use **data-ng-**, instead of **ng-**, if you want to make your page HTML valid. |

You will learn a lot more about directives later in this tutorial.

AngularJS Expressions

AngularJS expressions are written inside double braces: **{{ expression }}**.

AngularJS will "output" data exactly where the expression is written:

AngularJS Example

<!DOCTYPE html>  
<html>  
<script src="http://ajax.googleapis.com/ajax/libs/angularjs/1.4.8/angular.min.js"></script>  
<body>  
  
<div ng-app="">  
  <p>My first expression: {{ 5 + 5 }}</p>  
</div>  
  
</body>  
</html>

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

AngularJS expressions bind AngularJS data to HTML the same way as the **ng-bind** directive.

AngularJS Example

<!DOCTYPE html>  
<html>  
<script src="http://ajax.googleapis.com/ajax/libs/angularjs/1.4.8/angular.min.js"></script>  
<body>  
  
<div ng-app="">  
  <p>Name: <input type="text" ng-model="name"></p>  
  <p>{{name}}</p>  
</div>  
  
</body>  
</html>

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

You will learn more about expressions later in this tutorial.

AngularJS Applications

AngularJS **modules** define AngularJS applications.

AngularJS **controllers** control AngularJS applications.

The **ng-app** directive defines the application, the **ng-controller** directive defines the controller.

AngularJS Example

<div ng-app="**myApp**" ng-controller="**myCtrl**">  
  
First Name: <input type="text" ng-model="firstName"><br>  
Last Name: <input type="text" ng-model="lastName"><br>  
<br>  
Full Name: {{firstName + " " + lastName}}  
  
</div>  
  
<script>  
var app = angular.module('**myApp**', []);  
app.controller('**myCtrl**', function($scope) {  
    $scope.firstName= "John";  
    $scope.lastName= "Doe";  
});  
</script>

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

AngularJS modules define applications:

AngularJS Module

var app = angular.module('myApp', []);

AngularJS controllers control applications:

AngularJS Controller

app.controller('myCtrl', function($scope) {  
    $scope.firstName= "John";  
    $scope.lastName= "Doe";  
});

You will learn more about modules and controllers later in this tutorial.