

Angular JS

Learn Beginner to Advance



AngularJS Introduction

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

<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/a
ngular.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



Example

```
<div ng-app="" ng-init="firstName='John'">
```

The name is

</div>





AngularJS Expressions

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

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



```
<!DOCTYPE html>
<html>
<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/</pre>
angular.min.js"></script>
<body>
<div ng-app="">
 My first expression: \{\{5 + 5\}\}
</div>
</body>
</html>
```



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 Directives

AngularJS lets you extend HTML with new attributes called **Directives**.

AngularJS has a set of built-in directives which offers functionality to your applications.

AngularJS also lets you define your own directives



AngularJS directives are extended HTML attributes with the prefix ng-.

The ng-app directive initializes an AngularJS application.

The ng-init directive initializes application data.

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



Data Binding

The {{ firstName }} expression, in the example above, is an AngularJS data binding expression.

Data binding in AngularJS binds AngularJS expressions with AngularJS data.

{{ firstName }} is bound with ng-model="firstName".



```
<div ng-app="" ng-init="quantity=1;price=5">
```

Quantity: <input type="number" ng-model="quantity"> Costs: <input type="number" ng-model="price">

Total in dollar: {{ quantity * price }}

</div>





AngularJS \$http

\$http is an AngularJS service for reading data from remote servers.

The AngularJS \$http service makes a request to the server, and returns a response



```
<div ng-app="myApp" ng-controller="myCtrl">
  Today's welcome message is:
  <h1>{{myWelcome}}</h1>
  </div>
  <script> var app = angular.module('myApp', []);
  app.controller('myCtrl', function($scope, $http) {
    $http.get("welcome.htm")
    .then(function(response) {
    $scope.myWelcome = response.data;
    });
}); </script>
```



AngularJS SQL

ngularJS is perfect for displaying data from a Database. Just make sure the data is in JSON format

```
A
```

```
<div ng-app="myApp" ng-controller="customersCtrl">
{{ x.Name }}
 {{ x.Country }}
</div>
<script> var app = angular.module('myApp', []);
app.controller('customersCtrl', function($scope, $http) {
$http.get("customers_mysql.php")
 .then(function (response) {$scope.names =
response.data.records;});
     </script>
});
```



AngularJS Events

You can add AngularJS event listeners to your HTML elements by using one or more of these directives



- □ ng-blur
- □ ng-click
- □ ng-copy
- ☐ ng-cut
- ☐ ng-dblclick
- ☐ ng-focus
- ☐ ng-keydown
- ☐ ng-keypress
- ☐ ng-keyup
- ☐ ng-mousedown
- ng-mouseenter
- ☐ ng-mouseleave
- ng-mousemove
- ☐ ng-mouseover





AngularJS Form Validation



AngularJS offers client-side form validation.

AngularJS monitors the state of the form and input fields (input, textarea, select), and lets you notify the user about the current state.

AngularJS also holds information about whether they have been touched, or modified, or not.

You can use standard HTML5 attributes to validate input, or you can make your own validation functions.

Client-side validation cannot alone secure user input. Server side validation is also necessary



AngularJS API

API stands for Application Programming Interface



The AngularJS Global API is a set of global JavaScript functions for performing common tasks like:

- Comparing objects
- Iterating objects
- Converting data



AngularJS API



API Description

angular.lowercase() Converts a string to lowercase

angular.uppercase() Converts a string to uppercase

angular.isString() Returns true if the reference is a string

angular.isNumber() Returns true if the reference is a number

