What is Angular JS?

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. 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="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular.min.js"></script>

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**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 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 content of the <p> element to the application variable **name**.

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

### AngularJS Example

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

## AngularJS Expressions

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

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

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

## 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 Expressions

AngularJS expressions can be written inside double braces: {{ expression }}.

AngularJS expressions can also be written inside a directive: ng-bind="expression".

AngularJS will resolve the expression, and return the result exactly where the expression is written.

**AngularJS expressions** are much like **JavaScript expressions:** They can contain literals, operators, and variables.

Example {{ 5 + 5 }} or {{ firstName + " " + lastName }}

### Example

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

## AngularJS Expressions vs. JavaScript Expressions

Like JavaScript expressions, AngularJS expressions can contain literals, operators, and variables.

Unlike JavaScript expressions, AngularJS expressions can be written inside HTML.

AngularJS expressions do not support conditionals, loops, and exceptions, while JavaScript expressions do.

AngularJS expressions support filters, while JavaScript expressions do not.

# AngularJS Modules

An AngularJS module defines an application.

The module is a container for the different parts of an application.

The module is a container for the application controllers.

Controllers always belong to a module.