1. AngularJS is a **JavaScript framework**. It can be added to an HTML page with a <script> tag.
2. AngularJS extends HTML attributes with **Directives**, and binds data to HTML with **Expressions**.
3. AngularJS is a JavaScript framework. It is a library written in JavaScript.

**Ng-app:**

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

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

**Ng-model:**

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

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

**Ng-bind:**

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

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

EX: <!DOCTYPE html>  
<html>  
<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/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

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

**AngularJS Expressions**

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

<div ng-app="" ng-init="myCol='lightblue'">  
<input style="background-color:{{myCol}}" ng-model="myCol">  
</div>

## 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.

Ex: <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**', []); //AngularJS modules define applications  
app.controller('**myCtrl**', function($scope) { //AngularJS controllers control app  
    $scope.firstName= "John";  
    $scope.lastName= "Doe";  
});  
</script>

**Angular module**

Creating the module like:

<div ng-app="myApp">...</div>

<script>  
var app = angular.module("myApp", []);   
</script>

Creating the controller like:

<div ng-app="**myApp**" ng-controller=**"myCtrl"**>  
 {{ firstName + " " + lastName }}  
 </div>  
  
 <script>  
 var app = angular.module(**"myApp"**, []);  
  
 app.controller(**"myCtrl"**, function($scope) {  
    $scope.firstName = "John";  
    $scope.lastName = "Doe";  
 });  
 </script>

## AngularJS Directives

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

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.

Ex: <div ng-app="" ng-init="firstName='John'">  
 <p>Name: <input type="text" ng-model="firstName"></p>  
 <p>You wrote: {{ firstName }}</p>  
 </div>

## For adding the new custom directive:

## <body ng-app="myApp"> <w3-test-directive></w3-test-directive> <script> var app = angular.module("myApp", []); app.directive("w3TestDirective", function() {     return {         template : "<h1>Made by a directive!</h1>"     }; }); </script> </body>

## Repeating html elements

## <div ng-app="" ng-init="names=['Jani','Hege','Kai']">   <ul>     <li ng-repeat="x in names">       {{ x }}     </li>   </ul> </div>