**AngularJS**

AngularJS is a client side Javascript MVC framework to develop a dynamic web page.

AngularJS is entirely based on HTML and Javascript.

**AngularJS Example:**

<!DOCTYPE html> ---------->Template

<html>

<head>

<script src="~/Scripts/angular.js"></script> ---------> AngularJS Library

</head>

<body ng-app> ------------------------------------------------------------>Directives

Enter your name:<input type="text" ng-model="name"/><br/>

Hello<label ng-bind="name"></label>

</body>

</html>

**Advantages of AngularJS:**

1.Open source JavaScript MVC framework.

2.Supported by Google.

3.Built-in attributes(directives) makes HTML dynamic.

4.Supports single page application.

**Template:**

In AngularJS, a template is HTML with additional markups.

**Directive:**

Directives are attributes on a DOM element that tell AngularJS to attach a specific behavior to that DOM element.

Most of the directives start with ng 🡪 stands for Angular.

**ng-app:** The ng-app directive is a starting point. If AngularJS framework finds ng-app directive anywhere

in the HTML document then it initializes itself and compiles the HTML template.

**ng-model**: The ng-model directive binds HTML element to a property on $scope object.

**ng-bind:** Replaces the value **of** HTML control with the value of specified AngularJS expression.

**AngularJS Expression:**

AngularJS expression is like Javascript expression surrounded with braces – {{expression}}.

AngularJs evaluates the specified expression and binds the result data to HTML.

AngularJS expression can contain literals, operators and variables like Javascript expression.

**Example:**

<!DOCTYPE html>

<html>

<head>

<script src="~/Scripts/angular.js"></script>

</head>

<body >

<h1>AngularJS Expression Demo:</h1>

<div ng-app>

2 + 2 = {{2 + 2}} <br />

2 - 2 = {{2 - 2}} <br />

2 \* 2 = {{2 \* 2}} <br />

2 / 2 = {{2 / 2}}

</div>

</body>

</html>

**Limitations:**

* AngularJS expression cannot contain conditions,loops,regular expressions.
* AngularJS expression cannot declare functions.
* AngularJS expression cannot contain void or comma.
* AngularJS expression cannot contain return keyword.

**AngularJs Controller:**

Controller is a JavaScript function that maintains the application data and behavior using $scope object.

**Example: AngularJS Controller**

<!DOCTYPE html>

<html >

<head>

<title>AngualrJS Controller</title>

<script src="~/Scripts/angular.js"></script>

</head>

<body ng-app="myNgApp">

<div ng-controller="myController">

{{message}}

</div>

<script>

var ngApp = angular.module('myNgApp', []);

ngApp.controller('myController', function ($scope) {

$scope.message = "Hello World!";

});

</script>

</body>

</html>

**Output:** Hello World!

**Example 2:**

<!DOCTYPE html>

<html>

<head>

<title>AngualrJS Controller</title>

<script src="~/Scripts/angular.js"></script>

</head>

<body ng-app="myNgApp">

<div id="div1" ng-controller="myController">

Message: {{message}} <br />

<div id="div2">

Message: {{message}}

</div>

</div>

<div id="div3">

Message: {{message}}

</div>

<div id="div4" ng-controller="anotherController">

Message: {{message}}

</div>

<script>

var ngApp = angular.module('myNgApp', []);

ngApp.controller('myController', function ($scope) {

$scope.message = "This is myController";

});

ngApp.controller('anotherController', function ($scope) {

$scope.message = "This is anotherController";

});

</script>

</body>

</html>

**Output:**

Message: This is myController

Message: This is myController

Message:

Message: This is anotherController

**Scope in AngularJS:**

The $scope in an angularJS is a built-in object, which contains application data and methods.

The $scope is glue between a controller and view(HTML). It transfers data from the controller to view and vice-versa.

view

Controller

$scope

**Example:**

<!DOCTYPE html>

<html>

<head>

<script src="~/Scripts/angular.js"></script>

</head>

<body>

<div ng-app=”myApp” ng-controller=”myCtrl”>

<h1>{{carname}}</h1>

</div>

<script>

var app=angular.module(‘myApp’,[ ]);

app.controller(‘myCtrl’,function($scope) {

$scope.carname=”Audi”;

});

</script>

</body>

</html>

**Output:** Audi

**AngularJS Events:**

AngularJS includes certain directives which can be used to provide custom behavior on various DOM events, such as click, dblclick, mouseenter etc.

**AngularJS Event Directives:**