COURSE NAME: O level   **SUBJECT: WEB DESIGNING AND PUBLISHING**

TOPIC: Angular JS   **DATE: 4/06/2020**

AngularJS directives

AngularJS directives are used to extend HTML. Directives are markers on HTML DOM element that tell AngularJS to attach a specified behavior to that HTML element.

Directives in AngularJS are special attributes starting with **ng**- prefix where ng stands for Angular. AngularJS includes various built-in directives, you may also create your own directive in AngularJS. Some built-in directives are listed here.

Directive	Description
ng-app	This directive starts an AngularJS Application
ng-init	This Initializes AngularJS variables i.e. application data.
ng-repeat	This directive repeats HTML elements for each item in a collection.
ng-model	This directive binds the value of HTML controls (input, select, textarea) to application data.
ng-bind	This directive Replaces the value of HTML control with the value of specified AngularJS expression.
Other built-in directive-	
ng-controller	Attaches the controller of MVC to the view.
ng-show	Display HTML element based on the value of the specified expression.
ng-readonly	Makes HTML element read-only based on the value of the specified expression.
ng-disabled	Sets the disable attribute on the HTML element if specified expression evaluates to true.
ng-if	Removes or recreates HTML element based on an expression.
ng-click	Specifies custom behavior when an element is clicked.

ng-app directive

The ng-app directive defines the root element of an AngularJS application and starts an AngularJS Application.The ng-app directive will **auto-bootstrap** (automatically initialize) the application when a web page is loaded. It is also used to load various AngularJS modules in AngularJS Application.

```
<div ng-app = "">
  ...
</div>
```

In the above example code, we have defined a default AngularJS application using **ng-app** attribute of a **<div> element**.

ng-init directive

ng-init directive initializes an AngularJS Application data. It is used to declare and assign values to the variables for an AngularJS application.

In following example, we initialize variable firstName and lastName and assign values to it.

```
<div ng-app = "" ng-init="firstName='Indu';lastName='Gupta' ">
  ...
</div>
```

ng-model directive

The ng-model directive is used for two-way data binding in AngularJS. It is used to get value of input controls like textbox, label, etc and use these values in web pages.

In the following example, we define a model named my*name*.

```
<div ng-app = " ">
  ...
<input type = "text" ng-model = "myname">

  <p>My name is(enter it): {{myname}} </p>
</div>
```

ng-repeat directive

The ng-repeat directive repeats HTML elements for each item in a collection. Or simply say that it is used to loop through items in collection element and it will act as for loop. In the following example, we iterate over the name of the students:

```
<div ng-app="" ng-init="students=['Indu','Rohit','Shiv']">
<ul>
<li ng-repeat="name in students">
{{ 'Student Name: ' +name }}
```

```
</li>
</ul>
</div>
```
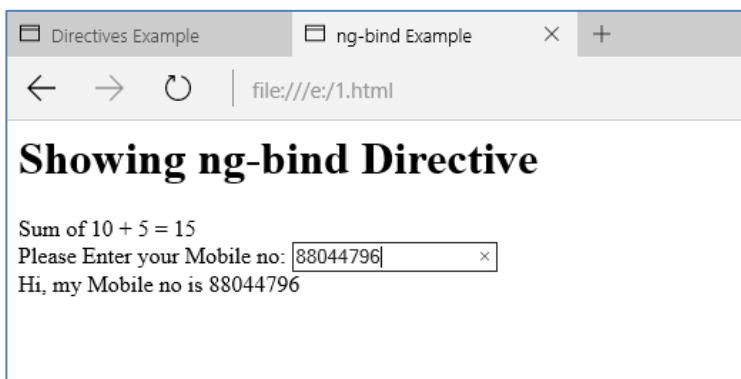
ng-bind

The ng-bind directive binds the model property declared via ng-model directive or the result of an expression to the HTML element. It also updates an element if the value of an expression changes.

```
<html >
<head>
<title>
ng-bind Example
</title>
<script
src="https://ajax.googleapis.com/ajax/libs/angularjs/1.4.8/angular.min.js"></script>
</head>
<h1> Showing ng-bind Directive</h2>
<body ng-app="">
   <div>
      Sum of 10 + 5 = <span ng-bind="10 + 5"></span> <br />

      Please Enter your Mobile no: <input type="text" ng-model="mobileno" /><br />
      Hi, my Mobile no is  <span ng-bind="mobileno"></span>
   </div>
</body>
</html>
```

In the code here, ng-bind directive binds

➢ a result of an expression "10 + 5" to the <span>.

➢ a value of a model property "mobileno" to the <span>. The value of "mobileno" property will be the value entered in a textbox.

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Example: The following example shows the use of all the above-mentioned directives.

```html
<html>
<head>
<title> Directives Example </title>
<script        src="http://ajax.googleapis.com/ajax/libs/angularjs/1.4.8/angular.min.js">
</script>
<h1> Displaying Various Directives </h1>
</head>

<body ng-app="">

<h3> ng-init directive example</h3> <br\>
      <div  ng-init="firstName='Indu';lastName='Gupta'">

<p> My first name : {{firstName}} </p>
            <p> My last name : {{lastName}} </p> <br/>
      </div>

<h3> ng-model directive example</h3> <br\>
      <div>
      <input type = "text" ng-model = "myname" />
        <p>My name is(enter it): {{myname}} </p>
      </div>


<h3> ng-Repeat directive example</h3> <br\>
      <div ng-init="students=['Indu','Rohit','Shiv']">
            <p>Name of Students are:</p>
            <ul>
                  <li ng-repeat="name in students">
                   {{ name }}
                   </li>
            </ul>
      </div>

<h3> ng-bind directive example</h3> <br\>
       <div>
     Sum of 10 + 5 = <span ng-bind="10 + 5"></span> <br />

     Please Enter your Mobile no: <input type="text" ng-model="mobileno" /><br />
     Hi, my Mobile no is  <span ng-bind="mobileno"></span>
   </div>
</body>
</html>
```

Displaying Various Directives

ng-init directive example

My first name : Indu

My last name : Gupta

ng-model directive example

Rama

My name is(enter it): Rama

ng-Repeat directive example

Name of Students are:

- Indu
- Rohit
- Shiv

ng-bind directive example

Sum of 10 + 5 = 15

Please Enter your Mobile no: 898765

Hi, my Mobile no is 898765

Assignment

1. What are Directives in Angular Js? Explain important directives.
2. What is the use of ng-bind directive?