



Lab Angular JS - I

AngularJS is an open-source web application framework. AngularJS is one of the most talked JavaScript frameworks. Rich bindings of Angular make HTML and JavaScript object interaction like a breeze. The core reason why Angular was born was *binding, binding and binding*. It's a binding framework which binds the HTML UI with JavaScript objects.

In this lab manual, we will go through step by step to create our first application using Angular JS.

Let us first see the parts of an AngularJS application. An AngularJS application consists of following three important parts:

- **ng-app** : This directive defines and links an AngularJS application to HTML.
- **ng-model** : This directive binds the values of AngularJS application data to HTML input controls.
- **ng-bind** : This directive binds the AngularJS Application data to HTML tags.

Creating AngularJS Application

Step 1: Load Framework

Being a pure JavaScript framework, it can be added using `<script>` tag. (Refer to angular.io for latest version)

```
<script src="http://ajax.googleapis.com/ajax/libs/angularjs/1.2.15/angular.min.js">
</script>
```

Step 2: Define AngularJS application using ng-app directive.

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

...

</div>
```

Step 3: Define a model name using ng-model directive.

```
<p>Enter your Name: <input type="text" ng-model="name"></p>
```



Step 4: Bind the value of above model defined using ng-bind directive.

```
<p>Hello <span ng-bind="name"></span>!</p>
```

Executing AngularJS Application

Use the above-mentioned three steps in an HTML page. Notice the absence of **ng-controller** directive here.

```
<!doctype html>

<html>

<title>AngularJS First Application</title>

<body>

<h1>Sample Application</h1>

<div ng-app="">

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

  <p>Hello <span ng-bind="name"></span>!</p>

</div>

<script src="http://ajax.googleapis.com/ajax/libs/angularjs/1.2.15/angular.min.js"></script>

</body>

</html>
```

Example 1



Output

Open the file testAngularJS.htm in a web browser. Enter your name and see the result.

How AngularJS Integrates with HTML

- The ng-app directive indicates the start of AngularJS application.
- The ng-model directive creates a model variable named name, which can be used with the HTML page and within the div having ng-app directive.
- The ng-bind then uses the name model to be displayed in the HTML tag whenever user enters input in the text box.
- Closing </div> tag indicates the end of AngularJS application.

AngularJS Events

Following example shows binding of a click event to a button using Angular JS. Save below code in an html file and view in the browser to see the results.

```
<!doctype html>
<html>
<title>AngularJS First Application</title>
<body>
    <h1>Sample Application</h1>
    <div ng-app="myApp" ng-controller="myController">
        <p>Enter your Name: <input type="text" ng-model="name"></p>
        <input type="button" ng-click="alertMe()" name="btnname" value="Alert"/>
        <p>Hello <span ng-bind="name"></span>!</p>
    </div>
    <script src="http://ajax.googleapis.com/ajax/libs/angularjs/1.2.15/angular.min.js"></script>
    <script>
        angular.module("myApp", []).controller('myController', function($scope) {
            $scope.alertMe = function() {
                alert($scope.name);
            };
        });
    </script>
</body>
</html>
```

Example 2



Lab Tasks

1. Alter Example 1 code so that you do not use the ng-bind directive (given in step 4) but still the html works the way it is working now.
2. Alter the function given in example 2 to show an error message if the button is clicked when name field is blank.
3. Go through different events available in Angular JS at https://www.w3schools.com/angular/angular_events.asp and practice on how to use them.

Perform task during lab time and show the solution.
