AngularJS Application

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It is time to create a real AngularJS Single Page Application (SPA).

An AngularJS Application Example

You have learned more than enough to create your first AngularJS application:

My Note

  
  
Save Clear

Number of characters left: **100**

Application Explained

AngularJS Example

<html ng-app="myNoteApp">  
<script src="http://ajax.googleapis.com/ajax/libs/angularjs/1.4.8/angular.min.js"></script>  
<body>  
  
<div ng-controller="myNoteCtrl">  
  
<h2>My Note</h2>  
  
<p><textarea ng-model="message" cols="40" rows="10"></textarea></p>  
  
<p>  
<button ng-click="save()">Save</button>  
<button ng-click="clear()">Clear</button>  
</p>  
  
<p>Number of characters left: <span ng-bind="left()"></span></p>  
  
</div>  
  
<script src="myNoteApp.js"></script>  
<script src="myNoteCtrl.js"></script>  
  
</body>  
</html>

[Try it Yourself »](http://www.w3schools.com/angular/tryit.asp?filename=try_ng_note_app)

The application file "myNoteApp.js":

var app = angular.module("myNoteApp", []);

The controller file "myNoteCtrl.js":

app.controller("myNoteCtrl", function($scope) {  
    $scope.message = "";  
    $scope.left  = function() {return 100 - $scope.message.length;};  
    $scope.clear = function() {$scope.message = "";};  
    $scope.save  = function() {alert("Note Saved");};  
});

The <html> element is the container of the AngularJS application: ng-app="**myNoteApp**":

<html ng-app="myNoteApp">

A a <div> in the HTML page is the scope of a controller: ng-controller="**myNoteCtrl**":

<div ng-controller="myNoteCtrl">

An **ng-model** directive binds a <textarea> to the controller variable **message**:

<textarea ng-model="message" cols="40" rows="10"></textarea>

The two **ng-click** events invoke the controller functions **clear()** and **save()**:

<button ng-click="save()">Save</button>  
<button ng-click="clear()">Clear</button>

An **ng-bind** directive binds the controller function **left()** to a <span> displaying the characters left:

Number of characters left: <span ng-bind="left()"></span>

Your application libraries are added to the page (after the library):

<script src="myNoteApp.js"></script>  
<script src="myNoteCtrl.js"></script>

AngularJS Application Skeleton

Above you have the skeleton (scaffolding) of a real life AngularJS, single page application (SPA).

The <html> element is the "container" for the AngularJS application (**ng-app=**).

A <div> elements defines the scope of an AngularJS controller (**ng-controller=**).

You can have many controllers in one application.

An application file (**my...App.js**) defines the application module code.

One or more controller files (**my...Ctrl.js**) defines the controller code.

Summary - How Does it Work?

The ng-app directive is placed at the root element of the application.

For single page applications (SPA), the root of the application is often the <html> element.

One or more ng-controller directives define the application controllers. Each controller has its own scope: the HTML element where they were defined.

AngularJS starts automatically on the HTML DOMContentLoaded event. If an ng-app directive is found, AngularJS will load any module named in the directive, and compile the DOM with ng-app as the root of the application.

The root of the application can be the whole page, or a smaller portion of the page. The smaller the portion, the faster the application will compile and execute.

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