

Web Technologies Module 7,8 Assignment 5

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1. Aim:

Write a program to enter the radius of a circle and calculate area of circle in controller and display this area in alert by clicking on button.

Theory:

To learn the usage of alert and ng-click in angular js

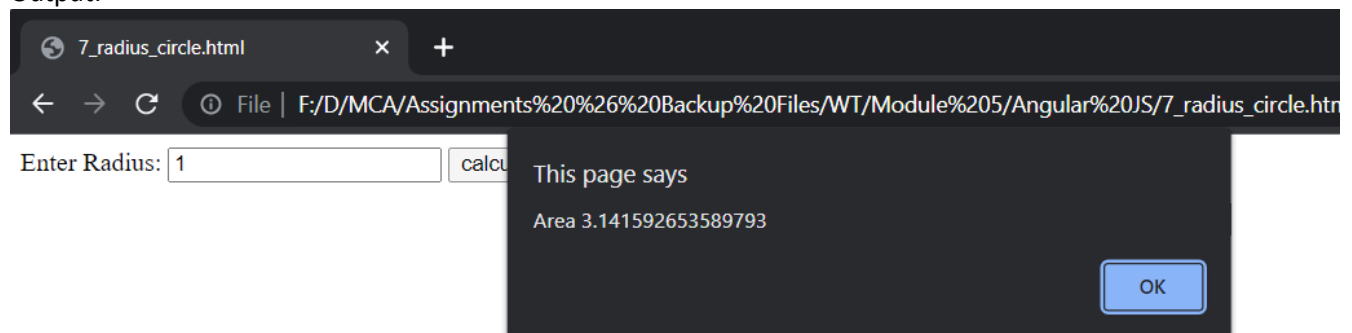
Code:

```
<html>
  <head></head>
  <script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"
type="text/javascript"> </script>
  <body ng-app="myapp" ng-controller="myctrl">
    Enter Radius: <input type="text" ng-model="radius">
    <input type="submit" value="calculate Area" ng-click="calc(radius)">

  </body>
  <script>
    var app = angular.module("myapp",[])
    app.controller("myctrl",function($scope){
      $scope.calc = function(radius){
        $scope.area=Math.PI*$scope.radius*$scope.radius;
        alert("Area "+ $scope.area);
      }

    });
  </script>
</html>
```

Output:



2. Aim:

Write a program to create a Student Object which holds at least 3 student information like Roll No., Name and Percentage and display it in tabular form.

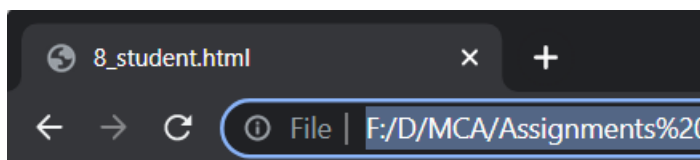
Theory: To learn how to create an object and the usage of ng-repeat in a tabular form in angular js

Code:

```
<html>
  <head>    </head>
  <script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"
type="text/javascript"> </script>
  <body ng-app="myapp" ng-controller="myctrl">
    <table border="1">
      <tr>
        <th>Name</th>
        <th>Roll No</th>
        <th>Percentage</th>
      </tr>
      <tr ng-repeat="student in students">
        <td>{{ student.Name }}</td>
        <td>{{ student.RollNo }}</td>
        <td>{{ student.Percentage }}</td>
      </tr>
    </table>
  </body>
  <script>
    var app = angular.module("myapp",[]);
    app.controller("myctrl",function($scope){
      $scope.students = [{Name:"Sandhya",RollNo:110,Percentage:"87%"},
        {Name:"Sandeep",RollNo:120,Percentage:"90%"},
        {Name:"Ronak",RollNo:56,Percentage:"89%"}]

    });
  </script>
</html>
```

Output:



Name	Roll No	Percentage
Sandhya	110	87%
Sandeep	120	90%
Ronak	56	89%

3. Aim:

Write a program to create a form with the following fields and validations.

Name (required)

email (required/email format)

Age (required, between 18 to 60 years)

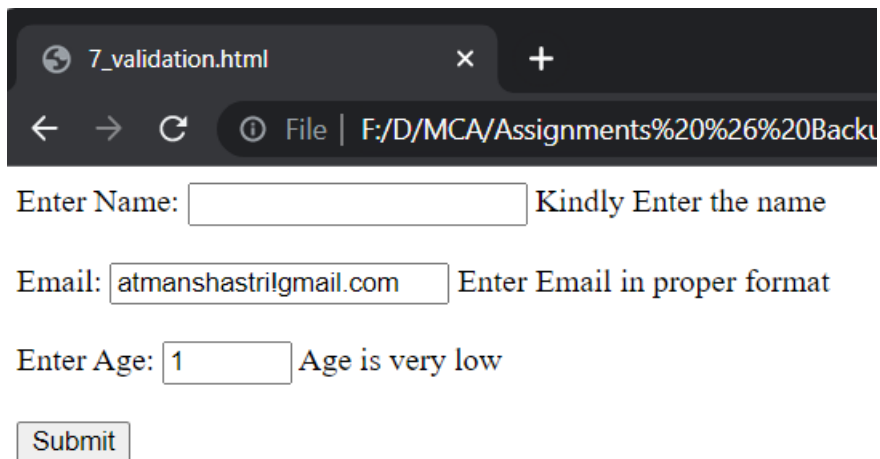
Theory:

To learn form validation, its attributes and implementation in angular js code

Code:

```
<html>
  <title></title>
  <script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"
type="text/javascript"> </script>
  <head></head>
  <body ng-app>
    <form novalidate name="DataForm">
      Enter Name: <input type="text" ng-model="username" name="username"
required>
      <span ng-show="DataForm.username.$error.required &&
DataForm.username.$touched">Kindly Enter the name</span>
      <br><br>
      Email: <input type="email" ng-model="email" name="email" required>
      <span ng-show="DataForm.email.$error.email">Enter Email in proper
format</span>
      <span ng-show="DataForm.email.$error.required &&
DataForm.email.$touched">Kindly Enter the email</span>
      <br><br>
      Enter Age: <input type="number" ng-model="age" name="age" min="18"
max="60" required>
      <span ng-show="DataForm.age.$error.required &&
DataForm.age.$touched">Kindly Enter the age</span>
      <span ng-show="DataForm.age.$error.min">Age is very low</span>
      <span ng-show="DataForm.age.$error.max">Age is very high</span>
      <br><br>
      <input type="submit">
    </form>
  </body>
</html>
```

Output:



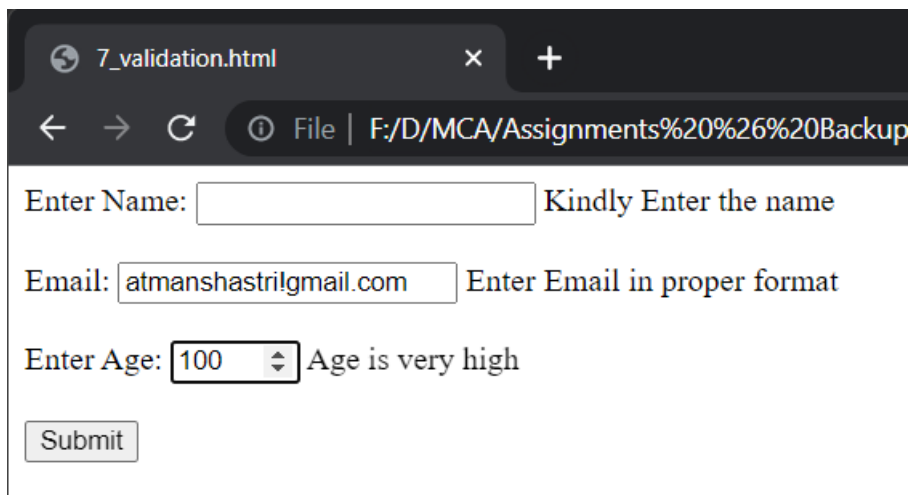
7_validation.html x +

← → ↻ ⓘ File | F:/D/MCA/Assignments%20%26%20Backup

Enter Name: Kindly Enter the name

Email: Enter Email in proper format

Enter Age: Age is very low



7_validation.html x +

← → ↻ ⓘ File | F:/D/MCA/Assignments%20%26%20Backup

Enter Name: Kindly Enter the name

Email: Enter Email in proper format

Enter Age: Age is very high

4. Aim:

Write a program that shows the following functionality. Initially all the controls will have a yellow background. If a user enters a valid value then it will change the background color to green, otherwise it will turn to red if there is a validation error

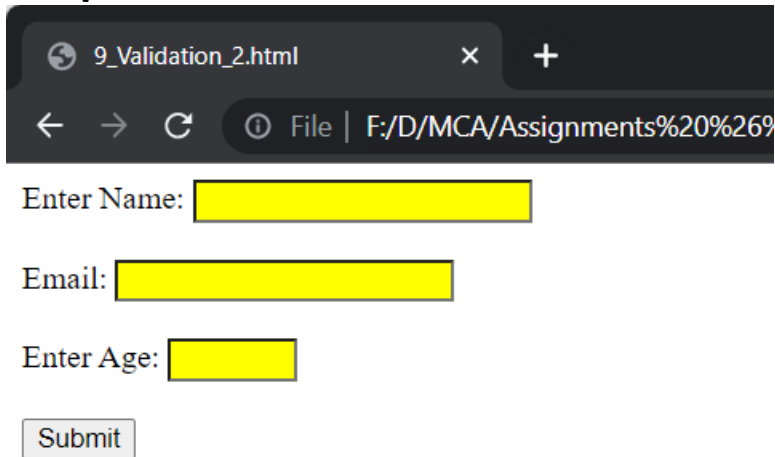
Theory:

To learn to implement colors to form validation attributes by defining them in style tag

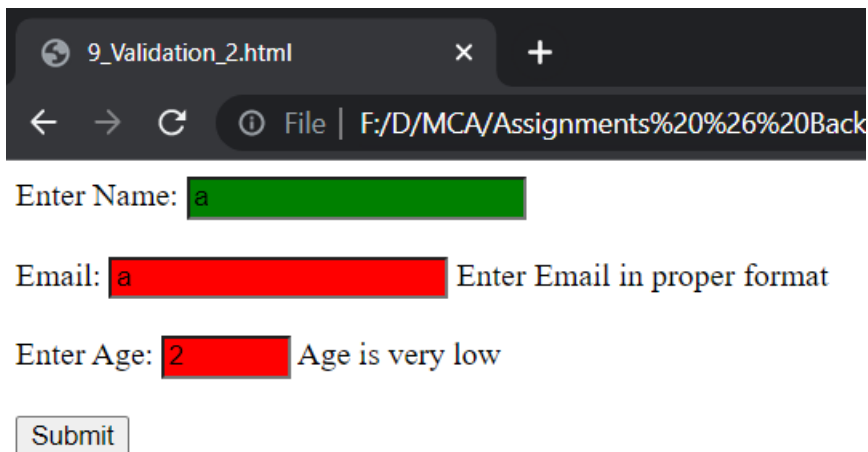
Code:

```
<html>
  <title></title>
  <script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"
type="text/javascript"> </script>
  <head>
    <style>
      input.ng-pristine {
        background: yellow;
      }
      input.ng-touched.ng-valid{
        background: green;
      }
      input.ng-touched.ng-invalid {
        background: red;
      }
    </style>
  </head>
  <body ng-app>
    <form novalidate name="DataForm">
      Enter Name: <input type="text" ng-model="username" name="username"
required>
      <span ng-show="DataForm.username.$error.required &&
DataForm.username.$touched">Kindly Enter the name</span>
      <br><br>
      Email: <input type="email" ng-model="email" name="email" required>
      <span ng-show="DataForm.email.$error.email">Enter Email in proper
format</span>
      <span ng-show="DataForm.email.$error.required &&
DataForm.email.$touched">Kindly Enter the email</span>
      <br><br>
      Enter Age: <input type="number" ng-model="age" name="age" min="18"
max="60" required>
      <span ng-show="DataForm.age.$error.required &&
DataForm.age.$touched">Kindly Enter the age</span>
      <span ng-show="DataForm.age.$error.min">Age is very low</span>
      <span ng-show="DataForm.age.$error.max">Age is very high</span>
      <br><br>
      <input type="submit">
    </form>
  </body>
</html>
```

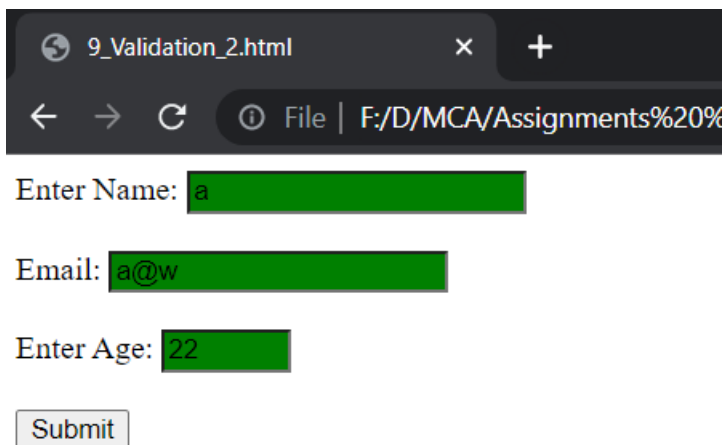
Output:



A screenshot of a web browser window with a dark theme. The address bar shows the file path 'F:/D/MCA/Assignments%20%26%20Back'. The page contains three input fields: 'Enter Name:', 'Email:', and 'Enter Age:', each followed by a yellow rectangular input box. Below these fields is a 'Submit' button.



A screenshot of the same web browser window. The 'Enter Name:' field now contains the letter 'a' and is highlighted in green. The 'Email:' field contains 'a' and is highlighted in red, with the text 'Enter Email in proper format' to its right. The 'Enter Age:' field contains '2' and is highlighted in red, with the text 'Age is very low' to its right. The 'Submit' button remains at the bottom.



A screenshot of the same web browser window. The 'Enter Name:' field contains 'a' and is highlighted in green. The 'Email:' field contains 'a@w' and is highlighted in green. The 'Enter Age:' field contains '22' and is highlighted in green. The 'Submit' button remains at the bottom.

5. Aim:

Write a program to demonstrate a custom model update trigger.

Theory:

To understand the use of ng-model-options to override the normal behavior of ng-model

Code:

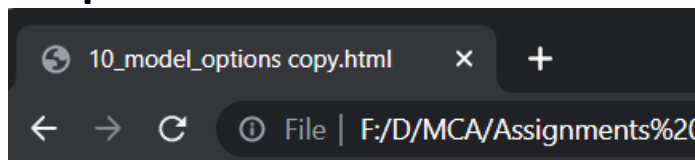
```
<html ng-app>
<title></title>
<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"
type="text/javascript"> </script>
<head>

</head>
<body>
  <form novalidate name="modelform">
    Enter Last Name: <input type="text" name="name" ng-model="user.lastname"
ng-model-options="{updateOn: 'blur'}">
    <br><br>
    {{user.lastname}}

  </form>

</body>
</html>
```

Output:



Enter Last Name:

Shastri

6. Aim:

Write a program that accepts a string which is having an 'abc' character in sequence; otherwise display error messages using custom validation.

Theory:

To learn to make a user defined directive to implement custom validation in a html form

Code:

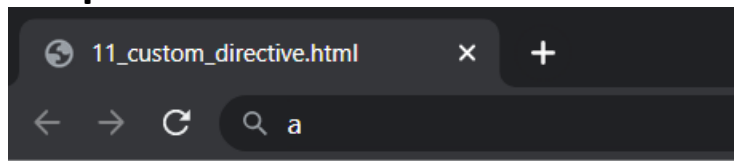
```
<html>
  <title></title>
  <script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"
type="text/javascript"> </script>
  <head>

  </head>
  <body ng-app="myApp">
    <form name="dataForm" novalidate>
      Enter Value = <input type="text" name="myData" my-directive="abcValidation"
ng-model="myData">
      <h1 ng-show="!dataForm.myData.$valid">Please Enter String "abc"</h1>
    </form>
  </body>

  <script>
    var app = angular.module("myApp",[]);
    app.directive("myDirective",function(){
      return {
        require:"ngModel",
        link: function(scope,element,attr,mctrl){
          function myValidation(value){
            if(value.indexOf("abc")>-1){
              mctrl.$setValidity("abcValidation",true);
            }else{
              mctrl.$setValidity("abcValidation",false);
            }
            return value;
          }
          mctrl.$parsers.push(myValidation);
        }
      }
    });

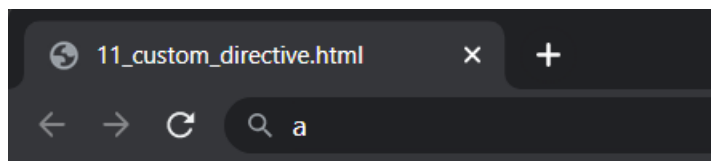
  </script>
</html>
```


Output:

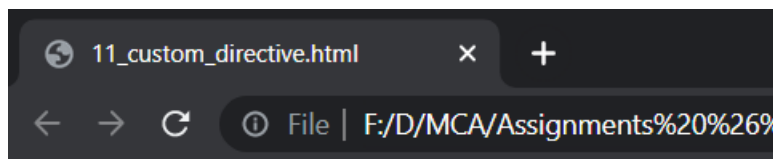


Enter Value =

Please Enter String "abc"



Enter Value =



Enter Value =

Please Enter String "abc"

7. Aim:

Write a program to create an SPA application.

Theory:

To learn to create a single page application in angular js as well as import and use the ngRoute module

Code:

```
<html>
  <head>
    <script
src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"
type="text/javascript"></script>
    <script src="https://cdnjs.cloudflare.com/ajax/libs/angular-
route/1.8.3/angular-route.min.js" type="text/javascript"></script>
  </head>

  <body ng-app="myApp">
    <script type="text/ng-template" id="homeContent">
      <h1>Home</h1>
      <h3>{{message}}</h3>
    </script>
    <script type="text/ng-template" id="aboutUsContent">
      <h1>About Us</h1>
      <h3>{{message}}</h3>
    </script>
    <script type="text/ng-template" id="blogsContent">
      <h1>Blogs</h1>
      <h3>{{message}}</h3>
    </script>

    <a href="#">Home</a>
    <a href="#!aboutus">About Us</a>
    <a href="#!blogs">Blogs</a>
    <div ng-view></div>

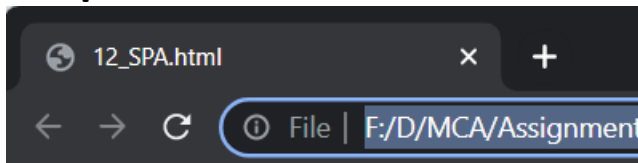
    <script>
      var app = angular.module("myApp",['ngRoute']);
      app.config(function($routeProvider){
        $routeProvider.when("/",{
          templateUrl: "homeContent",
          controller: "homeController"
        }).when("/aboutus",{
          templateUrl: "aboutUsContent",
          controller: "aboutUsController"
        }).when("/blogs",{
          templateUrl: "blogsContent",
          controller: "blogsController"
        }).otherwise({redirectTo:"/"})
      });
      app.controller("homeController",function($scope){
```

```

        $scope.message="Hello This is Homepage";
    });
    app.controller("aboutUsController",function($scope){
        $scope.message="Hello This is About us page";
    });
    app.controller("blogsController",function($scope){
        $scope.message="Hello This is Blog page";
    });
</script>
</body>
</html>

```

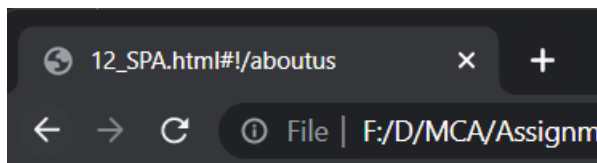
Output:



[Home](#) [About Us](#) [Blogs](#)

Home

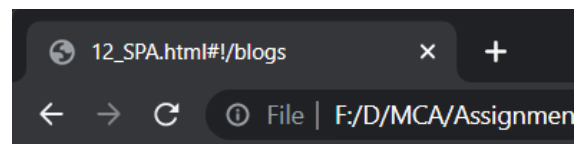
Hello This is Homepage



[Home](#) [About Us](#) [Blogs](#)

About Us

Hello This is About us page



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Blogs

Hello This is Blog page