Experiment 3

Aim-
1. Create a simple HTML "Hello World" Project using AngularJS Framework and apply ng-controller, ng-model and expressions.
2. Create an application like Students Record using AngularJS.

Theory-

AngularJS is a JavaScript Framework
AngularJS is a JavaScript framework written in JavaScript.

AngularJS is distributed as a JavaScript file, and can be added to a web page with a script tag:

<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular.min.js"></script>
AngularJS Extends HTML
AngularJS extends HTML with ng-directives.

The ng-app directive defines an AngularJS application.

The ng-model directive binds the value of HTML controls (input, select, textarea) to application data.

The ng-bind directive binds application data to the HTML view.

```
<!DOCTYPE html>
<html>
<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular.min.js"></script>
<body>

<div ng-app="">
  <p>Name: <input type="text" ng-model="name"></p>
  <p ng-bind="name"></p>
</div>

</body>
</html>
```
AngularJS starts automatically when the web page has loaded.

The ng-app directive tells AngularJS that the <div> element is the "owner" of an AngularJS application.

The ng-model directive binds the value of the input field to the application variable name.

The ng-bind directive binds the content of the <p> element to the application variable name.

AngularJS Directives

As you have already seen, AngularJS directives are HTML attributes with an ng prefix.

The ng-init directive initializes AngularJS application variables.

<div ng-app="" ng-init="firstName='John'">

<p>The name is </p>

</div>

Output-

1. Create a simple HTML "Hello World" Project using AngularJS Framework and apply ng-controller, ng-model and expressions.

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta http-equiv="X-UA-Compatible" content="IE=edge">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Hello</title>
   <script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular.min.js"></script>
</head>
<body >
   <div ng-app="" >
     First Name:<input type="text" ng-model="fname">
     <!-- Last Name:<input type="text" ng-model="lname"> -->
     <h1>Hello {{fname}} </h1>
   </div>
</body>
</html>
```

First Name: [ ]

Hello

First Name: [Mikil]

Hello Mikil

Create an application like Students Record using AngularJS.

```
<!DOCTYPE html>
<html lang="en-US">
<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular.min.js"></script>

<body>
  <h1 style="display: flex; justify-content: center;"><u>Student Details</u></h1>
  <div ng-app="checkboxApp" style="display: flex; justify-content: center;"
ng-controller="checkboxCtrl">
    <form name="myForm">
      <table>
        <tr>
          <td>First Name:</td>
          <td><input type="text" name="fname" ng-model="fname" required>
            <span style="color:red" ng-show="myForm.fname.$touched &&
myForm.fname.$invalid">First name is required.</span></td>

        </tr>
        <tr>
          <td>Last Name:</td>
          <td><input type="text" required name="lname" ng-model="lname"
ng-minlength="3">
            <span style="color:red" ng-show = "myForm.lname.$touched &&
(myForm.lname.$invalid || myForm.lname.$error.minlength)">Minimum 3 characters
required.</span></td>
```

```html
        </tr>
        <tr>
          <td>Email:</td>
          <td><input type="email" name="emailID" ng-model="emailID"
ng-pattern="/^[a-z]+[a-z0-9._-]*@[a-z]+\.[a-z.]{2,5}$/" required>
            <span style="color:red" ng-show = "myForm.emailID.$error.pattern">Enter valid
email.</span></td>
        </tr>
        <tr>
          <td>Date of Birth:</td>
          <td><input type="date"></td>
        </tr>
        <tr>
          <td>Gender:</td>
          <td>
            <select>
              <option value="male">Male</option>
              <option value="female">Female</option>
            </select>
          </td>
        </tr>
        <tr>
          <td>Training Type:</td>
          <td><input type="radio" name="radio1">Online</td>
        </tr>
        <tr>
          <td>
          <td><input type="radio" name="radio1">Offline</td>
          </td>
        </tr>
        <tr>
          <td>Subject:</td>
          <td>
            <table>
              <tr>
                <td><input type="checkbox" ng-model="chkselct.sub1">AI&DS-1</td>
              </tr>
              <tr>
                <td><input type="checkbox" ng-model="chkselct.sub2">Web X.0</td>
              </tr>
```

```html
        <tr>
          <td><input type="checkbox" ng-model="chkselct.sub3">DMBI</td>
        </tr>
        <tr>
          <td><input type="checkbox" ng-model="chkselct.sub4">WT</td>
        </tr>
        <tr>
          <td><input type="checkbox" ng-model="chkselct.sub5">EH&F</td>
        </tr>

      </table>
    </td>
  </tr>
  <tr>
    <td colspan="2">
      <span style="color:red;" ng-show="validationmsg">Please select at least one
        Checkbox</span><br>
      <input type="submit" value="Submit" ng-click="checkvalidation();" />
    </td>
  </tr>
</table>
</form>
</div>
<script>
    var app = angular.module('checkboxApp', []);
    app.controller('checkboxCtrl', function ($scope) {
        $scope.validationmsg = false;
        $scope.checkvalidation = function () {
            var chkselct = $scope.chkselct;
            if (chkselct == false || chkselct == undefined)
                $scope.validationmsg = true;
            else
                $scope.validationmsg = false;
        }
    });
</script>
</body>

</html>
```

<u>Student Details</u>

First Name: [_____]   First name is required.

Last Name: [_____]   Minimum 3 characters required.

Email: [a_____]   Enter valid email.

Date of Birth: [dd - mm - yyyy   📅]

Gender: [Male ⌄]

Training Type: ○ Online

            ○ Offline

            ☐ AI&DS-1

            ☐ Web X.0

Subject: ☐ DMBI

            ☐ WT

            ☐ EH&F

Please select at least one Checkbox

[Submit]

Student Details

First Name: Mikil

Last Name: Lalwani

Email: mikil.lalwani03@gmail.com

Date of Birth: 30 - 08 - 2002

Gender: Male

Training Type: ○ Online
○ Offline ●

☐ AI&DS-1
☐ Web X.0

Subject: ☐ DMBI
☐ WT
☑ EH&F

Submit

Conclusion-
We successfully used AngularJs to create a form and validated it using directives and controllers in AngularJs.