

3. Develop a simple Angular JS calculator application that can perform basic mathematical operations (addition, subtraction, multiplication, division) based on user input.

```
<!DOCTYPE html>

<html>

<title>

AJS Simple Calculator

</title>

<head>

<script type="text/javascript"

src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js">

</script>

<script>

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

app.controller("calcCntrl",function($scope)

{

$scope.num1=0

$scope.num2=0

$scope.result=0

$scope.operator="add"

$scope.compute=function(){

switch($scope.operator){

case 'add': $scope.result=$scope.num1 + $scope.num2

break
```

```
case 'sub': $scope.result=$scope.num1 - $scope.num2
```

```
break
```

```
case 'mul': $scope.result=$scope.num1 * $scope.num2
```

```
break
```

```
case 'div': if($scope.num2==0){
```

```
  alert("Divide by zero error")
```

```
}
```

```
else{
```

```
  $scope.result=$scope.num1/$scope.num2
```

```
}}
```

```
});
```

```
</script>
```

```
</head>
```

```
<body ng-app="calcApp">
```

```
<h1>Angular JS Simple Calculator</h1>
```

```
<div ng-controller="calcCtrl">
```

```
  Enter First Number: <input type="number" ng-model="num1">
```

```
  Select Operator:<select ng-model="operator">
```

```
    <option value="add">+</option>
```

```
    <option value="sub">-</option>
```

```
    <option value="mul">*</option>
```

```
    <option value="div">/</option>
```

```
</select>
```

```
  Enter Second Number:<input type="number" ng-model="num2">
```

```
<button ng-click="compute()">Compute</button>
```

```
<br/>
<b>{{num1 + " "+operator+ " "+ num2+ "="+result}}</b>
</div>
</body>
</html>
```

4. Write an Angular JS application that can calculate factorial and compute square based on given user input.

```
<!DOCTYPE html>
<html>
<title>
  AJS Square and Factorial Application
</title>
<head>
<script type="text/javascript"
src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js">
</script>
<script>
var app=angular.module("mySqFct", []);
app.controller("mySqFctCntrl", function($scope){
  $scope.num=0
  $scope.result
  $scope.factorial=function()
  {
```

```
if($scope.num==0)
{
$scope.result=1
}
else{
$scope.fact=1
for(var i=$scope.num; i>=1; i--)
{
$scope.fact=$scope.fact*i
}
$scope.result=$scope.fact
}
}
$scope.square=function(){
$scope.result=$scope.num*$scope.num
}
});
</script>
</head>
<body ng-app="mySqFct">
<h1> Angular JS Factorial and Square Application</h1>
<div ng-controller="mySqFctCntrl">
Enter the Number: <input type="number" ng-model="num">
<button ng-click="factorial()">Compute Factorial</button>
<button ng-click="square()">Compute Square</button>
```

```
<br/>
{{result}}
</div>
</body>
</html>
```

5. Develop AngularJS application that displays a details of students and their CGPA. Allow users to read the number of students and display the count.

Note: Student details may be included in the program.

```
<!DOCTYPE html>
<html>
<title>Student Details Application</title>
<head>
<script type="text/javascript"
src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js">
</script>
<script>
var app=angular.module("studDetailsApp",[]);
app.controller("studDetailsAppCntrl",function($scope){
$scope.studData=[]
$scope.generateData=function()
{
$scope.studData=[]
for(var i=1;i<=$scope.num;i++)
```

```
{
var stud={
"SLNO":i,
"NAME":'Student-'+i,
"CGPA":(Math.random()*10+1).toFixed(2)
}
$scope.studData.push(stud)
}
}
});
</script>
</head>
<body ng-app="studDetailsApp">
<h1>Student Details Application</h1>
<div ng-controller="studDetailsAppCntrl">
Enter the Number of Students to Generate the Data:
<input type="number" ng-model="num">
<button ng-click="generateData()">Generate</button>
<br/>
<table border="1" ng-show="studData.length>0">
<tr>
<th>SLNO</th>
<th>NAME</th>
<th>CGPA</th>
</tr>
```

```
<tr ng-repeat="student in studData">
  <td>{{student.SLNO}}</td>
  <td>{{student.NAME}}</td>
  <td>{{student.CGPA}}</td>
</tr>
</table>
<br/>
Number of Students={{studData.length}}
</div>
</body>
</html>
```