**BANGALORE INSTITUTE OF TECHNOLOGY**

**K. R. Road, V. V. Pura, Bengaluru-560004**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**Angular JS Laboratory**

**Course Code: 21CSL581 I.A. Marks : 50**

**Hours/Week: 2P Exam Hours: 03**

**Total Hours: 24 Exam Marks: 50**

**Week 4 Programs**

# LAB PROGRAM 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>

    <head>

        <title>LAB3 PROGRAM </title>

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

        </script>

        <script>

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

            app.controller("myCntrl",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

                                    break

                        }

                }

            });

        </script>

    </head>

    <body ng-app="myApp">

        <h1>SIMPLE CALCULATOR</h1>

        <div ng-controller="myCntrl">

            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"><br/><br />

            <button ng-click="compute()">COMPUTE</button> <br />

            {{num1 +" "+operator+" "+num2 +" = "+result}}

        </div>

    </body>

    </html>

# LAB PROGRAM 4

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

<!DOCTYPE html>

<html>

    <head>

        <title> LAB4 PROGRAM </title>

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

        </script>

        <script>

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

            app.controller("myCntrl",function($scope){

                $scope.num=0

                $scope.result=0

                $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="myApp">

        <h1>FACTORIAL AND SQUARE APPLICATION</h1>

        <div ng-controller="myCntrl">

            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>

1. **Sample Program on ng-show**

<!DOCTYPE html>

<html>

    <head>

        <title>DEMO PROGRAM ON USING ng-show DIRECTIVE</title>

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

        </script>

        <script>

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

            app.controller("myCntrl",function($scope){

                $scope.display=true;

            });

        </script>

    </head>

    <body ng-app="myApp">

        <div ng-controller="myCntrl">

            <li ng-show="display">BIT CSE</li>

        </div>

    </body>

    </html>

1. **Sample Program on random number generator**

<!DOCTYPE html>

<html>

    <head>

        <title>RANDOM NUMBER GENERATOR</title>

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

        </script>

        <script>

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

            app.controller("myCntrl",function($scope){

               $scope.randomlist=[]

               $scope.generateRN=function(){

                $scope.randomlist=[]

                for(var i=1;i<=$scope.num;i++)

                {

                    $scope.randomlist.push(Math.random())

                    //$scope.randomlist.push(Math.random().toFixed(2))

                    //$scope.randomlist.push((Math.random()\*100).toFixed(2))

                    //$scope.randomlist.push((Math.random()\*$scope.num+1).toFixed(2))

                }

                }

            });

        </script>

    </head>

    <body ng-app="myApp">

        <div ng-controller="myCntrl">

            Enter the Number of Random Numbers to be Generated:<input type="number" ng-model="num">

            <button ng-click="generateRN()">GENERATE</button><br/>

            <ul>

                <li ng-repeat="x in randomlist">{{x}}</li>

            </ul>

        </div>

    </body>

    </html>

1. **LAB PROGRAM 5**

Develop AngularJS application that displays 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>

    <head>

        <title>LAB5 PROGRAM</title>

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

        </script>

        <script>

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

        app.controller("myCntrl",function($scope){

               $scope.stdata=[]

               $scope.generatedata=function(){

                $scope.stdata=[]

                for(var i=1;i<=$scope.num;i++)

                {        var stud={"SLNO":i,"NAME":'Student-'+i,"CGPA":(Math.random()\*10).toFixed(2)}

                         $scope.stdata.push(stud)

                }

               }

            });

        </script>

    </head>

    <body ng-app="myApp">

        <h1>STUDENT DETAILS APPLICATION</h1>

        <div ng-controller="myCntrl">

            Enter the Number of Students to Generate the data:<input type="number" ng-model="num">

            <button ng-click="generatedata()">GENERATE DATA</button><br/>

            <table border="1" ng-show="stdata.length>0">

                <tr>

                    <th>SL.NO.</th>

                    <th>NAME</th>

                    <th>CGPA</th>

                </tr>

                <tr ng-repeat="std in stdata">

                    <td>{{std.SLNO}}</td>

                    <td>{{std.NAME}}</td>

                    <td>{{std.CGPA}}</td>

                </tr>

            </table><br/>

            Number of Students={{stdata.length}}

        </div>

    </body>

    </html>

**Faculty In-charges**

**Course Coordinator Module Coordinator IQAC Programme Coordinator**