DR. T. THIMMAIAH INSTITUTE OF TECHNOLOGY

Oorgaum, Kolar Gold Fields, Karnataka – 563120

(Affiliated to VTU, Belagavi, Approved by AICTE -New Delhi)

An ISO 21001 Certified Institute

NAAC Accredicted 'A' Grade

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

V SEMESTER

ANGULAR JS

Subject Code: 21CSL581

NAME:……
BRANCH:……
REG.NO:……

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Vision

"To produce highly competent and innovative Computer Science professionals through excellence in teaching, training and research."

Mission

M1:	To provide appropriate infrastructure to impart need-based technical education through effective teaching and research.
M2:	To involve the students in innovative projects on emerging technologies to fulfill the industrial requirements.
M3:	To render leadership skills and ethical responsibilities in students that leads them to become globally competent professionals.

ANGULAR JS			
Course Code	**21CSL581**	CIE Marks	50
Teaching Hours/Week (L:T:P: S)	0:0:2:0	SEE Marks	50
Credits	01	Total marks	100
Examination type (SEE)	PRACTICAL		

Course objectives:

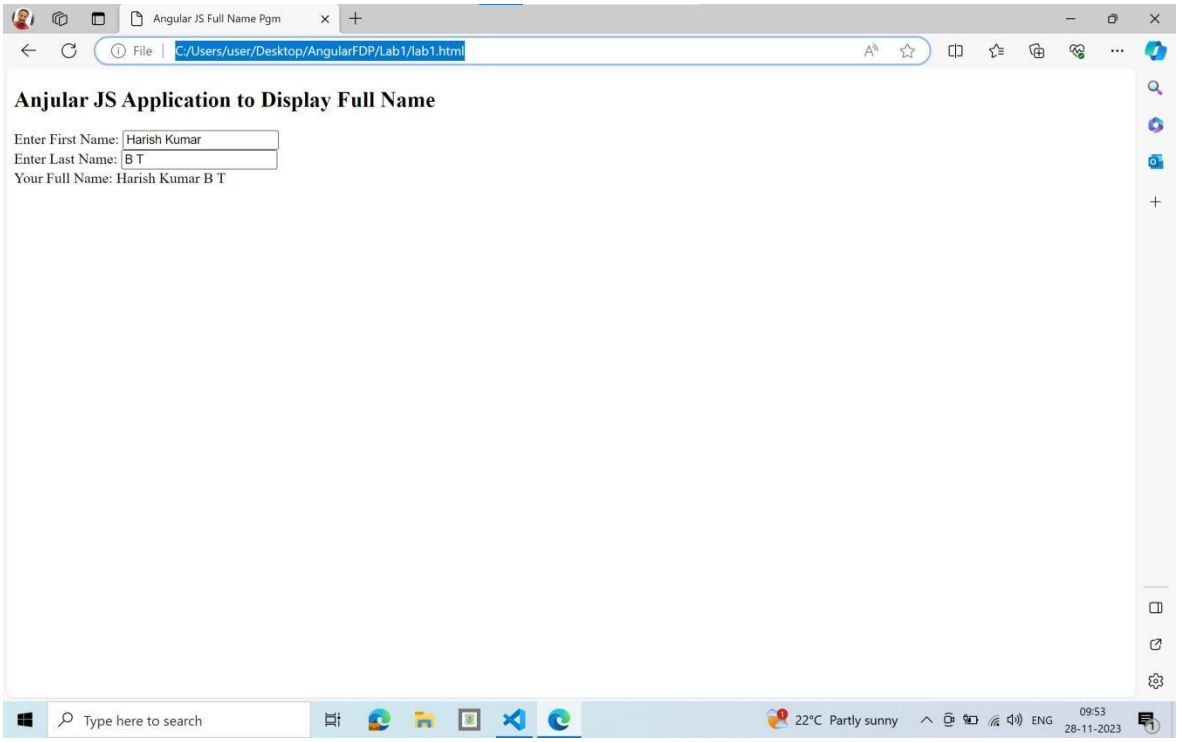
- To learn the basics of Angular JS framework.
- To understand the Angular JS Modules, Forms, inputs, expression, data bindings and Filters
- To gain experience of modern tool usage (VS Code, Atom or any other] in developing Web applications

Sl.NO	Experiments
1	Develop Angular JS program that allows user to input their first name and last name and display their full name. **Note**: The default values for first name and last name may be included in the program.
2	Develop an Angular JS application that displays a list of shopping items. Allow users to add and remove items from the list using directives and controllers. **Note**: The default values of items may be included in the program.
3	Develop a simple Angular JS calculator application that can perform basic mathematical operations (addition, subtraction, multiplication, division) based on user input.
4	Write an Angular JS application that can calculate factorial and compute square based on given user input.
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.
6	Develop an AngularJS program to create a simple to-do list application. Allow users to add, edit, and delete tasks. **Note**: The default values for tasks may be included in the program.
7	Write an AngularJS program to create a simple CRUD application (Create, Read, Update, and Delete) for managing users.
8	Develop AngularJS program to create a login form, with validation for the username and password fields.
9	Create an AngularJS application that displays a list of employees and their salaries. Allow users to search for employees by name and salary. **Note**: Employee details may be included in the program.
10	Create AngularJS application that allows users to maintain a collection of items. The application should display the current total number of items, and this count should automatically update as items are added or removed. Users should be able to add items to the collection and remove them as needed. **Note**: The default values for items may be included in the program.
11	Create AngularJS application to convert student details to Uppercase using angular filters. **Note**: The default details of students may be included in the program.
12	Create an AngularJS application that displays the date by using date filter parameters

1. Develop Angular JS program that allows user to input their first name and last name and display their full name. **Note**: The default values for first name and last name may be included in the program.

```
<!DOCTYPE html>


<html>
<title>
   Angular JS Full Name Pgm
</title>
<head>
   <script type="text/javascript"

src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.j
s"> </script> <script>     var app=angular.module("myApp",[]);
app.controller("myCntrl",function($scope){
      $scope.firstName="Harish Kumar"
      $scope.lastName="B T"
   });
</script>
</head>
<body ng-app="myApp">
   <h2>Anjular JS Application to Display Full Name</h2>
   <div ng-controller="myCntrl">
      Enter First Name: <input type="text" ng-model="firstName"><br/>
      Enter Last Name: <input type="text" ng-model="lastName"><br/>
      Your Full Name: {{firstName +" "+ lastName}}
   </div>
</body>
</html>
```

Output:

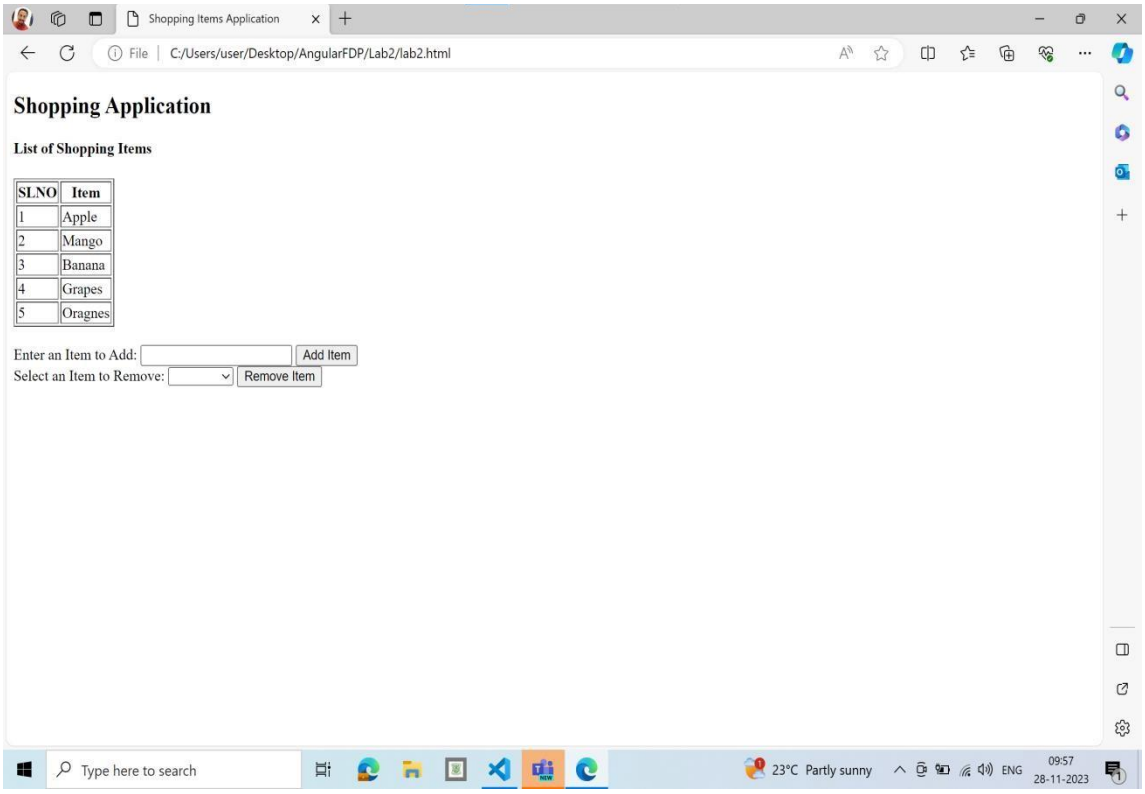

Angular JS Full Name Pgm
File | C:/Users/user/Desktop/AngularFDP/Lab1/lab1.html
Anjular JS Application to Display Full Name
Enter First Name: Harish Kumar
Enter Last Name: B T
Your Full Name: Harish Kumar B T
Type here to search
22°C Partly sunny
ENG
09:53
28-11-2023

2. Develop an Angular JS application that displays a list of shopping items. Allow users to add and remove items from the list using directives and controllers. Note: The default values of items may be included in the program.

```
<!DOCTYPE html>
<html>
<title>
   Shopping Items Application
</title>
<head>
   <script type="text/javascript"

src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.j
s"> </script> <script>     var app=angular.module("myApp",[]);
app.controller("myCntrl",function($scope){
   $scope.shoppingItems=['Apple','Mango','Banana','Grapes']
   $scope.addItem=function(){
  if($scope.newItem && $scope.shoppingItems.indexOf($scope.newItem)==-1)
          {
             $scope.shoppingItems.push($scope.newItem)
             $scope.newItem=""

}
else
          {
             if($scope.newItem)
             alert("This item is already there in the shopping
list")              else
            alert("Please enter an item to add")
          }
       }

       $scope.removeItem=function(){
//console.log("function called")
          if($scope.shoppingItems.indexOf($scope.selectItem)==-1)
          {
             alert("Please select an item to remove")
          }
else{
             var index=$scope.shoppingItems.indexOf($scope.selectItem)
             $scope.shoppingItems.splice(index,1)
             $scope.selectItem=""
          }
       }
   });
```

```
</script>


</head>
<body ng-app="myApp">
<div ng-controller="myCntrl">
   <h2>Shopping Application</h2>
   <h4>List of Shopping Items</h4>
   <table border="1">
      <tr>
         <th>SLNO</th>
         <th>Item</th>
      </tr>
      <tr ng-repeat="items in shoppingItems">
         <td>{{$index+1}}</td>
         <td>{{items}}</td>
      </tr>
   </table>
   <br/>
   <div>
   Enter an Item to Add: <input type="text" ng-model="newItem">
   <button ng-click="addItem()">Add Item</button>
</div>

<div>
 Select an Item to Remove:
 <select ng-model="selectItem" ng-options="item for item in shoppingItems"></select>
   <button ng-click="removeItem()">Remove Item</button>
</div>
</div>
</body>
</html>
```

Output:

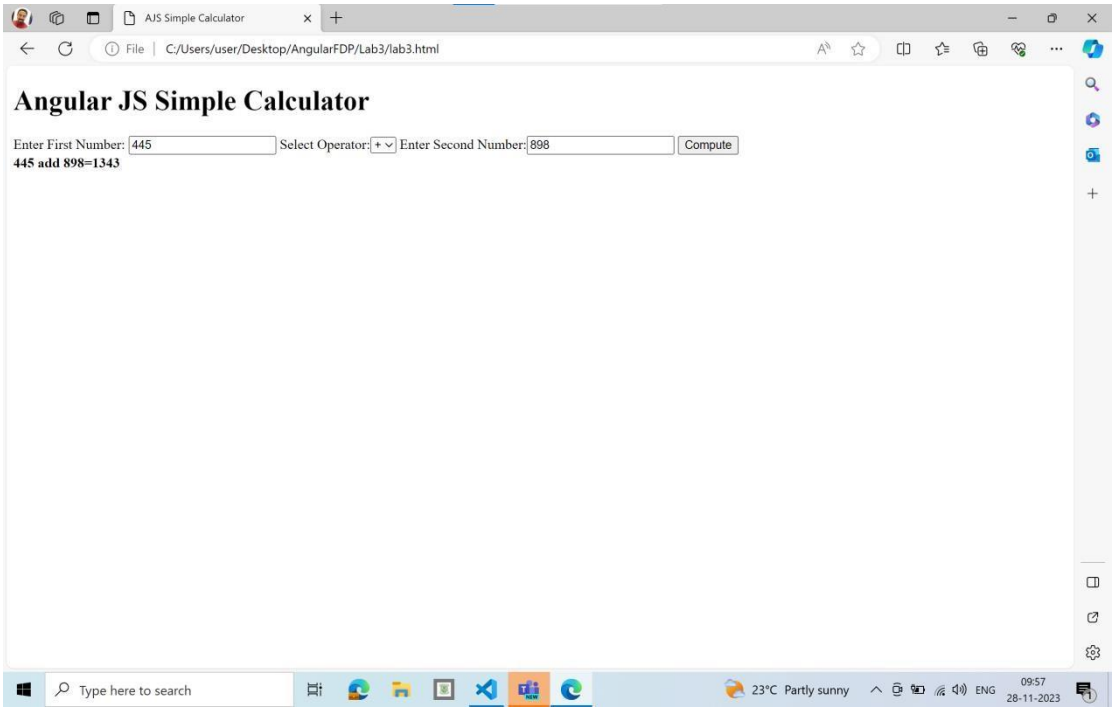

Shopping Items Application
File | C:/Users/user/Desktop/AngularFDP/Lab2/lab2.html
Shopping Application
List of Shopping Items
SLNO Item
1 Apple
2 Mango
3 Banana
4 Grapes
5 Oragnes
Enter an Item to Add: Add Item
Select an Item to Remove: Remove Item
Type here to search
23°C Partly sunny
ENG
09:57
28-11-2023

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($sc
ope)
 {
        $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="calcCntrl">


        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>
    </h
tml>
```

Output:

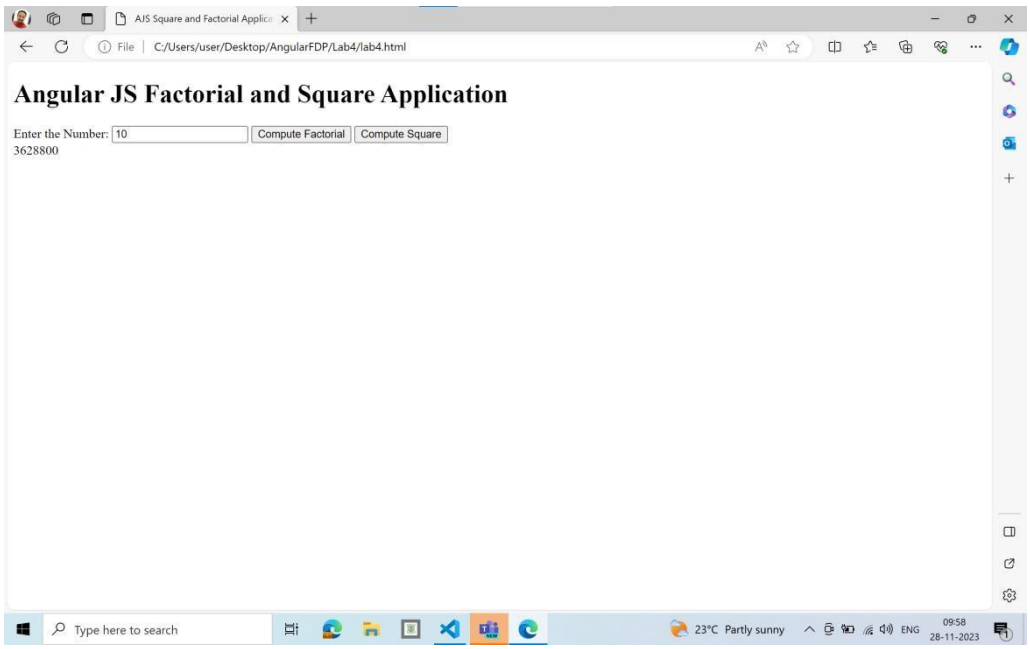


4. Write an Angular JS application that can calculate factorial and compute square based on given user input.

```
<!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>
```

Output:

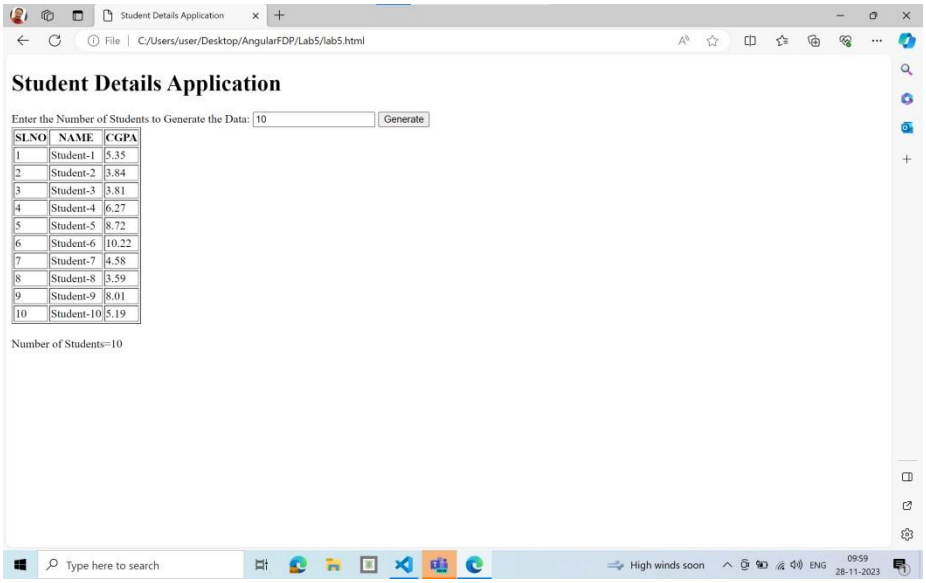


5. Develop AngularJS application that displays a details of students and their CGPA. Allow users to read the number of students and display the count. Note: Student details may be included in the program.

```
<!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>
```

Output:

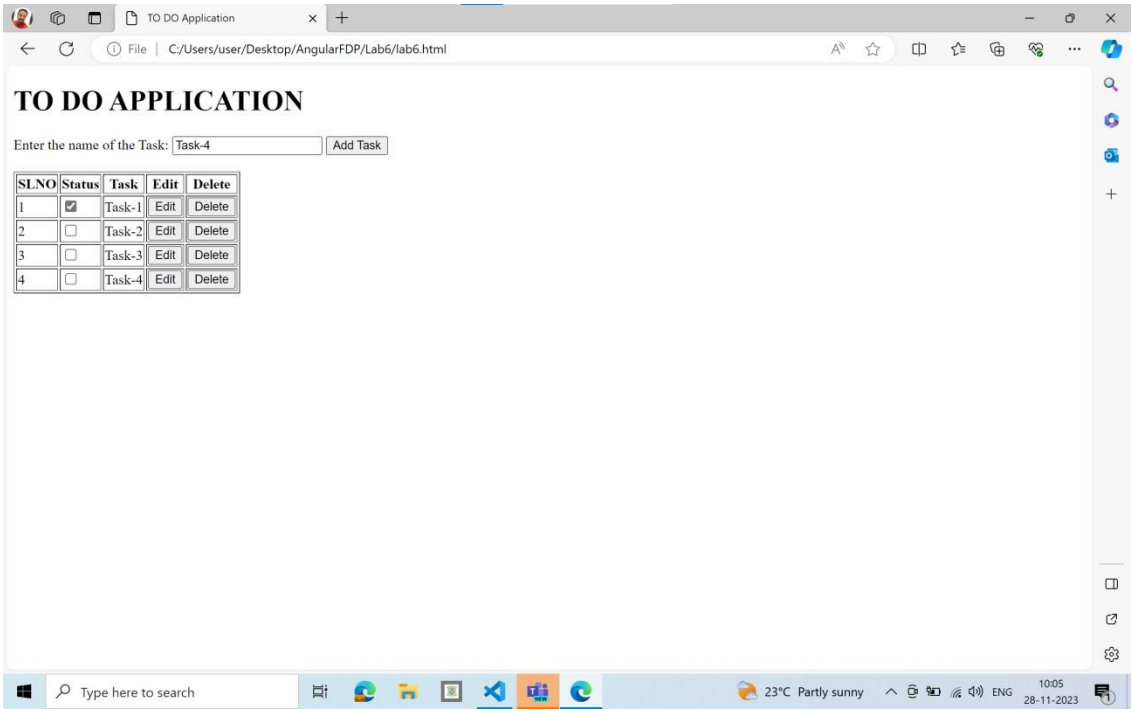


6. Develop an AngularJS program to create a simple to-do list application. Allow users to add, edit, and delete tasks. Note: The default values for tasks may be included in the program.

```
<!DOCTYPE html>
<html>
    <title>TO DO 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("toDoApp",[]);
            app.controller("toDoAppCntrl",function($scope){
$scope.tasks=[
       {'TITLE':'Task-1','COMPLETED':true,'EDITING':false},
       {'TITLE':'Task-2','COMPLETED':false,'EDITING':false},
       {'TITLE':'Task-3','COMPLETED':false,'EDITING':false}
                ]

                 $scope.addTask=function(){
if($scope.newTask)
                    {
var t={
                        'TITLE':$scope.newTask,
                        'COMPLETED':false,
                        'EDITING':false
                    }

                    $scope.tasks.push(t)
                }                else{
alert("Please enter the task to add")
                }
                 }

                 $scope.editTask=function(task)
                 {
                    task.EDITING=true
                 }

                 $scope.turnOffEditing=function(task){
task.EDITING=false
                 }

                $scope.deleteTask=function(task)
```

```
                {


                 var index=$scope.tasks.indexOf(task)
                    $scope.tasks.splice(index,1)

}

            });
        </script>
    </head>

    <body ng-app="toDoApp">
        <h1>TO DO APPLICATION</h1>
        <div ng-controller="toDoAppCntrl">
            Enter the name of the Task:
           <input type="text" ng-model="newTask">
            <button ng-click="addTask()">Add Task</button>
            <br/>
            <br/>
            <table border="1">
                <tr>
                    <th>SLNO</th>
                    <th>Status</th>
                    <th>Task</th>
                    <th>Edit</th>
                    <th>Delete</th>
                </tr>
                <tr ng-repeat="task in tasks">
                    <td>{{$index+1}}</td>
                    <td>
                      <input type="checkbox" ng-model="task.COMPLETED">
                    </td>
                    <td>
          <span ng-show="!task.EDITING">{{task.TITLE}}</span>
            <input type="text" ng-show="task.EDITING"
            ng-model="task.TITLE" ng-    blur="turnOffEditing(task)">
                    </td>
                    <td>
                        <button ng-click="editTask(task)">Edit</button>
                    </td>
                    <td>
                        <button ng-click="deleteTask(task)">Delete</button>
                    </td>
                </tr>
            </table>
            </div>
    </body>
</html>
```

Output:


TO DO Application
File | C:/Users/user/Desktop/AngularFDP/Lab6/lab6.html
TO DO APPLICATION
Enter the name of the Task: Task-4
Add Task
SLNO Status Task Edit Delete
1 Task-1 Edit Delete
2 Task-2 Edit Delete
3 Task-3 Edit Delete
4 Task-4 Edit Delete
Type here to search
23°C Partly sunny
ENG
10:05
28-11-2023

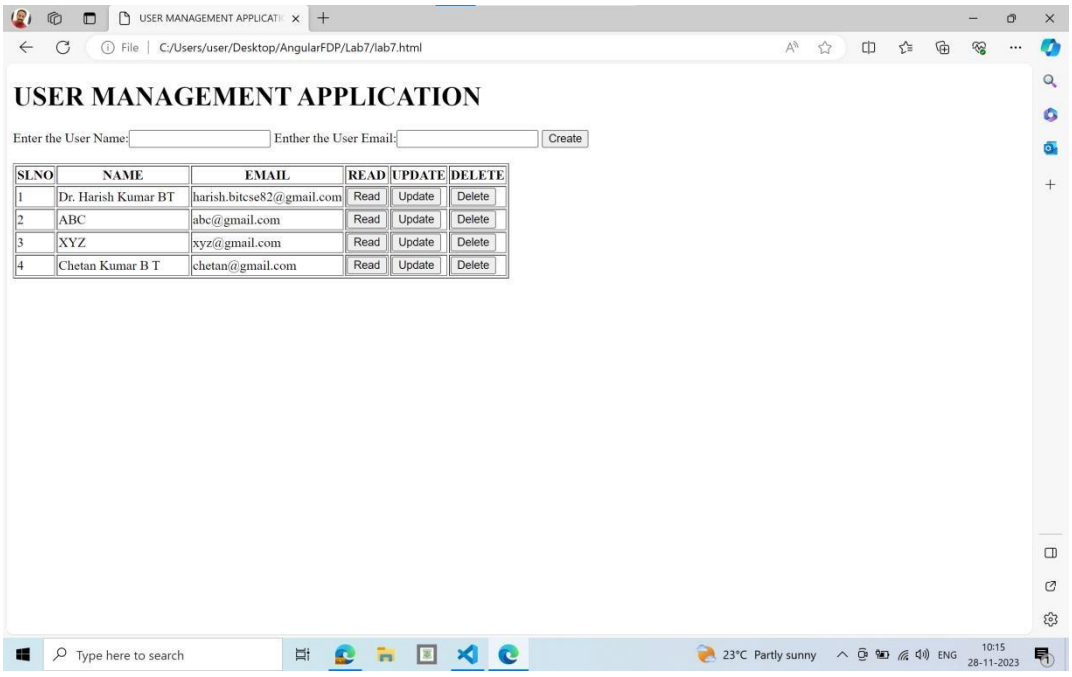
7. Write an AngularJS program to create a simple CRUD application (Create, Read, Update, and Delete) for managing users.

```
<!DOCTYPE html>
<html>
    <title>USER MANAGEMENT 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("userMgmtApp",[]);
            app.controller("userMgmtAppCntrl",function($scope){
                $scope.users=[
 {'name':"Dr. Harish Kumar BT",
'email':'harish.bitcse82@gmail.com','editing':false},
 {'name':'ABC','email':'abc@gmail.com','editing':false},
   {'name':'XYZ','email':'xyz@gmail.com','editing':false}
                ]

                $scope.createUser=function()
                {
                     if($scope.newUserName &&
$scope.newUserEmail)
                    {
var u={
                        'name':$scope.newUserName,
                        'email':$scope.newUserEmail,
                        'editing':false
                    }

                    $scope.users.push(u)
                    $scope.newUserName=''
                    $scope.newUserEmail=''
                    }                    else{
alert("Please provide the user name and email id")
}

                }

                    $scope.readUser=function(user)
                    {
user.editing=true
                    }


                        $scope.updateUser=function(user){
user.editing=false
                    }
```

```
                    $scope.deleteUser=function(user)
                    {
                         var  yes=confirm("Are  you  sure  you  want  to
delete")                        if(yes==true)
                        {                           var
index=$scope.users.indexOf(user)

                        $scope.users.splice(index,1)
                        }
                    }

            });

         </script>

    </head>

    <body ng-app="userMgmtApp">

        <h1>USER MANAGEMENT APPLICATION</h1>
        <div ng-controller="userMgmtAppCntrl">

            Enter the User Name:<input type="text" ng-model="newUserName">
            Enther the User Email:<input type="text" ng-model="newUserEmail">
            <button ng-click="createUser()">Create</button>
            <br/>
            <br/>
            <table border="1">
                <tr>
                    <th>SLNO</th>
                    <th>NAME</th>
                    <th>EMAIL</th>
                    <th>READ</th>
                    <th>UPDATE</th>
                    <th>DELETE</th>
                </tr>
                <tr ng-repeat="user in users">
                    <td>{{$index+1}}</td>
                    <td>
<span
ng-how="!user.editing">{{user.name}}</span>    
 <input type="text" ng-show="user.editing" ng-model="user.name">



                     </td>
                    <td>
                        <span ng-show="!user.editing">{{user.email}}</span>
            <input type="text" ng-show="user.editing" ng-model="user.email">
```

```
                        </td>
                        <td>
                            <button ng-click="readUser(user)">Read</button>
                        </td>
                        <td>
                            <button ng-click="updateUser(user)">Update</button>
                        </td>
                        <td>
                            <button ng-click="deleteUser(user)">Delete</button>
                        </td>
                    </tr>
                </table>

            </div>
        </body>
    </html>
```

Output:

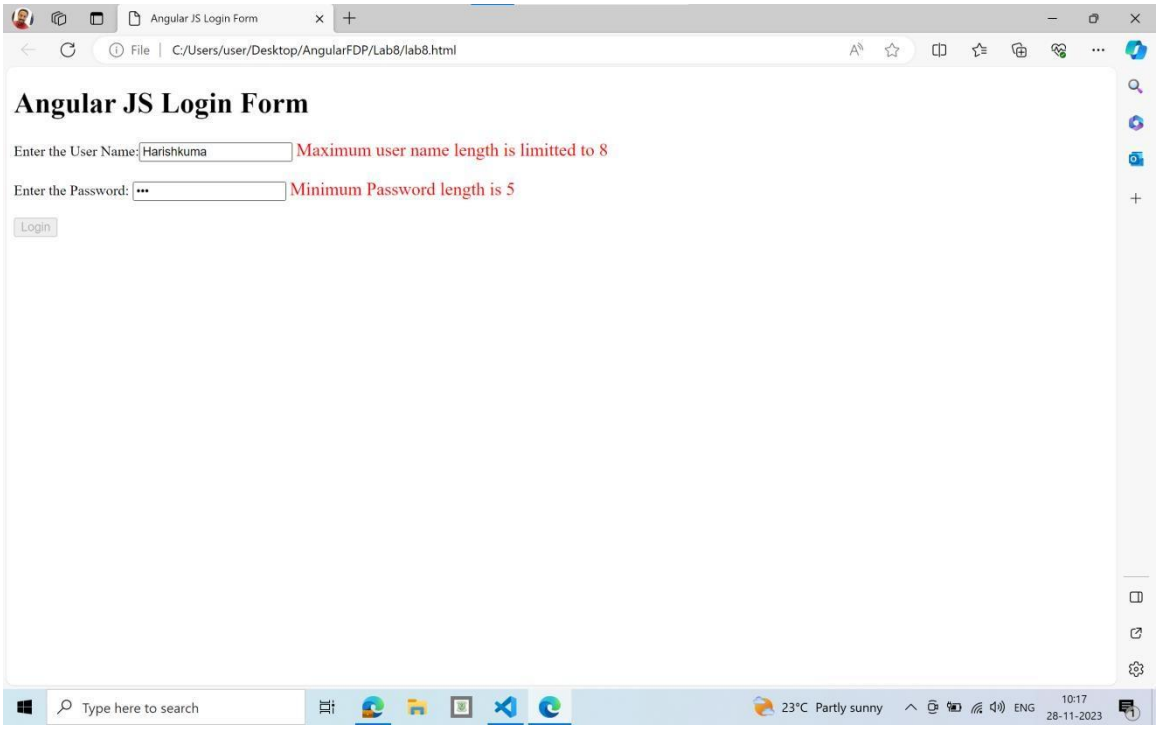


8. Develop AngularJS program to create a login form, with validation for the username and password fields.

```
<!DOCTYPE html>
<html>
    <title>Angular JS Login Form</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("loginApp",[]);
            app.controller('loginAppCntrl',function($scope){
                $scope.userName=''
                $scope.password=''

                $scope.noAttempts=0
                $scope.login=function(){
                  //  console.log("Inside login function")

if($scope.userName=="harish" &&
$scope.password=="12345678")
{                       alert("Login
Successfull")
                    }
else{
                      $scope.noAttempts++
if($scope.noAttempts<=3)
                    {                       alert("Incorrect user
name/password! Attempt No.
"+$scope.noAttempts)
}
else{

document.getElementById("loginButton").disabled=true
}

                    }
                }


            });
        </script>
        <style>
            .error-message{
color:red;                  font-
size: 20px;    }
        </style>
```

```
    </head>

    <body ng-app="loginApp" ng-controller="loginAppCntrl">

      <h1>Angular JS Login Form</h1>
      <form name="loginForm" ng-
submit="submitForm()">
            Enter the User Name:<input type="text" name="userName"
ng-model="userName" ng-minlength="5" ng-maxlength="8" required placeholder="Enter
User Name">
            <span class="error-message"
 ng-show="loginForm.userName.$error.required && loginForm.userName.$dirty">User
Name is Required</span>   <span class="error-message"  ng-
show="loginForm.userName.$error.minlength">Minimum Length Must be
5</span>
            <span class="error-message"  ng-
show="loginForm.userName.$error.maxlength">Maximum user name length is
limitted to 8</span>            <br/>
            <br/>
            Enter the Password: <input type="password" name="password"  ng-
model="password" ng-minlength="5" ng-maxlength="8" required placeholder="Enter
your password">
            <span class="error-message" ng-show="loginForm.password.$error.required
&& loginForm.password.$dirty">Password is required</span>
            <span class="error-message"  ng-
show="loginForm.password.$error.minlength">Minimum Password length is 5</span>
            <span class="error-message"  ng-
show="loginForm.password.$error.maxlength">Maximum password length is
limitted to 8</span>            <br/>
            <br/>
            <button type="submit" ng-
disabled="loginForm.$invalid"  ng-click="login()"
id="loginButton">Login</button>
    </form>
    </body>
</html>
```

Output:

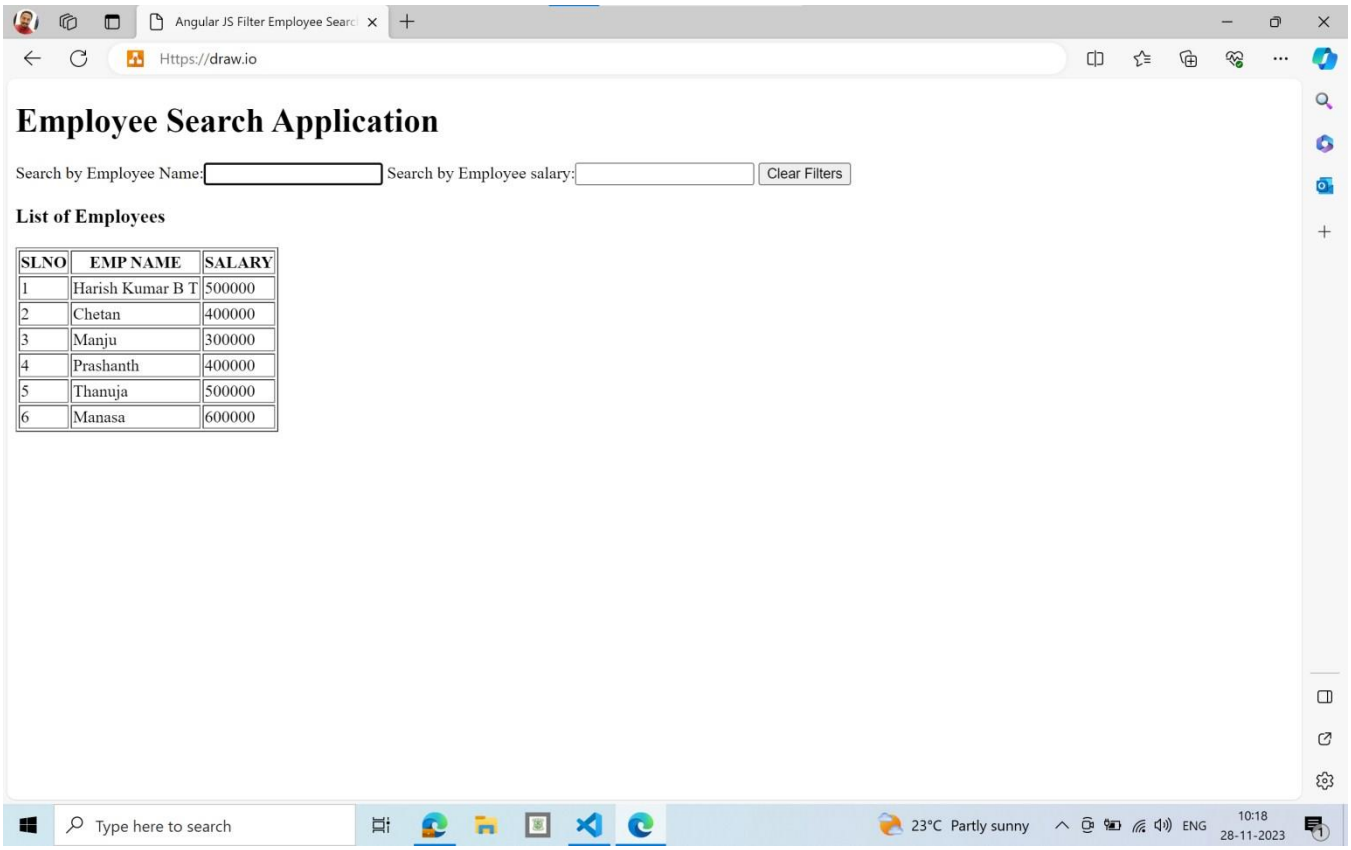

Angular JS Login Form
File | C:/Users/user/Desktop/AngularFDP/Lab8/lab8.html
Angular JS Login Form
Enter the User Name: Harishkuma
Maximum user name length is limitted to 8
Enter the Password:
Minimum Password length is 5
Login
Type here to search
23°C Partly sunny
ENG
10:17
28-11-2023

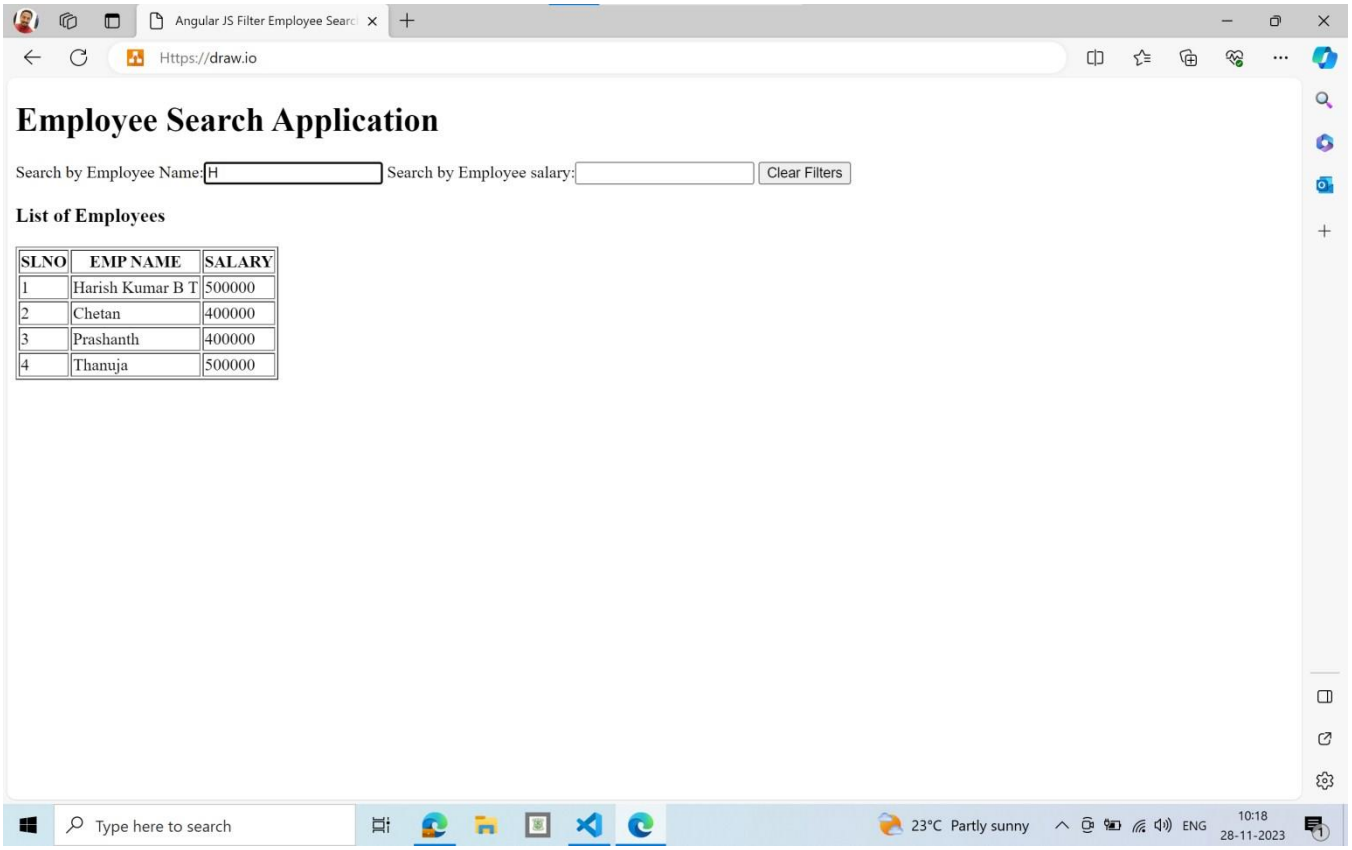
9. Create an AngularJS application that displays a list of employees and their salaries. Allow users to search for employees by name and salary. Note: Employee details may be included in the program.

```
<!DOCTYPE html>
<html>
    <title>Angular JS Filter Employee Search Application</title>
    <head>
        <script type="text/javascript"
src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.mi n.js">
        </script>

        <script>            var
app=angular.module("empSearchApp",[]);
            app.controller("empSearchAppCntrl",function($scope){
$scope.empList=[
                    {'name':'Harish Kumar B T','salary':500000},
                    {'name':'Chetan','salary':400000},
                    {'name':'Manju','salary':300000},
                    {'name':'Prashanth','salary':400000},
                    {'name':'Thanuja','salary':500000},
                    {'name':'Manasa','salary':600000}
                ]

                    $scope.clearFilters=function()
                    {
                        $scope.searchName=''
                        $scope.searchSalary=''
                    }

            });
        </script>
    </head>

    <body ng-app="empSearchApp">
        <h1>Employee Search Application</h1>
        <div ng-controller="empSearchAppCntrl">
            Search by Employee Name:<input type="text" ng-model="searchName">
Search by Employee salary:<input type="number"  ng-model="searchSalary">

            <button ng-click="clearFilters()">Clear Filters</button>
            <br/>
            <h3>List of Employees</h3>
            <table border="1">
                <tr>
```

```
                        <th>SLNO</th>
                    <th>EMP NAME</th>
                    <th>SALARY</th>
                </tr>
                <tr ng-repeat="emp in empList |
filter:{name:searchName,salary:searchSalary}">
                    <td>{{$index+1}}</td>
                    <td>{{emp.name}}</td>

<td>{{emp.salary}}</td>
                </tr>

            </table>

        </div>
    </body>
</html>
```

Output:



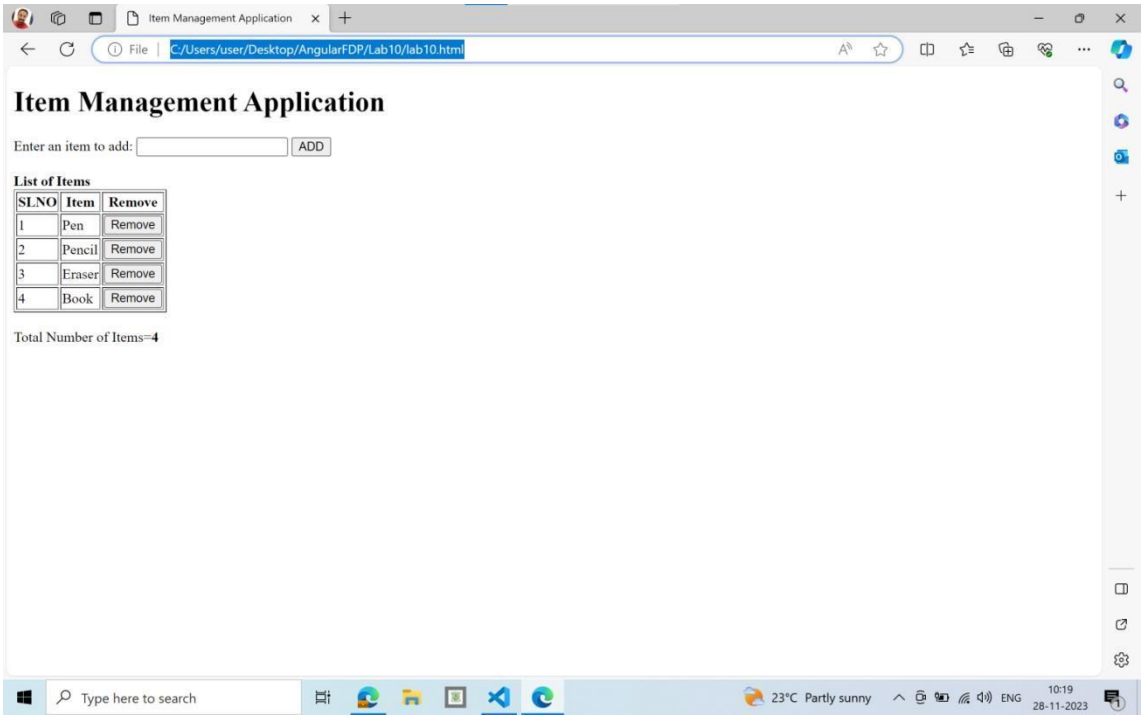

Angular JS Filter Employee Searc
Https://draw.io
Employee Search Application
Search by Employee Name: H
Search by Employee salary:
Clear Filters
List of Employees
SLNO
EMP NAME
SALARY
1
Harish Kumar B T
500000
2
Chetan
400000
3
Prashanth
400000
4
Thanuja
500000
Type here to search
23°C Partly sunny
ENG
10:18
28-11-2023

10. Create AngularJS application that allows users to maintain a collection of items. The application should display the current total number of items, and this count should automatically update as items are added or removed. Users should be able to add items to the collection and remove them as needed. Note: The default values for items may be included in the program.

```
<!DOCTYPE html>
<html>
    <title>Item Management 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("itemMgmtApp",[]);
app.controller("itemMgmtAppCntrl",function($scope){

$scope.itemList=['Pen','Pencil','Eraser','Book']

                $scope.addItem=function()
                {
if($scope.newItem)
                    {
if($scope.itemList.indexOf($scope.newItem)==-1)
{
                            $scope.itemList.push($scope.newItem)
                        }                           else{
alert('This item is already there in the item collection')
                        }                       }
else{                           alert('Please Enter the
item to add')
                    }
                }

                $scope.removeItem=function(item)
                {
                    var yes=confirm("Are you sure you want to delete "+item)
if(yes==true)
                    {
                        var index=$scope.itemList.indexOf(item)
                        $scope.itemList.splice(index,1)
                    }


                }
```

```
            });
        </script>
    </head>
    <body ng-app="itemMgmtApp">
    <h1>Item Management Application</h1>

    <div ng-controller="itemMgmtAppCntrl">
        Enter an item to add: <input type="text" ng-model="newItem">
        <button ng-click="addItem()">ADD</button>
        <br/><br/>

        <b>List of Items</b>
        <table border="1">
            <tr>
                <th>SLNO</th>
                <th>Item</th>
                <th>Remove</th>
            </tr>
            <tr ng-repeat="item in itemList">
                <td>{{$index+1}}</td>
                <td>{{item}}</td>
                <td><button ng-click=removeItem(item)>Remove</button></td>

            </tr>
        </table>
        <br/>

        Total Number of Items=<b>{{itemList.length}}</b>
    </div>

    </body>
</html>
```

Output:


Item Management Application
File
C:/Users/user/Desktop/AngularFDP/Lab10/lab10.html
Item Management Application
Enter an item to add:
ADD
List of Items
SLNO
Item
Remove
1
Pen
Remove
2
Pencil
Remove
3
Eraser
Remove
4
Book
Remove
Total Number of Items=4
Type here to search
23°C Partly sunny
ENG
10:19
28-11-2023

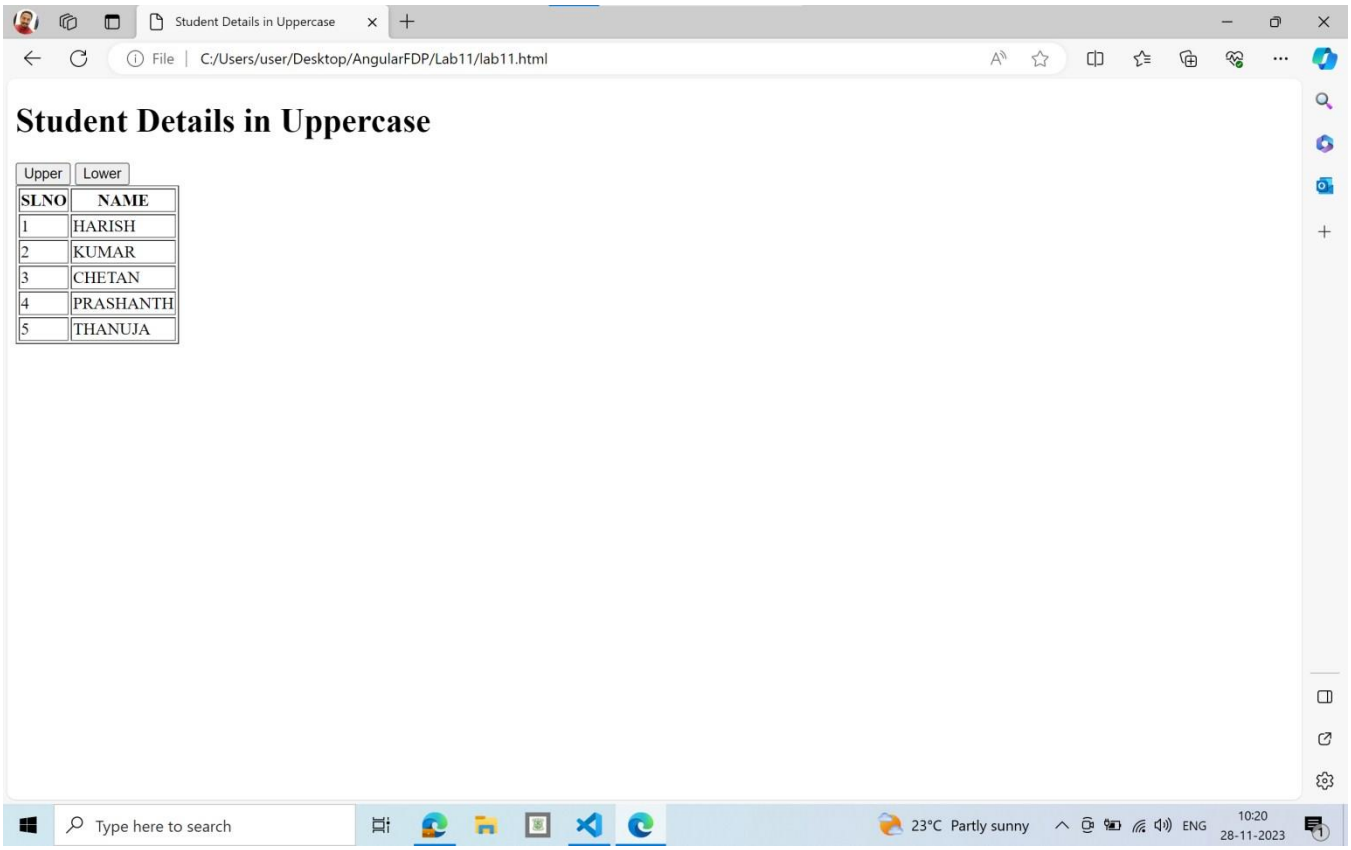
11. Create AngularJS application to convert student details to Uppercase using angular filters.

Note: The default details of students may be included in the program.

```
<!DOCTYPE html>
<html>
    <title>Student Details in Uppercase</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("studDetailsUpperApp",[]);
            app.controller("studDetailsUpperAppCntrl",function($scope){

$scope.studDetails=['harish','kumar','chetan','prashanth','thanuja']
$scope.upper=true
                $scope.lower=false


                $scope.Lower=function()
                {
                    //console.log('called')
                    $scope.upper=false
                    $scope.lower=true
                }

                $scope.Upper=function()
                {
                    $scope.upper=true
                    $scope.lower=false

}
});
        </script>
    </head>

    <body ng-app="studDetailsUpperApp">
        <h1>Student Details in Uppercase</h1>
        <div ng-controller="studDetailsUpperAppCntrl">
            <button ng-click="Upper()">Upper</button>
            <button ng-click="Lower()">Lower</button>
            <table border="1">
                <tr>
                    <th>SLNO</th>
                    <th>NAME</th>
```

```
                </tr>
                <tr ng-repeat="student in studDetails">
                    <td>{{$index+1}}</td>
                    <td ng-show="upper">{{student|uppercase}}</td>
                    <td ng-show="lower">{{student|lowercase}}</td>
                </tr>
            </table>
        </div>

    </body>
</html>
```

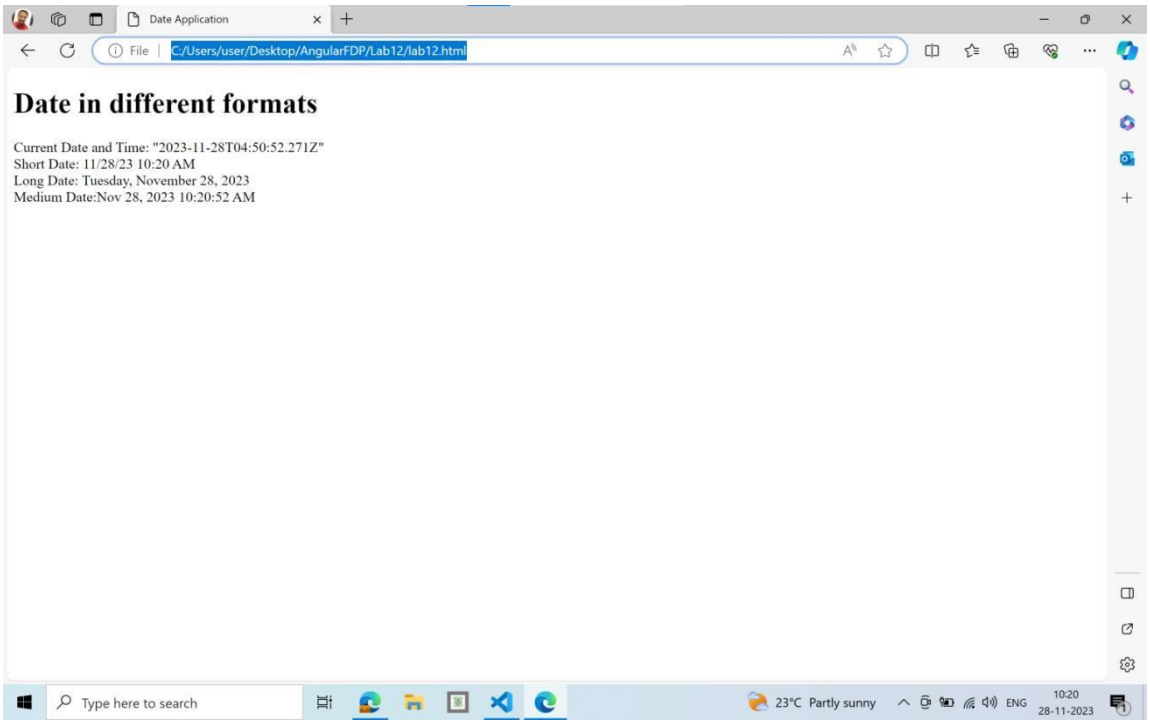
Output:



12. Create an AngularJS application that displays the date by using date filter parameters.

```
<!DOCTYPE html>
<html>
    <title>Date 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("dateApp",[]);
        app.controller("dateAppCntrl",function($scope){
            $scope.currentDate=new Date();
        });
     </script>
    </head>
    <body ng-app="dateApp">
        <h1>Date in different formats</h1>
        <div ng-controller="dateAppCntrl">

            Current Date and Time: {{currentDate}}<br/>
            Short Date: {{currentDate|date: 'short'}}<br/>
            Long Date: {{currentDate |date: 'fullDate'}}<br/>
            Medium Date:{{currentDate| date: 'medium'}}
        </div>
    </body>
</html>
```

Output:


Date Application
File | C:/Users/user/Desktop/AngularFDP/Lab12/lab12.html
Date in different formats
Current Date and Time: "2023-11-28T04:50:52.271Z"
Short Date: 11/28/23 10:20 AM
Long Date: Tuesday, November 28, 2023
Medium Date:Nov 28, 2023 10:20:52 AM
Type here to search
23°C Partly sunny
ENG
10:20
28-11-2023

Sample Programs

1. Example Program on Angular expression

```
<!DOCTYPE html>
<html>
    <title>
        This is my first angular progarm
    </title>
    <head>
    <script type="text/javascript"
src="https:\\ajax.googleapis.com\ajax\libs\angularjs\1.8.2\angular.min.j
s" >
    </script>
    </head>
    <body>
        <div ng-app="">
            {{5+5}}
        </div>

    </body>
</html>
```

2. Example on ng-model, ng-bind, ng-init

```
<!DOCTYPE html>
<html>
    <title>Demo example on ng-model</title>
    <head>
        <script type="text/javascript"

src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js
">
    </script>
    </head>
    <body>
        <div ng-app="" ng-init="age=41">
            Enter Your Name: <input type="text" ng-
model="name"><br/>             Your Name is using angular
expression: {{name}} <br/>             Your Name is using ng-
bind:   <p ng-bind="name"></p><br/>             your age is: <p
ng-bind="age"></p>
        </div>

    </body>
```

```
</html>
```

3. Example on ng-click

```
<!DOCTYPE html>
<html>
    <title>
        Demo on ng-click directive
    </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("myApp",[]);
app.controller("myCntrl",function($scope){
            $scope.num1=20
            $scope.num2=30
            $scope.result

        $scope.add=function()
        {             console.log("Function
Called")             $scope.result=$scope.num1
+ $scope.num2
           // return $scope.result
        }

        });
    </script>
    </head>

    <body>
        <div ng-app="myApp" ng-controller="myCntrl">
            Click the button to get the result
            <button ng-click="add()">Click Here</button><br/>
            Result: {{result}}
        </div>
    </body>
</html>
```

4. Addition program

```
<!DOCTYPE html>

<html>
    <title>
        Addition Program
    </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("myApp",[]);

        app.controller("myCntrl",function($scope){
            $scope.num1=0
            $scope.num2=0
            $scope.result=0

            $scope.add=function()
            {
                $scope.result=$scope.num1 + $scope.num2
            }

        });

      </script>
     </head>
     <body ng-app="myApp">

        <h1>Addition Program</h1>

        <div ng-controller="myCntrl">

            Enter First Number: <input type="number" ng-model="num1"><br/>
            Enter Second Number: <input type="number" ng-model="num2"><br/>
            <button ng-click="add()">ADD</button><br/>
            Sum of {{num1}} and {{num2}} = {{result}}

        </div>

    </body>
</html>
```

Viva Questions

1) What is AngularJS?

2) What are the main advantages of AngularJS?

3) What are the disadvantages of AngularJS?

4) Describe MVC in reference to angular.

5) What is $scope?

6) Is AngularJS dependent on JQuery?

7) What IDE's are currently used for the development of AngularJS?

8) What are the features of AngularJS?

9) What are the directives in AngularJS?

10) What are the controllers in AngularJS?

11) What are the uses of controllers in AngularJS?

12) What is data binding in AngularJS?

13) What are the services in AngularJS?

14) What is the module in AngularJS?

15) What is routing in AngularJS?

16) What is a template in AngularJS?

17) What are the expressions in AngularJS?

18) What are the key differences between Angular expressions and JavaScript expressions?

19) What is the use of filter in AngularJS?

20) What do you know about uppercase filter and lowercase filter in AngularJS?

21) Explain custom filters with an example.

22) Explain Currency filter in AngularJS. How can we use it?

23) What do you understand by Dependency Injection in AngularJS?

24) What do you understand by validation of data in AngularJS?