# Name :Lakshmana Kumar Mettu

# Class ID:11

## Introduction:

This ICP is about to learn angular JS and elements of Angular JS (directives, expressions, filters, modules, and controllers).

**Programming elements:**Angular JS,html5,css.

**Platfrom Required:** Jetbrains-Webstorm

## Objective1: This task is understanding of anjular JS by developing basic TO-DO list.

- Here for developing the application I have created a text field to capture the to do items and a button to add the item to the list. Whenever user selects an Add Item, Todo controller is invoked and the view will change accordingly by the push items presented. Also provided check box and delete option for the list items. Once the item is deleted a counter is automatically set to the current count in the list.
- Todo App:The code snippets along with comments are given below.

```html
<!doctype html>
<html>
<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular.min.js"></script>
<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css" integrity="sha384-ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T">
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/5.8.2/css/all.min.css">
<script src="todo.js"></script>
<link rel="stylesheet" href="main.css">
<body ng-app="myApp" ng-controller="todoCtrl">

<h2>My Todo List</h2><br>
<div ng-controller="todoCtrl as todoList">
    <form ng-submit="todoAdd()"><br><br>
        <input type="text" ng-model="todoInput" size="50" placeholder="Add New">
        <input style="..." type="submit" value="Add New"/>
    </form>

    <br>
    <!--display loop-->

    <div style="..." ng-repeat="x in todoList">
        <input type="checkbox" ng-model="x.done">
        <!-- code to strike off if it is true-->
        <span class="done-{{x.done}}" >{{x.todoText}}</span>
        <button style="..." ng-click="remove(x.todoText)"><i class="fa fa-trash donecl-{{x.done}} " aria-hidden="true"></i>

        </button>

    </div>
    <!-- for remove-->
    <!-- todisplay remaining process-->
    <span>{{remaining()}} of {{todoList.length}} remaining</span>

    <script>
    </script>

</body>
</html>
```

```javascript
var app = angular.module('myApp', []);
app.controller('todoCtrl', function($scope) {
    $scope.todoList = [{todoText:'Eat Healthy', done:false}];

    $scope.todoAdd = function() {
        $scope.todoList.push({todoText:$scope.todoInput, done:false});
        console.log($scope.todoList);
        $scope.todoInput = "";
    };

    $scope.remove = function() {
        var oldList = $scope.todoList;
        $scope.todoList = [];
        angular.forEach(oldList, function(x) {
            if (!x.done) $scope.todoList.push(x);
        });
        console.log($scope.todoList);
    };
    $scope.remaining =function()
    {
        var count = 0;
        angular.forEach($scope.todoList, function(todo) {
            count += todo.done ? 0 : 1;
        });
        return count;
    }

});
```
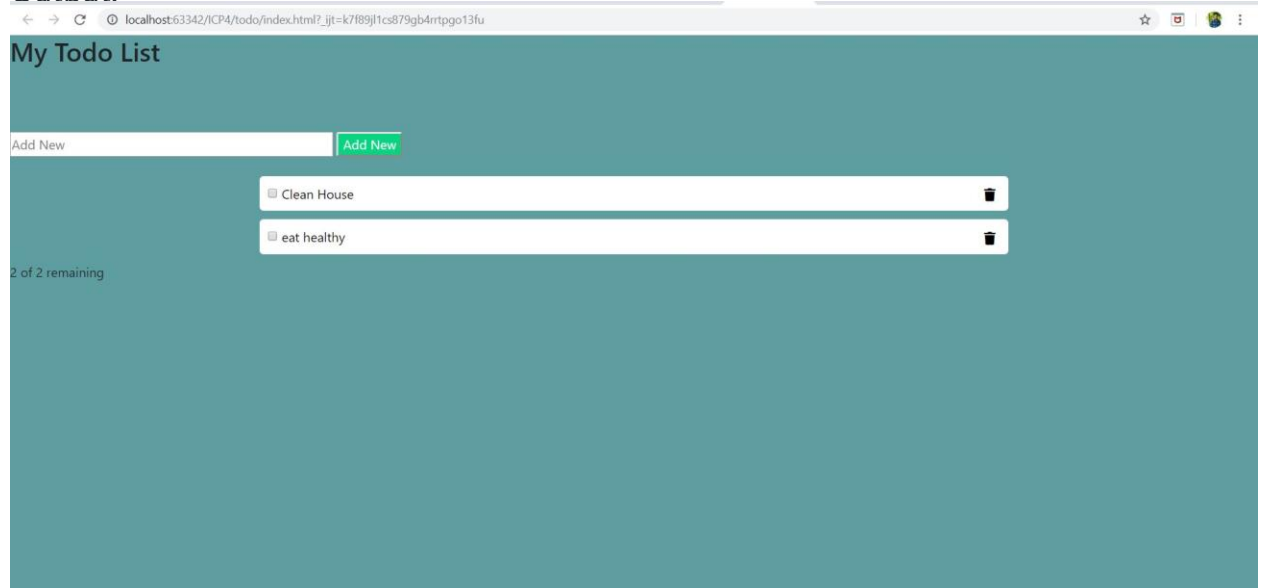
- Output:



## Obejective-2:To develop a basic calculator application using Angular JS elements.

- The code snippets which are described about angular elements such are ng-app(my application),ng-controller(To provide write access to application),ng-repeat(To repeat defined task for ng-app),ng-click(on click button),$scope(to create functions to object),ng-submit(to submit the required action) explained below.

```html
<!doctype html>
<html>
<head>
    <title>AngularJS Calculator</title>
    <script src="lib/angular.min.js"></script>
    <script src="scripts/angularCalculator.js"></script>
    <link rel="stylesheet" href="styles.css"/>
</head>
<body ng-app="calculator" ng-controller="calculatorCtrl">
<div class="whole-container">
    <div class="result-container">
        {{firstValue || 0 }}
        <span ng-if="currentModifier">{{currentModifier}}</span>
        <span ng-if="secondValue">{{ secondValue }}</span>
        <span ng-if="result" class="result-item"> = {{ result }}</span>
        <button class="clear-button" ng-click="clearNumbers()">C</button>
    </div>
    <div class="number-modify-container">
        <div class="number-container">
            <div class="number-inner-container" ng-repeat="num in numArr">
                <button class="number-item" ng-click="showNumber(num)" >{{ num }}</button>
                <button class="number-item" ng-if="$index == 9" ng-click="doMath()"> = </button>
            </div>

        </div>
        <div class="modify-container">
            <button class="modify-item" ng-repeat="mod in modifiers"  ng-click="makeSecondValue(mod)">{{ mod }}</button>

        </div>

    </div>

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

```javascript
var app = angular.module('calculator',[]);

app.controller("calculatorCtrl",function($scope) {
    $scope.numArr = [];
    $scope.modifiers = ['+','-','*','/'];
    $scope.firstValue = "";
    $scope.secondValue = "";
    $scope.currentModifier = "";
    var valueFlag = false;

    for(var i=9; i >= 0; i--) {
        $scope.numArr.push(i);
    }

    function currentValueToShow(num) {
        assignValues(num);
    }

    function assignValues(num) {
        if(valueFlag) {
            $scope.secondValue += num;
        } else {
            $scope.firstValue += num;
        }
    }

    $scope.showNumber = currentValueToShow;

    function activateFlag() {
        valueFlag = true;
    }

    function setCurrentModifier(modifier) {
        activateFlag();
        $scope.currentModifier = modifier;
    }
```

```
    $scope.makeSecondValue = setCurrentModifier;

    function evalMath() {
        if($scope.firstValue != ''  && $scope.secondValue != '') {
            var mathFormat = $scope.firstValue + $scope.currentModifier + $scope.secondValue;
            $scope.result = eval(mathFormat);
        }
    }

    $scope.doMath = evalMath;

    function clearScope() {
        valueFlag = false;
        $scope.firstValue = '';
        $scope.secondValue = '';
        $scope.currentModifier = '';
        $scope.result = '';
    }

    $scope.clearNumbers = clearScope;
});
```
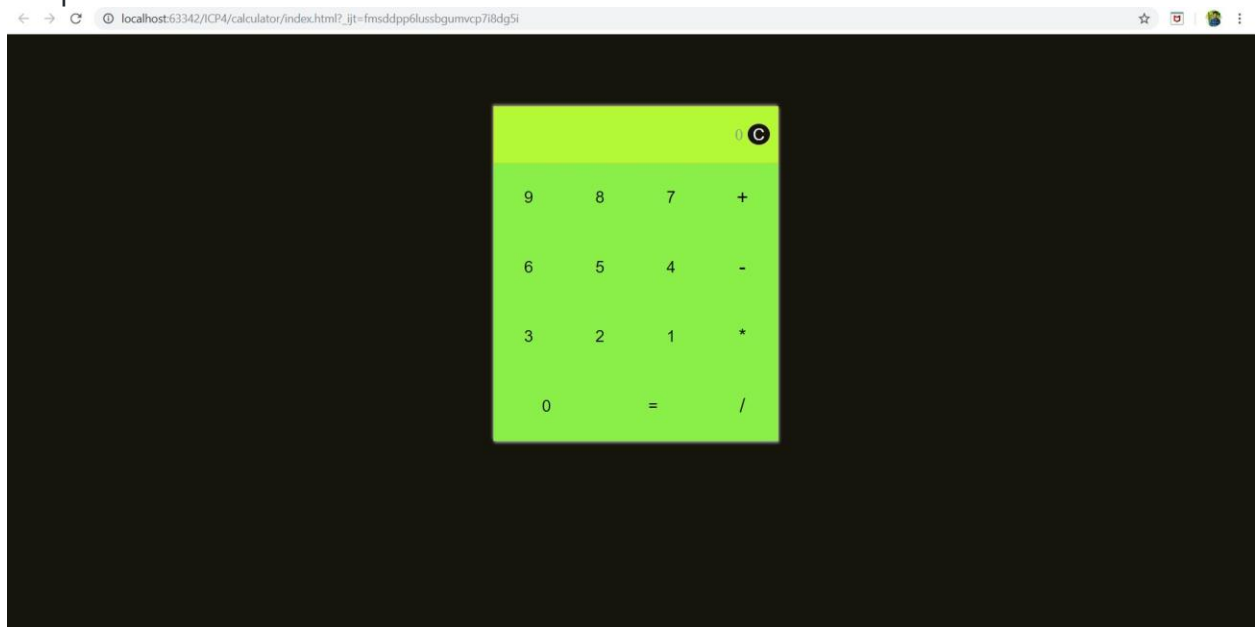
- Output:



**Coclusion:**Learnt how to develop responsive web pages using angular JS.