

## **Angular JS For JEE – 1.2 Lab Book**

**Document Revision History**

Date	Revision No.	Author	Summary of Changes
May 2016	1.2	Rahul Vikash	Created new lab book as per revised course contents

## Table of Contents

<i>Getting Started.....</i>	<i>4</i>
<i>Overview.....</i>	<i>4</i>
<i>Setup Checklist for AngularJS.....</i>	<i>4</i>
<i>Instructions .....</i>	<i>4</i>
<i>Learning More .....</i>	<i>4</i>
<i>Lab 1. Introduction to Angular JS &amp; Directives .....</i>	<i>5</i>
<i>Lab 2. Angular Filters.....</i>	<i>7</i>
<i>Lab 3: Angular UI web with Java middle ware application (Spring REST) .....</i>	<i>9</i>
<i>Appendices.....</i>	<i>11</i>
<i>Appendix A: Table of Figures .....</i>	<i>11</i>

## Getting Started

### Overview

This lab book is a guided tour for learning Angular JS For JEE version 1.2 and above. It comprises 'To Do' assignments. Follow the steps provided to work out the 'To Do' assignments given.

### Setup Checklist for AngularJS

Here's what is expected on your machine for the lab in order to work.

#### Minimum System Requirements

- Intel Pentium 90 or higher (P166 recommended)
- Microsoft Windows XP, Windows 7 or Windows 8
- Memory: 2GB of RAM (1GB or more recommended)
- Google Chrome 36.0 or Mozilla Firefox 31.0 or Internet Explorer 10 or above

#### Please ensure that the following is done:

- A text editor like Notepad or Notepad++ or Eclipse Luna is installed.

### Instructions

- Create a directory by your name in drive <drive>. In this directory, create a subdirectory angular\_assgn. For each lab exercise create a directory as lab <lab number>.
- You may also look up the on-line help provided in <https://docs.angularjs.org/api>

### Learning More

- O'REILLY AngularJS by Brad Green & Shyam Seshadri
- APress Pro AngularJS by Adam Freeman
- PACKT Publishing Instant AngularJS Starter by Dan Menard
- PACKT Publishing Dependency Injection with AngularJS by Alex Knol
- PACKT Publishing AngularJS Directives by Alex Vanston

## Lab 1. Introduction to Angular JS & Directives

<b>Goals</b>	<ul style="list-style-type: none"> <li>Understand the process of creating an angular webpage and view in a browser window.</li> <li>Understanding the fundamentals of Angularjs (model, view, controller, modules, rootscope, Directives, events)</li> </ul>
<b>Time</b>	60 minutes

### 1: Creating a webpage to work with Angular Basic & Directives

Create a web page and display the results shown below.

<input type="checkbox"/>	Firstname	Lastname	Email
<input type="checkbox"/>	Rahul	Vikash	rahul.vikash@capgemini
<input type="checkbox"/>	Uma	Ponnamman	uma.ponnamman@capgemini
<input type="checkbox"/>	Yukti	Valecha	yukti.valecha@capgemini

Figure 1

The rows could be added with help of 'Add New' as per the need. The rows are to be provided with the check boxes to facilitate the deletion process e.g., if any new row for the data entry is required, the Add New button is to be clicked on and the new row should appear.

<input type="checkbox"/>	Firstname	Lastname	Email
<input type="checkbox"/>	Rahul	Vikash	rahul.vikash@capgemini
<input type="checkbox"/>	Uma	Ponnamman	uma.ponnamman@capgemini
<input type="checkbox"/>	Yukti	Valecha	yukti.valecha@capgemini
<input type="checkbox"/>			

Figure 2

Note:

All fields are mandatory

For deleting a row just check the check box and click on Remove button, and the row should get deleted. If we select topmost checkbox all the rows will be selected & when Remove button is clicked, all the rows will get deleted.

<input type="checkbox"/>	Firstname	Lastname	Email
<input checked="" type="checkbox"/>	Rahul	Vikash	rahul.vikash@capgemini
<input type="checkbox"/>	Uma	Ponnamman	uma.ponnamman@capgemini
<input type="checkbox"/>	Yukti	Valecha	yukti.valecha@capgemini

Remove Add New

Figure 3

Removed Row

<input type="checkbox"/>	Firstname	Lastname	Email
<input type="checkbox"/>	Uma	Ponnamman	uma.ponnamman@capgemini
<input type="checkbox"/>	Yukti	Valecha	yukti.valecha@capgemini

Remove Add New

Figure 4

## Lab 2. Angular Filters

<b>Goals</b>	<ul style="list-style-type: none"> <li>Working with inbuilt filters &amp; creating Custom filter</li> </ul>
<b>Time</b>	30 minutes

### 2. Creating a webpage to work with angular inbuilt-filters

Create a web page and display the results shown below

Search:  Limit Data  Sort The Data by

Employee-ID	NAME	Location
810012	Rahul	Pune
654123	Uma	Bangalore
512014	Yukti	Pune
251914	Zanib	Bangalore
751124	Kavita	Mumbai
151914	Tanmaya	Bangalore
251914	Vaishli	Pune
221214	Hema	Chennai
351914	Anju	Pune
451124	Vinod	Pune
111914	Bharti	Mumbai

**Figure 5**

The data consists of 11 rows and 3 columns with the fields employee-ID, Name and Location.

Refer Below txt File

[Lab02.txt](#)

In the **Search field** we can search by Location such as, having letter 'B' anywhere in the string Location field. Result should appear as e.g, '**B**'angalore and Mum'**b**'ai.

Search:  Limit Data  Sort The Data by

Employee-ID	NAME	Location
654123	Uma	Bangalore
251914	Zanib	Bangalore
751124	Kavita	Mumbai
151914	Tanmaya	Bangalore
111914	Bharti	Mumbai

**Figure 6**

In the **Limit field** we can limit the data eg how many number of rows we want .If we put 4 only first 4 rows will be displayed.

Search:  Limit Data  Sort The Data by

Employee-ID	NAME	Location
810012	Rahul	Pune
654123	Uma	Bangalore
512014	Yukti	Pune
251914	Zanib	Bangalore

**Figure 7**

In the **Sort the Data by field** there are 3 options “By employee-id” ,”By Name” ,”By Location” , We can sort the data in ascending order by employeeid or by name or location eg sort by employee Id

Search:  Limit Data  Sort The Data by

Employee-ID	NAME	Location
111914	Bharti	Mumbai
151914	Tanmaya	Bangalore
221214	Hema	Chennai
251914	Zanib	Bangalore
251914	Vaishli	Pune
351914	Anju	Pune
451124	Vinod	Pune
512014	Yukti	Pune
654123	Uma	Bangalore
751124	Kavita	Mumbai
810012	Rahul	Pune

**Figure 8**



### Lab 3: Angular UI web with Java middle ware application (Spring REST)

<b>Goals</b>	<ul style="list-style-type: none"> <li>Understand the process of creating an angular webpage and view in a browser window ,with help of Spring RESTFUL Service</li> </ul>
<b>Time</b>	120 minutes

#### 3. Creating a webpage with angular Services & using Spring as Middleware with static data

- Refer below Java files:

[Product.java](#)

[ProductDB.java](#)

Create a Product Spring RESTful web service that will display all products to the Web service consumer.

**Note:** Make use of the static DB given in ProductDB.java

Create a web page and display the results shown below

## Product List

Product Id	Product Name	Price	Action
1001	iPhone4s	34000	<a href="#">Edit</a> <a href="#">Remove</a>
1002	Pro Angular JS	478	<a href="#">Edit</a> <a href="#">Remove</a>
1003	A/C	21000	<a href="#">Edit</a> <a href="#">Remove</a>

## ADD/Edit Product

Product Id

Product Name

Price

**Figure 9**

Get the data from static database with the help of RestFul API using the concept of Spring Webservice. (Note: Refer to ProductDb.java for static data)

Now When the user clicks on Remove link, the row data associated with that link is going to be deleted.

When clicking on Edit link, the data associated with that link is displayed below In Add/Edit Product & Product Id field becomes read only.

To Add the data in Product List we have to enter Product Id, Product Name and Price as shown -

## Product List

Product Id	Product Name	Price	Action
1001	iPhone4s	34000	<a href="#">Edit</a> <a href="#">Remove</a>
1002	Pro Angular JS	478	<a href="#">Edit</a> <a href="#">Remove</a>
1003	A/C	21000	<a href="#">Edit</a> <a href="#">Remove</a>

## ADD/Edit Product

Product Id

Product Name

Price

Figure 10

When Add/Edit button is clicked, Data will be added in static database using spring Restful API & data will get fetched from the static database with the help of RestFul API using the concept of Spring Webservice & displayed in the Product List.

## Product List

Product Id	Product Name	Price	Action
1001	iPhone4s	34000	<a href="#">Edit</a> <a href="#">Remove</a>
1002	Pro Angular JS	478	<a href="#">Edit</a> <a href="#">Remove</a>
1003	A/C	21000	<a href="#">Edit</a> <a href="#">Remove</a>
1004	TV	25000	<a href="#">Edit</a> <a href="#">Remove</a>

## ADD/Edit Product

Product Id

Product Name

Price

Figure 11

**Appendix A: Table of Figures**

Figure 1.....	5
Figure 2.....	5
Figure 3.....	6
Figure 4.....	6
Figure 5.....	7
Figure 6.....	8
Figure 7.....	8
Figure 8.....	8
Figure 9.....	9
Figure 10.....	10
Figure 11.....	10