**3. a) Develop an AngularJS application that displays a table of data and uses filters to sort and filter the table based on user input.**

<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<title>JSP Example</title>

</head>

<body>

<%-- This is a JSP comment --%>

<%-- JSP directives --%>

<%@ include file="header.jsp" %> <!-- Including another JSP file -->

<%@ page import="java.util.Date" %> <!-- Importing a Java class -->

<%@ page session="false" %> <!-- Disabling session for this page -->

<h1>JSP Example</h1>

<%-- JSP scripting elements --%>

<%

// Declaring and initializing variables

int num1 = 10;

int num2 = 5;

int sum = num1 + num2;

%>

<p>Sum of <%= num1 %> and <%= num2 %> is <%= sum %>.</p>

</body>

</html>

**. b) Develop a Struts application that uses different result types (e.g., redirect, forward) and implements validations for user input.**

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE struts PUBLIC "-//Apache Software Foundation//DTD Struts Configuration 2.0//EN"

"http://struts.apache.org/dtds/struts-2.0.dtd">

<struts>

<package name="default" extends="struts-default">

<action name="numberInput" class="com.example.actions.NumberAction">

<result name="input">/input.jsp</result>

<result name="success" type="redirectAction">/result.action</result>

<result name="error">/error.jsp</result>

</action>

<action name="result" class="com.example.actions.ResultAction">

<result name="success">/result.jsp</result>

</action>

</package>

</struts>

<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>

<%@ taglib prefix="s" uri="/struts-tags" %>

<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<title>Input Form</title>

</head>

<body>

<h1>Enter a Positive Number</h1>

<s:form action="numberInput">

<s:textfield label="Number" key="number" />

<s:submit />

</s:form>

</body>

</html>

<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<title>Error</title>

</head>

<body>

<h1>Error</h1>

<p>Please enter a positive number.</p>

</body>

</html>

<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<title>Result</title>

</head>

<body>

<h1>Result</h1>

<p>The number entered is: <s:property value="number" /></p>

</body>

</html>

package com.example.actions;

import com.opensymphony.xwork2.ActionSupport;

public class NumberAction extends ActionSupport {

private int number;

public int getNumber() {

return number;

}

public void setNumber(int number) {

this.number = number;

}

public String execute() {

if (number <= 0) {

return ERROR;

}

return SUCCESS;

}

}

package com.example.actions;

import com.opensymphony.xwork2.ActionSupport;

public class ResultAction extends ActionSupport {

private int number;

public int getNumber() {

return number;

}

public void setNumber(int number) {

this.number = number;

}

public String execute() {

return SUCCESS;

}

}