**Day3\_Assignments(SpringMVC)**

**Problem:**

Spring MVC - User Claim Interaction Workflow

Task 1: Migrate front-end form handling to Spring MVC controllers.

Task 2: Configure Thymeleaf as the view layer for dynamic content rendering in Spring MVC.

Task 3: Implement data binding and server-side validation within the Spring MVC framework.

**Solution**:

**Claim Class**

package com.example.SpringMVCDemo1;

import javax.validation.constraints.NotBlank;

import javax.validation.constraints.Size;

public class Claim {

@NotBlank(message = "Claim number is required")

private String claimNumber;

@NotBlank(message = "Description is required")

@Size(min = 5, message = "Description must be at least 5 characters long")

private String description;

// Getters and setters

public String getClaimNumber() {

return claimNumber;

}

public void setClaimNumber(String claimNumber) {

this.claimNumber = claimNumber;

}

public String getDescription() {

return description;

}

public void setDescription(String description) {

this.description = description;

}

}

**ClaimController Class**

package com.example.SpringMVCDemo1;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.stereotype.Controller;

import org.springframework.validation.BindingResult;

import org.springframework.web.bind.annotation.GetMapping;

import org.springframework.web.bind.annotation.PostMapping;

import org.springframework.web.bind.annotation.ModelAttribute;

import org.springframework.web.servlet.ModelAndView;

import javax.validation.Valid;

@Controller

public class ClaimController {

@Autowired

private ClaimService claimService;

@GetMapping("/claimForm")

public ModelAndView showForm() {

return new ModelAndView("claimForm", "claim", new Claim());

}

@PostMapping("/submitClaim")

public ModelAndView submitForm(@Valid @ModelAttribute("claim") Claim claim, BindingResult result) {

if (result.hasErrors()) {

return new ModelAndView("claimForm");

}

claimService.processClaim(claim);

return new ModelAndView("result", "claim", claim);

}

}

**ClaimService Class**

package com.example.SpringMVCDemo1;

import org.springframework.stereotype.Service;

@Service

public class ClaimService {

public void processClaim(Claim claim) {

// Business logic to process the claim

System.out.println("Processing claim: " + claim.getClaimNumber());

}

}

**ClaimValidator Class**

package com.example.SpringMVCDemo1;

import org.springframework.validation.Errors;

import org.springframework.validation.Validator;

public class ClaimValidator implements Validator {

@Override

public boolean supports(Class<?> clazz) {

return Claim.class.equals(clazz);

}

@Override

public void validate(Object target, Errors errors) {

Claim claim = (Claim) target;

if (claim.getClaimNumber().length() < 3) {

errors.rejectValue("claimNumber", "length", "Claim number must be at least 3 characters long");

}

}

}

**applicationContext.xml**

<beans xmlns="http://www.springframework.org/schema/beans"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xmlns:context="http://www.springframework.org/schema/context"

xsi:schemaLocation="

http://www.springframework.org/schema/beans

http://www.springframework.org/schema/beans/spring-beans.xsd

http://www.springframework.org/schema/context

http://www.springframework.org/schema/context/spring-context.xsd">

<context:component-scan base-package="com.example.SpringMVCDemo1"/>

</beans>

**claimForm.jsp**

<%@ taglib uri="http://www.springframework.org/tags/form" prefix="form" %>

<!DOCTYPE html>

<html>

<head>

<title>Claim Form</title>

</head>

<body>

<h1>Claim Form</h1>

<form:form method="post" modelAttribute="claim" action="submitClaim">

<form:label path="claimNumber">Claim Number:</form:label>

<form:input path="claimNumber"/>

<form:errors path="claimNumber"/>

<form:label path="description">Description:</form:label>

<form:textarea path="description"/>

<form:errors path="description"/>

<input type="submit" value="Submit"/>

</form:form>

</body>

</html>

**Dispatcher-servlet.xml**

<beans xmlns="http://www.springframework.org/schema/beans"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xmlns:mvc="http://www.springframework.org/schema/mvc"

xsi:schemaLocation="

http://www.springframework.org/schema/beans

http://www.springframework.org/schema/beans/spring-beans.xsd

http://www.springframework.org/schema/mvc

http://www.springframework.org/schema/mvc/spring-mvc.xsd">

<mvc:annotation-driven/>

<bean class="org.springframework.web.servlet.view.InternalResourceViewResolver">

<property name="prefix" value="/WEB-INF/views/"/>

<property name="suffix" value=".jsp"/>

</bean>

</beans>

**Web.xml**

<web-app xmlns="http://xmlns.jcp.org/xml/ns/javaee"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee

http://xmlns.jcp.org/xml/ns/javaee/web-app\_3\_1.xsd"

version="3.1">

<!-- Spring Dispatcher Servlet -->

<servlet>

<servlet-name>dispatcher</servlet-name>

<servlet-class>org.springframework.web.servlet.DispatcherServlet</servlet-class>

<load-on-startup>1</load-on-startup>

</servlet>

<!-- Mapping for Dispatcher Servlet -->

<servlet-mapping>

<servlet-name>dispatcher</servlet-name>

<url-pattern>/</url-pattern>

</servlet-mapping>

<!-- Welcome file configuration -->

<welcome-file-list>

<welcome-file>index.jsp</welcome-file>

</welcome-file-list>

</web-app>

**Index.jsp**

<!DOCTYPE html>

<html>

<head>

<title>Spring MVC Demo</title>

</head>

<body>

<h1>Welcome to Spring MVC Demo</h1>

<a href="claimForm">Go to Claim Form</a>

</body>

</html>