**Phase-3 Practice Project: Assisted Practice –**

# 2. Default and Custom Event Handling Pom.xml

**Source Code:**

**POM.XML**

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

<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 [http://maven.apache.org/xsd/maven-4.0.0.xsd"](http://maven.apache.org/xsd/maven-4.0.0.xsd)>

<modelVersion>4.0.0</modelVersion>

<groupId>com</groupId>

<artifactId>SpringSetup</artifactId>

<version>0.0.1-SNAPSHOT</version>

<packaging>war</packaging>

<name>SpringSetup Maven Webapp</name>

<!-- FIXME change it to the project's website -->

<url>http://www.example.com</url>

<properties>

<org.springframework.version>6.0.4</org.springframework.version>

<maven.compiler.source>1.8</maven.compiler.source>

<maven.compiler.target>1.8</maven.compiler.target>

</properties>

<dependencies>

<dependency>

<groupId>junit</groupId>

<artifactId>junit</artifactId>

<version>3.8.1</version>

<scope>test</scope>

</dependency>

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-core</artifactId>

<version>${org.springframework.version}</version>

</dependency>

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-expression</artifactId>

<version>${org.springframework.version}</version>

</dependency>

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-beans</artifactId>

<version>${org.springframework.version}</version>

</dependency>

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-context</artifactId>

<version>${org.springframework.version}</version>

</dependency>

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-context-support</artifactId>

<version>${org.springframework.version}</version>

</dependency>

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-jdbc</artifactId>

<version>${org.springframework.version}</version>

</dependency>

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-orm</artifactId>

<version>${org.springframework.version}</version>

</dependency>

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-web</artifactId>

<version>${org.springframework.version}</version>

</dependency>

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-webmvc</artifactId>

<version>${org.springframework.version}</version>

</dependency>

<dependency>

<groupId>javassist</groupId>

<artifactId>javassist</artifactId>

<version>3.12.1.GA</version>

</dependency>

<dependency>

<groupId>taglibs</groupId>

<artifactId>standard</artifactId>

<version>1.1.2</version>

<scope>runtime</scope>

</dependency>

<dependency>

<groupId>commons-dbcp</groupId>

<artifactId>commons-dbcp</artifactId>

<version>1.4</version>

</dependency>

<!--

<https://mvnrepository.com/artifact/jakarta.servlet.jsp/jakarta.servlet.jsp-api>-->

<!--<dependency>

<groupId>jakarta.servlet</groupId>

<artifactId>jakarta.servlet-api</artifactId>

<version>6.0.0</version>

</dependency>-->

<!--<https://mvnrepository.com/artifact/javax.servlet/javax.servlet-api>-->

<dependency>

<groupId>javax.servlet</groupId>

<artifactId>javax.servlet-api</artifactId>

<version>4.0.1</version>

<scope>provided</scope>

</dependency>

<!--

<https://mvnrepository.com/artifact/jakarta.servlet.jsp.jstl/jakarta.servlet.jsp.jstl-api>-->

<dependency>

<groupId>jakarta.servlet.jsp.jstl</groupId>

<artifactId>jakarta.servlet.jsp.jstl-api</artifactId>

<version>3.0.0</version>

</dependency>

<dependency>

<groupId>mysql</groupId>

<artifactId>mysql-connector-java</artifactId>

<version>8.0.32</version>

</dependency>

<dependency>

<groupId>javax.persistence</groupId>

<artifactId>persistence-api</artifactId>

<version>1.0.2</version>

<scope>provided</scope>

</dependency>

<dependency>

<groupId>junit</groupId>

<artifactId>junit</artifactId>

<version>4.11</version>

<scope>test</scope>

</dependency>

</dependencies>

<build>

<finalName>SpringSetup</finalName>

<pluginManagement><!-- lock down plugins versions to avoid using Maven defaults (may be moved to parent pom) -->

<plugins>

<plugin>

<artifactId>maven-clean-plugin</artifactId>

<version>3.1.0</version>

</plugin>

<!-- see [http://maven.apache.org/ref/current/maven-core/defaultbindings.html#Plugin\_bindings\_for\_war\_packaging](http://maven.apache.org/ref/current/maven-core/default-bindings.html#Plugin_bindings_for_war_packaging) -->

<plugin>

<artifactId>maven-resources-plugin</artifactId>

<version>3.0.2</version>

</plugin>

<plugin>

<artifactId>maven-compiler-plugin</artifactId>

<version>3.8.0</version>

</plugin>

<plugin>

<artifactId>maven-surefire-plugin</artifactId>

<version>2.22.1</version>

</plugin>

<plugin>

<artifactId>maven-war-plugin</artifactId>

<version>3.2.2</version>

</plugin>

<plugin>

<artifactId>maven-install-plugin</artifactId>

<version>2.5.2</version>

</plugin>

<plugin>

<artifactId>maven-deploy-plugin</artifactId>

<version>2.8.2</version>

</plugin>

</plugins>

</pluginManagement>

</build>

</project>

# Main-servlet.xml

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

<beans xmlns=*"http://www.springframework.org/schema/beans"* xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"* xmlns:aop=*"http://www.springframework.org/schema/aop"* xmlns:context=*"http://www.springframework.org/schema/context"* xmlns:jee=*"http://www.springframework.org/schema/jee"* xmlns:lang=*"http://www.springframework.org/schema/lang"* xmlns:p=*"http://www.springframework.org/schema/p"* xmlns:tx=*"http://www.springframework.org/schema/tx"* xmlns:util=*"http://www.springframework.org/schema/util"* xsi:schemaLocation=*"http://www.springframework.org/schema/beans* [*http://www.springframework.org/schema/beans/spring-beans-2.5.xsd*](http://www.springframework.org/schema/beans/spring-beans-2.5.xsd) [*http://www.springframework.org/schema/aop*](http://www.springframework.org/schema/aop)

[*http://www.springframework.org/schema/aop/spring-aop-2.5.xsd*](http://www.springframework.org/schema/aop/spring-aop-2.5.xsd) [*http://www.springframework.org/schema/context*](http://www.springframework.org/schema/context)

[*http://www.springframework.org/schema/context/spring-context-2.5.xsd*](http://www.springframework.org/schema/context/spring-context-2.5.xsd) [*http://www.springframework.org/schema/tx*](http://www.springframework.org/schema/tx)

[*http://www.springframework.org/schema/tx/spring-tx-2.5.xsd"*](http://www.springframework.org/schema/tx/spring-tx-2.5.xsd)>

<context:annotation-config />

<context:component-scan base-package=*"com.ecommerce.controller"* />

<bean id=*"jspViewResolver"*

class=*"org.springframework.web.servlet.view.InternalResourceViewResolver"*>

<property name=*"viewClass"*

value=*"org.springframework.web.servlet.view.JstlView"*></property>

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

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

</bean>

<bean id=*"messageSource"*

class=*"org.springframework.context.support.ReloadableResourceBundleMessageSource"*>

<property name=*"basename"* value=*"classpath:messages"*></property>

<property name=*"defaultEncoding"* value=*"UTF-8"*></property> </bean>

<bean id = *"startEventHandler"* class = *"com.ecommerce.beans.StartEventHandler"*/>

<bean id = *"stopEventHandler"* class = *"com.ecommerce.beans.StopEventHandler"*/>

<bean id = *"customEventListener"* class = *"com.ecommerce.beans.CustomEventListener"*/>

<bean id = *"customEventPublisher"* class =

*"com.ecommerce.beans.CustomEventPublisher"*/>

<tx:annotation-driven />

</beans>

# Web.xml

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

<web-app xmlns=*"http://java.sun.com/xml/ns/javaee"* version=*"2.5"*

xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"* xsi:schemaLocation=*"http://java.sun.com/xml/ns/javaee* [*http://java.sun.com/xml/ns/javaee/web-app\_2\_5.xsd"*](http://java.sun.com/xml/ns/javaee/web-app_2_5.xsd)>

<display-name>Archetype Created Web Application</display-name>

<welcome-file-list>

<welcome-file>/WEB-INF/view/index.jsp</welcome-file>

</welcome-file-list>

<servlet>

<servlet-name>main</servlet-name>

<servlet-class>

org.springframework.web.servlet.DispatcherServlet

</servlet-class>

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

</servlet>

<servlet-mapping>

<servlet-name>main</servlet-name>

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

</servlet-mapping>

<context-param>

<param-name>contextConfigLocation</param-name>

<param-value>/WEB-INF/main-servlet.xml</param-value>

</context-param>

<listener>

<listener-class>org.springframework.web.context.ContextLoaderListener</listener-class> </listener>

</web-app>

# Index.jsp

<html>

<body>

<h2>Spring Application</h2>

<a href=*"customEvent.jsp"*>Custom Event Handling</a>

</body>

</html>

# CustomEvent.jsp

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"* pageEncoding=*"ISO-8859-1"*%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"UTF-8"*>

<title>Custom Event</title>

</head>

<body>

Custom Event has been generated in the Java Console.

</body>

</html>

**MainController.java**

package com.ecommerce.controller;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext; import org.springframework.stereotype.Controller; import org.springframework.ui.ModelMap; import org.springframework.web.bind.annotation.RequestMapping; import org.springframework.web.bind.annotation.RequestMethod;

import com.ecommerce.beans.CustomEventPublisher;

@Controller

public class MainController {

@RequestMapping(value = "/customevent", method = RequestMethod.GET) public String customEvent(ModelMap map) {

String confFile = "/WEB-INF/main-servlet.xml";

ApplicationContext context = new ClassPathXmlApplicationContext(confFile); CustomEventPublisher cvp = (CustomEventPublisher) context.getBean("customEventPublisher");

cvp.publish(); cvp.publish();

return "customEvent";

}

}

**CustomEventPublisher.java**

package com.ecommerce.beans;

import org.springframework.context.ApplicationEventPublisher;

import org.springframework.context.ApplicationEventPublisherAware;

public class CustomEventPublisher implements ApplicationEventPublisherAware { private ApplicationEventPublisher publisher;

public void setApplicationEventPublisher(ApplicationEventPublisher publisher) { this.publisher = publisher;

}

public void publish() {

CustomEvent ce = new CustomEvent(this);

publisher.publishEvent(ce);

}

}

**CustomEventListener.java**

package com.ecommerce.beans;

import org.springframework.context.ApplicationListener;

public class CustomEventListener implements ApplicationListener<CustomEvent> {

public void onApplicationEvent(CustomEvent event) { System.*out*.println(event.toString());

}

}

**CustomEvent.java**

package com.ecommerce.beans;

import org.springframework.context.ApplicationEvent;

public class CustomEvent extends ApplicationEvent {

public CustomEvent(Object source) { super(source);

}

public String toString() {

return "This is a custom event";

}

}

**StartEventHandler.java**

package com.ecommerce.beans;

import org.springframework.context.ApplicationListener; import org.springframework.context.event.ContextStartedEvent;

public class StartEventHandler implements ApplicationListener<ContextStartedEvent> {

public void onApplicationEvent(ContextStartedEvent event) {

System.*out*.println("ContextStartedEvent Received");

}

}

**StopEventHandler.java**

package com.ecommerce.beans;

import org.springframework.context.ApplicationListener; import org.springframework.context.event.ContextStoppedEvent;

public class StopEventHandler implements ApplicationListener<ContextStoppedEvent> {

public void onApplicationEvent(ContextStoppedEvent event) {

System.*out*.println("ContextStoppedEvent Received");

}

}

# Output :

