**Practice project assisted**

**Default and Custom Event Handling**

**pom.xml**

<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/maven-v4\_0\_0.xsd">

<modelVersion>4.0.0</modelVersion>

<groupId>SpringSetup</groupId>

<artifactId>SpringSetup</artifactId>

<packaging>war</packaging>

<version>0.0.1-SNAPSHOT</version>

<name>SpringSetup Maven Webapp</name>

<url>http://maven.apache.org</url>

<properties>

<org.springframework.version>5.1.6.RELEASE</org.springframework.version>

</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>

<dependency>

<groupId>javax.servlet</groupId>

<artifactId>jstl</artifactId>

<version>1.2</version>

</dependency>

<dependency>

<groupId>javax.servlet</groupId>

<artifactId>jstl</artifactId>

<version>1.2</version>

</dependency>

<dependency>

<groupId>javax.persistence</groupId>

<artifactId>persistence-api</artifactId>

<version>1.0.2</version>

<scope>provided</scope>

</dependency>

</dependencies>

<build>

<finalName>SpringSetup</finalName>

</build>

</project>

**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");

}

}

**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";

}

}

**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;

import org.springframework.context.ApplicationListener;

public class CustomEventListener implements ApplicationListener<CustomEvent> {

public void onApplicationEvent(CustomEvent event) {

System.out.println(event.toString());

}

}

**MainController.java**

package com.ecommerce.controller;

import org.apache.log4j.Logger;

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

import org.springframework.stereotype.Controller;

import org.springframework.ui.ModelMap;

import org.springframework.validation.BindingResult;

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

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

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

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

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

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

@Controller

public class MainController {

@RequestMapping(value = "/customevent", method = RequestMethod.GET)

public String customEvent(ModelMap map)

{

String confFile = "main-servlet.xml";

ApplicationContext context = new ClassPathXmlApplicationContext(confFile);

CustomEventPublisher cvp =

(CustomEventPublisher) context.getBean("customEventPublisher");

cvp.publish();

cvp.publish();

return "customEvent";

}

}

**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/aop

http://www.springframework.org/schema/aop/spring-aop-2.5.xsd

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

http://www.springframework.org/schema/context/spring-context-2.5.xsd

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

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>

**index.jsp**

<html>

<body>

<h2>Spring Application</h2>

<a href="customevent">Custom Event Handling</a>

</body>

</html>

**CustomEvent.jsp**

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

pageEncoding="UTF-8"%>

<!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>

**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">

<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>