**Phase 2:Practice Project: Assissted Practice: 3**

**8. Demonstrate integration of Hibernate with spring.**

**Source Code:**

**Pom.xml:**

<?xmlversion=*"1.0"*encoding=*"UTF-8"*?>

<projectxmlns=*"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"*>

<modelVersion>4.0.0</modelVersion>

<groupId>SpringHibernateWeb</groupId>

<artifactId>SpringHibernateWeb</artifactId>

<version>0.0.1-SNAPSHOT</version>

<packaging>war</packaging>

<name>SpringHibernateWeb Maven Webapp</name>

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

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

<properties>

<project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>

<maven.compiler.source>1.7</maven.compiler.source>

<maven.compiler.target>1.7</maven.compiler.target>

<org.springframework.version>3.0.5.RELEASE</org.springframework.version>

</properties>

<repositories>

<repository>

<id>JBoss repository</id>

<url>http://repository.jboss.org/nexus/content/groups/public/</url>

</repository>

</repositories>

<dependencies>

<dependency>

<groupId>junit</groupId>

<artifactId>junit</artifactId>

<version>4.11</version>

<scope>test</scope>

</dependency>

<dependency>

<groupId>org.hibernate.javax.persistence</groupId>

<artifactId>hibernate-jpa-2.1-api</artifactId>

<version>1.0.0.Final</version>

</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>log4j</groupId>

<artifactId>log4j</artifactId>

<version>1.2.16</version>

<scope>runtime</scope>

</dependency>

<dependency>

<groupId>org.hibernate</groupId>

<artifactId>hibernate-core</artifactId>

<version>3.6.3.Final</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>mysql</groupId>

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

<version>5.1.9</version>

</dependency>

<dependency>

<groupId>commons-configuration</groupId>

<artifactId>commons-configuration</artifactId>

<version>1.9</version>

</dependency>

</dependencies>

<build>

<finalName>SpringHibernateWeb</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/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>

**Web.xml:**

<web-appxmlns=*"http://java.sun.com/xml/ns/javaee"*

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\_3\_0.xsd"*

version=*"3.0"*>

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

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

<welcome-file-list>

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

</welcome-file-list>

<servlet>

<servlet-name>eproduct</servlet-name>

<servlet-class>

org.springframework.web.servlet.DispatcherServlet

</servlet-class>

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

</servlet>

<servlet-mapping>

<servlet-name>eproduct</servlet-name>

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

</servlet-mapping>

<context-param>

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

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

</context-param>

<listener>

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

</listener>

</web-app>

**eproduct-servlet.xml:**

<?xmlversion=*"1.0"*encoding=*"UTF-8"*?>

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

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

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

xmlns:p=*"http://www.springframework.org/schema/p"*

xmlns:tx=*"http://www.springframework.org/schema/tx"*

xsi:schemaLocation=*"*

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

*http://www.springframework.org/schema/beans/spring-beans-4.0.xsd*

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

*http://www.springframework.org/schema/context/spring-context-4.0.xsd*

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

*http://www.springframework.org/schema/tx/spring-tx-4.0.xsd*

*http://www.springframework.org/schema/aop*

*http://www.springframework.org/schema/aop/spring-aop-4.0.xsd"*>

<context:annotation-config/>

<context:component-scan

base-package=*"com.ecommerce.controller"*/>

<beanid=*"jspViewResolver"*

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

<propertyname=*"viewClass"*

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

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

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

</bean>

<beanid=*"messageSource"*

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

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

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

</bean>

<beanid=*"propertyConfigurer"*

class=*"org.springframework.beans.factory.config.PropertyPlaceholderConfigurer"*

p:location=*"/WEB-INF/jdbc.properties"*></bean>

<beanid=*"dataSource"*

class=*"org.apache.commons.dbcp.BasicDataSource"*destroy-method=*"close"*

p:driverClassName=*"${jdbc.driverClassName}"*

p:url=*"${jdbc.databaseurl}"*p:username=*"${jdbc.username}"*

p:password=*"${jdbc.password}"*></bean>

<beanid=*"sessionFactory"*

class=*"org.springframework.orm.hibernate3.LocalSessionFactoryBean"*>

<propertyname=*"dataSource"*ref=*"dataSource"*></property>

<propertyname=*"configLocation"*>

<value>classpath:hibernate.cfg.xml</value>

</property>

<propertyname=*"configurationClass"*>

<value>org.hibernate.cfg.AnnotationConfiguration</value>

</property>

<propertyname=*"hibernateProperties"*>

<props>

<propkey=*"hibernate.dialect"*>${jdbc.dialect}</prop>

<propkey=*"hibernate.show\_sql"*>true</prop>

</props>

</property>

</bean>

<beanid=*"eproductDAO"*class=*"com.ecommerce.dao.EProductDAO"*></bean>

<tx:annotation-driven/>

<beanid=*"transactionManager"*

class=*"org.springframework.orm.hibernate3.HibernateTransactionManager"*>

<propertyname=*"sessionFactory"*ref=*"sessionFactory"*></property>

</bean>

</beans>

**jdbc.properties:**

jdbc.driverClassName=com.mysql.jdbc.Driver

jdbc.dialect=org.hibernate.dialect.MySQLDialect

jdbc.databaseurl=jdbc:mysql://3306/newecommerce

jdbc.username= student

jdbc.password=student

**Index.jsp:**

<html>

<body>

<h2>Spring WithHibernate</h2>

<ahref=*"productList.jsp"*>Product List</a>

</body>

</html>

**ProductList.jsp:**

<%@pagelanguage=*"java"*contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<%@tagliburi=*"http://www.springframework.org/tags"*prefix=*"spring"*%>

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

<%@tagliburi=*"http://java.sun.com/jsp/jstl/core"*prefix=*"c"*%>

<!DOCTYPEhtml>

<html>

<head>

<title>Spring WithHibernate</title>

</head>

<body>

<h3>Product List</h3>

<c:iftest=*"*${!**empty** productList}*"*>

<tableclass=*"data"*>

<tr>

<th>Name</th>

<th>Price</th>

<th>Date Added</th>

</tr>

<c:forEachitems=*"*${productList}*"*var=*"product"*>

<tr>

<td>${product.name}</td>

<td>${product.price}</td>

<td>${product.date\_added}</td>

</tr>

</c:forEach>

</table>

</c:if>

</body>

</html>

**Hibernate.cfg.xml:**

<?xmlversion=*"1.0"*encoding=*"UTF-8"*?>

<!DOCTYPEhibernate-configurationPUBLIC

"-//Hibernate/Hibernate Configuration DTD//EN"

"http://hibernate.sourceforge.net/hibernate-configuration-3.0.dtd">

<hibernate-configuration>

<session-factory>

<mappingclass=*"com.ecommerce.entity.EProductEntity"*></mapping>

</session-factory>

</hibernate-configuration>

**EProductEntity.java:**

**package**com.ecommerce.entity;

**import**java.math.BigDecimal;

**import**java.util.Date;

**import**javax.persistence.Column;

**import**javax.persistence.Entity;

**import**javax.persistence.GeneratedValue;

**import**javax.persistence.Id;

**import**javax.persistence.Table;

@Entity

@Table(name = "eproduct")

**publicclass**EProductEntity {

@Id

@GeneratedValue

@Column(name = "ID")

**privatelong**ID;

@Column(name = "name")

**private** String name;

@Column(name = "price")

**private**BigDecimalprice;

@Column(name = "date\_added")

**private** Date dateAdded;

**publiclong**getID() {

**returnthis**.ID;

}

**public** String getName() {

**returnthis**.name;

}

**public**BigDecimalgetPrice() {

**returnthis**.price;

}

**public** Date getDateAdded() {

**returnthis**.dateAdded;

}

**publicvoid**setID(**long**id) {

**this**.ID = id;

}

**publicvoid**setName(String name) {

**this**.name = name;

}

**publicvoid**setPrice(BigDecimalprice) {

**this**.price = price;

}

**publicvoid**setDateAdded(Date date) {

**this**.dateAdded = date;

}

}

**EProductDAO.java:**

**package**com.ecommerce.dao;

**import**java.util.List;

**import**org.hibernate.SessionFactory;

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

**import**org.springframework.stereotype.Repository;

**import**com.ecommerce.entity.EProductEntity;

@Repository

**publicclass**EProductDAO {

@Autowired

**private**SessionFactorysessionFactory;

@SuppressWarnings("unchecked")

**public** List<EProductEntity>getAllProducts() {

**returnthis**.sessionFactory.getCurrentSession().createQuery("from EProducts").list();

}

}

**EProductController.java:**

**package**com.ecommerce.Controller;

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

**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.dao.EProductDAO;

**import**com.ecommerce.entity.EProductEntity;

@Controller

**publicclass**EProductController {

@Autowired

**private**EProductDAOeproductService;

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

**public** String listProducts(ModelMapmap) {

map.addAttribute("eproduct", **new**EProductEntity());

map.addAttribute("productList", eproductService.getAllProducts());

**return**"productList";

}

}

**Output:**

