## **Integration of Hibernate with Spring**

## **EProduct:**

```
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")
public class EProductEntity {
@Id @GeneratedValue
@Column(name = "ID")
private long ID;
@Column(name = "name")
private String name;
@Column(name = "price")
private BigDecimal price;
@Column(name = "date_added")
private Date dateAdded;
public long getID() {return this.ID; }
public String getName() { return this.name;}
public BigDecimal getPrice() { return this.price;}
public Date getDateAdded() { return this.dateAdded;}
public void setID(long id) { this.ID = id;}
public void setName(String name) { this.name = name;}
public void setPrice(BigDecimal price) { this.price = price;}
public void setDateAdded(Date date) { this.dateAdded = date;}
EProductDAO:
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 org.springframework.stereotype.Service;
import org.springframework.transaction.annotation.Transactional;
import com.ecommerce.entity.EProductEntity;
@Repository
public class EProductDAO {
```

```
@Autowired
private SessionFactory sessionFactory;
@SuppressWarnings("unchecked")
public List<EProductEntity> getAllProducts() {
return this.sessionFactory.getCurrentSession().createQuery("from
EProducts").list();
}
}
EProductController:
package com.ecommerce.controller;
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 com.ecommerce.entity.EProductEntity;
import com.ecommerce.service.EProductService;
@Controller
public class EProductController {
@Autowired
private EProductService eproductService;
@RequestMapping(value = "/productList", method = RequestMethod.GET)
public String listProducts(ModelMap map)
map.addAttribute("eproduct", new EProductEntity());
map.addAttribute("productList", eproductService.getAllProducts());
return "productList";
}
}
eproduct-servlet.xml:
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"</pre>
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.xsd
```

```
http://www.springframework.org/schema/aop/
http://www.springframework.org/schema/aop/spring-aop.xsd
http://www.springframework.org/schema/context/
http://www.springframework.org/schema/context/spring-context.xsd
http://www.springframework.org/schema/jee/
http://www.springframework.org/schema/jee/spring-jee.xsd
http://www.springframework.org/schema/lang/
http://www.springframework.org/schema/lang/spring-lang.xsd
http://www.springframework.org/schema/tx/
http://www.springframework.org/schema/tx/spring-tx.xsd
http://www.springframework.org/schema/util/
http://www.springframework.org/schema/util/spring-util.xsd">
<context:annotation-config />
<context:component-scan base-package="com.ecommerce.controller" />
<bean id="jspViewResolver"</pre>
class="org.springframework.web.servlet.view.InternalResourceViewResolver">
roperty name="viewClass"
value="org.springframework.web.servlet.view.JstlView"></property>
cproperty name="prefix" value="/WEB-INF/view/"></property>
cproperty name="suffix" value=".jsp"></property>
</bean>
<bean id="messageSource"</pre>
class="org.springframework.context.support.ReloadableResourceBundleMessageS
ource">
cproperty name="basename" value="classpath:messages"></property>
cproperty name="defaultEncoding" value="UTF-8"></property>
</hean>
<bean id="propertyConfigurer"</pre>
class="org.springframework.beans.factory.config.PropertyPlaceholderConfigur
p:location="/WEB-INF/jdbc.properties"></bean>
<bean id="dataSource"</pre>
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>
<bean id="sessionFactory"</pre>
class="org.springframework.orm.hibernate3.LocalSessionFactoryBean">
cproperty name="dataSource" ref="dataSource">
cproperty name="configLocation">
<value>classpath:hibernate.cfg.xml</value>
</property>
cproperty name="configurationClass">
<value>org.hibernate.cfg.AnnotationConfiguration</value>
</property>
property name="hibernateProperties">
ops>
<prop key="hibernate.dialect">${jdbc.dialect}</prop>
key="hibernate.show_sql">true
</props>
</property>
</bean>
<bean id="eproductDAO" class="com.ecommerce.dao.EProductDAO"></bean>
<bean id="eproductService"</pre>
class="com.ecommerce.service.EProductService"></bean>
<tx:annotation-driven />
<bean id="transactionManager"</pre>
class="org.springframework.orm.hibernate3.HibernateTransactionManager">
cproperty name="sessionFactory" ref="sessionFactory">
```

```
</bean></beans>
```

## jdbc.properties:

```
jdbc.driverClassName=com.mysql.jdbc.Driver
jdbc.dialect=org.hibernate.dialect.MySQLDialect
jdbc.databaseurl=jdbc:mysql://127.0.0.1:3306/ecommerce
jdbc.username=root
jdbc.password=Dhanush@03
```

## pom.xml:

```
cproject 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>SpringHibernateWeb/groupId>
<artifactId>SpringHibernateWeb</artifactId>
<packaging>war</packaging>
<version>0.0.1-SNAPSHOT</version>
<name>SpringHibernateWeb Maven Webapp</name>
<url>http://maven.apache.org</url>
<!-- JBoss repository for Hibernate -->
<repositories>
<repository>
<id>JBoss repository</id>
<url>http://repository.jboss.org/nexus/content/groups/public/</url>
</repository>
</repositories>
cproperties>
<org.springframework.version>3.0.5.RELEASE</org.springframework.version>
</properties>
<dependencies>
<dependency>
<groupId>junit
<artifactId>junit</artifactId>
<version>3.8.1
<scope>test</scope>
</dependency>
<dependency>
<groupId>org.hibernate.javax.persistence</groupId>
<artifactId>hibernate-jpa-2.1-api</artifactId>
<version>1.0.0.Final
</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>${org.springframework.version}</version>
</dependency>
<dependency>
<groupId>org.springframework
<artifactId>spring-context</artifactId>
<version>${org.springframework.version}</version>
</dependency>
<dependency>
<groupId>org.springframework
<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
<artifactId>log4j</artifactId>
<version>1.2.16</version>
<scope>runtime</scope>
</dependency>
<dependency>
<groupId>org.hibernate
<artifactId>hibernate-core</artifactId>
<version>3.6.3.Final
</dependency>
<dependency>
<groupId>javassist
<artifactId>javassist</artifactId>
<version>3.12.1.GA
</dependency>
<dependency>
<groupId>taglibs
<artifactId>standard</artifactId>
<version>1.1.2
<scope>runtime</scope>
</dependency>
<dependency>
```

```
<groupId>commons-dbcp/groupId>
<artifactId>commons-dbcp</artifactId>
<version>1.4</version>
</dependency>
<dependency>
<groupId>mysql
<artifactId>mysql-connector-java</artifactId>
<version>5.1.9</version>
</dependency>
</dependencies>
<build>
<finalName>SpringHibernateWeb</finalName>
</build>
</project>
productList.jsp:
<%@taglib uri="http://www.springframework.org/tags" prefix="spring"%>
<%@taglib uri="http://www.springframework.org/tags/form" prefix="form"%>
<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c"%>
<html>
<head>
<title>Spring With <u>Hibernate</u></title>
</head>
<body>
<h3>Product List </h3>
<c:if test="${!empty productList}">
Name
Price
Date Added
<c:forEach items="${productList}" var="product">
${product.name} 
${product.price}
${product.date_added}
</c:forEach>
</c:if>
</body>
</html>
index.jsp:
<html>
<body>
<h2>Spring With <u>Hibernate</u></h2>
<a href="/productList">Product List</a>
</html>
</body>
```

```
hibernate.cfg.xml:
```

```
<?xml version='1.0' encoding='utf-8'?>
<!DOCTYPE hibernate-configuration PUBLIC</pre>
"-//Hibernate/Hibernate Configuration DTD//EN"
"http://hibernate.sourceforge.net/hibernate-configuration-3.0.dtd">
<hibernate-configuration>
<session-factory>
<mapping class="com.ecommerce.entity.EProductEntity"></mapping>
</session-factory>
</hibernate-configuration>
web.xml:
<!DOCTYPE web-app PUBLIC
"-//Sun Microsystems, Inc.//DTD Web Application 2.3//EN"
"http://java.sun.com/dtd/web-app_2_3.dtd" >
<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>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>
tener>
tener-
class>org.springframework.web.context.ContextLoaderListener</listener-
class>
</listener>
</web-app>
Mysql:
/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8 */;
/*!40103 SET @OLD_TIME_ZONE=@@TIME_ZONE */;
/*!40103 SET TIME_ZONE='+00:00' */;
/*!40014 SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0 */;
```

```
/*!40014 SET @OLD FOREIGN KEY CHECKS=@@FOREIGN KEY CHECKS,
FOREIGN KEY CHECKS=0 */;
/*!40101 SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='NO AUTO VALUE ON ZERO' */;
/*!40111 SET @OLD_SQL_NOTES=@@SQL_NOTES, SQL_NOTES=0 */;
-- Table structure for table `eproduct`
DROP TABLE IF EXISTS `eproduct`;
/*!40101 SET @saved cs client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `eproduct` (
`ID` bigint(20) NOT NULL AUTO_INCREMENT,
`name` varchar(100) DEFAULT NULL,
`price` decimal(10,2) DEFAULT NULL,
`date_added` <u>timestamp</u> NOT NULL DEFAULT CURRENT_TIMESTAMP,
`parts_hdd` varchar(10) DEFAULT NULL,
`parts_cpu` varchar(10) DEFAULT NULL,
`parts_ram` varchar(10) DEFAULT NULL,
PRIMARY KEY ('ID')
) ENGINE=InnoDB AUTO INCREMENT=4 DEFAULT CHARSET=latin1;
/*!40101 SET character set client = @saved cs client */;
-- Dumping data for table `eproduct`
LOCK TABLES `eproduct` WRITE;

/*!40000 ALTER TABLE `eproduct` DISABLE KEYS */;

INSERT INTO `eproduct` VALUES (1, 'HP Laptop ABC',21900.00,'2019-06-04

07:18:57','2 Gb HDD', 'AMD Phenom','4 Gb'),(2, 'Acer Laptop
ABC',23300.00,'2019-06-04 07:19:07','500 Gb HDD','Core-i7',
<u>Gb</u>'),(3,'<u>Lenovo</u> <u>Laptop</u> ABC',33322.00,'2019-06-04 07:19:19','1 <u>Tb</u>
HDD', 'Core-i7', '8 <u>Gb</u>');
/*!40000 ALTER TABLE `eproduct` ENABLE KEYS */;
UNLOCK TABLES;
/*!40103 SET TIME_ZONE=@OLD_TIME_ZONE */;
/*!40101 SET SQL MODE=@OLD SQL MODE */;
/*!40014 SET FOREIGN KEY CHECKS=@OLD FOREIGN KEY CHECKS */;
/*!40014 SET UNIQUE_CHECKS=@OLD_UNIQUE_CHECKS */;
/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER SET RESULTS=@OLD CHARACTER SET RESULTS */;
/*!40101 SET COLLATION CONNECTION=@OLD COLLATION CONNECTION */;
/*!40111 SET SQL_NOTES=@OLD_SQL_NOTES */;
```