JDBC AND SPRING INTEGRATION –

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>log4j</groupId>

<artifactId>log4j</artifactId>

<version>1.2.16</version>

<scope>runtime</scope>

</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>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>

Creating database ecommerace –

--

-- 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` timestamp NOT NULL DEFAULT CURRENT\_TIMESTAMP,

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,'Acer Laptop ABC',23300.00,'2019-06-04 07:19:07'),(3,'Lenovo Laptop ABC',33322.00,'2019-06-04 07:19:19');

/\*!40000 ALTER TABLE `eproduct` ENABLE KEYS \*/;

UNLOCK TABLES;

Creating an entity class 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;

public class EProductEntity {

private long ID;

private String name;

private BigDecimal price;

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.sql.ResultSet;

**import** java.sql.SQLException;

**import** java.util.List;

**import** org.springframework.jdbc.core.BeanPropertyRowMapper;

**import** org.springframework.jdbc.core.JdbcTemplate;

**import** org.springframework.jdbc.core.RowMapper;

**import** com.ecommerce.entity.EProduct;

public class EProductDAO {

JdbcTemplate template;

public void setTemplate(JdbcTemplate template) {

this.template = template;

}

public List<EProduct> getProducts(){

return template.query("select \* from eproduct",new RowMapper<EProduct>(){

public EProduct mapRow(ResultSet rs, int row) throws SQLException {

EProduct e=new EProduct();

e.setId(rs.getInt(1));

e.setName(rs.getString(2));

e.setPrice(rs.getBigDecimal(3));

e.setDateAdded(rs.getDate(4));

return e;

}

});

}

}

MainController –

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;

**import** com.ecommerce.entity.EProduct;

**import** com.ecommerce.dao.EProductDAO;

@Controller

public class MainController {

@Autowired

EProductDAO eproductDAO;

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

public String listProducts(ModelMap map)

{

List<EProduct> list= eproductDAO.getProducts();

model.addAttribute("list",list);

return "listProducts";

}

}

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="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>

<bean id="ds" class="org.springframework.jdbc.datasource.DriverManagerDataSource">

<property name="driverClassName" value="com.mysql.jdbc.Driver"></property>

<property name="url" value="jdbc:mysql://localhost:3306/ecommerce"></property>

<property name="username" value="root"></property>

<property name="password" value="master"></property>

</bean>

<bean id="jt" class="org.springframework.jdbc.core.JdbcTemplate">

<property name="dataSource" ref="ds"></property>

</bean>

<bean id="dao" class="com.ecommerce.dao.EProductDAO">

<property name="template" ref="jt"></property>

</bean>

<tx:annotation-driven />

<bean id="transactionManager"

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

<property name="sessionFactory" ref="sessionFactory"></property>

</bean>

</beans>

view index.jsp –

<html>

<body>

<h2>Spring Application</h2>

<a href="listProducts">List Products</a>

</body>

</html>

view listProducts.jsp –

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

pageEncoding="UTF-8"%>

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

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

<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<title>List Products</title>

</head>

<body>

<c:forEach var="product" items="${list}">

${product.name}, ${product.price}, ${product.dateAdded}<br>

</c:forEach>

</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>