**STEP: 1 Creating Database schema**

**1.Create Database**

Create database spring\_hibernate

**2.Select database**

Use spring\_hibernate

**3. create table**

create table eproduct(ID bigint primary key auto\_increment,name varchar(100),price decimal(10,2),date\_added timestamp default now());

4. to see the structure

describe eproduct

5. to add the values to the database

insert into eproduct(name,price) values ('HP Laptop ABC','12000');

insert into eproduct(name,price) values ('DELL Laptop ABC','14000');

insert into eproduct(name,price) values ('ACER Laptop ABC','20000');

insert into eproduct(name,price) values ('Lenovo Laptop ABC','12000');

insert into eproduct(name,price) values ('Lenovo Thinkpad ABC','60000');

**STEP: 2 PREPARE MAVEN APP(WEB)**

**Step1: pom.xml file**

**Dependencies required**

<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>com.springhibernateweb.com</groupId>

<artifactId>SpringHibernateDemo</artifactId>

<packaging>war</packaging>

<version>0.0.1-SNAPSHOT</version>

<name>SpringHibernateDemo Maven Webapp</name>

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

<dependencies>

<dependency>

<groupId>junit</groupId>

<artifactId>junit</artifactId>

<version>3.8.1</version>

<scope>test</scope>

</dependency>

<!--java percistance api-->

<dependency>

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

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

<version>1.0.2.Final</version>

</dependency>

<!--spring framework-->

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring</artifactId>

<version>5.3.19</version>

<type>pom</type>

</dependency>

<!--spring context-->

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-context</artifactId>

<version>5.3.19</version>

</dependency>

<!--spring context support-->

<dependency>

<groupId>org.springframework</groupId>

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

<version>5.3.19</version>

</dependency>

<!--spring core-->

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-core</artifactId>

<version>5.3.19</version>

</dependency>

<!--spring web-->

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-web</artifactId>

<version>5.3.19</version>

</dependency>

<!--spring beans-->

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-beans</artifactId>

<version>5.3.19</version>

</dependency>

<!--spring web mvc-->

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-webmvc</artifactId>

<version>5.3.19</version>

</dependency>

<!--spring core-->

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-core</artifactId>

<version>5.3.19</version>

</dependency>

<!--spring JDBC-->

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-jdbc</artifactId>

<version>5.3.19</version>

</dependency>

<!--Spring ORM-->

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-orm</artifactId>

<version>5.3.19</version>

</dependency>

<!--spring web mvc-->

<dependency>

<groupId>org.springframework</groupId>

<artifactId>spring-webmvc</artifactId>

<version>5.3.19</version>

</dependency>

<!--hibernate core-->

<dependency>

<groupId>org.hibernate</groupId>

<artifactId>hibernate-core</artifactId>

<version>6.0.0.Final</version>

<type>pom</type>

</dependency>

<!--javassist-->

<dependency>

<groupId>org.javassist</groupId>

<artifactId>javassist</artifactId>

<version>3.28.0-GA</version>

</dependency>

<!--mysql-->

<dependency>

<groupId>mysql</groupId>

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

<version>8.0.28</version>

</dependency>

<!--jstl-->

<dependency>

<groupId>javax.servlet</groupId>

<artifactId>jstl</artifactId>

<version>1.2</version>

</dependency>

<!--commons dbcp-->

<dependency>

<groupId>commons-dbcp</groupId>

<artifactId>commons-dbcp</artifactId>

<version>1.4</version>

</dependency>

<!--taglibs-->

<dependency>

<groupId>taglibs</groupId>

<artifactId>standard</artifactId>

<version>1.1.2</version>

<scope>runtime</scope>

</dependency>

<!--java servlet-->

<dependency>

<groupId>javax.servlet</groupId>

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

<version>4.0.1</version>

<scope>provided</scope>

</dependency>

</dependencies>

<build>

<finalName>SpringHibernateDemo</finalName>

<plugins>

<plugin>

<groupId>org.apache.maven.plugins</groupId>

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

<version>3.3.2</version>

</plugin>

</plugins>

</build>

</project>

Web.xml

<web-app>

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

<welcome-file-list>

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

</welcome-file-list>

<!--Preparing Servlet-->

<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-mapping>

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

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

</servlet-mapping>

<!--params-->

<context-param>

<param-name>contextConfigurationLocation</param-name>

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

</context-param>

<!-- Listner -->

<listner>

<listner-class>org.springframework.web.context.ContextLoaderListner</listner-class>

</listner>

</web-app>

EproductEntity.class

**package** com.ecommrce.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** ID;

}

**public** **void** setID(**long** iD) {

ID = iD;

}

**public** String getName() {

**return** name;

}

**public** **void** setName(String name) {

**this**.name = name;

}

**public** BigDecimal getPrice() {

**return** price;

}

**public** **void** setPrice(BigDecimal price) {

**this**.price = price;

}

**public** Date getDateAdded() {

**return** dateAdded;

}

**public** **void** setDateAdded(Date dateAdded) {

**this**.dateAdded = dateAdded;

}

}

Hibernate.cfg.xml

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

<!DOCTYPE hibernate-configuration PUBLIC

"-//Hibernate/Hibernate Configuration DTD 3.0//EN"

"http://www.hibernate.org/dtd/hibernate-configuration-3.0.dtd">

<hibernate-configuration>

<session-factory>

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

</session-factory>

</hibernate-configuration>

EproductDao.class

**package** com.ecommrce.dao;

**import** java.util.List;

**import** org.hibernate.SessionFactory;

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

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

**import** com.ecommrce.entity.EProductEntity;

@Repository

**public** **class** EProductDAO {

@Autowired

**private** SessionFactory sessionFactory;

@SuppressWarnings("unchecked")

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

**return** **this**.sessionFactory.openSession().createQuery("from EProductEntity").list();

}

}

EproductController.class

package com.ecommrce.controller;

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

import org.springframework.stereotype.Controller;

import org.springframework.ui.Model;

import org.springframework.ui.ModelMap;

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

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

import com.ecommrce.entity.EProductEntity;

import com.ecommrce.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";

}

}

Eproductservice.class

package com.ecommrce.service;

import java.util.List;

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

import org.springframework.stereotype.Service;

import com.ecommrce.dao.EProductDAO;

import com.ecommrce.entity.EProductEntity;

@Service

public class EProductService {

@Autowired

EProductDAO eProductDAO;

public List<EProductEntity> getAllProducts(){

return eProductDAO.getAllProducts();

}

}

WEB-INF>jdbc.properties

Jdbc.properties

jdbc.driverClassName=com.mysql.cj.jdbc.Driver

jdbc.dialect=org.hibernate.dialect.MySQLDialect

jdbc.databaseurl=jdbc:mysql://localhost:3306/spring\_hibernate

jdbc.username=root

[jdbc.password=Nikunj@123](mailto:jdbc.password=Nikunj@123)

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

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

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

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

xsi:schemaLocation=*"*

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

*http://www.springframework.org/schema/beans/spring-beans-3.0.xsd*

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

*http://www.springframework.org/schema/context/spring-context-3.0.xsd*

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

*http://www.springframework.org/schema/mvc/spring-mvc-3.1.xsd*

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

*http://www.springframework.org/schema/tx/spring-tx-3.1.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=*"propertyConfigurer"*

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

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

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

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

<property name=*"configLocation"*>

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

</property>

<property name=*"configurationClass"*>

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

</property>

<property name=*"hibernateProperties"*>

<props>

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

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

</props>

</property>

</bean>

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

<bean id=*"eproductService"* class=*"com.ecommerce.service.EProductService"*></bean>

<tx:annotation-driven />

<bean id=*"transactionManager"*

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

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

</bean>

</beans>

Prepare index.jsp

<html>

<body>

<h2>Spring With Hibernate</h2>

<a href=*"productList"*>Product List</a>

</body>

</html>

Prepare productList.jsp

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

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

<%@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"*%>

<!DOCTYPE html>

<html>

<head>

<meta charset=*"ISO-8859-1"*>

<title>Spring with Hibernate</title>

</head>

<body>

<h3>Product List</h3>

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

<table class=*"data"*>

<tr>

<th>Name</th>

<th>Price</th>

<th>Date Added</th>

</tr>

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

<tr>

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

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

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

</tr>

</c:forEach>

</table>

</c:if>

</body>

</html>