**SOURCE CODE FOR ADDING A NEW PRODUCT IN THE DATABASE.**

**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/xsd/maven-4.0.0.xsd"*>

<modelVersion>4.0.0</modelVersion>

<groupId>ServletWithHibernat</groupId>

<artifactId>ServletWithHibernat</artifactId>

<version>0.0.1-SNAPSHOT</version>

<packaging>war</packaging>

<build>

<plugins>

<plugin>

<artifactId>maven-compiler-plugin</artifactId>

<version>3.8.0</version>

<configuration>

<source>1.8</source>

<target>1.8</target>

</configuration>

</plugin>

<plugin>

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

<version>3.2.1</version>

<configuration>

<warSourceDirectory>WebContent</warSourceDirectory>

</configuration>

</plugin>

</plugins>

</build>

<dependencies>

<dependency>

<groupId>mysql</groupId>

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

<version>8.0.16</version>

</dependency>

<dependency>

<groupId>org.hibernate</groupId>

<artifactId>hibernate-core</artifactId>

<version>5.5.6.Final</version>

</dependency>

</dependencies>

</project>

**JAVA BEAN CLASS:**

**package** com.bean;

**import** javax.persistence.Entity;

**import** javax.persistence.Id;

@Entity

**public** **class** Product {

@Id

**private** **int** pid;

**private** String pname;

**private** **float** price;

**public** **int** getPid() {

**return** pid;

}

**public** **void** setPid(**int** pid) {

**this**.pid = pid;

}

**public** String getPname() {

**return** pname;

}

**public** **void** setPname(String pname) {

**this**.pname = pname;

}

**public** **float** getPrice() {

**return** price;

}

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

**this**.price = price;

}

@Override

**public** String toString() {

**return** "Product [pid=" + pid + ", pname=" + pname + ", price=" + price + "]";

}

}

**DAO CLASS:**

**package** com.dao;

**import** org.hibernate.Session;

**import** org.hibernate.SessionFactory;

**import** org.hibernate.Transaction;

**import** org.hibernate.cfg.Configuration;

**import** com.bean.Product;

**public** **class** ProductDao {

**public** **int** storeProduct(Product product) {

**try** {

Configuration con = **new** Configuration();

con.configure("hibernate.cfg.xml");

SessionFactory sf = con.buildSessionFactory();

Session session = sf.openSession();

Transaction tran = session.getTransaction();

tran.begin();

session.save(product);

tran.commit();

**return** 1;

} **catch** (Exception e) {

System.***out***.println(e);

**return** 0;

}

}

**public** **int** deleteProduct(**int** pid) {

Configuration con = **new** Configuration();

con.configure("hibernate.cfg.xml");

SessionFactory sf = con.buildSessionFactory();

Session session = sf.openSession();

Transaction tran = session.getTransaction();

Product pp = session.get(Product.**class**, pid);

**if**(pp==**null**) {

**return** 0;

}**else** {

tran.begin();

session.delete(pp);

tran.commit();

**return** 1;

}

}

**public** **int** updateProduct(Product product) {

Configuration con = **new** Configuration();

con.configure("hibernate.cfg.xml");

SessionFactory sf = con.buildSessionFactory();

Session session = sf.openSession();

Transaction tran = session.getTransaction();

Product pp = session.get(Product.**class**, product.getPid());

**if**(pp==**null**) {

**return** 0;

}**else** {

tran.begin();

pp.setPrice(product.getPrice());

//pp.setPrice(pp.getPrice()+100);

session.update(pp); // update Product set price = newprice where pid = 100

tran.commit();

**return** 1;

}

}

**public** Product findProduct(**int** pid) {

Configuration con = **new** Configuration();

con.configure("hibernate.cfg.xml");

SessionFactory sf = con.buildSessionFactory();

Session session = sf.openSession();

Product pp = session.get(Product.**class**, pid);

**return** pp;

}

}

**PRODUCT SERVICE CLASS:**

**package** com.service;

**import** com.bean.Product;

**import** com.dao.ProductDao;

**public** **class** ProductService {

ProductDao pd = **new** ProductDao();

**public** String storeProduct(Product product) {

**if**(product.getPrice()<100) {

**return** "Product price must be > 100";

}**else** **if**(pd.storeProduct(product)>0) {

**return** "Product stored successfully";

}**else** {

**return** "Product didn't store id must be unique";

}

}

**public** String deleteProduct(**int** pid) {

**if**(pd.deleteProduct(pid)>0) {

**return** "Product details deleted successfully";

}**else** {

**return** "Product not present";

}

}

**public** String updateProduct(Product product) {

Product pp = pd.findProduct(product.getPid());

**if**(pp==**null**) {

**return** "Product not present";

}**else** **if**(product.getPrice()<pp.getPrice()) {

**return** "New price must be > than old price";

}**else** **if**(pd.updateProduct(product)>0) {

**return** "Product details updated successfully";

}**else** {

**return** "Product didn't update";

}

}

**public** String findProduct(**int** pid) {

Product pp = pd.findProduct(pid);

**if**(pp==**null**) {

**return** "Product not present";

}**else** {

**return** pp.toString(); // return the object in string format.

}

}

}

**SERVLET:**

**package** com.controller;

**import** java.io.IOException;

**import** java.io.PrintWriter;

**import** javax.servlet.RequestDispatcher;

**import** javax.servlet.ServletException;

**import** javax.servlet.http.HttpServlet;

**import** javax.servlet.http.HttpServletRequest;

**import** javax.servlet.http.HttpServletResponse;

**import** com.bean.Product;

**import** com.service.ProductService;

/\*\*

\* Servlet implementation class ProductStoreController

\*/

**public** **class** ProductStoreController **extends** HttpServlet {

**private** **static** **final** **long** ***serialVersionUID*** = 1L;

/\*\*

\* **@see** HttpServlet#HttpServlet()

\*/

**public** ProductStoreController() {

**super**();

// **TODO** Auto-generated constructor stub

}

/\*\*

\* **@see** HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

**protected** **void** doGet(HttpServletRequest request, HttpServletResponse response) **throws** ServletException, IOException {

// **TODO** Auto-generated method stub

response.getWriter().append("Served at: ").append(request.getContextPath());

}

/\*\*

\* **@see** HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)

\*/

**protected** **void** doPost(HttpServletRequest request, HttpServletResponse response) **throws** ServletException, IOException {

// **TODO** Auto-generated method stub

//doGet(request, response);

PrintWriter pw = response.getWriter();

response.setContentType("text/html");

**int** pid = Integer.*parseInt*(request.getParameter("pid"));

String pname = request.getParameter("pname");

**float** price = Float.*parseFloat*(request.getParameter("price"));

Product p = **new** Product();

p.setPid(pid);

p.setPname(pname);

p.setPrice(price);

ProductService ps = **new** ProductService();

String result = ps.storeProduct(p);

pw.print(result);

RequestDispatcher rd = request.getRequestDispatcher("storeProduct.html");

rd.include(request, response);

}

}

**HIBERNATE.CFC.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>

<property name=*"hibernate.connection.driver\_class"*>com.mysql.cj.jdbc.Driver</property>

<property name=*"hibernate.connection.password"*>Mohan@4635</property>

<property name=*"hibernate.connection.url"*>jdbc:mysql://localhost:3306/javatraining</property>

<property name=*"hibernate.connection.username"*>root</property>

<property name=*"hibernate.dialect"*>org.hibernate.dialect.MySQLDialect</property>

<mapping class=*"com.bean.Product"*/>

</session-factory>

</hibernate-configuration>

**HTML PAGE:**

STORE PRODUCT;

<!DOCTYPE html>

<html>

<head>

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

<title>Insert title here</title>

</head>

<body>

<h2>Add Product</h2>

<form action=*"ProductStoreController"* method=*"post"*>

<label>PId</label>

<input type=*"number"* name=*"pid"*><br/>

<label>PName</label>

<input type=*"text"* name=*"pname"*><br/>

<label>Price</label>

<input type=*"number"* name=*"price"*><br/>

<input type=*"submit"* value=*"Store Product"*>

<input type=*"reset"* value=*"reset"*>

</form>

<br/>

<a href=*"index.html"*>Main Page</a>

</body>

</html>

**INDEX HTML:**

<!DOCTYPE html>

<html>

<head>

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

<title>Insert title here</title>

</head>

<body>

<h2>Product Management System</h2>

<a href=*"storeProduct.html"*>Add Product</a> !

</body>

</html>