Source Code: Adding a New Product in the Database

Product.java

```java
package com.ecommerce;

  public class Product {
        private int id;
        private String name;
        private String description;
        private double price;

            public Product(int id, String name, String description, double
price) {
                    super();
                    this.id = id;
                    this.name = name;
                    this.description = description;
                    this.price = price;
            }

            public int getId() {
                    return id;
            }

            public void setId(int id) {
                    this.id = id;
            }

            public String getName() {
                    return name;
            }

            public void setName(String name) {
                    this.name = name;
            }

            public String getDescription() {
                    return description;
            }

            public void setDescription(String description) {
                    this.description = description;
            }

            public double getPrice() {
                    return price;
            }

            public void setPrice(double price) {
                    this.price = price;
            }
        }
```

HibernateUtil.java

```java
package com.ecommerce;


import org.hibernate.SessionFactory;

import org.hibernate.boot.Metadata;

import org.hibernate.boot.MetadataSources;

import org.hibernate.boot.registry.StandardServiceRegistry;

import org.hibernate.boot.registry.StandardServiceRegistryBuilder;


public class HibernateUtil {


    private static final SessionFactory sessionFactory;


    static {

        try {

            StandardServiceRegistry standardRegistry = new
StandardServiceRegistryBuilder().configure("hibernate.cfg.xml").build();

            Metadata metaData = new
MetadataSources(standardRegistry).getMetadataBuilder().build();

            sessionFactory = metaData.getSessionFactoryBuilder().build();
```

```java
        } catch (Throwable th) {

                throw new ExceptionInInitializerError(th);

        }

    }


    public static SessionFactory getSessionFactory() {

        return sessionFactory;

    }

}
```

AddProductServlet.java

```java
package com.ecommerce;


import java.io.IOException;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import org.hibernate.Session;

import org.hibernate.Transaction;


public class AddProductServlet extends HttpServlet {
```

```java
protected void doPost(HttpServletRequest request, HttpServletResponse response)

    throws ServletException, IOException {


  // Retrieve form data

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

  double price = Double.parseDouble(request.getParameter("price"));

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


  // Validate form data (You can add your validation logic here)


  // Create a new product object

  Product product = new Product(0, description, description, price);

  product.setName(name);

  product.setPrice(price);

  product.setDescription(description);


  // Save the product object to the database using Hibernate

  Session session = HibernateUtil.getSessionFactory().openSession();

  Transaction transaction = null;

  try {

    transaction = session.beginTransaction();

    session.save(product);
```

```java
            transaction.commit();

            response.sendRedirect("addProduct.jsp?success=true");

        } catch (Exception e) {

            if (transaction != null) {

                transaction.rollback();

            }

            e.printStackTrace();

            response.sendRedirect("addProduct.jsp?error=true");

        } finally {

            session.close();

        }

    }

}
```

hibernate.hbm.xml

```xml
<!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.jdbc.Driver</property>
        <property
name="hibernate.connection.url">jdbc:mysql://localhost:3306/ecommerce</property>
        <property name="hibernate.connection.username">root</property>
        <property name="hibernate.connection.password">Pramod@621</property>

        <mapping class="com.ecommerce.Product" />
        <mapping  resource="com/ecommerce/Product.hbm.xml"/>
    </session-factory>
</hibernate-configuration>
```

product.hbm.xml

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE hibernate-mapping PUBLIC "-//Hibernate/Hibernate Mapping DTD
3.0//EN"
        "http://www.hibernate.org/dtd/hibernate-mapping-3.0.dtd">
<hibernate-mapping>
    <class name="com.ecommerce.Product" table="product">
        <id name="id" column="id" type="int">
            <generator class="identity" />
        </id>
        <property name="name" column="name" type="string" />
        <property name="price" column="price" type="double" />
        <property name="description" column="description" type="string" />
    </class>
</hibernate-mapping>
```

addProduct.jsp

```jsp
<%@ page language="java" contentType="text/html; charset=UTF-8"
pageEncoding="UTF-8" %>
<!DOCTYPE html>
<html>
<head>
    <meta charset="UTF-8">
    <title>Add Product</title>
</head>
<body>
    <h1>Add Product</h1>
    <form action="addProduct" method="post">
        <label for="name">Name:</label>
        <input type="text" id="name" name="name" required><br>
        <label for="price">Price:</label>
        <input type="number" id="price" name="price" required><br>
        <label for="description">Description:</label>
        <textarea id="description" name="description"
required></textarea><br>
        <input type="submit" value="Add Product">
    </form>
</body>
</html>
```

web.xml

```xml
<?xml version="1.0" encoding="UTF-8"?>
<web-app xmlns="http://xmlns.jcp.org/xml/ns/javaee"
        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee
                            http://xmlns.jcp.org/xml/ns/javaee/web-
app_4_0.xsd"
        version="4.0">
    <display-name>YourWebApp</display-name>

    <welcome-file-list>
```

```xml
        <welcome-file>index.html</welcome-file>
    </welcome-file-list>

    <servlet>
        <servlet-name>AddProductServlet</servlet-name>
        <servlet-class>com.ecommerce.AddProductServlet</servlet-class>
    </servlet>

    <servlet-mapping>
        <servlet-name>AddProductServlet</servlet-name>
        <url-pattern>/addProduct</url-pattern>
    </servlet-mapping>
</web-app>
```