ADDING A NEW PRODUCT IN DATABASE

SOURCE CODE:

Index.html:

```html
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
	<h1>Welcome to Hibernate CRUD application</h1>
		<a href="read-product">Read Product</a>
		<br />
		<a href="add-product">Add Product</a>
</body>
</html>
```

Add-Product.html:

```html
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
   <h1> Add Product</h1>

   <form method="post" action="add-product">
		<fieldset>
			<legend>Add Product form</legend>
			Product Name: <input type="text" name="name" id="name" /><br/><br/>
			Product Price: <input type="text" name="price" id = "price" /> <br/><br/>
			<input type="submit" value="Add Product">
		</fieldset>
   </form>
```

```html
</body>
</html>
```

Hibernate.cfg.xml:

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

<!DOCTYPE hibernate-configuration SYSTEM
"http://www.hibernate.org/dtd/hibernate-configuration-5.3.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">root</property>


                <!--  Optional properties -->
                <property name="hibernate.show_sql">true</property>
                <property name="hibernate.format_sql">true</property>
                <property name="hbm2ddl.auto">update</property>


        <mapping class="com.entity.EProduct"/>
        <mapping class="com.servlets.AddProductServlet"/>
        <mapping class="com.ervlets.ReadProductServlet"/>
        <mapping class="com.util.HibernateUtil"/>


        </session-factory>


</hibernate-configuration>
```

ReadProductServlet.java:

```java
package com.program;
import java.io.IOException;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

import org.hibernate.Session;
import org.hibernate.SessionFactory;

@WebServlet("/read-product")
public class ReadProductServlet extends HttpServlet {
    private static final long serialVersionUID = 1L;

    /**
     * @see HttpServlet#HttpServlet()
     */
    public ReadProductServlet() {
        super();
        // TODO Auto-generated constructor stub
    }

    /**
     * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
     */
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {

        PrintWriter out = response.getWriter();

        SessionFactory sf = HibernateUtil.buildSessionFactory();

        Session session = sf.openSession();
```

```java
            List<EProduct> products = session.createQuery(" from EProduct").list();

            out.print("<h1> Product List :- </h1>");
            out.print("<style> table,td,th { border:2px solid red; padding: 10px; }</style>" );
            out.print("<table>");
            out.print("<tr>");
            out.print("<th> Product Id </th>");
            out.print("<th> Product Name </th>");
            out.print("<th> Product Price </th>");
            out.print("</tr>");

            for(EProduct p : products) {

                    out.print("<tr>");
                    out.print("<td>"+p.getId()+"</td>");
                    out.print("<td>"+p.getName()+"</td>");
                    out.print("<td>"+p.getPrice()+"</td>");
                    out.print("</tr>");
            }
            out.print("</table>");

            session.close();
    }


    /**
     * @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);
    }

}
```

AddProductServlet.java:

```java
package com.program;
import java.io.IOException;
import java.io.PrintWriter;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;


@WebServlet("/add-product")
public class AddProductServlet extends HttpServlet {
	private static final long serialVersionUID = 1L;

  /**
   * @see HttpServlet#HttpServlet()
   */
  public AddProductServlet() {
    super();
    // TODO Auto-generated constructor stub
  }

	/**
	 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
	 */
	protected void doGet(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
		request.getRequestDispatcher("add-product.html").include(request, response);
	}

	/**
```

```java
     * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse
response)
     */
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {

            PrintWriter out = response.getWriter();

            String productName = request.getParameter("name");
            String productPrice = request.getParameter("price");

            //Step1: Gets session Factory
            SessionFactory sf = HibernateUtil.buildSessionFactory();

            //Step 2: Gets Session object
            Session session = sf.openSession();

            //Step3: Gets Tx object and begin transaction
            Transaction tx =  session.beginTransaction();

            // Step 4: Create and populate entity object
            EProduct product = new EProduct();
            product.setName(productName);
            product.setPrice(Double.parseDouble(productPrice));

            //Step 5: <h3 style='color:green'> ProductNischithNischith is created successfully
! </h3>Save record in DB
            session.save(product);

            tx.commit();

            out.print("<h3> Product is created successfully ! <h3>");
            session.close();
        }

}
```

EProduct.java:

```java
package com.program;
import javax.persistence.Column;
import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.Id;
import javax.persistence.Table;

@Entity
@Table(name="eproduct_27012022")
public class EProduct {

        @Id
        @GeneratedValue
        @Column(name="eproduct_id")
        private int id;

        @Column(name="eproduct_name")
        private String name;

        @Column(name="eproduct_price")
        private Double price;


        //ALt + S + R
        public int getId() {
                return id;
        }

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

        public String getName() {
                return name;
        }

        public void setName(String name) {
```

```java
            this.name = name;
        }

        public Double getPrice() {
            return price;
        }

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

}
```

HibernateUtil.java:

```java
package com.program;
import org.hibernate.SessionFactory;
import org.hibernate.cfg.Configuration;

import com.entity.EProduct;

public class HibernateUtil {

        public static SessionFactory buildSessionFactory() {

                Configuration cfg = new Configuration();
                cfg.configure("hibernate.cfg.xml");
                cfg.addAnnotatedClass(EProduct.class);

                SessionFactory sf = cfg.buildSessionFactory();

                return sf;
        }

}
```