Hibernate Configuration Using Annotations in Eclipse

Hibernate.cfg.xml:

```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>
    <!-- Database connection settings -->
    <property
name="connection.driver_class">com.mysql.jdbc.Driver</property>
    <property
name="connection.url">jdbc:mysql://localhost:3306/ecommerce</property>
    <property name="connection.username">root</property>
    <property name="connection.password">Mgokulakrishnan@12</property>
  </session-factory>
</hibernate-configuration>
```

HibernateUtil:

```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();
		} catch (Throwable th) {
			throw new ExceptionInInitializerError(th);
		}
	}

	public static SessionFactory getSessionFactory() {
		return sessionFactory;
	}
}
```

Index.html:

```html
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Hibernate Annotation Example</title>
```

```html
</head>
<body>
<a href="list">List Products</a><br>

</body>
</html>
```

EProduct:

```java
package com.ecommerce;

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 EProduct {

        @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 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;}
}
```

ListProducts:

```java
import java.io.IOException;
import java.io.PrintWriter;

import javax.servlet.ServletConfig;
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 javax.transaction.*;
import javax.xml.bind.*;
```

```java
import java.io.Serializable;
import java.util.List;

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


import com.ecommerce.EProduct;
import com.ecommerce.HibernateUtil;

/**
* Servlet implementation class ListProducts
*/
@WebServlet("/ListProducts")
public class ListProducts extends HttpServlet {
        private static final long serialVersionUID = 1L;



    /**
* @see HttpServlet#HttpServlet()
*/
    public ListProducts() {
        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
                try {
                        SessionFactory factory =
HibernateUtil.getSessionFactory();

                        Session session = factory.openSession();
                        // using HQL
                        List<EProduct> list = session.createQuery("from
EProduct").list();

                        session.close();

                         PrintWriter out = response.getWriter();
                         out.println("<html><body>");
                         out.println("<b>Product Listing</b><br>");
                         for(EProduct p: list) {
                                out.println("ID: " +
String.valueOf(p.getID()) + ", Name: " + p.getName() +
                                                ", Price: " +
String.valueOf(p.getPrice()) + ", Date Added: " +
p.getDateAdded().toString() + "<br>");
                                }

                        out.println("</body></html>");
```
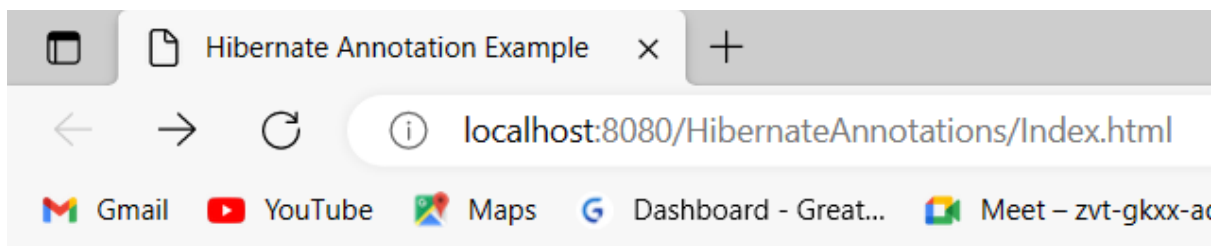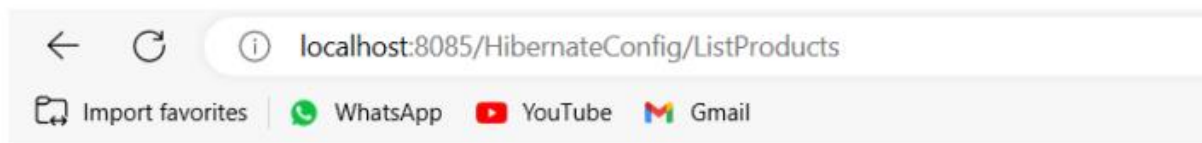
```
			} catch (Exception ex) {
				throw ex;
			}

		}

		/**
		 * @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);
		}

}
```

Hibernate Annotation Example ✕ +

← → C ⓘ localhost:8080/HibernateAnnotations/Index.html

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List Products

← C ⓘ localhost:8085/HibernateConfig/ListProducts

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Product Listing
ID: 1, Name: HP Laptop ABC, Price: 12000.00, Date Added: 2023-05-25 15:30:41.0
ID: 2, Name: Acer Laptop ABC, Price: 14000.00, Date Added: 2023-05-25 15:32:05.0
ID: 3, Name: Lenova Laptop ABC, Price: 12000.00, Date Added: 2023-05-25 15:32:27.0