## 2 . Configure Hibernate using XML in Eclipse IDE.

### Source Code:

**//index.html**

```
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Hibernate Configuration Example</title>
</head>
<body>
<h3>Hibernate Configuration Example </h3>

<a href="init">Initialize Hibernate</a><br>
<h3>Hibernate Query Demo </h3>
<a href="query-demo">Query  Here and get the data</a><br>
</body>
</html>
```

**//hibernate.cfg.java**

```
<?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.cj.jdbc.Driver</property>
    <property name="connection.url">jdbc:mysql://localhost:3306/ecommerce</property>
    <property name="connection.username">root</property>
    <property name="connection.password">Simplilearn</property>
    <mapping class="com.ecommerce.EProduct" />
  </session-factory>
</hibernate-configuration>
```

**//HibernateUti.java**

```
package com.simpli;
import org.hibernate.SessionFactory;
import org.hibernate.boot.*;
import org.hibernate.boot.registry.*;

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;
        }

}
```

**//HibernateInit.java**

```
package com.simpli;

import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;


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

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
```

```
import javax.servlet.http.*;

import org.hibernate.*;

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

    /**
     * @see HttpServlet#HttpServlet()
     */
    public HibernateInit() {
        super();
        // TODO Auto-generated constructor stub
    }
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
				throws ServletException, IOException {
		PrintWriter out = response.getWriter();
		out.println("<html><body>");

		// STEP 1: Get a Session (connection) from the Session Factory class
		SessionFactory factory = HibernateUtil.getSessionFactory();

		// STE2 Create the session object
```

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

                out.println("Hibernate Session opened.<br>");

                session.close();

                out.println("Hibernate Session closed.<br>");

                out.println("</body></html>");
        }

}
```

**//EProduct.hbm.xml**

```
<?xml version="1.0"?>
<!DOCTYPE hibernate-mapping PUBLIC
"-//Hibernate/Hibernate Mapping DTD 3.0//EN"
"http://www.hibernate.org/dtd/hibernate-mapping-3.0.dtd">
<hibernate-mapping package="com.ecommerce">
   <class name="EProduct" table="eproduct">
      <id name="ID" column="ID">
         <generator class="increment"/>
      </id>
      <property name="name" type="string" column="NAME"/>
      <property name="price" type="big_decimal" column="PRICE"/>
      <property name="dateAdded" type="timestamp" column="DATE_ADDED"/>
   </class>
```

```
</hibernate-mapping>

//Eproduct.java
package com.ecommerce;

	import java.math.BigDecimal;
	import java.util.Date;

	public class EProduct {

		private long ID;
		private String name;
		private BigDecimal price;
		private Date dateAdded;

		public EProduct() {

		}

		public EProduct(long id, String name, BigDecimal price, Date dateAdded) {
			this.ID = id;
			this.name = name;
			this.price = price;
			this.dateAdded = 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;
	}

}
```

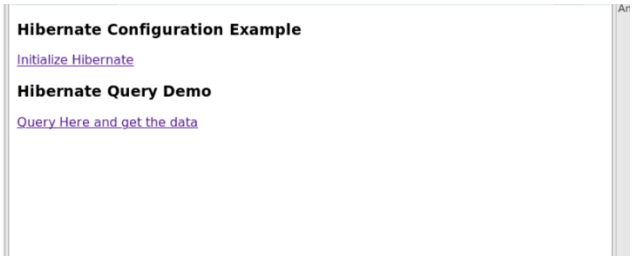
**//HibernateQueryDemo.java**

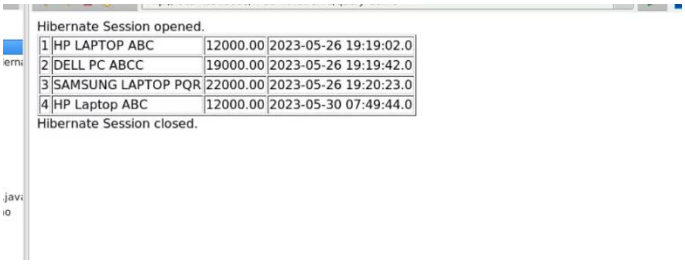
```
package com.simpli;

import java.io.*;
import java.io.PrintWriter;
import java.util.List;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.*;

import org.hibernate.*;

import com.ecommerce.EProduct;

@WebServlet("/query-demo")
public class HibernateQueryDemo extends HttpServlet {

	protected void doGet(HttpServletRequest request, HttpServletResponse response)
			throws ServletException, IOException {
		PrintWriter out = response.getWriter();
```

```
out.println("<html><body>");

// STEP 1: Get a Session (connection) from the Session Factory class
SessionFactory factory = HibernateUtil.getSessionFactory();

// STE2 Create the session object
Session session = factory.openSession();

out.println("Hibernate Session opened.<br>");
// STEP 3 Query the DB and get the data
List<EProduct> eproducts = session.createQuery("from EProduct").list();
out.println("<table border=1>");
for (EProduct prod : eproducts) {
        out.println("<tr>" + "<td>" + prod.getID() + "<td>"
+ prod.getName() + "<td>" + prod.getPrice() + "<td>"
                        + prod.getDateAdded());
}

out.println("</table>");



session.close();

out.println("Hibernate Session closed.<br>");

out.println("</body></html>");
```

```
}


}
```

## Output:


Hibernate Configuration Example
Initialize Hibernate
Hibernate Query Demo
Query Here and get the data


Hibernate Session opened.
1 HP LAPTOP ABC 12000.00 2023-05-26 19:19:02.0
2 DELL PC ABCC 19000.00 2023-05-26 19:19:42.0
3 SAMSUNG LAPTOP PQR 22000.00 2023-05-26 19:20:23.0
4 HP Laptop ABC 12000.00 2023-05-30 07:49:44.0
Hibernate Session closed.