

# **Hibernate Configuration Using XML in Eclipse**

//Configuring Hibernate with hibernate.cfg.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">mysql user id</property>
    <property name="connection.password">mysql
password</property>
  </session-factory>
</hibernate-configuration>
```

//Creating a HibernateUtil class to initiate Hibernate in code

```
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;
    }
}

```

//Creating an HTML page index.html

```
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Hibernate With XML</title>
</head>
<body>
<a href="list">List Products</a><br>

</body>
</html>
```

//Creating a Java class Eproduct to act as the Data Access Object (DAO) for the table

```
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 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;}

}

```

//Creating a ListProducts servlet

```

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.*;

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);
}
}

```

//Configuring the table in Hibernate with a .hbm.xml file

```

<?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

```

//Configuring web.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://xmlns.jcp.org/xml/ns/javaee"
xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee
http://xmlns.jcp.org/xml/ns/javaee/web-app\_4\_0.xsd"
id="WebApp_ID" version="4.0">
  <display-name>HibernateXML</display-name>
  <welcome-file-list>
    <welcome-file>index.html</welcome-file>
    <welcome-file>index.htm</welcome-file>
    <welcome-file>index.jsp</welcome-file>
    <welcome-file>default.html</welcome-file>
    <welcome-file>default.htm</welcome-file>
    <welcome-file>default.jsp</welcome-file>
  </welcome-file-list>
  <servlet>
    <servlet-name>ListProducts</servlet-name>
    <servlet-class>ListProducts</servlet-class>
  </servlet>

  <servlet-mapping>
    <servlet-name>ListProducts</servlet-name>
    <url-pattern>/list</url-pattern>
  </servlet-mapping>

</web-app>
```



