

## Eproduct:

```
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;}

}
```

## Hibernate:

```
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 (Exception e) {
            throw new RuntimeException(e);
        }
    }
}
```

```

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

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

```

## ListProducts:

```

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);
    }
}

```