

#### 4.Demonstrate Hibernate logging by Log4j.

##### **HibernateUtil.java**

```
package com.ecommerce;

import org.hibernate.SessionFactory;
import org.hibernate.boot.registry.StandardServiceRegistry;
import org.hibernate.boot.registry.StandardServiceRegistryBuilder;
import org.hibernate.cfg.Configuration;

public class HibernateUtil {

    private static SessionFactory sessionFactory;

    public static SessionFactory getSessionFactory() {
        if (sessionFactory == null) {
            try {
                Configuration configuration = new Configuration().configure();
                StandardServiceRegistry serviceRegistry = new
StandardServiceRegistryBuilder()
                    .applySettings(configuration.getProperties()).build();
                sessionFactory = configuration.buildSessionFactory(serviceRegistry);
            } catch (Exception e) {
                e.printStackTrace();
            }
        }
        return sessionFactory;
    }

    public static void shutdown() {
        if (sessionFactory != null) {
            sessionFactory.close();
        }
    }
}
```

##### **InitHibernate.java**

```
package com.ecommerce;

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

```
@WebServlet("/InitHibernate")
public class InitHibernate extends HttpServlet {
    private static final long serialVersionUID = 1L;
```

```
    public InitHibernate() {
        super();
    }
```

```
    protected void doGet(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
```

```
        try {
            PrintWriter out = response.getWriter();
            out.println("<html><body>");
```

```
            SessionFactory factory = HibernateUtil.getSessionFactory();
```

```
            Session session = factory.openSession();
            out.println("Hibernate Session opened.<br>");
            session.close();
            out.println("Hibernate Session closed.<br>");
```

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

```
        } catch (Exception ex) {
            throw ex;
        }
```

```
    }
```

```
    protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
```

```
        doGet(request, response);
    }
```

```
}
```

## log4j.properties

```
# Direct log messages to a log file
log4j.appender.file=org.apache.log4j.RollingFileAppender
log4j.appender.file.File=/home/oem/Downloads/hibernate.log
log4j.appender.file.MaxFileSize=1MB
log4j.appender.file.MaxBackupIndex=1
log4j.appender.file.layout=org.apache.log4j.PatternLayout
log4j.appender.file.layout.ConversionPattern=%d{ABSOLUTE} %5p %c{1}:%L -
%m%n

# Direct log messages to stdout
log4j.appender.stdout=org.apache.log4j.ConsoleAppender
log4j.appender.stdout.Target=System.out
log4j.appender.stdout.layout=org.apache.log4j.PatternLayout
log4j.appender.stdout.layout.ConversionPattern=%d{ABSOLUTE} %5p %c{1}:%L
- %m%n

# Root logger option
log4j.rootLogger=INFO, file, stdout

# Log everything. Good for troubleshooting
log4j.logger.org.hibernate=INFO

# Log all JDBC parameters
log4j.logger.org.hibernate.type=ALL
```

## Index.html

```
<!DOCTYPE html>
<html>
<head>
  <title>Trigger Hibernate Initialization</title>
</head>
<body>
  <h1>Trigger Hibernate Initialization</h1>
  <form action="/initHibernate" method="post">
    <input type="submit" value="Initialize Hibernate">
  </form>
</body>
</html>
```

## 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">root</property>
    <property name="connection.password">kiran@18</property>
  </session-factory>
</hibernate-configuration>
```

## Web.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://java.sun.com/xml/ns/javaee" xsi:schemaLocation="http://
java.sun.com/xml/ns/javaee http://java.sun.com/xml/ns/javaee/web-app_2_5.xsd"
id="WebApp_ID" version="2.5">
  <display-name>HibernateConfig</display-name>
  <welcome-file-list>
    <welcome-file>index.html</welcome-file>
    <welcome-file>index.jsp</welcome-file>
    <welcome-file>index.htm</welcome-file>
    <welcome-file>default.html</welcome-file>
    <welcome-file>default.jsp</welcome-file>
    <welcome-file>default.htm</welcome-file>
  </welcome-file-list>
  <servlet>
    <description></description>
    <display-name>InitHibernate</display-name>
    <servlet-name>InitHibernate</servlet-name>
    <servlet-class>com.ecommerce.InitHibernate</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>InitHibernate</servlet-name>
    <url-pattern>/InitHibernate</url-pattern>
  </servlet-mapping>
</web-app>
```