**Phase 2:Practice Project: Assissted Practice: 3**

**4. Demonstrate Hibernate logging by Log4j.**

**Source Code:**

**Index.html:**

<!DOCTYPEhtml>

<html>

<head>

<metacharset=*"UTF-8"*>

<title>Hibernate Configuration Example</title>

</head>

<body>

<h2>Hibernate Configuration</h2>

<ahref=*"init"*>Initialize Hibernate</a>

<br>

</body>

</html>

**InitHibernate:**

**import**java.io.IOException;

**import**java.io.PrintWriter;

**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**org.hibernate.Session;

**import**org.hibernate.SessionFactory;

**import**com.ecommerce.HibernateUtil;

@WebServlet("/InitHibernate")

**publicclass**InitHibernate**extends**HttpServlet {

**privatestaticfinallong*serialVersionUID*** = 1L;

**public**InitHibernate() {

**super**();

}

**protectedvoid**doGet(HttpServletRequestrequest, HttpServletResponseresponse)

**throws**ServletException, IOException {

**try** {

PrintWriterout = response.getWriter();

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

SessionFactoryfactory = 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;

}

}

**protectedvoid**doPost(HttpServletRequestrequest, HttpServletResponseresponse)

**throws**ServletException, IOException {

doGet(request, response);

}

}

**HibernateUtil:**

**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;

**publicclass**HibernateUtil {

**privatestaticfinal**SessionFactory***sessionFactory***;

**static** {

**try** {

StandardServiceRegistrystandardRegistry = **new**StandardServiceRegistryBuilder()

.configure("hibernate.cfg.xml").build();

Metadata metaData = **new**MetadataSources(standardRegistry).getMetadataBuilder().build();

***sessionFactory*** = metaData.getSessionFactoryBuilder().build();

} **catch** (Throwable th) {

**thrownew**ExceptionInInitializerError(th);

}

}

**publicstatic**SessionFactorygetSessionFactory() {

**return*sessionFactory***;

}

}

**hibernate.cfg.xml:**

<?xmlversion=*'1.0'*encoding=*'utf-8'*?>

<!DOCTYPEhibernate-configurationPUBLIC

"-//Hibernate/Hibernate Configuration DTD 3.0//EN"

"http://www.hibernate.org/dtd/hibernate-configuration-3.0.dtd">

<hibernate-configuration>

<session-factory>

<!-- Database connection settings -->

<propertyname=*"connection.driver\_class"*>com.mysql.cj.jdbc.Driver</property>

<propertyname=*"connection.url"*>jdbc:mysql://localhost:3306/ecommerce</property>

<propertyname=*"connection.username"*>student</property>

<propertyname=*"connection.password"*>student</property>

</session-factory>

</hibernate-configuration>

**log4j.properties:**

# Direct log messages to a log file

log4j.appender.file=org.apache.log4j.RollingFileAppender

log4j.appender.file.File=/home/Shreya/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

**Output:**



