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

**3. Configure Hibernate using Annotations in Eclipse IDE.**

**Source Code:**

**Index.html:**

<!DOCTYPEhtml>

<html>

<head>

<metacharset=*"ISO-8859-1"*>

<title>Configure Hibernate using Annotations</title>

</head>

<body>

<h2>Configure Hibernate using Annotations</h2>

<formaction=*"StudentServlet"*method=*"get"*>

<inputtype=*"submit"*value=*"Fetch students data"*/>

</form>

</body>

</html>

**StudentServlet:**

**import**java.io.IOException;

**import**java.io.PrintWriter;

**import**java.util.List;

**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.hibernate.connection.HibernateConfig;

**import**com.hibernate.models.Student;

@WebServlet("/StudentServlet")

**publicclass**StudentServlet**extends**HttpServlet {

**privatestatic**SessionFactory*sessionFactory* = **null**;

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

**public**StudentServlet() {

**super**();

*sessionFactory* = HibernateConfig.*getSessionFactory*();

}

**protectedvoid**service(HttpServletRequestrequest, HttpServletResponseresponse)

**throws**ServletException, IOException {

**try** {

Session session = *sessionFactory*.openSession();

List<Student>studentList = (List<Student>) session.createQuery("from Student").list();

session.close();

response.setContentType("text/html");

PrintWriterout = response.getWriter();

out.println("<table style='width: 50%;'>");

out.println("<th>Roll\_No</th>");

out.println("<th>Name</th>");

out.println("<th>Email</th>");

out.println("<th>Course</th>");

out.println("</tr></thead>");

out.println("<tbody style='width: 50%;'>");

**for** (Student student :studentList) {

out.println("<td style='width: 10%; text-align: center;'>" + student.getRollNo() + "</td>");

out.println("<td style='width: 10%; text-align: center;'>" + student.getName() + "</td>");

out.println("<td style='width: 10%; text-align: center;'>" + student.getEmail() + "</td>");

out.println("<td style='width: 10%; text-align: center;'>" + student.getCourse() + "</td>");

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

}

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

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

} **catch** (Exception e) {

e.printStackTrace();

}

}

}

**HibernateConfig:**

**package**com.hibernate.connection;

**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**HibernateConfig {

**privatestatic**SessionFactory*sessionFactory*;

**publicstatic**SessionFactorygetSessionFactory() {

**if** (*sessionFactory* == **null**) {

**try** {

StandardServiceRegistrystandardRegistry = **new**StandardServiceRegistryBuilder()

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

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

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

} **catch** (Exception e) {

e.printStackTrace();

}

}

**return***sessionFactory*;

}

}

**Student:**

**package**com.hibernate.models;

**import**javax.persistence.Column;

**import**javax.persistence.Entity;

**import**javax.persistence.GeneratedValue;

**import**javax.persistence.Id;

**import**javax.persistence.Table;

@Entity

@Table(name = "StudentInfo2")

**publicclass** Student {

@Id

@GeneratedValue

@Column(name = "roll\_no")

**privateint**rollNo;

**private** String name;

@Column(unique = **true**)

**private** String email;

**private** String course;

**publicint**getRollNo() {

**return**rollNo;

}

**publicvoid**setRollNo(**int**rollNo) {

**this**.rollNo = rollNo;

}

**public** String getName() {

**return**name;

}

**publicvoid**setName(String name) {

**this**.name = name;

}

**public** String getEmail() {

**return**email;

}

**publicvoid**setEmail(String email) {

**this**.email = email;

}

**public** String getCourse() {

**return**course;

}

**publicvoid**setCourse(String course) {

**this**.course = course;

}

}

**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>

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

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

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

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

<propertyname=*"hibernate.dialect"*>org.hibernate.dialect.MySQL5Dialect</property>

<propertyname=*"show\_sql"*>true</property>

<propertyname=*"hbm2ddl.auto"*>update</property>

<mappingclass=*"com.hibernate.models.Student"*/>

</session-factory>

</hibernate-configuration>

**Output:**



