**Source code**

package com.simplilearn.configuration;  
  
import org.hibernate.SessionFactory;  
import org.hibernate.cfg.Configuration;

public class DatabaseConfiguration {  
  
 public static SessionFactory getSessionFactory() {  
 Configuration con = new Configuration();  
 con.configure("hibernate.cfg.xml");  
 return con.buildSessionFactory();  
 }  
}

package com.simplilearn.dao;  
  
  
import com.simplilearn.configuration.DatabaseConfiguration;  
import com.simplilearn.entity.Login;  
import org.hibernate.Session;  
import org.hibernate.SessionFactory;  
import org.hibernate.Transaction;  
import org.hibernate.query.Query;  
  
import java.util.List;  
  
public class LoginDao {  
  
 private SessionFactory sessionFactory;  
  
 public LoginDao() {  
 sessionFactory = DatabaseConfiguration.getSessionFactory();  
 }  
  
 public boolean checkUserEmail(String email){  
 Session session = sessionFactory.openSession();  
 Transaction transaction = session.beginTransaction();  
  
 String sql = "SELECT \* FROM Login WHERE email = :email";  
 Query query = session.createSQLQuery(sql);  
 query.setParameter("email", email);  
  
 List<Login> logins = query.getResultList();  
  
 if(logins.isEmpty()){  
 return false;  
 }  
 transaction.commit();  
 session.close();  
 return true;  
 }  
  
 public boolean checkUserPassword(String email, String password){  
 Session session = sessionFactory.openSession();  
 Transaction transaction = session.beginTransaction();  
  
 String sql = "SELECT \* FROM Login WHERE email = :email";  
 Query query = session.createNativeQuery(sql, Login.class);  
 query.setParameter("email", email);  
  
 List<Login> logins = query.getResultList();  
  
 if(logins.get(0).getPassword().equals(password)){  
 return true;  
 }  
 transaction.commit();  
 session.close();  
 return false;  
 }  
}

package com.simplilearn.entity;  
  
import lombok.Data;  
  
import javax.persistence.Column;  
import javax.persistence.Entity;  
import javax.persistence.GeneratedValue;  
import javax.persistence.Id;  
import javax.persistence.OneToMany;  
  
import javax.persistence.CascadeType;  
  
import java.util.List;  
  
@Data  
@Entity  
public class Classes {  
  
 @Id  
 @GeneratedValue  
 private int class\_id;  
  
 private String class\_name;  
  
 @OneToMany(cascade= CascadeType.*ALL*, mappedBy="classes")  
 private List<Student> students;  
  
 @OneToMany(cascade= CascadeType.*ALL*, mappedBy="classes")  
 private List<Subject> subjects;  
  
}

package com.simplilearn.entity;  
  
import lombok.Data;  
  
import javax.persistence.Entity;  
import javax.persistence.GeneratedValue;  
import javax.persistence.GenerationType;  
import javax.persistence.Id;  
  
@Data  
@Entity  
public class Login {  
  
 @Id  
 @GeneratedValue(strategy = GenerationType.*IDENTITY*) *// auto\_increment* private int id;  
  
 private String email;  
 private String password;  
}

package com.simplilearn.entity;  
  
import lombok.Data;  
  
import javax.persistence.CascadeType;  
import javax.persistence.Column;  
import javax.persistence.Entity;  
import javax.persistence.GeneratedValue;  
import javax.persistence.Id;  
import javax.persistence.JoinColumn;  
import javax.persistence.ManyToOne;  
  
@Data  
@Entity  
public class Student {  
  
 @Id  
 @GeneratedValue  
 private int student\_id;  
  
 private String fname;  
  
 private String lname;  
  
 @ManyToOne(cascade=CascadeType.*ALL*)  
 @JoinColumn(name="class\_id")  
 private Classes classes;  
}

package com.simplilearn.entity;  
  
import lombok.Data;  
  
import javax.persistence.CascadeType;  
import javax.persistence.Column;  
import javax.persistence.Entity;  
import javax.persistence.GeneratedValue;  
import javax.persistence.Id;  
import javax.persistence.JoinColumn;  
import javax.persistence.ManyToOne;  
  
@Data  
@Entity  
public class Subject {  
  
 @Id  
 @GeneratedValue  
 private int subject\_id;  
  
 private String subject\_name;  
  
 @ManyToOne(cascade= CascadeType.*ALL*)  
 @JoinColumn(name="teacher\_id")  
 private Teacher teacher;  
  
 @ManyToOne(cascade=CascadeType.*ALL*)  
 @JoinColumn(name="class\_id")  
 private Classes classes;  
}

package com.simplilearn.entity;  
  
import lombok.Data;  
  
import java.util.List;  
  
import javax.persistence.CascadeType;  
import javax.persistence.Column;  
import javax.persistence.Entity;  
import javax.persistence.GeneratedValue;  
import javax.persistence.Id;  
import javax.persistence.OneToMany;  
  
@Data  
@Entity  
public class Teacher {  
  
 @Id  
 @GeneratedValue  
 private int teacher\_id;  
  
 private String first\_name;  
  
 private String last\_name;  
  
 @OneToMany(cascade=CascadeType.*ALL*, mappedBy="teacher")  
 private List<Subject> subjects;  
}

package com.simplilearn.servlet;  
  
import com.simplilearn.configuration.DatabaseConfiguration;  
import com.simplilearn.entity.Classes;  
import org.hibernate.Session;  
import org.hibernate.SessionFactory;  
import org.hibernate.Transaction;  
  
import javax.servlet.RequestDispatcher;  
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.IOException;  
import java.io.PrintWriter;  
  
@WebServlet ("/addClass")  
public class AddClass extends HttpServlet {  
 private static final long *serialVersionUID* = 1L;  
  
 */\*\*  
 \* @see HttpServlet#HttpServlet()  
 \*/* public AddClass() {  
 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* response.getWriter().append("Served at: ").append(request.getContextPath());  
 }  
  
 */\*\*  
 \* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)  
 \*/* protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  
 response.setContentType("text/html");  
 PrintWriter out = response.getWriter();  
  
 String name = request.getParameter("class");  
  
 SessionFactory sf = DatabaseConfiguration.*getSessionFactory*();  
 Session session = sf.openSession();  
  
 Transaction tx = session.beginTransaction();  
  
 Classes classes = new Classes();  
 classes.setClass\_name(name);  
  
 session.save(classes);  
  
 tx.commit();  
 session.close();  
  
 RequestDispatcher dispatcher = getServletContext().getRequestDispatcher("/viewClass.jsp");  
 dispatcher.forward(request, response);  
 }  
}

package com.simplilearn.servlet;  
  
import com.simplilearn.configuration.DatabaseConfiguration;  
import com.simplilearn.entity.Student;  
import org.hibernate.Session;  
import org.hibernate.SessionFactory;  
import org.hibernate.Transaction;  
  
import javax.servlet.RequestDispatcher;  
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.IOException;  
import java.io.PrintWriter;  
  
@WebServlet ("/addStudent")  
public class AddStudent extends HttpServlet {  
 private static final long *serialVersionUID* = 1L;  
  
 */\*\*  
 \* @see HttpServlet#HttpServlet()  
 \*/* public AddStudent() {  
 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* response.getWriter().append("Served at: ").append(request.getContextPath());  
 }  
  
 */\*\*  
 \* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)  
 \*/* protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  
 response.setContentType("text/html");  
 PrintWriter out = response.getWriter();  
  
 String name = request.getParameter("fname");  
 String lname = request.getParameter("lname");  
  
 SessionFactory sf = DatabaseConfiguration.*getSessionFactory*();  
 Session session = sf.openSession();  
  
 Transaction tx = session.beginTransaction();  
  
 Student student = new Student();  
 student.setFname(name);  
 student.setLname(lname);  
  
 session.save(student);  
 tx.commit();  
 session.close();  
  
 RequestDispatcher dispatcher = getServletContext().getRequestDispatcher("/viewStudent.jsp");  
 dispatcher.forward(request, response);  
 }  
  
}

package com.simplilearn.servlet;  
  
import com.simplilearn.configuration.DatabaseConfiguration;  
import com.simplilearn.entity.Subject;  
import org.hibernate.Session;  
import org.hibernate.SessionFactory;  
import org.hibernate.Transaction;  
  
import javax.servlet.RequestDispatcher;  
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.IOException;  
import java.io.PrintWriter;  
  
*/\*\*  
 \* Servlet implementation class AddSubject  
 \*/*@WebServlet ("/addSubject")  
public class AddSubject extends HttpServlet {  
 private static final long *serialVersionUID* = 1L;  
  
 */\*\*  
 \* @see HttpServlet#HttpServlet()  
 \*/* public AddSubject() {  
 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* response.getWriter().append("Served at: ").append(request.getContextPath());  
 }  
  
 */\*\*  
 \* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)  
 \*/* protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  
 response.setContentType("text/html");  
 PrintWriter out = response.getWriter();  
  
 String name = request.getParameter("name");  
  
 SessionFactory sf = DatabaseConfiguration.*getSessionFactory*();  
 Session session = sf.openSession();  
 Transaction tx = session.beginTransaction();  
  
 Subject subject = new Subject();  
 subject.setSubject\_name(name);  
  
 session.save(subject);  
 tx.commit();  
 session.close();  
  
 RequestDispatcher dispatcher = getServletContext().getRequestDispatcher("/viewSubject.jsp");  
 dispatcher.forward(request, response);  
 }  
  
}

package com.simplilearn.servlet;  
  
import com.simplilearn.configuration.DatabaseConfiguration;  
import com.simplilearn.entity.Teacher;  
import org.hibernate.Session;  
import org.hibernate.SessionFactory;  
import org.hibernate.Transaction;  
  
import javax.servlet.RequestDispatcher;  
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.IOException;  
import java.io.PrintWriter;  
  
*/\*\*  
 \* Servlet implementation class AddTeacher  
 \*/*@WebServlet ("/addTeacher")  
public class AddTeacher extends HttpServlet {  
 private static final long *serialVersionUID* = 1L;  
  
 */\*\*  
 \* @see HttpServlet#HttpServlet()  
 \*/* public AddTeacher() {  
 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* response.getWriter().append("Served at: ").append(request.getContextPath());  
 }  
  
 */\*\*  
 \* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)  
 \*/* protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  
 response.setContentType("text/html");  
 PrintWriter out = response.getWriter();  
  
 String name = request.getParameter("name");  
 String lname = request.getParameter("lname");  
  
 SessionFactory sf = DatabaseConfiguration.*getSessionFactory*();  
 Session session = sf.openSession();  
 Transaction tx = session.beginTransaction();  
  
 Teacher teacher = new Teacher();  
 teacher.setFirst\_name(name);  
 teacher.setLast\_name(lname);  
  
 session.save(teacher);  
 tx.commit();  
 session.close();  
  
 RequestDispatcher dispatcher = getServletContext().getRequestDispatcher("/viewTeachers.jsp");  
 dispatcher.forward(request, response);  
 }  
  
}

package com.simplilearn.servlet;  
  
import com.simplilearn.configuration.DatabaseConfiguration;  
import com.simplilearn.entity.Classes;  
import com.simplilearn.entity.Student;  
import org.hibernate.Session;  
import org.hibernate.SessionFactory;  
import org.hibernate.Transaction;  
import org.hibernate.query.Query;  
  
import javax.servlet.RequestDispatcher;  
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.IOException;  
import java.io.PrintWriter;  
import java.util.List;  
  
*/\*\*  
 \* Servlet implementation class AssignStudent  
 \*/*@WebServlet ("/assignStudent")  
public class AssignStudent extends HttpServlet {  
 private static final long serialVersionUID = 1L;  
  
 */\*\*  
 \* @see HttpServlet#HttpServlet()  
 \*/* public AssignStudent() {  
 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* response.getWriter().append("Served at: ").append(request.getContextPath());  
 }  
  
 */\*\*  
 \* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)  
 \*/* protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  
 response.setContentType("text/html");  
 PrintWriter out = response.getWriter();  
  
 String name = request.getParameter("name");  
 String[] nameList = name.split(" ");  
 String classes = request.getParameter("class");  
  
 SessionFactory sf = DatabaseConfiguration.*getSessionFactory*();  
 Session session = sf.openSession();  
  
 Transaction tx = session.beginTransaction();  
  
 String hql\_classes= "from Classes where class\_name='" + classes + "'";  
 List<Classes> clas = session.createQuery(hql\_classes).list();  
  
 String hql\_student = "update Student s set s.classes=:n where s.fname=:fn and s.lname=:ln";  
  
 Query<Student> query = session.createQuery(hql\_student);  
 query.setParameter("n", clas.get(0));  
 query.setParameter("fn", nameList[0]);  
 query.setParameter("ln", nameList[1]);  
  
 query.executeUpdate();  
 tx.commit();  
 session.close();  
  
 RequestDispatcher dispatcher = getServletContext().getRequestDispatcher("/viewStudent.jsp");  
 dispatcher.forward(request, response);  
 }  
  
}

package com.simplilearn.servlet;  
  
import com.simplilearn.configuration.DatabaseConfiguration;  
import com.simplilearn.entity.Classes;  
import com.simplilearn.entity.Subject;  
import org.hibernate.Session;  
import org.hibernate.SessionFactory;  
import org.hibernate.Transaction;  
import org.hibernate.query.Query;  
  
import javax.servlet.RequestDispatcher;  
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.IOException;  
import java.io.PrintWriter;  
import java.util.List;  
  
@WebServlet ("/assignSubject")  
public class AssignSubject extends HttpServlet {  
 private static final long *serialVersionUID* = 1L;  
  
 */\*\*  
 \* @see HttpServlet#HttpServlet()  
 \*/* public AssignSubject() {  
 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* response.getWriter().append("Served at: ").append(request.getContextPath());  
 }  
  
 */\*\*  
 \* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)  
 \*/* protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  
 response.setContentType("text/html");  
 PrintWriter out = response.getWriter();  
  
 String clas = request.getParameter("class");  
 String subject = request.getParameter("subject");  
  
 SessionFactory sf = DatabaseConfiguration.*getSessionFactory*();  
 Session session = sf.openSession();  
  
 Transaction tx = session.beginTransaction();  
  
 String hql\_clas = "from Classes where class\_name='" + clas + "'";  
 List<Classes> classes = session.createQuery(hql\_clas).list();  
  
 String hql\_subject = "update Subject s set s.classes=:n where s.subject\_name=:sn";  
  
 Query<Subject> query = session.createQuery(hql\_subject);  
 query.setParameter("n", classes.get(0));  
 query.setParameter("sn", subject);  
  
 query.executeUpdate();  
 tx.commit();  
 session.close();  
  
 RequestDispatcher dispatcher = getServletContext().getRequestDispatcher("/viewClass.jsp");  
 dispatcher.forward(request, response);  
 }  
  
}

package com.simplilearn.servlet;  
  
import com.simplilearn.configuration.DatabaseConfiguration;  
import com.simplilearn.entity.Subject;  
import com.simplilearn.entity.Teacher;  
import org.hibernate.Session;  
import org.hibernate.SessionFactory;  
import org.hibernate.Transaction;  
import org.hibernate.query.Query;  
  
import javax.servlet.RequestDispatcher;  
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.IOException;  
import java.io.PrintWriter;  
import java.util.List;  
  
*/\*\*  
 \* Servlet implementation class AssignTeacher  
 \*/*@WebServlet ("/assignTeacher")  
public class AssignTeacher extends HttpServlet {  
 private static final long *serialVersionUID* = 1L;  
  
 */\*\*  
 \* @see HttpServlet#HttpServlet()  
 \*/* public AssignTeacher() {  
 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* response.getWriter().append("Served at: ").append(request.getContextPath());  
 }  
  
 */\*\*  
 \* @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)  
 \*/* protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  
 response.setContentType("text/html");  
 PrintWriter out = response.getWriter();  
  
 String name = request.getParameter("name");  
 String[] nameArray = name.split(" ");  
 String subject = request.getParameter("subject");  
  
 SessionFactory sf = DatabaseConfiguration.*getSessionFactory*();  
 Session session = sf.openSession();  
  
 Transaction tx = session.beginTransaction();  
  
 String hql\_teacher= "from Teacher where first\_name='" + nameArray[0] + "'" + " and last\_name='" + nameArray[1] + "'";  
 List<Teacher> teachers = session.createQuery(hql\_teacher).list();  
  
 String hql\_subject = "update Subject s set s.teacher=:n where s.subject\_name=:sn";  
  
 Query<Subject> query = session.createQuery(hql\_subject);  
 query.setParameter("n", teachers.get(0));  
 query.setParameter("sn", subject);  
 query.executeUpdate();  
  
 tx.commit();  
 session.close();  
  
 RequestDispatcher dispatcher = getServletContext().getRequestDispatcher("/viewTeachers.jsp");  
 dispatcher.forward(request, response);  
 }  
  
}

package com.simplilearn.servlet;  
  
import javax.servlet.http.HttpServlet;  
  
import javax.servlet.ServletException;  
import javax.servlet.annotation.WebServlet;  
  
import javax.servlet.http.HttpServletRequest;  
import javax.servlet.http.HttpServletResponse;  
import java.io.IOException;  
import java.io.PrintWriter;  
  
@WebServlet (name = "homeServlet", value = "/homePage")  
public class HomeServlet extends HttpServlet {  
  
 public void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  
  
 response.setContentType("text/html");  
 PrintWriter out = response.getWriter();  
  
 String n = request.getParameter("userName");  
 out.print("Welcome " + n);  
 }  
  
}

package com.simplilearn.servlet;  
  
import com.simplilearn.dao.LoginDao;  
  
import java.io.\*;  
import javax.servlet.ServletException;  
import javax.servlet.http.\*;  
  
public class LoginServlet extends HttpServlet {  
  
 private static final long *serialVersionUID* = 1L;  
  
 protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  
 LoginDao loginDao = new LoginDao();  
  
 String email = request.getParameter("email");  
 String password = request.getParameter("password");  
  
 if (loginDao.checkUserEmail(email)) {  
 if (loginDao.checkUserPassword(email, password)) {  
 request.setAttribute("email", email);  
 request.getRequestDispatcher("home.jsp").forward(request, response);  
 } else {  
 request.setAttribute("errorMessage", "Invalid password!");  
 request.getRequestDispatcher("login.jsp").forward(request, response);  
 }  
 } else {  
 request.setAttribute("errorMessage", "Invalid email!");  
 request.getRequestDispatcher("login.jsp").forward(request, response);  
 }  
  
 }  
  
 public void destroy() {  
 }  
}

*<?*xml version="1.0" encoding="UTF-8" standalone="yes"*?>*<persistence xmlns="http://xmlns.jcp.org/xml/ns/persistence"  
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
 xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/persistence http://xmlns.jcp.org/xml/ns/persistence/persistence\_2\_2.xsd"  
 version="2.2">  
 <persistence-unit name="default">  
  
 </persistence-unit>  
</persistence>

*<?*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>  
 <property name="hibernate.connection.driver\_class">com.mysql.jdbc.Driver</property>  
 <property name="hibernate.connection.password">password</property>  
 <property name="hibernate.connection.url">jdbc:mysql://localhost:3306/simplilearn?useUnicode=true&amp;serverTimezone=GMT</property>  
 <property name="hibernate.connection.username">root</property>  
 <property name="hibernate.hbm2ddl.auto">update</property>  
 <property name="hibernate.dialect">org.hibernate.dialect.MySQL8Dialect</property>  
 <mapping class="com.simplilearn.entity.Login"/>  
 <mapping class="com.simplilearn.entity.Classes"/>  
 <mapping class="com.simplilearn.entity.Student"/>  
 <mapping class="com.simplilearn.entity.Teacher"/>  
 <mapping class="com.simplilearn.entity.Subject"/>  
 </session-factory>  
</hibernate-configuration>

<!DOCTYPE html>  
<html>  
<head>  
 <meta charset="UTF-8">  
 <title>Insert title here</title>  
</head>  
<body>  
<h1>Add Class</h1>  
<form action="../addClass" method="post">  
 <label for="class">Class:</label><br>  
 <input type="text" id="class" name="class"><br>  
 <input type="submit" value="Submit">  
</form>  
</body>  
</html>

<!DOCTYPE html>  
<html>  
<head>  
 <meta charset="UTF-8">  
 <title>Insert title here</title>  
</head>  
<body>  
<h1>Add Student</h1>  
<form action="../addStudent" method="post">  
 <label for="fname">Name</label><br>  
 <input type="text" id="fname" name="fname"><br>  
 <label for="lname">Last Name</label><br>  
 <input type="text" id="lname" name="lname"><br>  
 <input type="submit" value="Submit">  
</form>  
</body>  
</html>

<!DOCTYPE html>  
<html>  
<head>  
 <meta charset="UTF-8">  
 <title>Insert title here</title>  
</head>  
<body>  
<h1>Add Subject</h1>  
<form action="../addSubject" method="post">  
 <label for="name">Subject Name:</label><br>  
 <input type="text" id="name" name="name"><br>  
 <input type="submit" value="Submit">  
</form>  
</body>  
</html>

<!DOCTYPE html>  
<html>  
<head>  
 <meta charset="UTF-8">  
 <title>Insert title here</title>  
</head>  
<body>  
<h1>Add Teacher</h1>  
<form action="../addTeacher" method="post">  
 <label for="name">Name:</label><br>  
 <input type="text" id="name" name="name"><br>  
 <label for="lname">Last name</label><br>  
 <input type="text" id="lname" name="lname"><br>  
 <input type="submit" value="Submit">  
</form>  
  
  
</body>  
</html>

<%@ page import="org.hibernate.SessionFactory" %>  
<%@ page import="org.hibernate.Session" %>  
<%@ page import="com.simplilearn.entity.Student" %>  
<%@ page import="com.simplilearn.entity.Classes" %>  
<%@ page import="java.util.List" %>  
<%@ page import="com.simplilearn.configuration.DatabaseConfiguration" %>*<%--  
 Created by IntelliJ IDEA.  
 User: elif.karaca  
 Date: 2.03.2023  
 Time: 16:25  
 To change this template use File | Settings | File Templates.  
--%>*<%@ page contentType="text/html;charset=UTF-8" language="java" %>  
<html>  
<head>  
 <meta charset="UTF-8">  
 <title>Insert title here</title>  
</head>  
<body>  
<a href="home.jsp">Back to Main Menu</a><br>  
  
<h1>Assign a Student to a Class</h1>  
<%  
 SessionFactory sf = DatabaseConfiguration.*getSessionFactory*();  
 Session hibernateSession = sf.openSession();  
 List<Student> students = hibernateSession.createQuery("from Student").list();  
 List<Classes> classes = hibernateSession.createQuery("from Classes").list();  
%>  
<form action="assignStudent" method="post">  
 <table>  
 <tr>  
 <th>Student Name</th>  
 <th>Class Name</th>  
 </tr>  
 <tr>  
 <td>  
 <select name="name">  
 <%  
 for (Student student : students) {  
 out.print("<option>" + student.getFname() + " " + student.getLname());  
 out.print("</option>");  
 }  
 %>  
 </select>  
 </td>  
  
 <td>  
 <select name="class">  
 <%  
 for (Classes clas : classes) {  
 out.print("<option>" + clas.getClass\_name());  
 out.print("</option>");  
 }  
 %>  
 </select>  
 </td>  
 </tr>  
 </table>  
 <input type="submit" value="Submit">  
</form>  
  
</body>  
</html>

<%@ page import="com.simplilearn.entity.Classes" %>  
<%@ page import="com.simplilearn.entity.Subject" %>  
<%@ page import="org.hibernate.SessionFactory" %>  
<%@ page import="org.hibernate.Session" %>  
<%@ page import="java.util.List" %>  
<%@ page import="com.simplilearn.configuration.DatabaseConfiguration" %>*<%--  
 Created by IntelliJ IDEA.  
 User: elif.karaca  
 Date: 2.03.2023  
 Time: 11:54  
 To change this template use File | Settings | File Templates.  
--%>*<%@ page contentType="text/html;charset=UTF-8" language="java" %>  
<html>  
<head>  
 <meta charset="UTF-8">  
 <title>Insert title here</title>  
</head>  
<body>  
<a href="home.jsp">Back to Main Menu</a><br>  
  
<h1>Assign a Subject to a Class</h1>  
<%  
 SessionFactory sf = DatabaseConfiguration.*getSessionFactory*();  
 Session hibernateSession = sf.openSession();  
 List<Classes> classes = hibernateSession.createQuery("from Classes").list();  
 List<Subject> subjects = hibernateSession.createQuery("from Subject").list();  
%>  
<form action="assignSubject" method="post">  
 <table>  
 <tr>  
 <th>Class Name</th>  
 <th>Subject Name</th>  
 </tr>  
 <tr>  
 <td>  
 <select name="class">  
 <%  
 for (Classes clas : classes) {  
 out.print("<option>" + clas.getClass\_name());  
 out.print("</option>");  
 }  
 %>  
 </select>  
 </td>  
  
 <td>  
 <select name="subject">  
 <%  
 for (Subject subject : subjects) {  
 out.print("<option>" + subject.getSubject\_name());  
 out.print("</option>");  
 }  
 %>  
 </select>  
 </td>  
 </tr>  
 </table>  
 <input type="submit" value="Submit">  
</form>  
</body>  
</html>

<%@ page import="com.simplilearn.entity.Subject" %>  
<%@ page import="com.simplilearn.entity.Teacher" %>  
<%@ page import="org.hibernate.SessionFactory" %>  
<%@ page import="java.util.List" %>  
<%@ page import="org.hibernate.Session" %>  
<%@ page import="com.simplilearn.configuration.DatabaseConfiguration" %>*<%--  
 Created by IntelliJ IDEA.  
 User: elif.karaca  
 Date: 2.03.2023  
 Time: 17:10  
 To change this template use File | Settings | File Templates.  
--%>*<%@ page contentType="text/html;charset=UTF-8" language="java" %>  
<html>  
<head>  
 <meta charset="UTF-8">  
 <title>Insert title here</title>  
</head>  
<body>  
<a href="home.jsp">Back to Main Menu</a><br>  
  
<h1>Assign a Teacher to a Subject</h1>  
<%  
 SessionFactory sf = DatabaseConfiguration.*getSessionFactory*();  
 Session hibernateSession = sf.openSession();  
 List<Teacher> teachers = hibernateSession.createQuery("from Teacher").list();  
 List<Subject> subjects = hibernateSession.createQuery("from Subject").list();  
%>  
  
<form action="assignTeacher" method="post">  
 <table>  
 <tr>  
 <th>Student Name</th>  
 <th>Subject Name</th>  
 </tr>  
 <tr>  
 <td>  
 <select name="name">  
 <%  
 for (Teacher teacher : teachers) {  
 out.print("<option>" + teacher.getFirst\_name() + " " + teacher.getLast\_name());  
 out.print("</option>");  
 }  
 %>  
 </select>  
 </td>  
  
 <td>  
 <select name="subject">  
 <%  
 for (Subject subject : subjects) {  
 out.print("<option>" + subject.getSubject\_name());  
 out.print("</option>");  
 }  
 %>  
 </select>  
 </td>  
 </tr>  
 </table>  
 <input type="submit" value="Submit">  
</form>  
</body>  
</html>

<%@ page import="org.hibernate.SessionFactory" %>  
<%@ page import="org.hibernate.Session" %>  
<%@ page import="com.simplilearn.entity.Classes" %>  
<%@ page import="java.util.List" %>  
<%@ page import="com.simplilearn.configuration.DatabaseConfiguration" %>*<%--  
 Created by IntelliJ IDEA.  
 User: elif.karaca  
 Date: 2.03.2023  
 Time: 17:22  
 To change this template use File | Settings | File Templates.  
--%>*<%@ page contentType="text/html;charset=UTF-8" language="java" %>  
<html>  
<head>  
 <meta charset="UTF-8">  
 <title>Insert title here</title>  
</head>  
<body>  
<a href="home.jsp">Back to Main Menu</a><br>  
  
<h1>Choose a Class for Report</h1>  
<%  
 SessionFactory sf = DatabaseConfiguration.*getSessionFactory*();  
 Session hibernateSession = sf.openSession();  
 List<Classes> classes = hibernateSession.createQuery("from Classes").list();  
%>  
  
<form action="ClassReport.jsp" method="post">  
 <table>  
 <tr>  
 <th>Class Name</th>  
  
 </tr>  
  
 <tr>  
 <td>  
 <select name="class">  
 <%  
 for (Classes clas : classes) {  
 out.print("<option>" + clas.getClass\_name());  
 out.print("</option>");  
 }  
 %>  
 </select>  
 </td>  
 </tr>  
 </table>  
 <input type="submit" value="Submit">  
</form>  
</body>  
</html>

<%@ page import="org.hibernate.SessionFactory" %>  
<%@ page import="org.hibernate.Session" %>  
<%@ page import="com.simplilearn.entity.Classes" %>  
<%@ page import="java.util.List" %>  
<%@ page import="javax.xml.crypto.Data" %>  
<%@ page import="com.simplilearn.configuration.DatabaseConfiguration" %>  
<%@ page import="com.simplilearn.entity.Subject" %>  
<%@ page import="com.simplilearn.entity.Teacher" %>  
<%@ page import="com.simplilearn.entity.Student" %>*<%--  
 Created by IntelliJ IDEA.  
 User: elif.karaca  
 Date: 2.03.2023  
 Time: 17:24  
 To change this template use File | Settings | File Templates.  
--%>*<%@ page contentType="text/html;charset=UTF-8" language="java" %>  
<html>  
<head>  
 <meta charset="UTF-8">  
 <title>Insert title here</title>  
</head>  
<body>  
<a href="home.jsp">Back to Main Menu</a><br>  
<%String clas = request.getParameter("class");%>  
<h1>Class Report for <%=clas%>  
</h1>  
  
<%  
 SessionFactory sf = DatabaseConfiguration.*getSessionFactory*();  
 Session hibernateSession = sf.openSession();  
 List<Classes> classes = hibernateSession.createQuery("from Classes cl where cl.class\_name='" + clas + "'").list();  
 Classes clasForReport = classes.get(0);  
%>  
<table>  
 <tr>  
 <th>Subject Name</th>  
 <th>Teacher Name</th>  
 </tr>  
 <%  
 for (Subject subject : clasForReport.getSubjects()) {  
 out.print("<tr>");  
 out.print("<td>" + subject.getSubject\_name() + "</td>");  
 out.print("<td>" + getTeacherName(subject) + "</td>");  
 out.print("</tr>");  
 }  
 %>  
</table>  
<%!  
 public String getTeacherName(Subject subject) {  
 Teacher teacher = subject.getTeacher();  
 String name;  
 String lname;  
  
 if (teacher != null) {  
 name = teacher.getFirst\_name();  
 lname = teacher.getLast\_name();  
  
 return name + " " + lname;  
 } else {  
 return "No teacher assigned";  
 }  
 }  
%>  
<table>  
 <br>  
 <tr>  
 <th>Listed Students</th>  
 </tr>  
 <%  
 for (Student student : clasForReport.getStudents()) {  
 out.print("<tr>");  
 out.print("<td>" + student.getFname() + " " + student.getLname() + "</td>");  
 out.print("</tr>");  
 }  
 %>  
</table>  
</body>  
</html>

<%@ page contentType="text/html;charset=UTF-8" language="java" %>  
<html>  
<head>  
 <title>HomePage</title>  
</head>  
<body>  
<p> This is home page!</p>  
<%  
 Object email = request.getAttribute("email");  
 if (email != null) { %>  
<span style="color:red;"><%=email.toString()%></span>  
<%}%>  
<p>What you want to do?</p>  
<table>  
 <tr>  
 <th>Add Items</th>  
 <th>View Items</th>  
 </tr>  
 <tr>  
 <td><a href="HTML/addClasses.html">Add Class</a><br/></td>  
 <td><a href="viewClass.jsp">View Classes</a><br/></td>  
 </tr>  
 <tr>  
 <td><a href="HTML/addSubject.html">Add Subject</a><br/></td>  
 <td><a href="viewSubject.jsp">View Subjects</a><br/></td>  
 </tr>  
 <tr>  
 <td><a href="HTML/addTeacher.html">Add Teacher</a><br/></td>  
 <td><a href="viewTeachers.jsp">View Teachers</a><br/></td>  
 </tr>  
 <tr>  
 <td><a href="HTML/addStudent.html">Add Student</a><br/></td>  
 <td><a href="viewStudent.jsp">View Students</a><br/></td>  
 </tr>  
</table>  
<br>  
<a href="assignStudentToClass.jsp">Assign Student to Class</a><br>  
<a href="assignTeacherToSubject.jsp">Assign Teacher to Class</a><br>  
<a href="assignSubjectToClass.jsp">Assign Subject to Class</a><br>  
<a href="chooseClassReport.jsp">Choose Class for report</a>  
</body>  
</html>

.center {  
 margin: auto;  
 width: 60%;  
 border: 3px solid black;  
 padding: 10px;  
 position: absolute;  
 top: 40%;  
 left: 20%;  
}  
  
div {  
 border-radius: 3px;  
 padding: 10px;  
 text-align: center;  
 background-color: orangered;  
 font-size: 15px;  
}  
  
body {  
 text-align: center;  
}

<%@ page import="org.hibernate.type.ObjectType" %>  
<%@ page contentType="text/html; charset=UTF-8" pageEncoding="UTF-8" %>  
<!DOCTYPE html>  
<html>  
<head>  
 <title>Student Portal</title>  
 <link rel="stylesheet" href="login.css">  
</head>  
<body>  
<h1><%= "Welcome to Student Portal!" %>  
</h1>  
<hr>  
</form>  
<hr/>  
<form action="/loginServlet" method="post">  
  
 <div class="center">  
 <label>Email: </label>  
 <input type="email" name="email"/><br/>  
  
 <br>  
  
 <label>Password: </label>  
 <input type="password" name="password"/><br/>  
  
 <br>  
  
 <input type="submit" value="submit"/>  
 <input type="reset" value="reset"/>  
 <br>  
 <%  
 Object message = request.getAttribute("errorMessage");  
 if (message != null) { %>  
 <span style="color:red;"><%=message.toString()%></span>  
 <%}%>  
 </div>  
  
</form>  
</body>  
</html>

<%@ page import="com.simplilearn.entity.Classes" %>  
<%@ page import="org.hibernate.SessionFactory" %>  
<%@ page import="com.simplilearn.configuration.DatabaseConfiguration" %>  
<%@ page import="org.hibernate.Session" %>  
<%@ page import="java.util.List" %>  
<%@ page import="com.simplilearn.entity.Subject" %>*<%--  
 Created by IntelliJ IDEA.  
 User: elif.karaca  
 Date: 1.03.2023  
 Time: 15:10  
 To change this template use File | Settings | File Templates.  
--%>*<%@ page contentType="text/html;charset=UTF-8" language="java" %>  
<html>  
<head>  
 <title>Title</title>  
</head>  
<body>  
<a href="home.jsp">Back to Main Menu</a><br>  
<a href="HTML/addClasses.html">Add Class</a><br>  
<a href="assignSubjectToClass.jsp">Assign Subject to Class</a><br>  
  
<h1>The Following Classes are listed</h1>  
<%  
 SessionFactory sf = DatabaseConfiguration.*getSessionFactory*();  
 Session hibernateSession = sf.openSession();  
 List<Classes> classes = hibernateSession.createQuery("from Classes").list();  
%>  
<table>  
 <tr>  
 <th>Class Name</th>  
 <th>Subject Name</th>  
 </tr>  
 <%  
 for (Classes clas : classes) {  
 out.print("<tr>");  
 out.print("<td>" + clas.getClass\_name() + "</td>");  
  
 StringBuffer buf = new StringBuffer();  
 boolean first = true;  
 for (Subject subject : clas.getSubjects()) {  
 if (first == true) {  
 buf.append("<td>" + subject.getSubject\_name() + "</td>");  
 buf.append("</tr>");  
 first = false;  
 } else {  
 buf.append("<tr><td></td>");  
 buf.append("<td>" + subject.getSubject\_name() + "</td>");  
 buf.append("</tr>");  
 }  
  
 }  
 out.print(buf.toString());  
 }  
 %>  
</table>  
</body>  
</html>

<%@ page import="org.hibernate.SessionFactory" %>  
<%@ page import="com.simplilearn.entity.Student" %>  
<%@ page import="org.hibernate.Session" %>  
<%@ page import="java.util.List" %>  
<%@ page import="com.simplilearn.configuration.DatabaseConfiguration" %>*<%--  
 Created by IntelliJ IDEA.  
 User: elif.karaca  
 Date: 2.03.2023  
 Time: 14:19  
 To change this template use File | Settings | File Templates.  
--%>*<%@ page contentType="text/html;charset=UTF-8" language="java" %>  
<html>  
<head>  
 <meta charset="UTF-8">  
 <title>Insert title here</title>  
</head>  
<body>  
<a href="home.jsp">Back to Main Menu</a><br>  
<a href="HTML/addStudent.html">Add Student</a><br>  
<a href="assignStudentToClass.jsp">Assign Student</a>  
  
<h1>The Following Students are listed</h1>  
<%  
 SessionFactory sf = DatabaseConfiguration.*getSessionFactory*();  
 Session hibernateSession = sf.openSession();  
 List<Student> students = hibernateSession.createQuery("from Student").list();  
%>  
<table>  
 <tr>  
 <th>Name</th>  
 <th>Last Name</th>  
 <th>Assigned Class</th>  
 </tr>  
 <%  
 for (Student student : students) {  
 out.print("<tr>");  
 out.print("<td>" + student.getFname() + "</td>");  
 out.print("<td>" + student.getLname() + "</td>");  
 out.print("<td>" + getClassName(student) + "</td>");  
 out.print("</tr>");  
 }  
 %>  
</table>  
  
<%!  
 public String getClassName(Student student) {  
 if (student.getClasses() == null) {  
 return "no class assigned";  
 } else {  
 return student.getClasses().getClass\_name();  
 }  
 }  
%>  
</body>  
</html>

<%@ page import="org.hibernate.SessionFactory" %>  
<%@ page import="org.hibernate.Session" %>  
<%@ page import="com.simplilearn.entity.Subject" %>  
<%@ page import="com.simplilearn.configuration.DatabaseConfiguration" %>  
<%@ page import="java.util.List" %>*<%--  
 Created by IntelliJ IDEA.  
 User: elif.karaca  
 Date: 2.03.2023  
 Time: 14:00  
 To change this template use File | Settings | File Templates.  
--%>*<%@ page contentType="text/html;charset=UTF-8" language="java" %>  
<html>  
<head>  
 <meta charset="UTF-8">  
 <title>Insert title here</title>  
</head>  
<body>  
<a href="home.jsp">Back to Main Menu</a><br>  
<a href="HTML/addSubject.html">Add Subject</a><br>  
  
<h1>The Following Subjects are listed</h1>  
<%  
 SessionFactory sf = DatabaseConfiguration.*getSessionFactory*();  
 Session hibernateSession = sf.openSession();  
 List<Subject> subjects = hibernateSession.createQuery("from Subject").list();  
%>  
<table>  
 <tr>  
 <th>Subject Name</th>  
 </tr>  
 <%  
 for (Subject subject : subjects) {  
 out.print("<tr>");  
 out.print("<td>" + subject.getSubject\_name() + "</td>");  
 out.print("</tr>");  
 }  
 %>  
</table>  
</body>  
</html>

<%@ page import="com.simplilearn.entity.Teacher" %>  
<%@ page import="com.simplilearn.entity.Subject" %>  
<%@ page import="org.hibernate.SessionFactory" %>  
<%@ page import="javax.xml.crypto.Data" %>  
<%@ page import="com.simplilearn.configuration.DatabaseConfiguration" %>  
<%@ page import="org.hibernate.Session" %>  
<%@ page import="java.util.List" %>*<%--  
 Created by IntelliJ IDEA.  
 User: elif.karaca  
 Date: 2.03.2023  
 Time: 14:10  
 To change this template use File | Settings | File Templates.  
--%>*<%@ page contentType="text/html;charset=UTF-8" language="java" %>  
<html>  
<head>  
 <meta charset="UTF-8">  
 <title>Insert title here</title>  
</head>  
<body>  
  
<a href="home.jsp">Back to Main Menu</a><br>  
<a href="HTML/addTeacher.html">Add Teacher</a><br>  
<a href="assignTeacherToSubject.jsp">Assign Teacher to Subject</a><br>  
  
<h1>The Following Teachers are listed</h1>  
<%  
 SessionFactory sf = DatabaseConfiguration.*getSessionFactory*();  
 Session hibernateSession = sf.openSession();  
 List<Teacher> teachers = hibernateSession.createQuery("from Teacher").list();  
%>  
<table>  
 <tr>  
 <th>First Name</th>  
 <th>Last Name</th>  
 <th>Assigned Class</th>  
 </tr>  
 <%  
 for (Teacher teacher : teachers) {  
 out.print("<tr>");  
 out.print("<td>" + teacher.getFirst\_name() + "</td>");  
 out.print("<td>" + teacher.getLast\_name() + "</td>");  
  
 StringBuffer buf = new StringBuffer();  
 boolean first = true;  
 for (Subject subject : teacher.getSubjects()) {  
 if (first == true) {  
 buf.append("<td>" + subject.getSubject\_name() + "</td>");  
 buf.append("</tr>");  
 first = false;  
 } else {  
 buf.append("<tr><td></td><td></td>");  
 buf.append("<td>" + subject.getSubject\_name() + "</td>");  
 buf.append("</tr>");  
 }  
  
 }  
 out.print(buf.toString());  
 }  
 %>  
</table>  
  
</body>  
</html>