**com.bean**

Login.java

package com.bean;

public class Login {

private String email;

private String password;

public String getEmail() {

return email;

}

public void setEmail(String email) {

this.email = email;

}

public String getPassword() {

return password;

}

public void setPassword(String password) {

this.password = password;

}

}

Student.java

package com.bean;

import javax.persistence.Entity;

import javax.persistence.Id;

@Entity

public class Student {

@Id

private int sid;

private String sname;

private int age;

private Integer tsid; // this key is FK

public int getSid() {

return sid;

}

public void setSid(int sid) {

this.sid = sid;

}

public String getSname() {

return sname;

}

public void setSname(String sname) {

this.sname = sname;

}

public int getAge() {

return age;

}

public void setAge(int age) {

this.age = age;

}

public Integer getTsid() {

return tsid;

}

public void setTsid(Integer tsid) {

this.tsid = tsid;

}

}

Trainer.java

package com.bean;

import java.util.List;

import javax.persistence.Entity;

import javax.persistence.Id;

import javax.persistence.JoinColumn;

import javax.persistence.OneToMany;

@Entity

public class Trainer {

@Id

private int tid;

private String tname;

private String tech;

@OneToMany

@JoinColumn(name = "tsid") //which is FK

private List<Student> listOfStd;

public int getTid() {

return tid;

}

public void setTid(int tid) {

this.tid = tid;

}

public String getTname() {

return tname;

}

public void setTname(String tname) {

this.tname = tname;

}

public String getTech() {

return tech;

}

public void setTech(String tech) {

this.tech = tech;

}

public List<Student> getListOfStd() {

return listOfStd;

}

public void setListOfStd(List<Student> listOfStd) {

this.listOfStd = listOfStd;

}

}

**com.controller**

LoginController

package com.controller;

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.RequestDispatcher;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;

import com.bean.Login;

import com.service.LoginService;

/\*\*

\* Servlet implementation class LoginController

\*/

public class LoginController extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public LoginController() {

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 {

// TODO Auto-generated method stub

//doGet(request, response);

PrintWriter pw = response.getWriter();

String email = request.getParameter("email");

String password = request.getParameter("password");

response.setContentType("text/html");

Login ll = new Login();

ll.setEmail(email);

ll.setPassword(password);

HttpSession hs = request.getSession();

RequestDispatcher rd = request.getRequestDispatcher("index.jsp");

LoginService ls = new LoginService();

String result = ls.checkLoginDails(ll);

if(result.equals("success")) {

hs.setAttribute("obj", email);

response.sendRedirect("Home.jsp");

}else {

pw.println("failure try once again");

rd.include(request, response);

}

}

}

StudentController

package com.controller;

import java.io.IOException;

import java.io.PrintWriter;

import java.util.List;

import javax.servlet.RequestDispatcher;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;

import com.bean.Student;

import com.bean.Trainer;

import com.service.StudentService;

import com.service.TrainerService;

/\*\*

\* Servlet implementation class StudentController

\*/

public class StudentController extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public StudentController() {

super();

// TODO Auto-generated constructor stub

}

/\*\*

\* @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)

\*/

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

StudentService ss = new StudentService();

List<Student> listOfStudent= ss.findAllStudent();

HttpSession hs = request.getSession();

hs.setAttribute("listOfStudent", listOfStudent);

response.setContentType("text/html");

response.sendRedirect("viewStudent.jsp");

}

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

PrintWriter pw = response.getWriter();

response.setContentType("text/html");

int sid = Integer.parseInt(request.getParameter("sid"));

String sname = request.getParameter("sname");

int age = Integer.parseInt(request.getParameter("age"));

Student s = new Student();

s.setSid(sid);

s.setSname(sname);

s.setAge(age);

StudentService ss = new StudentService();

String result = ss.storeStudentDetails(s);

pw.print(result);

RequestDispatcher rd = request.getRequestDispatcher("storeStudent.jsp");

rd.include(request, response);

}

}

TrainerController

package com.controller;

import java.io.IOException;

import java.io.PrintWriter;

import java.util.List;

import javax.servlet.RequestDispatcher;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;

import com.bean.Trainer;

import com.service.TrainerService;

/\*\*

\* Servlet implementation class TrainerController

\*/

public class TrainerController extends HttpServlet {

private static final long serialVersionUID = 1L;

/\*\*

\* @see HttpServlet#HttpServlet()

\*/

public TrainerController() {

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());

TrainerService ts = new TrainerService();

List<Trainer> listOfTrainer = ts.getAllTrainer();

HttpSession hs = request.getSession();

hs.setAttribute("listOfTrainer", listOfTrainer);

response.setContentType("text/html");

response.sendRedirect("viewTrainer.jsp");

}

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

// TODO Auto-generated method stub

response.setContentType("text/html");

PrintWriter pw = response.getWriter();

int tid = Integer.parseInt(request.getParameter("tid"));

String tname = request.getParameter("tname");

String tech = request.getParameter("tech");

Trainer t = new Trainer();

t.setTid(tid);

t.setTname(tname);

t.setTech(tech);

TrainerService ts = new TrainerService();

String result = ts.storeTrainer(t);

pw.print(result);

RequestDispatcher rd = request.getRequestDispatcher("storeTrainer.jsp");

rd.include(request, response);

}

}

**Com.dao**

StudentDao

package com.dao;

import java.util.List;

import javax.persistence.TypedQuery;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.Transaction;

import org.hibernate.cfg.Configuration;

import com.bean.Student;

import com.bean.Trainer;

public class StudentDao {

public int storeStudent(Student student) {

try {

Configuration con = new Configuration();

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

SessionFactory sf = con.buildSessionFactory();

Session session = sf.openSession();

Transaction tran = session.getTransaction();

tran.begin();

session.save(student);

tran.commit();

return 1;

} catch (Exception e) {

System.out.println(e);

return 0;

}

}

public List<Student> findAllStudent() {

Configuration con = new Configuration();

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

SessionFactory sf = con.buildSessionFactory();

Session session = sf.openSession();

TypedQuery qry = session.createQuery("select s from Student s");

List<Student> listOfStudent = qry.getResultList();

return listOfStudent;

}

}

TrainerDao

package com.dao;

import java.util.List;

import javax.persistence.TypedQuery;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.Transaction;

import org.hibernate.cfg.Configuration;

import com.bean.Trainer;

public class TrainerDao {

public int storeTrainer(Trainer trainer) {

try {

Configuration con = new Configuration();

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

SessionFactory sf = con.buildSessionFactory();

Session session = sf.openSession();

Transaction tran = session.getTransaction();

tran.begin();

session.save(trainer);

tran.commit();

return 1;

} catch (Exception e) {

System.out.println(e);

return 0;

}

}

public List<Trainer> findAllTrainer() {

Configuration con = new Configuration();

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

SessionFactory sf = con.buildSessionFactory();

Session session = sf.openSession();

TypedQuery qry = session.createQuery("select t from Trainer t");

List<Trainer> listOfTrainer = qry.getResultList();

return listOfTrainer;

}

public List<Object[]> findTrainerAndStudentDetails() {

Configuration con = new Configuration();

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

SessionFactory sf = con.buildSessionFactory();

Session session = sf.openSession();

TypedQuery qry = session.createQuery("select t.tname,t.tech s.sname from Trainer t, Student s where t.tid = s.tsid");

List<Object[]> listOfTrainer = qry.getResultList();

return listOfTrainer;

}

}

**com.service**

LoginService

package com.service;

import com.bean.Login;

public class LoginService {

public String checkLoginDails(Login ll) {

if(ll.getEmail().equals("admin@gmail.com") && ll.getPassword().equals("123")) {

return "success";

}else {

return "falure";

}

}

}

StudentService

package com.service;

import java.util.List;

import com.bean.Student;

import com.dao.StudentDao;

public class StudentService {

StudentDao sd = new StudentDao();

public String storeStudentDetails(Student student) {

if(sd.storeStudent(student)>0) {

return "Student details stored successfully";

}else {

return "Student details didn't store";

}

}

public List<Student> findAllStudent() {

return sd.findAllStudent();

}

}

TrainerService

package com.service;

import java.util.List;

import com.bean.Trainer;

import com.dao.TrainerDao;

public class TrainerService {

TrainerDao td = new TrainerDao();

public String storeTrainer(Trainer trainer) {

if(td.storeTrainer(trainer)>0) {

return "Trainer details stored successfully";

}else {

return "Trainer details didn't store";

}

}

public List<Trainer> getAllTrainer() {

return td.findAllTrainer();

}

}

**JSP**

Home.jsp

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"

pageEncoding="ISO-8859-1"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="ISO-8859-1">

<title>Insert title here</title>

</head>

<body>

<h2>Welcome to Home Page ${sessionScope.obj} </h2>

<%

String name = (String)session.getAttribute("obj");

out.println(name);

%>

<br/>

<a href="storeTrainer.jsp">Add Trainer Details</a> |

<a href="TrainerController">View All Trainer Details</a> |

<a href="storeStudent.jsp">Add Student Details</a> |

<a href="StudentController">View All Student Details</a> |

</body>

</html>

index.jsp

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"

pageEncoding="ISO-8859-1"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="ISO-8859-1">

<title>Insert title here</title>

</head>

<body>

<form action="LoginController" method="post">

<label>EmailId</label>

<input type="email" name="email"><br/>

<label>Password</label>

<input type="password" name="password"><br/>

<input type="submit" value="submit">

<input type="reset" value="reset">

</form>

</body>

</html>

storeStudent.jsp

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"

pageEncoding="ISO-8859-1"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="ISO-8859-1">

<title>Insert title here</title>

</head>

<body>

<h2>Add Student Details</h2>

<form action="StudentController" method="post">

<label>SId</label>

<input type="number" name="sid"><br/>

<label>SName</label>

<input type="text" name="sname"><br/>

<label>Age</label>

<input type="number" name="age"><br/>

<input type="submit" value="Store Student">

<input type="reset" value="reset">

</form>

<br/>

<a href="Home.jsp">Main Page</a>

</body>

</html>

storeTrainer.jsp

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"

pageEncoding="ISO-8859-1"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="ISO-8859-1">

<title>Insert title here</title>

</head>

<body>

<h2>Add Trainer Details</h2>

<form action="TrainerController" method="post">

<label>TId</label>

<input type="number" name="tid"><br/>

<label>TName</label>

<input type="text" name="tname"><br/>

<label>Tech</label>

<input type="text" name="tech"><br/>

<input type="submit" value="Store Trainer">

<input type="reset" value="reset">

</form>

<br/>

<a href="Home.jsp">Main</a>

</body>

</html>

viewStudent

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"

pageEncoding="ISO-8859-1"%>

<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="core"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="ISO-8859-1">

<title>Insert title here</title>

</head>

<body>

<h2>View All Student Details</h2>

<table border="1">

<tr>

<th>SId</th>

<th>SName</th>

<th>Age</th>

</tr>

<core:forEach items="${sessionScope.listOfStudent}" var="student">

<tr>

<td> <core:out value="${student.sid}"></core:out> </td>

<td> <core:out value="${student.sname}"></core:out> </td>

<td> <core:out value="${student.age}"></core:out> </td>

</tr>

</core:forEach>

</table>

<br/>

<a href="Home.jsp">Main</a>

</body>

</html>

viewTrainer

<%@page import="java.util.Iterator"%>

<%@page import="com.bean.Trainer"%>

<%@page import="java.util.List"%>

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"

pageEncoding="ISO-8859-1"%>

<%@taglib uri="http://java.sun.com/jsp/jstl/core" prefix="core"%>

<!DOCTYPE html>

<html>

<head>

<meta charset="ISO-8859-1">

<title>Insert title here</title>

</head>

<body>

<table border="1">

<tr>

<th>TID</th>

<th>TName</th>

<th>Tech</th>

</tr>

<%

Object obj = session.getAttribute("listOfTrainer");

List<Trainer> listOfTrainer = (List<Trainer>)obj;

Iterator<Trainer> li = listOfTrainer.iterator();

while(li.hasNext()){

Trainer t = li.next();

%>

<tr>

<td><%=t.getTid() %> </td>

<td><%=t.getTname()%> </td>

<td><%=t.getTech() %></td>

</tr>

<%

}

%>

</table>

<br/>

<h2>Display Trainer records using JSTL</h2>

<table border="1">

<tr>

<th>TID</th>

<th>TName</th>

<th>Tech</th>

</tr>

<core:forEach items="${sessionScope.listOfTrainer}" var="trainer">

<tr>

<td><core:out value="${trainer.tid}"></core:out> </td>

<td><core:out value="${trainer.tname}"></core:out> </td>

<td><core:out value="${trainer.tech}"></core:out> </td>

</tr>

</core:forEach>

</table>

<a href="Home.jsp">Main</a>

</body>

</html>