**Developing a Back-End Admin for a Learner’s Academy Source Code**

**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>

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;

/\*\*

\* Servlet implementation class LoginController

\*/

**public** **class** LoginController **extends** HttpServlet {

**private** **static** **final** **long** ***serialVersionUID*** = 1L;

/\*\*

\* **@see** HttpServlet#HttpServlet()

\*/

**public** LoginController() {

**super**();

}

/\*\*

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

\*/

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

}

/\*\*

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

\*/

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

PrintWriter out=response.getWriter();

response.setContentType("text/html");

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

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

HttpSession hs = request.getSession();

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

**if**(email.equals("admin@gmail.com")&&password.equals("123")) {

hs.setAttribute("obj", email);

response.sendRedirect("Home.jsp");

}**else** {

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

rd.include(request, response);

}

}

}

**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>

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

<hr/>

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

<hr/>

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

<hr/>

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

<hr/>

<a href=*"storeClass.jsp"*>Add Class Details</a> <br/>

<hr/>

<a href=*"ClassController"*>View All Class Details</a> <br/>

<hr/>

<a href=*"storeSubjcet.jsp"*>Add Subject Details</a> <br/>

<hr/>

<a href=*"SubjectController"*>View All Subject Details</a> <br/>

<hr/>

<a href=*"AssignTrainertoStudent.jsp"*>Assign Trainer to student</a><br/>

<hr/>

<a href=*"viewTrainerAndStudents.jsp"*>View Trainer and student</a><br/>

<hr/>

<a href=*"AssignTrainertoSubject.jsp"*>Assign Trainer to Subject</a><br/>

<hr/>

<a href=*"ViewTrainerAndSubject.jsp"*>View Trainer and Subject</a>

</body>

</html>

**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")

**private** List<Student> listOfstd;

@OneToMany

@JoinColumn(name="tsubid")

**private** List<Subject> listOfSub;

**public** List<Student> getListOfstd() {

**return** listOfstd;

}

**public** **void** setListOfstd(List<Student> listOfstd) {

**this**.listOfstd = listOfstd;

}

**public** List<Subject> getListOfSub() {

**return** listOfSub;

}

**public** **void** setListOfSub(List<Subject> listOfSub) {

**this**.listOfSub = listOfSub;

}

**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;

}

}

**TrainerService.java:**

**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();

}

}

**TrainerDao.java:**

**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;

}

}

**TrainerControllerServlet:**

**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**();

}

/\*\*

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

\*/

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

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");

}

/\*\*

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

\*/

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

PrintWriter out=response.getWriter();

response.setContentType("text/html");

**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);

out.println(result);

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

rd.include(request, response);

}

}

**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"* >

<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>

**ViewTrainer.jsp:**

<%@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>

<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>

**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;

**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;

}

}

**StudentDao.java:**

**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;

**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;

}

}

**StudentService.java:**

**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();

}

}

**StudentControllerServlet:**

**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.service.StudentService;

/\*\*

\* Servlet implementation class StudentController

\*/

**public** **class** StudentController **extends** HttpServlet {

**private** **static** **final** **long** ***serialVersionUID*** = 1L;

/\*\*

\* **@see** HttpServlet#HttpServlet()

\*/

**public** StudentController() {

**super**();

}

/\*\*

\* **@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");

}

/\*\*

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

\*/

**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);

}

}

**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>

**ViewStudent.jsp:**

<%@ 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>

**Subject.java:**

**package** com.bean;

**import** javax.persistence.Entity;

**import** javax.persistence.Id;

@Entity

**public** **class** Subject {

@Id

**private** **int** subid;

**private** String subname;

**private** Integer tsubid;

**public** Integer getTsubid() {

**return** tsubid;

}

**public** **void** setTsubid(Integer tsubid) {

**this**.tsubid = tsubid;

}

**public** **int** getSubid() {

**return** subid;

}

**public** **void** setSubid(**int** subid) {

**this**.subid = subid;

}

**public** String getSubname() {

**return** subname;

}

**public** **void** setSubname(String subname) {

**this**.subname = subname;

}

}

**SubjectDao.java:**

**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.Subject;

**public** **class** SubjectDao{

**public** **int** storeSubject(Subject subject) {

**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(subject);

tran.commit();

**return** 1;

} **catch** (Exception e) {

System.***out***.println(e);

**return** 0;

}

}

**public** List<Subject> findAllSubjects() {

Configuration con = **new** Configuration();

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

SessionFactory sf = con.buildSessionFactory();

Session session = sf.openSession();

TypedQuery qry = session.createQuery("select sb from Subject sb");

List<Subject> listOfSubject = qry.getResultList();

**return** listOfSubject;

}

}

**SubjectService.java:**

**package** com.service;

**import** java.util.List;

**import** com.bean.Subject;

**import** com.dao.SubjectDao;

**public** **class** SubjectService {

SubjectDao sbd = **new** SubjectDao();

**public** String storeSubject(Subject subject) {

**if**(sbd.storeSubject(subject)>0) {

**return** "Subject details stored successfully";

}**else** {

**return** "Subject details didn't store";

}

}

**public** List<Subject> getAllSubjects() {

**return** sbd.findAllSubjects();

}

}

**SubjectController:**

**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.Classes;

**import** com.bean.Subject;

**import** com.service.ClassService;

**import** com.service.SubjectService;

/\*\*

\* Servlet implementation class SubjectController

\*/

**public** **class** SubjectController **extends** HttpServlet {

**private** **static** **final** **long** ***serialVersionUID*** = 1L;

/\*\*

\* **@see** HttpServlet#HttpServlet()

\*/

**public** SubjectController() {

**super**();

}

/\*\*

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

\*/

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

SubjectService sbs = **new** SubjectService();

List<Subject> listOfSubject= sbs.getAllSubjects();

HttpSession hs = request.getSession();

hs.setAttribute("listOfSubject", listOfSubject);

response.setContentType("text/html");

response.sendRedirect("viewSubject.jsp");

}

/\*\*

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

\*/

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

PrintWriter out=response.getWriter();

response.setContentType("text/html");

**int** subid=Integer.*parseInt*(request.getParameter("subid"));

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

Subject sb=**new** Subject();

sb.setSubid(subid);

sb.setSubname(subname);

SubjectService sbs=**new** SubjectService();

String result=sbs.storeSubject(sb);

out.println(result);

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

rd.include(request, response);

}

}

**StoreSubject.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 Subject Details</h2>

<form action=*"SubjectController"* method=*"post"*>

<label>SubId</label>

<input type=*"number"* name=*"subid"*><br/>

<label>SubName</label>

<input type=*"text"* name=*"subname"*><br/>

<input type=*"submit"* value=*"Store Subject"*>

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

</form>

<br/>

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

</body>

</html>

**ViewSubject.jsp:**

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

<%@page import=*"com.bean.Subject"*%>

<%@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>

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

<table border=*"1"*>

<tr>

<th>SUBID</th>

<th>SUBName</th>

</tr>

<core:forEach items=*"*${sessionScope.listOfSubject}*"* var=*"subject"*>

<tr>

<td><core:out value=*"*${subject.subid}*"*></core:out> </td>

<td><core:out value=*"*${subject.subname}*"*></core:out> </td>

</tr>

</core:forEach>

</table>

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

</body>

</html>

**Classes.java:**

**package** com.bean;

**import** javax.persistence.Entity;

**import** javax.persistence.Id;

@Entity

**public** **class** Classes {

@Id

**private** **int** cid;

**private** String cname;

**public** **int** getCid() {

**return** cid;

}

**public** **void** setCid(**int** cid) {

**this**.cid = cid;

}

**public** String getCname() {

**return** cname;

}

**public** **void** setCname(String cname) {

**this**.cname = cname;

}

}

**ClassDao.java:**

**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.Classes;

**import** com.bean.Trainer;

**public** **class** ClassDao{

**public** **int** storeClass(Classes classes) {

**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(classes);

tran.commit();

**return** 1;

} **catch** (Exception e) {

System.***out***.println(e);

**return** 0;

}

}

**public** List<Classes> findAllClasses() {

Configuration con = **new** Configuration();

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

SessionFactory sf = con.buildSessionFactory();

Session session = sf.openSession();

TypedQuery qry = session.createQuery("select c from Classes c");

List<Classes> listOfClasses = qry.getResultList();

**return** listOfClasses;

}

}

**ClassService.java:**

**package** com.service;

**import** java.util.List;

**import** com.bean.Classes;

**import** com.bean.Trainer;

**import** com.dao.ClassDao;

**import** com.dao.TrainerDao;

**public** **class** ClassService {

ClassDao cd = **new** ClassDao();

**public** String storeClass(Classes classes) {

**if**(cd.storeClass(classes)>0) {

**return** "Class details stored successfully";

}**else** {

**return** "Class details didn't store";

}

}

**public** List<Classes> getAllClasses() {

**return** cd.findAllClasses();

}

}

**ClassControllerServlet:**

**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.Classes;

**import** com.bean.Trainer;

**import** com.service.ClassService;

**import** com.service.TrainerService;

/\*\*

\* Servlet implementation class ClassController

\*/

**public** **class** ClassController **extends** HttpServlet {

**private** **static** **final** **long** ***serialVersionUID*** = 1L;

/\*\*

\* **@see** HttpServlet#HttpServlet()

\*/

**public** ClassController() {

**super**();

}

/\*\*

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

\*/

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

ClassService cs = **new** ClassService();

List<Classes> listOfClasses= cs.getAllClasses();

HttpSession hs = request.getSession();

hs.setAttribute("listOfClasses", listOfClasses);

response.setContentType("text/html");

response.sendRedirect("viewClasses.jsp");

}

/\*\*

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

\*/

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

PrintWriter out=response.getWriter();

response.setContentType("text/html");

**int** cid=Integer.*parseInt*(request.getParameter("cid"));

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

Classes c=**new** Classes();

c.setCid(cid);

c.setCname(cname);

ClassService cs=**new** ClassService();

String result=cs.storeClass(c);

out.println(result);

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

rd.include(request, response);

}

}

**storeClass.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 Class Details</h2>

<form action=*"ClassController"* method=*"post"*>

<label>CId</label>

<input type=*"number"* name=*"cid"*><br/>

<label>CName</label>

<input type=*"text"* name=*"cname"*><br/>

<input type=*"submit"* value=*"Store Classes"*>

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

</form>

<br/>

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

</body>

</html>

**viewClasses.jsp:**

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

<%@page import=*"com.bean.Classes"*%>

<%@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>

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

<table border=*"1"*>

<tr>

<th>CID</th>

<th>CName</th>

</tr>

<core:forEach items=*"*${sessionScope.listOfClasses}*"* var=*"classes"*>

<tr>

<td><core:out value=*"*${classes.cid}*"*></core:out> </td>

<td><core:out value=*"*${classes.cname}*"*></core:out> </td>

</tr>

</core:forEach>

</table>

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

</body>

</html>

**AssignTrainertoStudent.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=*"AssignTrainerToStudentController"* method=*"post"*>

<label>SID</label>

<input type=*"number"* name=*"sid"*>

<label>TID</label>

<input type=*"number"* name=*"tid"*>

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

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

</form>

</body>

</html>

**AssignTrainerToStudentController Servlet:**

**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** org.hibernate.Session;

**import** org.hibernate.SessionFactory;

**import** org.hibernate.Transaction;

**import** org.hibernate.cfg.Configuration;

**import** com.bean.Student;

/\*\*

\* Servlet implementation class AssignTrainerToStudentController

\*/

**public** **class** AssignTrainerToStudentController **extends** HttpServlet {

**private** **static** **final** **long** ***serialVersionUID*** = 1L;

/\*\*

\* **@see** HttpServlet#HttpServlet()

\*/

**public** AssignTrainerToStudentController() {

**super**();

}/\*\*

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

\*/

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

}

/\*\*

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

\*/

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

PrintWriter out=response.getWriter();

response.setContentType("text/html");

Configuration con = **new** Configuration();

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

SessionFactory sf = con.buildSessionFactory();

Session session = sf.openSession();

Transaction tran = session.getTransaction();

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

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

Student s=session.get(Student.**class**, sid);

**if**(s==**null**) {

out.println("student not present");

}

**else** {

tran.begin();

s.setTsid(tid);

session.update(s);

tran.commit();

out.println("assign trainer to student successfully");

}

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

rd.include(request, response);

}

}

**viewTrainerAndStudents.jsp:**

<%@ 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>

<th>Student Trainer</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>

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

</tr>

</core:forEach>

</table>

<br/>

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

</body>

</html>

**AssignTrainertoSubject.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=*"AssignTrainerToSubjectController"* method=*"post"*>

<label>SUBID</label>

<input type=*"number"* name=*"subid"*>

<label>TID</label>

<input type=*"number"* name=*"tid"*>

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

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

</form>

</body>

</html>

**AssignTrainertoSubjectController Servlet:**

**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** org.hibernate.Session;

**import** org.hibernate.SessionFactory;

**import** org.hibernate.Transaction;

**import** org.hibernate.cfg.Configuration;

**import** com.bean.Subject;

/\*\*

\* Servlet implementation class AssignTrainerToSubject

\*/

**public** **class** AssignTrainerToSubjectController **extends** HttpServlet {

**private** **static** **final** **long** ***serialVersionUID*** = 1L;

/\*\*

\* **@see** HttpServlet#HttpServlet()

\*/

**public** AssignTrainerToSubjectController() {

**super**();

}

/\*\*

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

\*/

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

}

/\*\*

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

\*/

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

PrintWriter out=response.getWriter();

response.setContentType("text/html");

Configuration con = **new** Configuration();

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

SessionFactory sf = con.buildSessionFactory();

Session session = sf.openSession();

Transaction tran = session.getTransaction();

**int** subid=Integer.*parseInt*(request.getParameter("subid"));

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

Subject sb=session.get(Subject.**class**, subid);

**if**(sb==**null**) {

out.println("subject not present");

}

**else** {

tran.begin();

sb.setTsubid(tid);;

session.update(sb);

tran.commit();

out.println("assign trainer to subject successfully");

}

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

rd.include(request, response);

}

}

**ViewTrainerAndSubject.jsp:**

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

<%@page import=*"com.bean.Subject"*%>

<%@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>

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

<table border=*"1"*>

<tr>

<th>SUBID</th>

<th>SUBName</th>

<th>SUBTrainer</th>

</tr>

<core:forEach items=*"*${sessionScope.listOfSubject}*"* var=*"subject"*>

<tr>

<td><core:out value=*"*${subject.subid}*"*></core:out> </td>

<td><core:out value=*"*${subject.subname}*"*></core:out> </td>

<td><core:out value=*"*${subject.tsubid}*"*></core:out></td>

</tr>

</core:forEach>

</table>

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

</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>**

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

**<property name="hibernate.connection.password">Sharmila@11</property>**

**<property name="hibernate.connection.url">jdbc:mysql://localhost:3306/phase2</property>**

**<property name="hibernate.connection.username">root</property>**

**<property name="hibernate.dialect">org.hibernate.dialect.MySQL8Dialect</property>**

**<property name="hibernate.hbm2ddl.auto">update</property>**

**<mapping class="com.bean.Trainer"/>**

**<mapping class="com.bean.Students"/>**

**<mapping class="com.bean.Subjects"/>**

**<mapping class="com.bean.Classes"/>**

**</session-factory>**

**</hibernate-configuration>**