Demonstrate component mapping in Hibernate.

Customers.java

package com.entities;

import java.util.List;

import javax.persistence.CascadeType;

import javax.persistence.Entity;

import javax.persistence.GeneratedValue;

import javax.persistence.Id;

import javax.persistence.JoinColumn;

import javax.persistence.JoinTable;

import javax.persistence.ManyToMany;

import javax.persistence.Table;

@Entity

@Table(name="custInfo")

public class Customers {

@Id

@GeneratedValue

private int cusid;

private String cusname;

@ManyToMany(targetEntity=Dishes.class, cascade=CascadeType.ALL)

@JoinTable(

name="cust\_dish",

joinColumns = {

@JoinColumn(name="cusid")

},

inverseJoinColumns = {

@JoinColumn(name="dishid")

}

)

private List<Dishes> dish;

public int getCusid() {

return cusid;

}

public void setCusid(int cusid) {

this.cusid = cusid;

}

public String getCusname() {

return cusname;

}

public void setCusname(String cusname) {

this.cusname = cusname;

}

public List<Dishes> getDish() {

return dish;

}

public void setDish(List<Dishes> dish) {

this.dish = dish;

}

}

Dishes.java

package com.entities;

import java.util.List;

import javax.persistence.CascadeType;

import javax.persistence.Entity;

import javax.persistence.GeneratedValue;

import javax.persistence.Id;

import javax.persistence.ManyToMany;

import javax.persistence.Table;

@Entity

@Table(name="dishinfo")

public class Dishes {

@Id

@GeneratedValue

private int dishid;

private String dishname;

@ManyToMany(targetEntity=Customers.class, cascade=CascadeType.ALL)

private List<Customers> customer;

public int getDishid() {

return dishid;

}

public void setDishid(int dishid) {

this.dishid = dishid;

}

public String getDishname() {

return dishname;

}

public void setDishname(String dishname) {

this.dishname = dishname;

}

public List<Customers> getCustomer() {

return customer;

}

public void setCustomer(List<Customers> customer) {

this.customer = customer;

}

}

Employee.java

package com.entities;

import java.util.List;

import javax.persistence.CascadeType;

import javax.persistence.Entity;

import javax.persistence.GeneratedValue;

import javax.persistence.Id;

import javax.persistence.JoinColumn;

import javax.persistence.JoinTable;

import javax.persistence.ManyToMany;

import javax.persistence.Table;

@Entity

@Table(name="EmpPrjInfo")

public class Employee {

@Id

@GeneratedValue

private int empno;

private String ename;

@ManyToMany(targetEntity=Projects.class, cascade=CascadeType.ALL)

@JoinTable(name="emps\_prjs\_info",

joinColumns= {@JoinColumn(name="empid")},

inverseJoinColumns= {@JoinColumn(name="prjid")})

private List<Projects> prjinfo;

public int getEmpno() {

return empno;

}

public void setEmpno(int empno) {

this.empno = empno;

}

public String getEname() {

return ename;

}

public void setEname(String ename) {

this.ename = ename;

}

public List<Projects> getPrjinfo() {

return prjinfo;

}

public void setPrjinfo(List<Projects> prjinfo) {

this.prjinfo = prjinfo;

}

}

Projects.java

package com.entities;

import java.util.List;

import javax.persistence.CascadeType;

import javax.persistence.Entity;

import javax.persistence.GeneratedValue;

import javax.persistence.Id;

import javax.persistence.ManyToMany;

import javax.persistence.Table;

@Entity

@Table(name="PrjEmpInfo")

public class Projects {

@Id

@GeneratedValue

private int prjId;

private String prjName;

@ManyToMany(targetEntity=Employee.class, cascade=CascadeType.ALL)

private List<Employee> empinfo;

public int getPrjId() {

return prjId;

}

public void setPrjId(int prjId) {

this.prjId = prjId;

}

public String getPrjName() {

return prjName;

}

public void setPrjName(String prjName) {

this.prjName = prjName;

}

public List<Employee> getEmpinfo() {

return empinfo;

}

public void setEmpinfo(List<Employee> empinfo) {

this.empinfo = empinfo;

}

}

Hiberconfig

package com.connections;

import java.util.Properties;

import org.hibernate.SessionFactory;

import org.hibernate.cfg.Configuration;

import org.hibernate.cfg.Environment;

import com.entities.Customers;

import com.entities.Dishes;

import com.entities.Employee;

import com.entities.Projects;

public class HiberConfig {

public static SessionFactory getSessionFactory() {

Configuration configuration=new Configuration();

Properties properties=new Properties();

properties.put(Environment.DRIVER, "com.mysql.cj.jdbc.Driver");

properties.put(Environment.URL, "jdbc:mysql://localhost:3306/soni");

properties.put(Environment.DIALECT, "org.hibernate.dialect.MySQL5Dialect");

properties.put(Environment.USER, "root");

properties.put(Environment.PASS, "sonikaSHETTY#17");

properties.put(Environment.HBM2DDL\_AUTO, "update");

properties.put(Environment.SHOW\_SQL, true);

//properties.put(Environment.FORMAT\_SQL, true);

configuration.setProperties(properties);

configuration.addAnnotatedClass(Customers.class);

configuration.addAnnotatedClass(Dishes.class);

configuration.addAnnotatedClass(Employee.class);

configuration.addAnnotatedClass(Projects.class);

SessionFactory sessionFactory=configuration.buildSessionFactory();

return sessionFactory;

}

}

CustAdd

package com.apps;

import java.util.ArrayList;

import java.util.List;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.Transaction;

import com.connections.HiberConfig;

import com.entities.Customers;

import com.entities.Dishes;

public class CustAdd {

public static void main(String[] args) {

SessionFactory sf = HiberConfig.getSessionFactory();

Session session = sf.openSession();

Transaction trans = session.beginTransaction();

Customers cust1 = new Customers();

cust1.setCusname("Pavan Kumar");

Customers cust2 = new Customers();

cust2.setCusname("Praveen Kumar");

Dishes dish1 = new Dishes();

dish1.setDishname("Fish Curry");

Dishes dish2 = new Dishes();

dish2.setDishname("Veg Curry");

List<Customers> lcust = new ArrayList<Customers>();

lcust.add(cust1);

lcust.add(cust2);

List<Dishes> ldish = new ArrayList<Dishes>();

ldish.add(dish1);

ldish.add(dish2);

cust1.setDish(ldish);

cust2.setDish(ldish);

dish1.setCustomer(lcust);

dish2.setCustomer(lcust);

session.persist(cust1);

session.persist(cust2);

trans.commit();

System.out.println("Success");

}

}

EmpProjAdd

package com.apps;

import java.util.ArrayList;

import java.util.List;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.Transaction;

import com.connections.HiberConfig;

import com.entities.Customers;

import com.entities.Dishes;

import com.entities.Employee;

import com.entities.Projects;

public class EmpProjAdd {

public static void main(String[] args) {

SessionFactory sf = HiberConfig.getSessionFactory();

Session session = sf.openSession();

Transaction trans = session.beginTransaction();

Employee emp1 = new Employee();

emp1.setEname("Ravi Kiran");

Employee emp2 = new Employee();

emp2.setEname("Kiran Kumar");

Employee emp3 = new Employee();

emp3.setEname("Kalyan Kumar");

List<Employee> emplist = new ArrayList<Employee>();

emplist.add(emp1);

emplist.add(emp2);

emplist.add(emp3);

Projects prj1 = new Projects();

prj1.setPrjName("Library Management System");

Projects prj2 = new Projects();

prj2.setPrjName("Employee Management System");

List<Projects> prjlist = new ArrayList<Projects>();

prjlist.add(prj1);

prjlist.add(prj2);

emp1.setPrjinfo(prjlist);

emp2.setPrjinfo(prjlist);

emp3.setPrjinfo(prjlist);

prj1.setEmpinfo(emplist);

prj2.setEmpinfo(emplist);

session.persist(emp1);

session.persist(emp2);

session.persist(emp3);

trans.commit();

System.out.println("Success");

}

}

EmpSearch

package com.apps;

import java.util.List;

import java.util.Scanner;

import javax.persistence.TypedQuery;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

import com.connections.HiberConfig;

import com.entities.Employee;

import com.entities.Projects;

public class EmpSearch {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Employee Number ");

int eno = sc.nextInt();

SessionFactory sf = HiberConfig.getSessionFactory();

Session session = sf.openSession();

TypedQuery qry = session.createQuery("from Employee where empno=:en");

qry.setParameter("en", eno);

List<Employee> empinfo = qry.getResultList();

if(empinfo.isEmpty())

{

System.out.println("No employee found ....");

}

else

{

for(Employee e: empinfo)

{

System.out.println("Employee Name : "+ e.getEname());

List<Projects> pjinfo = e.getPrjinfo();

System.out.println("Project Info : ");

for(Projects p : pjinfo)

{

System.out.println(p.getPrjName());

}

}

}

}

}

Pom.xml

<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 https://maven.apache.org/xsd/maven-4.0.0.xsd">

<modelVersion>4.0.0</modelVersion>

<groupId>coms</groupId>

<artifactId>OneToOneUsingAnnotations</artifactId>

<version>0.0.1-SNAPSHOT</version>

<dependencies>

<!-- https://mvnrepository.com/artifact/org.hibernate/hibernate-core -->

<dependency>

<groupId>org.hibernate</groupId>

<artifactId>hibernate-core</artifactId>

<version>5.3.32.Final</version>

</dependency>

<!-- https://mvnrepository.com/artifact/com.mysql/mysql-connector-j -->

<dependency>

<groupId>com.mysql</groupId>

<artifactId>mysql-connector-j</artifactId>

<version>8.0.33</version>

</dependency>

</dependencies>

</project>