Mutilple table:

pk,fk EMPLOYEE pk,fk Department pk,fk Location

p

How to map in oops? Java?

EMPLOYEE Department Location

1. 1 to 1 relation

Tell orm give me employee.

Orm should give dept and location also.

That is orm should give 3 objects.

Employee should contain one more field

Department should contain one more field loccaiton

Annotaiaon: @1to1 in employee entity before dept

@ 1 to 1 in dept entity before location

@join column dept id and right getters and setters

Ineheritance and interface has is a relation

This table has has a relation

**package** com.test;

**import** javax.persistence.EntityManager;

**import** javax.persistence.EntityManagerFactory;

**import** javax.persistence.Persistence;

**public** **class** TestMapping {

**public** **static** **void** main(String[] args){

EntityManagerFactory emf = Persistence.*createEntityManagerFactory*("JPA-PU");

EntityManager em = emf.createEntityManager();

em.getTransaction().begin();

Employee emp = **new** Employee();

emp.setEmployeeName("ramesh");

Department dept = **new** Department();

dept.setDepartmentName("Finance");

emp.setDepartment(dept);

em.persist(emp);

em.getTransaction().commit();

System.***out***.println(" Employee Added ");

em.close();

emf.close();

}

}

**package** com.test;

**import** javax.persistence.EntityManager;

**import** javax.persistence.EntityManagerFactory;

**import** javax.persistence.Persistence;

**public** **class** TestMapping {

**public** **static** **void** main(String[] args){

EntityManagerFactory emf = Persistence.*createEntityManagerFactory*("JPA-PU");

EntityManager em = emf.createEntityManager();

em.getTransaction().begin();

Employee emp = em.find(Employee.**class**, 1);

System.***out***.println(emp.getDepartment().getDepartmentName()+" "+emp.getEmployeeName());

/\*Employee emp = new Employee();

emp.setEmployeeName("Seema");

Department dept = new Department();

dept.setDepartmentName("Finance");

emp.setDepartment(dept);

em.persist(emp);\*/

em.getTransaction().commit();

System.***out***.println(" Employee Added ");

em.close();

emf.close();

}

}

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EntityManagerFactory emf = Persistence.*createEntityManagerFactory*("JPA-PU");

EntityManager em = emf.createEntityManager();

em.getTransaction().begin();

Employee emp = em.find(Employee.**class**, 1);

/\*System.out.println(emp.getDepartment().getDepartmentName()+" "+emp.getEmployeeName());

\*/

em.remove(emp);

/\*Employee emp = new Employee();

emp.setEmployeeName("Seema");

Department dept = new Department();

dept.setDepartmentName("Finance");

emp.setDepartment(dept);

em.persist(emp);\*/

em.getTransaction().commit();

System.***out***.println(" Employee removed ");

em.close();

emf.close();

}

}

**package** com.test;

**import** javax.persistence.EntityManager;

**import** javax.persistence.EntityManagerFactory;

**import** javax.persistence.Persistence;

**public** **class** TestMapping {

**public** **static** **void** main(String[] args){

EntityManagerFactory emf = Persistence.*createEntityManagerFactory*("JPA-PU");

EntityManager em = emf.createEntityManager();

em.getTransaction().begin();

Employee emp = em.find(Employee.**class**, 3);

/\*System.out.println(emp.getDepartment().getDepartmentName()+" "+emp.getEmployeeName());

\*/

//em.remove(emp);

System.***out***.println(emp.getEmployeeName());

/\*Employee emp = new Employee();

emp.setEmployeeName("Seema");

Department dept = new Department();

dept.setDepartmentName("Finance");

emp.setDepartment(dept);

em.persist(emp);\*/

em.getTransaction().commit();

System.***out***.println(" Employee info ");

em.close();

emf.close();

}

}

**package** com.test;

**import** javax.persistence.EntityManager;

**import** javax.persistence.EntityManagerFactory;

**import** javax.persistence.Persistence;

**public** **class** TestMapping {

**public** **static** **void** main(String[] args){

EntityManagerFactory emf = Persistence.*createEntityManagerFactory*("JPA-PU");

EntityManager em = emf.createEntityManager();

em.getTransaction().begin();

/\*Employee emp = em.find(Employee.class, 3);

\*/

/\*System.out.println(emp.getDepartment().getDepartmentName()+" "+emp.getEmployeeName());

\*/

//em.remove(emp);

/\*System.out.println(emp.getEmployeeName());

\*/

Department dept = em.find(Department.**class**,6);

System.***out***.println(dept.getEmployee().getEmployeeName());

/\*Employee emp = new Employee();

emp.setEmployeeName("Seema");

Department dept = new Department();

dept.setDepartmentName("Finance");

emp.setDepartment(dept);

em.persist(emp);\*/

em.getTransaction().commit();

System.***out***.println(" Employee info ");

em.close();

emf.close();

}

}

One to Many:

**package** com.cg.jpastart.entities;

**import** javax.persistence.EntityManager;

**import** javax.persistence.EntityManagerFactory;

**import** javax.persistence.Persistence;

**public** **class** Client1 {

**public** **static** **void** main(String[] args) {

EntityManagerFactory factory = Persistence.*createEntityManagerFactory*("JPA-PU");

EntityManager em = factory.createEntityManager();

em.getTransaction().begin();

Department d1 = **new** Department();

d1.setId(11);

d1.setName("Finance");

Employee e1 = **new** Employee();

e1.setId(1003);

e1.setName("John");

e1.setSalary(80000);

Employee e2 = **new** Employee();

e2.setId(1004);

e2.setName("David");

e2.setSalary(90000);

d1.addEmployee(e1);

d1.addEmployee(e2);

em.persist(d1);

em.getTransaction().commit();

System.***out***.println("Added successfully");

em.close();

factory.close();

}

}

**package** com.cg.jpastart.entities;

**import** java.util.List;

**import** javax.persistence.EntityManager;

**import** javax.persistence.EntityManagerFactory;

**import** javax.persistence.Persistence;

**import** javax.persistence.TypedQuery;

**public** **class** Client1 {

**public** **static** **void** main(String[] args) {

EntityManagerFactory factory = Persistence.*createEntityManagerFactory*("JPA-PU");

EntityManager em = factory.createEntityManager();

em.getTransaction().begin();

String qryString="from Employee where department.id = 10";

em.createQuery(qryString, Employee.**class**);

TypedQuery<Employee> query = em.createQuery(qryString, Employee.**class**);

List<Employee> list = query.getResultList();

**for**(Employee emp : list){

System.***out***.println(emp.getName()+" "+ emp.getDepartment().getId());

}

em.getTransaction().commit();

System.***out***.println("Added successfully");

em.close();

factory.close();

}

}

MANY to MANY

Demo program

Inheritance

3 strategies for vechicle of types 2 wheeler and 4 wheeler

1. All information should persist in single tbl uses discriminatior column
2. Table per class
3. Joint table strategy book table

ISBN

Title  
price

Book author table

Book  
author

author na author table

ID  
name

1)Query all books in database

2) Query all books written by given author name

3) List all books with given price range eg between 500 to 1000

4) List the author name for given book id.