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Program Name: - HQL-App

```
package com.app.bean;
import javax.persistence.Entity;
import javax.persistence.Id;
import javax.persistence.Table;
@Entity
@Table(name = "employee_hql")
public class Employee {
@Id
private int empId;
private String empName;
private String empAddress;
private double empSal;
public int getEmpId() {
return empId;
}
public void setEmpId(int empId) {
this.empId = empId;
}
public String getEmpName() {
return empName;
}
public void setEmpName(String empName) {
this.empName = empName;
}
public String getEmpAddress() {
return empAddress;
}
public void setEmpAddress(String empAddress) {
this.empAddress = empAddress;
```

```
}
public double getEmpSal() {
return empSal;
}
public void setEmpSal(double empSal) {
this.empSal = empSal;
}
public Employee(int empId, String empName, String empAddress, double empSal) {
super();
this.empId = empId;
this.empName = empName;
this.empAddress = empAddress;
this.empSal = empSal;
}
public Employee() {
super();
// TODO Auto-generated constructor stub
}
}
package com.app.factory;
import com.app.dao.EmployeeDao;
import com.app.dao.impl.EmployeeDaoImpl;
public class EmployeeFactory {
public static EmployeeDao getEmployeeDao() {
return new EmployeeDaoImpl();
}
}
package com.app.dao;
import java.util.List;
```

```
import com.app.bean.Employee;
public interface EmployeeDao {
int updateData(Employee emp);
int insertData(Employee emp);
int deleteData(int id);
List<Employee> listEmployee();
List<Employee> getEmployee(int id);
}
package com.app.dao.impl;
import java.util.List;
import org.hibernate.Session;
import org.hibernate.Transaction;
import org.hibernate.query.Query;
import com.app.bean.Employee;
import com.app.dao.EmployeeDao;
import com.app.utility.EmployeeUtil;
public class EmployeeDaoImpl implements EmployeeDao{
public int updateData(Employee emp) {
// TODO Auto-generated method stub
Session session=EmployeeUtil.getSession();
Transaction tx=null;
try {
tx=session.beginTransaction();
Query<Employee>query=session.createQuery("update Employee set empAddress='"+emp.getEmpAddress()+"'
where empId="+emp.getEmpId());
session.update(emp);
```

```
tx.commit();
EmployeeUtil.closeSession();
return 1;
} catch (Exception e) {
// TODO: handle exception
e.printStackTrace();
tx.rollback();
return 0;
}
}
public int insertData(Employee emp) {
// TODO Auto-generated method stub
Session session=EmployeeUtil.getSession();
Transaction tx=null;
try {
tx=session.beginTransaction();
session.persist(emp);
tx.commit();
EmployeeUtil.closeSession();
return 1;
} catch (Exception e) {
// TODO: handle exception
e.printStackTrace();
tx.rollback();
return 0;
}
}
public int deleteData(int id) {
```

```
// TODO Auto-generated method stub
Session session=EmployeeUtil.getSession();
Transaction tx=null;
try {
tx=session.beginTransaction();
String hql="delete from Employee where empId ="+id;
Query<Employee>query=session.createQuery(hql);
int row=query.executeUpdate();
tx.commit();
EmployeeUtil.closeSession();
return row;
} catch (Exception e) {
// TODO: handle exception
e.printStackTrace();
tx.rollback();
return 0;
}
}
public List<Employee> listEmployee() {
// TODO Auto-generated method stub
Session session=EmployeeUtil.getSession();
Transaction tx=null;
String hql="From Employee";
Query<Employee>query=session.createQuery(hql);
List<Employee> list=query.list();
EmployeeUtil.closeSession();
return list;
}
public List<Employee> getEmployee(int id) {
// TODO Auto-generated method stub
```

```
// TODO Auto-generated method stub
Session session=EmployeeUtil.getSession();
Transaction tx=null;
String hql="From Employee Where empId ="+id;
Query<Employee>query=session.createQuery(hql);
//query.setParameter(1, id);
List<Employee> list=query.list();
EmployeeUtil.closeSession();
return list;
}
}
package com.app.utility;
import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.cfg.Configuration;
public class EmployeeUtil {
private static SessionFactory factory;
static {
try {
factory = new Configuration().configure("com/app/config/employee.cfg.xml").buildSessionFactory();
} catch (Exception e) {
e.printStackTrace();
}
}
static ThreadLocal<Session> local=new ThreadLocal();
static Session session=null;
public static Session getSession() {
try {
```

```
if(local.get()==null) {
session=factory.openSession();
local.set(session);
return session;
}else {
return local.get();
}
} catch (Exception e) {
// TODO: handle exception
return null;
}
}
public static void closeSession() {
try {
session.close();
} catch (Exception e) {
// TODO: handle exception
e.printStackTrace();
}
}
}
package com.app.test;
import java.util.List;
import java.util.Scanner;
import com.app.bean.Employee;
import com.app.dao.EmployeeDao;
import com.app.factory.EmployeeFactory;
public class Client {
public static void main(String[] args) {
// TODO Auto-generated method stub
```

```
EmployeeDao empDao=EmployeeFactory.getEmployeeDao();
Scanner sn =new Scanner(System.in);
int choice;
String conti;
do {
System.out.println("!----------------HQL Operation-------!");
System.out.println("1. insert data");
System.out.println("2. update data");
System.out.println("3. delete data");
System.out.println("4. Get All data");
System.out.println("5. get Single data");
System.out.println("!----------------End-------!");
System.out.println("Enter you choice:");
choice=sn.nextInt();
switch (choice) {
case 1:
System.out.println("Enter your id:");
int id=sn.nextInt();
System.out.println("Enter your name:");
String name=sn.next();
System.out.println("Enter your Address:");
String address=sn.next();
System.out.println("Enter your Salary:");
double sal=sn.nextDouble();
Employee emp=new Employee(id, name, address, sal);
int i=empDao.insertData(emp);
if(i==1)
{
System.out.println("Data inserted successfully.");
}else {
System.out.println("Data Not Inserted something went wrong..!");
}
break;
```

```
case 2:
System.out.println("Enter your id:");
int id2=sn.nextInt();
System.out.println("Enter your name:");
String name1=sn.next();
System.out.println("Enter your Address:");
String address1=sn.next();
System.out.println("Enter your Salary:");
double sal1=sn.nextDouble();
Employee emp5=new Employee(id2, name1, address1, sal1);
int i2=empDao.updateData(emp5);
if(i2==1)
{
System.out.println("Data update successfully.");
}else {
System.out.println("Data Not Inserted something went wrong..!");
}
break;
case 3:
System.out.println("Enter your id:");
int id1=sn.nextInt();
int row=empDao.deleteData(id1);
if(row==1)
{
System.out.println("Data deleted successfully.");
}else {
System.out.println("Data Not Inserted something went wrong..!");
}
break;
case 4:
```

```
List<Employee> list=empDao.listEmployee();
if(list!=null)
{
for(Employee e:list) {
System.out.println(e.getEmpId()+"\t"+e.getEmpName()+"\t"
+e.getEmpAddress()+"\t"+e.getEmpSal());
}
}else {
System.out.println("something went wrong..!");
}
break;
case 5:
System.out.println("Enter your id:");
int empId=sn.nextInt();
List<Employee> emp1=empDao.getEmployee(empId);
if(emp1!=null)
{
for(Employee e:emp1) {
System.out.println(e.getEmpId()+"\t"+e.getEmpName()+"\t"
+e.getEmpAddress()+"\t"+e.getEmpSal());
}
}else {
System.out.println("Data Not Inserted something went wrong..!");
}
break;
default:
break;
}
System.out.println("do you want to continue...!");
conti=sn.next();
```

```
}while(conti.equalsIgnoreCase("y"));
}
}
```

Output