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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