# ASSIGNMENT-16

# Case Study 1:

Student.java

package com.hibernate.onetomany;

import java.util.ArrayList;

import java.util.Collection;

import javax.persistence.\*;

@Entity

@Table(name="student") public class Student {

@Id

@GeneratedValue(strategy=GenerationType.IDENTITY) @Column(name="student\_id")

private int studentId;

d"),

@Column(name="student\_name") private String studentname;

@OneToMany

@JoinTable(name="Teacher\_Student",joinColumns=@JoinColumn(name="student\_i

inverseJoinColumns=@JoinColumn(name="teacher\_id"))

private Collection<Teacher>teacher=new ArrayList<Teacher>(); public int getStudentId() {

return studentId;

}

public void setStudentId(int studentId) { this.studentId = studentId;

}

public String getStudentname() { return studentname;

}

public void setStudentname(String studentname) { this.studentname = studentname;

}

public Collection<Teacher> getTeacher() { return teacher;

}

public void setTeacher(Collection<Teacher> teacher) { this.teacher = teacher;

}

}

# Teacher.java

package com.hibernate.onetomany;

import java.util.Set;

import javax.persistence.\*;

@Entity

@Table(name="teacher")

public class Teacher {

@Id

@GeneratedValue(strategy=GenerationType.IDENTITY) @Column(name="teacher\_id")

private int teacherId; @Column(name="name") private String name;

public int getTeacherId()

{

return teacherId;

}

public void setTeacherId(int teacherId) { this.teacherId = teacherId;

}

public String getName() { return name;

}

public void setName(String name)

{

this.name = name;

}

}

# 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](http://www.hibernate.org/dtd/hibernate-configuration-3.0.dtd)-[configuration-3.0.dtd"](http://www.hibernate.org/dtd/hibernate-configuration-3.0.dtd)

<hibernate-configuration>

<session-factory>

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

<property name=*"connection.url"*>jdbc:mysql://localhost:3306/test3</property>

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

<property name=*"connection.password"*>Indra@550</property>

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

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

<property name=*"show\_sql"*>true</property>

<mapping class=*"com.hibernate.onetomany.Teacher"*></mapping>

<mapping class=*"com.hibernate.onetomany.Student"*></mapping>

</session-factory>

</hibernate-configuration>

# MainApp.java

package com.hibernate.onetomany;

import java.util.HashSet; import java.util.Set;

import org.hibernate.Session;

import org.hibernate.SessionFactory; import org.hibernate.cfg.Configuration;

public class MainApp {

public static void main(String[] args) {

SessionFactory sessionFactory = new Configuration().configure().buildSessionFactory();

Session session = sessionFactory.openSession(); session.beginTransaction();

Teacher teacher=new Teacher(); Teacher teacher1=new Teacher(); Student student=new Student(); teacher.setName("Gowtham"); teacher1.setName("Sai"); student.setStudentname("Indra"); student.getTeacher().add(teacher); student.getTeacher().add(teacher1); session.save(student); session.save(teacher); session.save(teacher1); session.getTransaction().commit(); session.close();

}

}

**Case Study 2:**

# Employee.java

packagecom.hibernate.hql\_sum; importjavax.persistence.\*; @Entity @Table(name="employee")

public classEmployee { @Id @Column(name="emp\_ID")

@GeneratedValue(strategy=GenerationType.***AUTO***)

**private int** empId; @Column(name="name") **private** String name; @Column(name="salary")

**private** Double salary; **public int** getEmpId() { **return** empId;

}

**public void** setEmpId(**int** empId) {

**this**.empId = empId;

}

**public** String getName() {

**return** name;

}

**public void** setName(String name) {

**this**.name = name;

}

**public** Double getSalary() {

**return** salary;

}

**public void** setSalary(Double salary) {

**this**.salary = salary;

}

}

# HibernateTestDemo.java

package com.hibernate.hql\_sum;

import org.hibernate.Query; import org.hibernate.Session;

import org.hibernate.SessionFactory; import org.hibernate.cfg.Configuration;

import javassist.bytecode.Descriptor.Iterator;

public class HibernateTestDemo {

public static void main(String[] args) { SessionFactory sessionFactory=new

Configuration().configure().buildSessionFactory(); Session session=sessionFactory.openSession(); session.beginTransaction();

String hql="select sum(e.salary) from employee e";

Query query=session.createQuery(hql);

Double totalSalary=(Double)query.uniqueResult(); System.out.println("Toatal: "+totalSalary); session.getTransaction().commit(); session.close();

}

}

# 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](http://www.hibernate.org/dtd/hibernate-configuration-3.0.dtd)-[configuration-3.0.dtd"](http://www.hibernate.org/dtd/hibernate-configuration-3.0.dtd)>

<hibernate-configuration>

<session-factory>

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

<property name=*"connection.url"*>jdbc:mysql://localhost:3306/test3</property>

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

<property name=*"connection.password"*>Indra@550</property>

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

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

<property name=*"show\_sql"*>true</property>

<mapping class=*"com.hibernate.hql\_sum.Employee"*></mapping>

</session-factory>

</hibernate-configuration>

**Case Study-3:** UserDetails.javapackage com.hibernate;

import javax.persistence.Column; import javax.persistence.Entity;

import javax.persistence.GeneratedValue;

import javax.persistence.GenerationType; import javax.persistence.Id;

import javax.persistence.Table;

@Entity @Table(name="USERS") public class UserDetails {

@Id @Column(name="USER\_ID")

@GeneratedValue(strategy=GenerationType.AUTO) private int userId;

@Column(name="USER\_NAME") private String user\_name; @Column(name="COURSE") private String course;

public String getCourse() { return course;

}

public void setCourse(String course) { this.course = course;

}

public int getUserId() { return userId;

}

public void setUserId(int userId) {

this.userId = userId;

}

public String getUser\_name() { return user\_name;

}

public void setUser\_name(String user\_name) { this.user\_name = user\_name;

}

}

HibernateTestDemo.javapackage com.hibernate; import org.hibernate.Query; import org.hibernate.Session;

import org.hibernate.SessionFactory; import org.hibernate.cfg.Configuration;

import javassist.bytecode.Descriptor.Iterator;

public class HibernateTestDemo {

public static void main(String[] args) { SessionFactory sessionFactory=new

Configuration().configure().buildSessionFactory(); Session session=sessionFactory.openSession();

session.beginTransaction();

String sql=”select user.course,count(user.course) from UserDetails user where user.userId >1 group by user.course";

Query query=session.createQuery(sql);

for(java.util.Iteratorit=(query).iterate();it.hasNext();) {

Object[] row=(Object[])it.next();

System.out.println("Coursename: "+row[0]); System.out.println("no of students: "+row[1]);

}

session.getTransaction().commit(); session.close();

}

}

# 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](http://www.hibernate.org/dtd/hibernate-configuration-3.0.dtd)-[configuration-3.0.dtd"](http://www.hibernate.org/dtd/hibernate-configuration-3.0.dtd)>

<hibernate-configuration>

<session-factory>

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

<property name=*"connection.url"*>jdbc:mysql://localhost:3306/test3</property>

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

<property name=*"connection.password"*>Indra@550</property>

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

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

<property name=*"show\_sql"*>true</property>

<mapping class=*"com.hibernate.UserDetails"*></mapping>

</session-factory>

</hibernate-configuration>