Experiment - 9

Student Name: Shashwat Chalana **UID:** 23BCS10511
Branch: BE-CSE **Section/Group:** KRG-2B
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Subject Name: PBLJ **Subject Code:** 23CSH-304

Aim:

Perform CRUD (Create, Read, Update, Delete) operations on a Student entity using Hibernate ORM with MySQL.

Objective:

To learn Hibernate configuration, entity mapping, and CRUD execution withMySQL.

Apparatus / Input Used:

Java, Hibernate, MySQL, Eclipse / IntelliJ, hibernate.cfg.xml

Requirements:

- Create Student entity (id, name, age)
- Configure Hibernate using hibernate.cfg.xml
- Implement SessionFactory
- Perform Insert, Read, Update, Delete

Procedure:

1. Configure MySQL database and add Hibernate dependencies.
2. Create hibernate.cfg.xml with DB credentials.
3. Create Student.java with @Entity, @Id, @GeneratedValue annotations.
4. Create HibernateUtil class for SessionFactory.
5. Implement CRUD using session.save(), session.get(), session.update(),

Code

Student.java

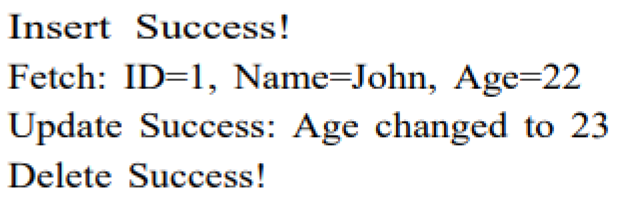
```
@Entity
public class Student
```

```
{
@Id
@GeneratedValue(strategy = GenerationType.IDENTITY)
private int id;
private String name;
private int age;
//getters, setters, constructors
}
```

Main.java

```
Session session=HibernateUtil.getSessionFactory().openSession();
Transaction tx = session.beginTransaction();
Student s = new Student();
s.setName("John");
s.setAge(22);
session.save(s);
Student st = session.get(Student.class,1);
st.setAge(23);
session.update(st);
session.delete(st);
tx.commit();
session.close();
```

SAMPLE OUTPUT:



```
Insert Success!
Fetch: ID=1, Name=John, Age=22
Update Success: Age changed to 23
Delete Success!
```