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| **Class: FYMCA Div: A**  **Semester: 2** | **Course Code: MCA01554**  **Course Name: Java Programming Laboratory** | | **Batch: F2** |
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| **CO No: CO515.6** | | **Assignment No:16** | |

**PRACTICAL SUBMISSION RECORD- A.Y. 2024-25**

# Title: Write HQL for executing fundamental queries (CRUD). Code:

Class :Student.java

package com.example;

import javax.persistence.Entity; import javax.persistence.\*;

//create a package in src main

*@Entity*

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

*@Id*

private int id;

private String name; private String standard;

public int getId() {

return id;

}

public void setId(int id) {

this.id = id;

}

public String getName() { return name;

}

public void setName(String name) { this.name = name;

}

public String getStandard() { return standard;

}

public void setStandard(String standard) { this.standard = standard;

}

}

## Class:Hiberate Util

package com.example;

import org.hibernate.SessionFactory; import org.hibernate.cfg.Configuration; public class HibernateUtil {

private static final SessionFactory ***sessionFactory***; static {

try {

***sessionFactory*** = new Configuration().configure().buildSessionFactory();//understand this one

} catch (Throwable ex) {

throw new ExceptionInInitializerError(ex);

}

}

public static SessionFactory getSessionFactory() { return ***sessionFactory***;

}

}

Class:Main.java package com.example;

import org.hibernate.\*; import java.util.List;

public class Main {

public static void main(String[] args) {

Session session = HibernateUtil.*getSessionFactory*().openSession();

// Create

Transaction tx = session.beginTransaction(); Student s1 = new Student();

s1.setId(1); s1.setName("Alice"); s1.setStandard("10th"); session.save(s1); tx.commit();

// Read

List<Student> students = session.createQuery("FROM Student", Student.class).list(); students.forEach(s -> System.***out***.println(s.getName()));

// Update

tx = session.beginTransaction();

Query query = session.createQuery("UPDATE Student SET name = :name WHERE id = :id"); query.setParameter("name", "Bob");

query.setParameter("id", 1); query.executeUpdate(); tx.commit();

// Delete

// tx = session.beginTransaction();

// Query delQuery = session.createQuery("DELETE FROM Student WHERE id = :id");

//delQuery.setParameter("id", 1);

//delQuery.executeUpdate();

//tx.commit(); session.close();

}

}

## Hibernate.cfg.xml:Configuration file

<!DOCTYPE hibernate-configuration PUBLIC

"-//Hibernate/Hibernate Configuration DTD 3.0//EN"

"<http://www.hibernate.org/dtd/hibernate-configuration-3.0.dtd>">

<hibernate-configuration>

<session-factory>

<property name=*"hibernate.connection.driver\_class"*>oracle.jdbc.driver.OracleDriver</property>

<property name=*"hibernate.connection.url"*>jdbc:oracle:thin:@localhost:1521:xe</property>

<property name=*"hibernate.connection.username"*>system</property>

<property name=*"hibernate.connection.password"*>admin</property>

<!—you dialect can be different-->

<property name=*"hibernate.dialect"*>org.hibernate.dialect.Oracle12cDialect</property>

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

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

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

<mapping class=*"com.example.Student"*/>

</session-factory>

</hibernate-configuration>

**POM File**:These are 2 main dependencies to after generating pom file

<groupId>org.hibernate</groupId>

<artifactId>hibernate-core</artifactId>

<version>5.6.15.Final</version>

</dependency>

<!-- Oracle JDBC Driver -->

<dependency>

<groupId>com.oracle.database.jdbc</groupId>

<artifactId>ojdbc11</artifactId>

<version>21.9.0.0</version>

</dependency> Output:

**INSERT** INTO Student (name, standard, id) VALUES (?, ?, ?);

## SELECT

student0\_.id AS id1\_0\_, student0\_.name AS name2\_0\_, student0\_.standard AS standard3\_0\_

FROM

Student student0\_;

**UPDATE** Student - -this will set to Bob SET name = ?

WHERE id = ?;

**Output From oracle: select \* from student**

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