/\*\*

\* Q 1) Write a program to perform CRUD operations using JDBC.

\*/

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.\*;

public class assign {

public static void main(String[] args) {

Connection con = null;

try {

/\*\*

\* Need to execute first export

\* CLASSPATH=$CLASSPATH:mysql-connector-java-8.0.21.jar

\*/

con = DriverManager.getConnection("jdbc:mysql://localhost:3306/kaustubh?useSSL=false", "kaustubh",

"kaustubh");

// connection TEST

System.out.println("Connection is successful !!!!!");

//Create table if does not exists

String CREATE\_TABLE\_SQL="CREATE TABLE IF NOT EXISTS kaustubh.student ("

+ "id INT,"

+ "sname VARCHAR(30), "

+ "sclass VARCHAR(30),"

+ "PRIMARY KEY (id))";

//end create table if does not exists

Statement stmt = con.createStatement();

stmt.executeUpdate(CREATE\_TABLE\_SQL);

System.out.println("Table created");

insert(con,1,"Kaustubh","MCA II");

insert(con,2,"Angad","MCA II");

insert(con,3,"Sagar","MCA III");

insert(con,4,"Rajesh","MCA II");

// insert operation

showData(con);

// end insert

// Start UPDATE Statement [UPDATE OPERATION]

updateData(con);

showData(con);

// END UPDATE Statement [UPDATE OPERATION]

// DELETE OPERATION

delete(con);

showData(con);

// END DELETE

stmt.executeUpdate("DELETE from student");

System.out.println("Student Table DROPPED");

} catch (Exception e) {

e.printStackTrace();

}

}

static void insert(Connection con,Integer sid,String name, String ssclass){

try {

String sql = "INSERT INTO student (id, sname, sclass) VALUES (?, ?, ?)";

PreparedStatement statement = con.prepareStatement(sql);

statement.setInt(1, sid);

statement.setString(2, name);

statement.setString(3, ssclass);

int rowsInserted = statement.executeUpdate();

if (rowsInserted > 0) {

System.out.println("A new student was inserted successfully!");

}

} catch (Exception e) {

e.printStackTrace();

}

}

static void showData(Connection con) {

try {

String selectSql = "SELECT \* FROM student";

Statement selectStatement = con.createStatement();

ResultSet result = selectStatement.executeQuery(selectSql);

int count = 0;

while (result.next()) {

String id = result.getString("id");

String sname = result.getString("sname");

String sclass = result.getString("sclass");

String output = "Student #%d: %s - %s - %s";

System.out.println(String.format(output, ++count, id, sname, sclass));

}

} catch (Exception e) {

e.printStackTrace();

}

}

static void updateData(Connection con) {

try {

String updateSql = "UPDATE student SET sclass=? WHERE id=?";

PreparedStatement updateStatement = con.prepareStatement(updateSql);

updateStatement.setString(1, "MCA I");

updateStatement.setInt(2, 4);

int rowsUpdated = updateStatement.executeUpdate();

if (rowsUpdated > 0) {

System.out.println("An existing student was updated successfully!");

}

} catch (Exception e) {

e.printStackTrace();

}

}

static void delete(Connection con)

{

try {

String deleteSql = "DELETE FROM student WHERE id=?";

PreparedStatement deletestatement = con.prepareStatement(deleteSql);

deletestatement.setInt(1, 4);

int rowsDeleted = deletestatement.executeUpdate();

if (rowsDeleted > 0) {

System.out.println("A Student was deleted successfully!");

}

} catch (Exception e) {

e.printStackTrace();

}

}

}

Output:

