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**SMARTBRIDGE EXTERNSHIP**

**Modern App Development Using Spring Boot**

**Week 3 Assignment**

***Q.) Implement Java Assignment for Java JDBC using Java***

Using table from MQL workbench

CODE:

package practice;

import java.sql.\*;

import java.util.Scanner;

public class Smartbridge\_3 {

public static void main(String[] args){

try {

// 1. Register the driver

Class.*forName*("com.mysql.cj.jdbc.Driver");

// 2. Connection

Connection conn = DriverManager.*getConnection*("jdbc:mysql://localhost:3306/beginner", "root", "alens");

Statement stmt = conn.createStatement();

// 3. Select query - Display entire table

System.***out***.println("---- Original Table ----");

ResultSet selectResult = stmt.executeQuery("SELECT \* FROM employee");

*displayResultSet*(selectResult);

// 4. Update query - Update a row

String updateQuery = "UPDATE employee SET city = 'New York City' WHERE emp\_id = 3";

int rowsUpdated = stmt.executeUpdate(updateQuery);

System.***out***.println(rowsUpdated + " row(s) updated.");

// 5. Select query - Display updated row

System.***out***.println("---- Updated Row ----");

ResultSet updatedRowResult = stmt.executeQuery("SELECT \* FROM employee WHERE emp\_id = 1");

*displayResultSet*(updatedRowResult);

// 6. Delete query - Delete a row

String deleteQuery = "DELETE FROM employee WHERE emp\_id = 2";

int rowsDeleted = stmt.executeUpdate(deleteQuery);

System.***out***.println(rowsDeleted + " row(s) deleted.");

// 7. Insert query - Insert a new row

Scanner scanner = new Scanner(System.***in***);

System.***out***.println("Enter the details for the new employee:");

System.***out***.print("emp\_id (Integer): ");

int empId = scanner.nextInt();

scanner.nextLine(); // Consume the newline character

System.***out***.print("emp\_name (String): ");

String empName = scanner.nextLine();

System.***out***.print("address (String): ");

String address = scanner.nextLine();

System.***out***.print("city (String): ");

String city = scanner.nextLine();

System.***out***.print("postal\_code (Integer): ");

int postalCode = scanner.nextInt();

scanner.nextLine(); // Consume the newline character

System.***out***.print("country (String): ");

String country = scanner.nextLine();

String insertQuery = "INSERT INTO employee (emp\_id, emp\_name, address, city, postal\_code, country) VALUES (?, ?, ?, ?, ?, ?)";

PreparedStatement insertStmt = conn.prepareStatement(insertQuery);

insertStmt.setInt(1, empId);

insertStmt.setString(2, empName);

insertStmt.setString(3, address);

insertStmt.setString(4, city);

insertStmt.setInt(5, postalCode);

insertStmt.setString(6, country);

int rowsInserted = insertStmt.executeUpdate();

System.***out***.println(rowsInserted + " row(s) inserted.");

// 8. Select query - Display updated table

System.***out***.println("---- Updated Table ----");

ResultSet updatedTableResult = stmt.executeQuery("SELECT \* FROM employee");

*displayResultSet*(updatedTableResult);

// 9. Close the resources

conn.close();

} catch (Exception e) {

e.printStackTrace();

}

}

// Helper method to display the ResultSet as a table

private static void displayResultSet(ResultSet rs) throws SQLException {

ResultSetMetaData metaData = rs.getMetaData();

int columnCount = metaData.getColumnCount();

// Display header names

for (int i = 1; i <= columnCount; i++) {

String columnName = metaData.getColumnName(i);

System.***out***.printf("%-15s", columnName);

}

System.***out***.println();

// Display data rows

while (rs.next()) {

for (int i = 1; i <= columnCount; i++) {

String columnValue = rs.getString(i);

if (i == 3 || i == 4) {

System.***out***.printf("%-25s", columnValue);

} else {

System.***out***.printf("%-15s", columnValue);

}

}

System.***out***.println();

}

System.***out***.println();

}

}

OUTPUT:



