**Assignment No 08 :-**

**Mysql-Java Connector [JDBC]**

**::: Switch\_Operations Program :::**

package xyz;

import java.sql.\*;

import java.util.\*;

public class Switch\_operations {

public static void main(String[] args) throws ClassNotFoundException {

Scanner sc = new Scanner(System.in);

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

try {

Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/demo\_a1", "root", "Wolfie@186");

Statement stm = conn.createStatement();

int choice;

while(true) {

System.out.println("Menu");

System.out.println("1.Create Table");

System.out.println("2.Insert Data");

System.out.println("3.Update Data");

System.out.println("4.Delete Data");

System.out.println("5.Display");

System.out.println("Enter choice");

choice = sc.nextInt();

switch(choice) {

case 1:

Create\_tb(conn);

break;

case 2:

Insert\_tb(conn,sc);

break;

case 3:

Update\_tb(conn,sc);

break;

case 4:

Delete\_tb(conn,sc);

break;

case 5:

Display\_tb(conn);

break;

default:

System.out.println("Invalid input");

break;

}

}

}

catch (Exception e) {

System.out.println(e);

}

}

public static void Create\_tb(Connection conn) {

try {

Statement stmt = conn.createStatement();

String str1 = "Create table if not exists Product(Pid int primary key,P\_name varchar(50),price decimal(10,2))";

stmt.executeUpdate(str1);

System.out.println("Table created(If not exist)");

stmt.close();

}

catch (SQLException e) {

System.out.println(e);

}

}

public static void Insert\_tb(Connection conn,Scanner sc) {

try {

Statement stat = conn.createStatement();

System.out.println("Enter Product ID");

int Pid = sc.nextInt();

sc.nextLine();

System.out.println("Enter Product Name");

String P\_name = sc.nextLine();

System.out.println("Enter Product Price");

double price = sc.nextDouble();

String str2 = "Insert into Product values(" + Pid + ", '" + P\_name + "', " + price + ")";

stat.executeUpdate(str2);

System.out.println("Data Inserted");

stat.close();

}

catch (SQLException e) {

System.out.println(e);

}

}

public static void Update\_tb(Connection conn,Scanner sc) {

try {

Statement sta = conn.createStatement();

System.out.print("Enter Product ID to update: ");

int pid = sc.nextInt();

System.out.print("Enter new price: ");

double newPrice = sc.nextDouble();

String str3 = "Update Product set price ="+ newPrice + "where Pid ="+ pid;

int rows = sta.executeUpdate(str3);

if (rows > 0) {

System.out.println("✅ Record updated.");

}

else {

System.out.println("⚠️ Product not found.");

}

sta.close();

}

catch (SQLException e) {

System.out.println(e);

}

}

public static void Delete\_tb(Connection conn,Scanner sc) {

try {

Statement sta = conn.createStatement();

System.out.print("Enter Product ID to delete: ");

int pid = sc.nextInt();

String query = "DELETE FROM Product WHERE Pid = " + pid;

int rows = sta.executeUpdate(query);

if (rows > 0) {

System.out.println("✅ Record deleted.");

}

else {

System.out.println("⚠️ Product not found.");

}

sta.close();

}

catch (SQLException e) {

System.out.println(e);

}

}

public static void Display\_tb(Connection conn) {

try {

Statement stmt = conn.createStatement();

ResultSet rs = stmt.executeQuery("SELECT \* FROM Product");

while (rs.next()) {

System.out.println(rs.getInt("Pid") + " " + rs.getString("P\_name") + " " + rs.getDouble("price"));

}

stmt.close();

} catch (SQLException e) {

e.printStackTrace();

}

}

}

**::: Output :::**

Menu

1.Create Table

2.Insert Data

3.Update Data

4.Delete Data

5.Display

Enter choice

1

Table created(If not exist)

Menu

1.Create Table

2.Insert Data

3.Update Data

4.Delete Data

5.Display

Enter choice

2

Enter Product ID

1101

Enter Product Name

Headset

Enter Product Price

22000

Data Inserted

Menu

1.Create Table

2.Insert Data

3.Update Data

4.Delete Data

5.Display

Enter choice

2

Enter Product ID

1102

Enter Product Name

Mech. Keyboard

Enter Product Price

8000

Data Inserted

Menu

1.Create Table

2.Insert Data

3.Update Data

4.Delete Data

5.Display

Enter choice

2

Enter Product ID

1103

Enter Product Name

Watch

Enter Product Price

1500

Data Inserted

Menu

1.Create Table

2.Insert Data

3.Update Data

4.Delete Data

5.Display

Enter choice

5

1101 Headset 22000.0

1102 Mech. Keyboard 8000.0

1103 Watch 1500.0

:::Output from Mysql :::

C:\Program Files\MySQL\MySQL Server 9.4\bin>mysql -u root -p

Enter password: \*\*\*\*\*\*\*\*\*\*

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 26

Server version: 9.4.0 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use demo\_a1;

Database changed

mysql> desc Product;

+--------+---------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------+---------------+------+-----+---------+-------+

| Pid | int | NO | PRI | NULL | |

| P\_name | varchar(50) | YES | | NULL | |

| price | decimal(10,2) | YES | | NULL | |

+--------+---------------+------+-----+---------+-------+

3 rows in set (0.429 sec)

mysql> select \* from Product;

+------+----------------+----------+

| Pid | P\_name | price |

+------+----------------+----------+

| 1101 | Headset | 22000.00 |

| 1102 | Mech. Keyboard | 8000.00 |

| 1103 | Watch | 1500.00 |

+------+----------------+----------+

3 rows in set (0.009 sec)

Menu

1.Create Table

2.Insert Data

3.Update Data

4.Delete Data

5.Display

Enter choice

3

Enter Product ID to update: 1101

Enter new price: 18000

✅ Record updated.

Menu

1.Create Table

2.Insert Data

3.Update Data

4.Delete Data

5.Display

Enter choice

3

Enter Product ID to update: 1103

Enter new price: 1100

✅ Record updated.

Menu

1.Create Table

2.Insert Data

3.Update Data

4.Delete Data

5.Display

Enter choice

5

1101 Headset 18000.0

1102 Mech. Keyboard 8000.0

1103 Watch 1100.0

:::Output from Mysql :::

mysql> select \* from Product;

+------+----------------+----------+

| Pid | P\_name | price |

+------+----------------+----------+

| 1101 | Headset | 18000.00 |

| 1102 | Mech. Keyboard | 8000.00 |

| 1103 | Watch | 1100.00 |

+------+----------------+----------+

3 rows in set (0.006 sec)

Menu

1.Create Table

2.Insert Data

3.Update Data

4.Delete Data

5.Display

Enter choice

4

Enter Product ID to delete: 1102

✅ Record deleted.

Menu

1.Create Table

2.Insert Data

3.Update Data

4.Delete Data

5.Display

Enter choice

5

1101 Headset 18000.0

1103 Watch 1100.0

:::Output from Mysql :::

mysql> select \* from Product;

+------+---------+----------+

| Pid | P\_name | price |

+------+---------+----------+

| 1101 | Headset | 18000.00 |

| 1103 | Watch | 1100.00 |

+------+---------+----------+

2 rows in set (0.006 sec)

Menu

1.Create Table

2.Insert Data

3.Update Data

4.Delete Data

5.Display

Enter choice

0

Invalid input

Menu

1.Create Table

2.Insert Data

3.Update Data

4.Delete Data

5.Display

Enter choice