Name: Srinidhi Kulkarni
Class: SY B
Roll no: B-03

## GROUP C

**Q) Implement CRUD operations using JDBC Connectivity.**

**INPUT CODE:**

```
import java.sql.*;
import java.util.Scanner;


public class JDBC_CRUD {
   private static final String URL = "jdbc:mysql://localhost:3306/demo;
   private static final String USER = "root";
   private static final String PASSWORD = "timepass@1930";


   public static void main(String[] args) {
      try (Connection conn = DriverManager.getConnection(URL, USER,
PASSWORD)) {
         Scanner scanner = new Scanner(System.in);


         while (true) {
            System.out.println("\n1. Insert\n2. Read\n3. Update\n4. Delete\n5.
Exit");
            System.out.print("Choose an operation: ");
            int choice = scanner.nextInt();


            switch (choice) {
               case 1:
                  insertData(conn, scanner);
                  break;
```

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```
                case 2:
                    readData(conn);
                    break;
                case 3:
                    updateData(conn, scanner);
                    break;
                case 4:
                    deleteData(conn, scanner);
                    break;
                case 5:
                    System.out.println("Exiting...");
                    return;
                default:
                    System.out.println("Invalid choice!");
            }
        }
    } catch (SQLException e) {
        e.printStackTrace();
    }
}

  private static void insertData(Connection conn, Scanner scanner) throws
SQLException {
    System.out.print("Enter name: ");
    String name = scanner.next();
    System.out.print("Enter age: ");
```

```
        int age = scanner.nextInt();


        String query = "INSERT INTO users (name, age) VALUES (?, ?)";
        try (PreparedStatement pstmt = conn.prepareStatement(query)) {
            pstmt.setString(1, name);
            pstmt.setInt(2, age);
            pstmt.executeUpdate();
            System.out.println("Data inserted successfully!");
        }
    }


    private static void readData(Connection conn) throws SQLException {
        String query = "SELECT * FROM users";
        try (Statement stmt = conn.createStatement(); ResultSet rs =
stmt.executeQuery(query)) {
            while (rs.next()) {
                System.out.println("ID: " + rs.getInt("id") + ", Name: " +
rs.getString("name") + ", Age: " + rs.getInt("age"));
            }
        }
    }


    private static void updateData(Connection conn, Scanner scanner) throws
SQLException {
        System.out.print("Enter user ID to update: ");
        int id = scanner.nextInt();
        System.out.print("Enter new name: ");
```

```
        String newName = scanner.next();

        String query = "UPDATE users SET name = ? WHERE id = ?";
        try (PreparedStatement pstmt = conn.prepareStatement(query)) {
            pstmt.setString(1, newName);
            pstmt.setInt(2, id);
            int rowsAffected = pstmt.executeUpdate();
            if (rowsAffected > 0) {
                System.out.println("Data updated successfully!");
            } else {
                System.out.println("User not found!");
            }
        }
    }

    private static void deleteData(Connection conn, Scanner scanner) throws
SQLException {
        System.out.print("Enter user ID to delete: ");
        int id = scanner.nextInt();

        String query = "DELETE FROM users WHERE id = ?";
        try (PreparedStatement pstmt = conn.prepareStatement(query)) {
            pstmt.setInt(1, id);
            int rowsAffected = pstmt.executeUpdate();
            if (rowsAffected > 0) {
                System.out.println("Data deleted successfully!");
```

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```
        } else {
            System.out.println("User not found!");
        }
    }
  }
}
```

**OUPUT:**

```
1. Insert
2. Read
3. Update
4. Delete
5. Exit
Choose an operation: 1
Enter name: Neil
Enter age: 19
Data inserted successfully!

1. Insert
2. Read
3. Update
4. Delete
5. Exit
Choose an operation: 1
Enter name: Shreya
Enter age: 19
Data inserted successfully!

1. Insert
2. Read
3. Update
4. Delete
5. Exit
Choose an operation: 1
Enter name: Srinidhi
Enter age: 19
Data inserted successfully!

1. Insert
2. Read
3. Update
4. Delete
5. Exit
Choose an operation: 1
Enter name: Samruddhi
Enter age: 19
Data inserted successfully!
```

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```
1. Insert
2. Read
3. Update
4. Delete
5. Exit
Choose an operation: 2
ID: 7, Name: Neil, Age: 19
ID: 8, Name: Shreya, Age: 19
ID: 9, Name: Srinidhi, Age: 19
ID: 10, Name: Samruddhi, Age: 19

1. Insert
2. Read
3. Update
4. Delete
5. Exit
Choose an operation: 3
Enter user ID to update: 7
Enter new name: Neil Landge
Data updated successfully!
```

```
1. Insert
2. Read
3. Update
4. Delete
5. Exit
Choose an operation: 4
Enter user ID to delete: 8
Data deleted successfully!

1. Insert
2. Read
3. Update
4. Delete
5. Exit
Choose an operation: 5
Exiting...
PS D:\College JAVA\java assignments>
```