Practical No. 3

Objective: JDBC connectivity in Java Application using MySQL server at the backend.

Inserting, deleting and updating the records using Statement and Prepared Statement interfaces.

Theory:

Java Database Connectivity (JDBC) is an application programming interface (API) for the programming language Java, which defines how a client may access a database. It is Java based data access technology and used for Java database connectivity. It is part of the Java Standard Edition platform, from Oracle Corporation. It provides methods to query and update data in a database, and is oriented towards relational databases. A JDBC-to-ODBC bridge enables connections to any ODBC-accessible data source in the Java virtual machine (JVM) host environment.. Java JDBC is a java API to connect and execute query with the database. JDBC API uses jdbc drivers to connect with the database.

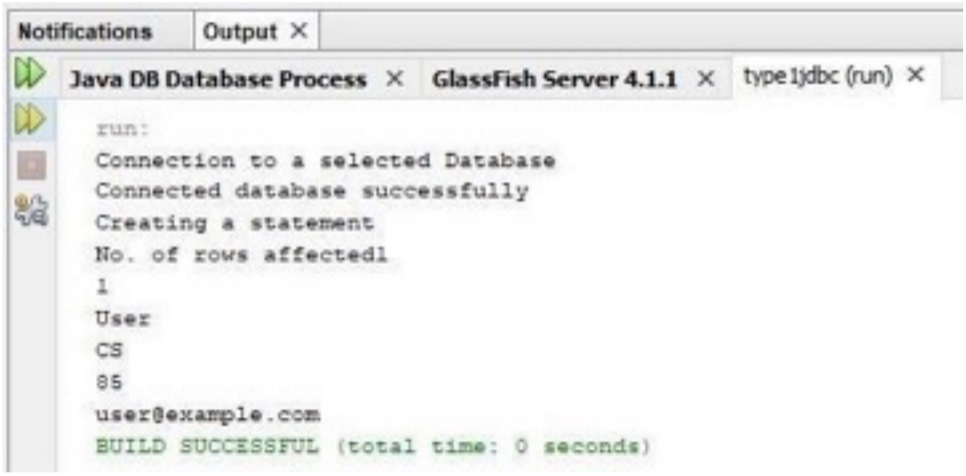
Source Code:

JDBC.java package

```
type1jdbc; import
java.sql.*;


public class Type1jdbc {
        public static void main(String[] args) {
                String JDBC_Driver_1 = "com.mysql.jdbc.Driver";
               String DB_URL = "jdbc:mysql://localhost:3306/test";
                String USER = "root";
                String PASS = "amity";
                Connection conn = null;
         PreparedStatement ps = null;
   try
                                {
try
                                 {
                                        Class.forName(JDBC_Driver_1);
                                }
                        catch(ClassNotFoundException e){System.out.println(e); }
                System.out.println("Connection to a selected Database");
conn = DriverManager.getConnection(DB_URL,USER,PASS);
                        System.out.println("Connected database successfully");
                        System.out.println("Creating a statement");
                       String sql = "insert into test.Studentdata
                       (ID,Name,Branch,Percentage,Email)"+"values(?,?,?,?,?)"
                ;       ps = conn.prepareStatement(sql);                ps.setInt(1,1);
                ps.setString(2,"Shantanu"); ps.setString(3,"CS"); ps.setInt(4,85);
                        ps.setString(5,"shanu@gmail.com");



                        int i = ps.executeUpdate();
                        System.out.println("No. of rows affected"+i); ps =
                       conn.prepareStatement("select * from test.Studentdata"); ResultSet
                       rs = ps.executeQuery(); while(rs.next())
                        {
                            System.out.println(rs.getInt("ID"));
                            System.out.println(rs.getString("Name"));
                            System.out.println(rs.getString("Branch"));
                            System.out.println(rs.getInt("Percentage"));
                            System.out.println(rs.getString("Email"));
```

```
            }
        ps.close();
        conn.close();
            }
                catch(Exception e){System.out.println(e); }
    }
}
```

Output:



Result: The given program has been compiled and executed successfully.