11.CODE:

import java.sql.Connection;  
import java.sql.DriverManager;  
import java.sql.SQLException;  
import java.sql.\*;  
  
public class JDBC\_3045 {  
 private static final String *URL* = "jdbc:mysql://localhost:3306/java\_assignment"; // Replace 'your\_database' with your database name  
 private static final String *USER* = "root"; // Replace with your database username  
 private static final String *PASSWORD* = "root"; // Replace with your database password  
  
 public static void main(String[] args) {  
 try (Connection connection = DriverManager.*getConnection*(*URL*, *USER*, *PASSWORD*)) {  
 System.*out*.println("Database connected successfully!");  
  
 // Create Student table  
 //createTable(connection);  
  
 // Insert data  
 *insertStudent*(connection, 1, "Alice", 85);  
 *insertStudent*(connection, 2, "Bob", 90);  
  
 // Update data  
 *updateStudent*(connection, 1, "Alicia", 88);  
  
 // Delete data  
 *deleteStudent*(connection, 2);  
  
 // Retrieve and display all students  
 *displayStudents*(connection);  
  
 } catch (SQLException e) {  
 e.printStackTrace();  
 }  
 }  
  
 private static void createTable(Connection connection) throws SQLException {  
 String createTableSQL = "CREATE TABLE IF NOT EXISTS Student (id integer PRIMARY KEY, name VARCHAR(50), marks integer); ";  
  
 try (Statement statement = connection.createStatement()) {  
 statement.executeUpdate(createTableSQL);  
 System.*out*.println("Student table created successfully.");  
 }  
 }  
  
 private static void insertStudent(Connection connection, int id, String name, int marks) throws SQLException {  
 String insertSQL = "INSERT INTO Student (id, name, marks) VALUES (?, ?, ?);";  
 try (PreparedStatement preparedStatement = connection.prepareStatement(insertSQL)) {  
 preparedStatement.setInt(1, id);  
 preparedStatement.setString(2, name);  
 preparedStatement.setInt(3, marks);  
 int rowsInserted = preparedStatement.executeUpdate();  
 System.*out*.println(rowsInserted + " row(s) inserted.");  
 }  
 }  
  
 private static void updateStudent(Connection connection, int id, String newName, int newMarks) throws SQLException {  
 String updateSQL = "UPDATE Student SET name = ?, marks = ? WHERE id = ?;";  
 try (PreparedStatement preparedStatement = connection.prepareStatement(updateSQL)) {  
 preparedStatement.setString(1, newName);  
 preparedStatement.setInt(2, newMarks);  
 preparedStatement.setInt(3, id);  
 int rowsUpdated = preparedStatement.executeUpdate();  
 System.*out*.println(rowsUpdated + " row(s) updated.");  
 }  
 }  
  
 private static void deleteStudent(Connection connection, int id) throws SQLException {  
 String deleteSQL = "DELETE FROM Student WHERE id = ?;";  
 try (PreparedStatement preparedStatement = connection.prepareStatement(deleteSQL)) {  
 preparedStatement.setInt(1, id);  
 int rowsDeleted = preparedStatement.executeUpdate();  
 System.*out*.println(rowsDeleted + " row(s) deleted.");  
 }  
 }  
  
 private static void displayStudents(Connection connection) throws SQLException {  
 String selectSQL = "SELECT \* FROM Student;";  
 try (Statement statement = connection.createStatement();  
 ResultSet resultSet = statement.executeQuery(selectSQL)) {  
  
 System.*out*.println("Student Table:");  
 System.*out*.println("ID | Name | Marks");  
 System.*out*.println("-------------------------");  
  
 while (resultSet.next()) {  
 int id = resultSet.getInt("id");  
 String name = resultSet.getString("name");  
 int marks = resultSet.getInt("marks");  
 System.*out*.printf("%2d | %-10s | %3d%n", id, name, marks);  
 }  
 }  
 }  
}

OUTPUT:







