DBMS Practical 8 Program Code:

```
package jdbc;
import java.sql.Connection;
import java.sql.DriverManager;

import java.sql.SQLException;


public class jdbcExample {
public static void main(String[] args)throws ClassNotFoundException, SQLException{
Class.forName("com.mysql.cj.jdbc.Driver");

Connection con=
DriverManager.getConnection("jdbc:mysql://localhost:3306/unisoft","root","root");
System.out.println("Connection created");

}



}
```

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

public class  AddUpDelete{
   // MySQL connection info (update if using Oracle)
   static final String URL =
"jdbc:mysql://localhost:3306/unisoft?useSSL=false&serverTimezone=UTC";
   static final String USER = "root";
   static final String PASSWORD = "root";

   public static void main(String[] args) {
      try {
```

```
// Load JDBC Driver (MySQL)
Class.forName("com.mysql.cj.jdbc.Driver");

// Connect to DB
try (Connection con = DriverManager.getConnection(URL, USER, PASSWORD);
    Scanner sc = new Scanner(System.in)) {

   int choice;
   do {
      System.out.println("\n=== STUDENT DATABASE ===");
      System.out.println("1. Add Student");
      System.out.println("2. Edit Student");
      System.out.println("3. Delete Student");
      System.out.println("4. Display Students");
      System.out.println("5. Exit");
      System.out.print("Enter your choice: ");
      choice = sc.nextInt();
      sc.nextLine();

      switch (choice) {
         case 1 -> {
            System.out.print("Enter ID: ");
            int id = sc.nextInt();
            sc.nextLine();
            System.out.print("Enter Name: ");
            String name = sc.nextLine();
            System.out.print("Enter Email: ");
            String email = sc.nextLine();
            addStudent(con, id, name, email);
         }
         case 2 -> {
            System.out.print("Enter ID of student to edit: ");
            int id = sc.nextInt();
            sc.nextLine();
            System.out.print("Enter New Name: ");
            String name = sc.nextLine();
            System.out.print("Enter New Email: ");
            String email = sc.nextLine();
            updateStudent(con, id, name, email);
         }
         case 3 -> {
```

```
                    System.out.print("Enter ID of student to delete: ");
                    int id = sc.nextInt();
                    deleteStudent(con, id);
                }
                case 4 -> displayStudents(con);
                case 5 -> System.out.println("Goodbye!");
                default -> System.out.println("Invalid choice.");
            }
        } while (choice != 5);
      }
    } catch (Exception e) {
      e.printStackTrace();
    }
  }

  // Add Student
  public static void addStudent(Connection con, int id, String name, String email) throws
SQLException {
    String sql = "INSERT INTO student (id, name, email) VALUES (?, ?, ?)";
    try (PreparedStatement ps = con.prepareStatement(sql)) {
      ps.setInt(1, id);
      ps.setString(2, name);
      ps.setString(3, email);
      int rows = ps.executeUpdate();
      System.out.println("Added " + rows + " student(s).");
    }
  }

  // Update Student
  public static void updateStudent(Connection con, int id, String name, String email) throws
SQLException {
    String sql = "UPDATE student SET name = ?, email = ? WHERE id = ?";
    try (PreparedStatement ps = con.prepareStatement(sql)) {
      ps.setString(1, name);
      ps.setString(2, email);
      ps.setInt(3, id);
      int rows = ps.executeUpdate();
      System.out.println("Updated " + rows + " student(s).");
    }
  }
```

```
    // Delete Student
    public static void deleteStudent(Connection con, int id) throws SQLException {
        String sql = "DELETE FROM student WHERE id = ?";
        try (PreparedStatement ps = con.prepareStatement(sql)) {
            ps.setInt(1, id);
            int rows = ps.executeUpdate();
            System.out.println("Deleted " + rows + " student(s).");
        }
    }

    // Display Students
    public static void displayStudents(Connection con) throws SQLException {
        String sql = "SELECT * FROM student";
        try (Statement stmt = con.createStatement();
             ResultSet rs = stmt.executeQuery(sql)) {
            System.out.println("\nID\tName\tEmail");
            System.out.println("----------------------------");
            while (rs.next()) {
                System.out.printf("%d\t%s\t%s%n", rs.getInt("id"), rs.getString("name"),
rs.getString("email"));
            }
        }
    }
}
```