NAME: Harsh Raj, **UID:** 22BCS11890, **GROUP/SECTION:** 619 - A

EXPERIMENT – 4 (Project Based Learning with Java)

CODE JAVA

```
package name;

import java.sql.*;

public class Mydb {
   private static final String URL = "jdbc:mysql://localhost:3306/amitdb";
   private static final String USER = "root";
   private static final String PASSWORD = "hraj72888@G";
   private Connection connection;



   public Mydb() {
      try {
         Class.forName("com.mysql.cj.jdbc.Driver");
         connection = DriverManager.getConnection(URL, USER, PASSWORD);
         System.out.println(" Database Connected Successfully!");
      } catch (ClassNotFoundException e) {
         System.err.println(" JDBC Driver not found! Add MySQL Connector JAR.");
      } catch (SQLException e) {
         System.err.println(" Connection failed! Check credentials. Error: " + e.getMessage());
      }
   }


   public void getAllEmployees() {
      String query = "SELECT * FROM employee";
      try (Statement stmt = connection.createStatement();
           ResultSet rs = stmt.executeQuery(query)) {
         System.out.println("\n Employee List:");
         while (rs.next()) {
```

```
            System.out.println("ID: " + rs.getInt("id") +
                               ", Name: " + rs.getString("name") +
                               ", Salary: " + rs.getDouble("salary"));
        }
    } catch (SQLException e) {
        System.err.println(" Error fetching employees: " + e.getMessage());
    }
}


public void addEmployee(int id,String name, double salary) {
    String query = "INSERT INTO employee (id,name, salary) VALUES (?,?, ?)";
    try (PreparedStatement stmt = connection.prepareStatement(query)) {
         stmt.setInt(1, id);
        stmt.setString(2, name);
        stmt.setDouble(3, salary);
        stmt.executeUpdate();
        System.out.println(" Employee added successfully: " + name);
    } catch (SQLException e) {
        System.err.println(" Error adding employee: " + e.getMessage());
    }
}


public void removeDuplicateEmployees() {
    String query = "DELETE e1 FROM employee e1 " +
                   "INNER JOIN employee e2 " +
                   "ON e1.name = e2.name AND e1.salary = e2.salary " +
                   "WHERE e1.id > e2.id";
    try (Statement stmt = connection.createStatement()) {
        int rowsDeleted = stmt.executeUpdate(query);
```

```
            System.out.println(" " + rowsDeleted + " duplicate records removed.");
        } catch (SQLException e) {
            System.err.println(" Error removing duplicates: " + e.getMessage());
        }
    }


    public void closeConnection() {
        if (connection != null) {
            try {
                connection.close();
                System.out.println(" Database Connection Closed.");
            } catch (SQLException e) {
                System.err.println(" Error closing connection: " + e.getMessage());
            }
        }
    }


    public static void main(String[] args) {
        Mydb db = new Mydb();



        db.addEmployee(107,"John1 Doe", 5000);
        db.addEmployee(108,"Krishna1", 6000);
        db.addEmployee(109,"Harsh1", 5500);
        db.addEmployee(110,"Sartha1k", 8000);
        db.addEmployee(160,"Aman1", 5200);
        db.addEmployee(140,"Krishna1", 6000);
```

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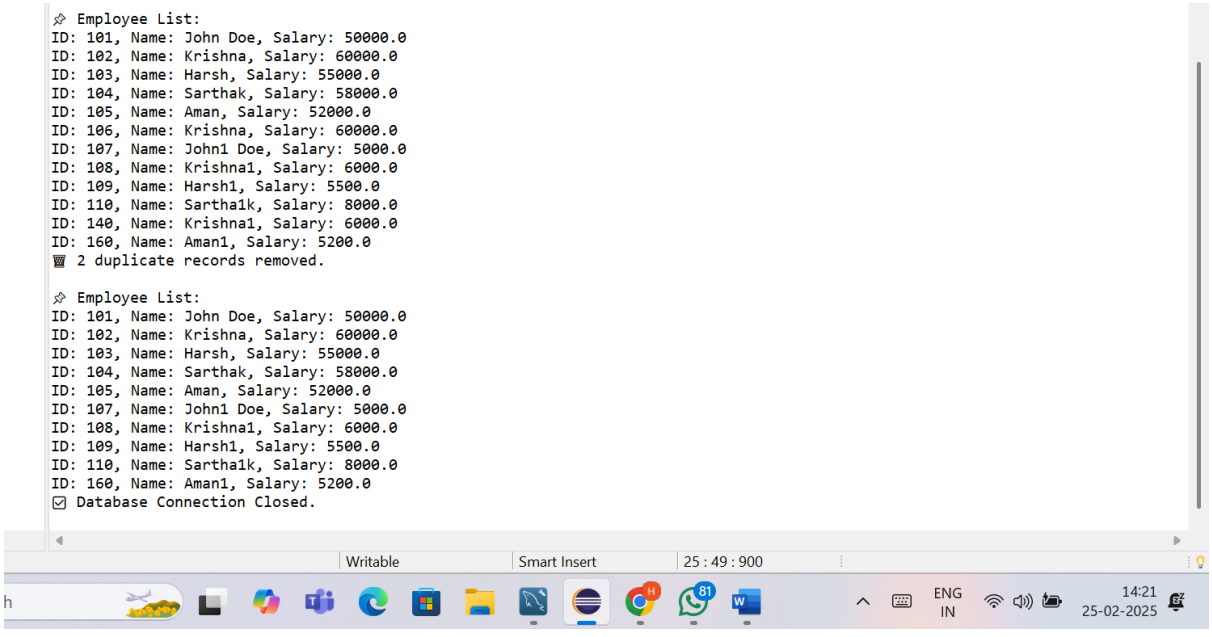
```
        db.getAllEmployees();


        db.removeDuplicateEmployees();


        db.getAllEmployees();


        db.closeConnection();
    }
}
```

OUTPUT



DATABASE

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