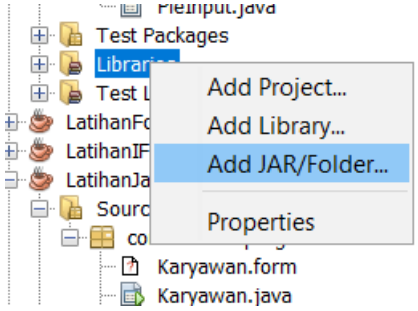
1. Buat database “diagramdata” dengan 2 tabel dengan struktur seperti dibawah

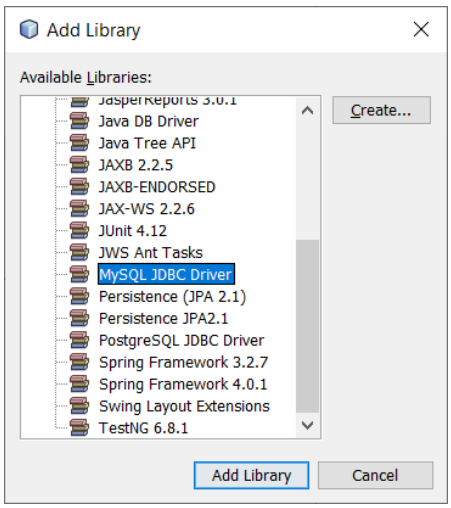
```
mysql> desc diagrambar;
+--------+---------+------+-----+---------+-------+
| Field  | Type    | Null | Key | Default | Extra |
+--------+---------+------+-----+---------+-------+
| nilai1 | int(11) | NO   |     | NULL    |       |
| nilai2 | int(11) | NO   |     | NULL    |       |
| nilai3 | int(11) | NO   |     | NULL    |       |
+--------+---------+------+-----+---------+-------+
3 rows in set (0.02 sec)
```

```
mysql> desc diagrampie;
+--------+---------+------+-----+---------+-------+
| Field  | Type    | Null | Key | Default | Extra |
+--------+---------+------+-----+---------+-------+
| nilai1 | int(11) | NO   |     | NULL    |       |
| nilai2 | int(11) | NO   |     | NULL    |       |
| nilai3 | int(11) | NO   |     | NULL    |       |
+--------+---------+------+-----+---------+-------+
3 rows in set (0.02 sec)
```

2. Buat project baru dengan nama “LatihanDiagram”
3. Tambahkan library dengan cara berikut :



4. Tambahkan juga library MySQL JDBC Driver



5. Buat class baru dengan nama “Koneksi” yang digunakan untuk koneksi ke database dan tambahkan coding berikut :

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package latihandiagram;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;

/**
 *
 * @author ikmse
 */
public class Koneksi {
    private static Connection con;
    public static Connection getKoneksi (){
        try {
            String url = "jdbc:mysql://localhost/diagramdata";
            String user = "root";
            String password = "";
            DriverManager.registerDriver(new com.mysql.jdbc.Driver());
            con = DriverManager.getConnection(url, user, password);
            System.out.println("koneksi sukses");
```

```
        } catch (SQLException t) {
            System.out.println("Error Membuat Koneksi");
        }
    return con;
    }
}
```

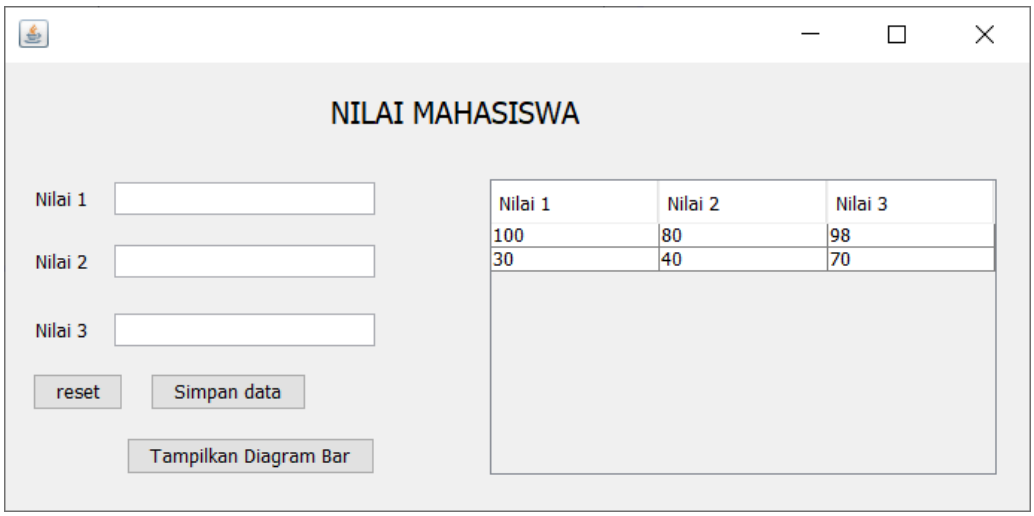
6. Buat class dengan nama “DiagramBar”. Tambahkan koding berikut :

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package latihandiagram;

/**
 *
 * @author ikmse
 */

import javax.swing.JFrame;
import javax.swing.SwingUtilities;
import javax.swing.UIManager;
import org.jfree.chart.ChartFactory;
import org.jfree.chart.ChartPanel;
import org.jfree.chart.JFreeChart;
import org.jfree.chart.plot.PlotOrientation;
import org.jfree.data.category.DefaultCategoryDataset;
import org.jfree.data.category.CategoryDataset;
import org.jfree.ui.ApplicationFrame;
import org.jfree.ui.RefineryUtilities;

public class DiagramBar extends JFrame {
    double n1=0, n2=0, n3=0;
    public void setNilai(String nilai1, String nilai2, String nilai3) {
        try {
              n1 = Double.parseDouble(nilai1);
            } catch (NumberFormatException ex){
        }
        try {
              n2 = Double.parseDouble(nilai2);
            } catch (NumberFormatException ex){
```

```
    }
    try {
          n3 = Double.parseDouble(nilai3);
        } catch (NumberFormatException ex){
        }

        String chartTitle = null;
        this.setSize(600, 400);
        this.setTitle("Report Diagram Bar");
        this.setLocationRelativeTo(null);
        this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

        JFreeChart barChart = ChartFactory.createBarChart(
        chartTitle,
        "Nilai",
        "Frekuensi",
        createDataset(),
        PlotOrientation.VERTICAL,
        true, true, true);
        ChartPanel chartPanel = new ChartPanel ( barChart );
        chartPanel.setPreferredSize(new java.awt.Dimension( 800 , 370 ) );
        setContentPane ( chartPanel );
    }

private CategoryDataset createDataset() {
    final DefaultCategoryDataset dataset =
    new DefaultCategoryDataset();
    dataset.setValue(n1, "Nilai 1" , "");
    dataset.setValue(n2, "Nilai 2" , "");
    dataset.setValue(n3, "Nilai 3" , "");
    return dataset;
}

public static void main (String args[]){
    try {
        UIManager.setLookAndFeel(UIManager.getSystemLookAndFeelClassName());
        } catch (Exception e) {
        }

    SwingUtilities.invokeLater(new Runnable() {
    @Override
    public void run() {
        BarInput bi = new BarInput();
```

```
            bi.setVisible(true);
        }
        });
    }
}
```

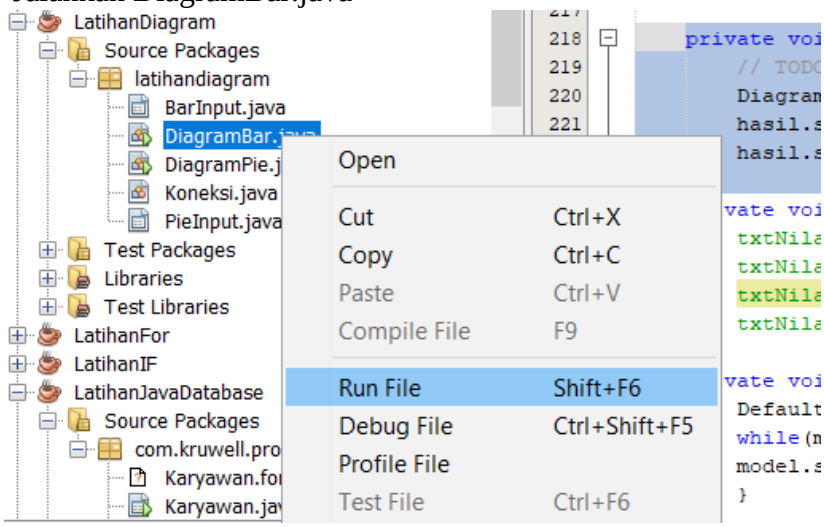
7. Buatlah JFrame Form dengan nama “BarInput” untuk input Nilai 1, 2, dan 3 dengan tampilan seperti berikut :



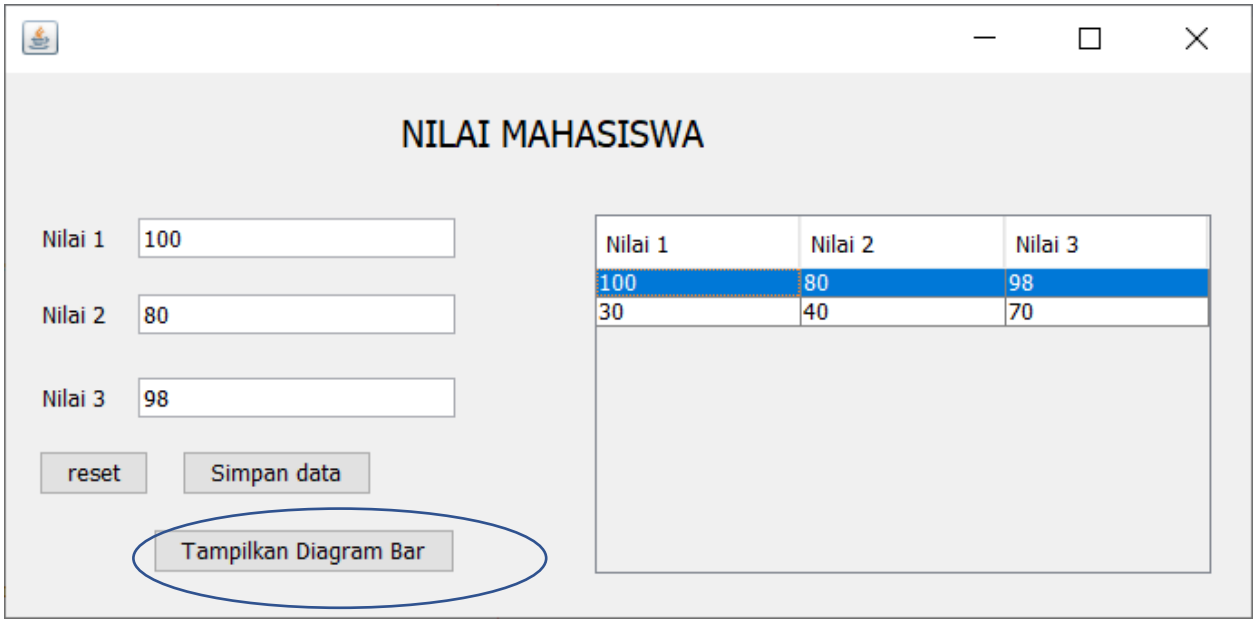
Untuk koding simpan data, menampilkan data di tabel dan menampilkan data di text field dengan melakukan klik tabel, silahkan lihat materi sebelumnya.
Untuk menampilkan diagram bar, klik dua kali di button “tampilkan diagram bar” dan tambahkan koding berikut :

```
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        DiagramBar hasil = new DiagramBar();
        hasil.setNilai(txtNilai1.getText(), txtNilai2.getText(), txtNilai3.getText());
        hasil.setVisible(true);
    }
```

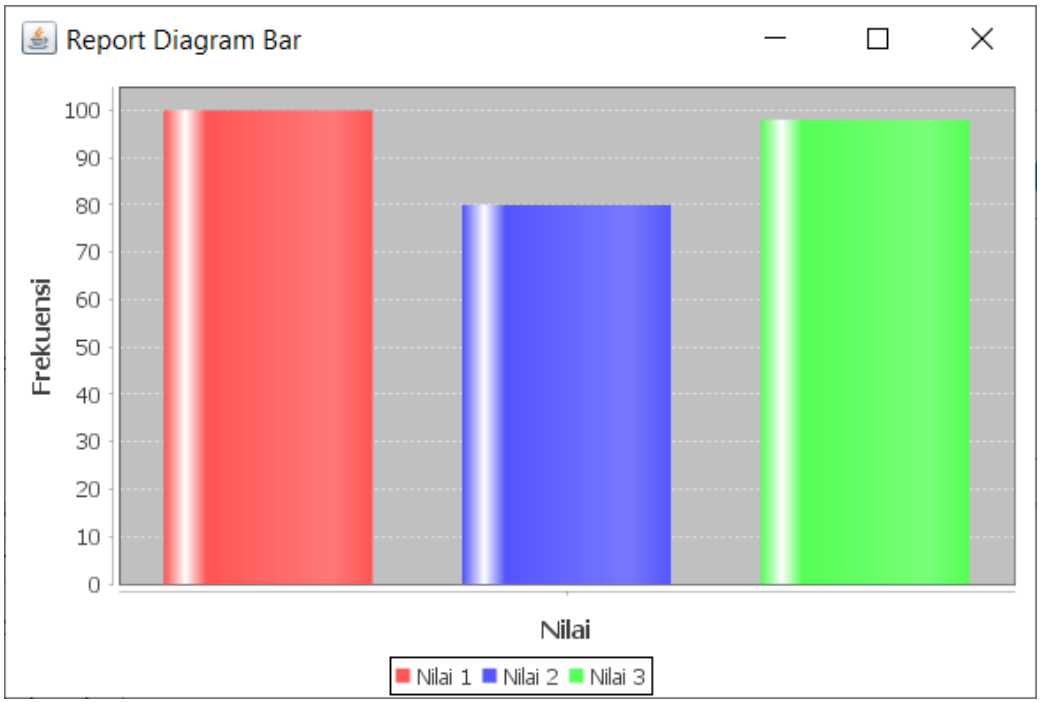
8. Jalankan DiagramBar.java



Inputkan data nilai dan simpan. Setelah itu klik salah satu di record tabel dan klik button "tampilkan diagram bar"



Akan muncul tampilan seperti berikut:



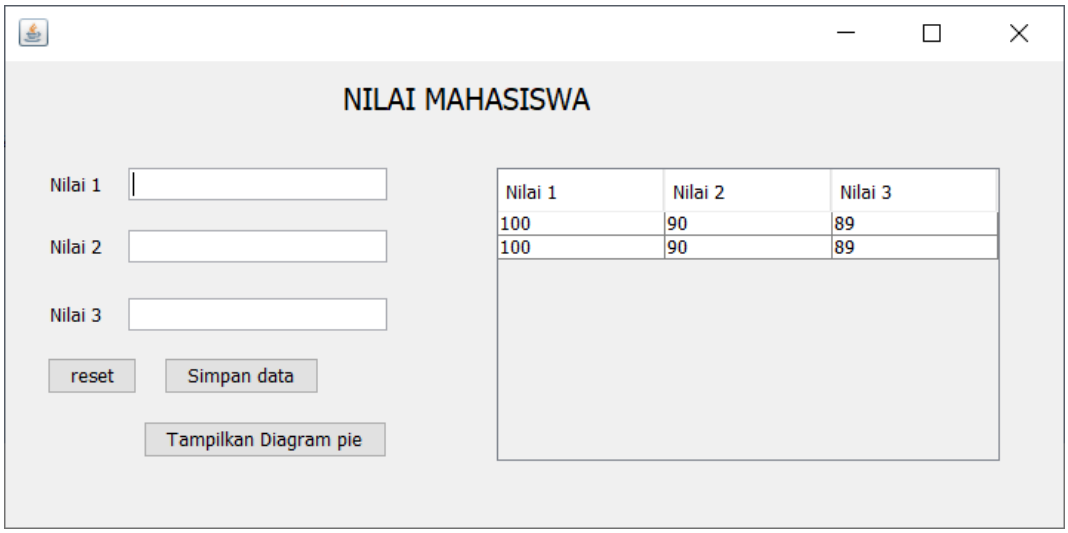
9. Kita buat diagram pie yang caranya sama seperti sebelumnya yaitu buat class dengan nama "DiagramDie" dan tambahkan koding berikut:

```
/*
 * To change this license header, choose License Headers in Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package latihandiagram;

import java.awt.GridLayout;
import javax.swing.JFrame;
import javax.swing.JPanel;
import javax.swing.SwingUtilities;
import javax.swing.UIManager;
import org.jfree.chart.ChartFactory;
import org.jfree.chart.ChartPanel;
import org.jfree.chart.JFreeChart;
import org.jfree.chart.plot.PiePlot3D;
import org.jfree.data.general.DefaultPieDataset;
import org.jfree.data.general.PieDataset;
import org.jfree.util.Rotation;
/**
```

```
 *
 * @author ikmse
 */
public class DiagramPie extends JFrame{
    double n1=0, n2=0, n3=0;
    public void setNilai(String nilai1, String nilai2, String nilai3) {

        try {
            n1 = Double.parseDouble(nilai1);
        } catch (NumberFormatException ex){
        }
        try {
            n2 = Double.parseDouble(nilai2);
        } catch (NumberFormatException ex){
        }
        try {
            n3 = Double.parseDouble(nilai3);
        } catch (NumberFormatException ex){
        }
        this.setSize(600, 400);
        this.setTitle("Diagram PIE");
        this.setLocationRelativeTo(null);
        this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

        //membuat diagram/chart jfreechart
        //membuat/mengkalkulasikan data chart
        PieDataset dataset = buildData();
        //membuat chart bedasarkan data yang ada pada dataset
        JFreeChart chart = buildChart(dataset, "Data dari Grafik Input");
        //membuat JPANEL untuk INPUT diagram PIE
        JPanel pane = new JPanel(new GridLayout(1,1));
        //menambahkan CHART 1 dan 2 ke PANEL
        pane.add(new ChartPanel(chart));
        //memasukkan chart panel ke dalam jpanel
        this.setContentPane(pane);
    }

    private JFreeChart buildChart(PieDataset dataset, String judul) {
        JFreeChart chart = ChartFactory.createPieChart3D(judul, //Judul Chart
        dataset, //data chart yang akan ditampilkan
        true, //jika iya maka chart/diagram akan ditampilkan
        true,
        false);
```

```
        PiePlot3D plot = (PiePlot3D) chart.getPlot();
        plot.setStartAngle(290);
        plot.setDirection(Rotation.CLOCKWISE);
        plot.setForegroundAlpha(0.5f);
        return chart;
    }

    private PieDataset buildData() {
        DefaultPieDataset dataSet = new DefaultPieDataset();
        dataSet.setValue("Nilai 1", n1);
        dataSet.setValue("Nilai 2", n2);
        dataSet.setValue("Nilai 3", n3);

        return dataSet;
    }

    public static void main(String[] args) {
        try {
            UIManager.setLookAndFeel(UIManager.getSystemLookAndFeelClassName());
        } catch (Exception e) {
        }

        SwingUtilities.invokeLater(new Runnable() {
        @Override
        public void run() {
            new PieInput().setVisible(true);
        }
        });
    }
}
```

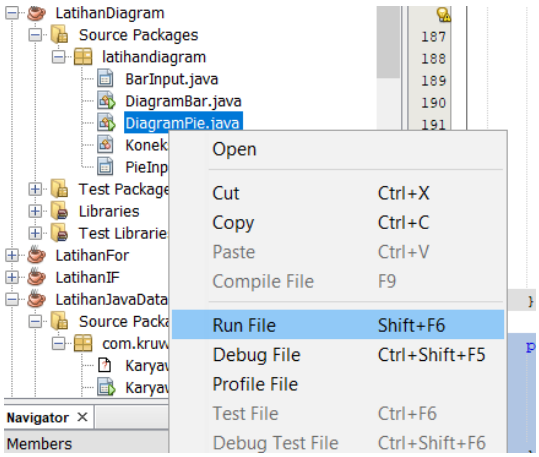
10. Buatlah JFrame Form dengan nama “PieInput” untuk input Nilai 1, 2, dan 3 dengan tampilan seperti berikut :



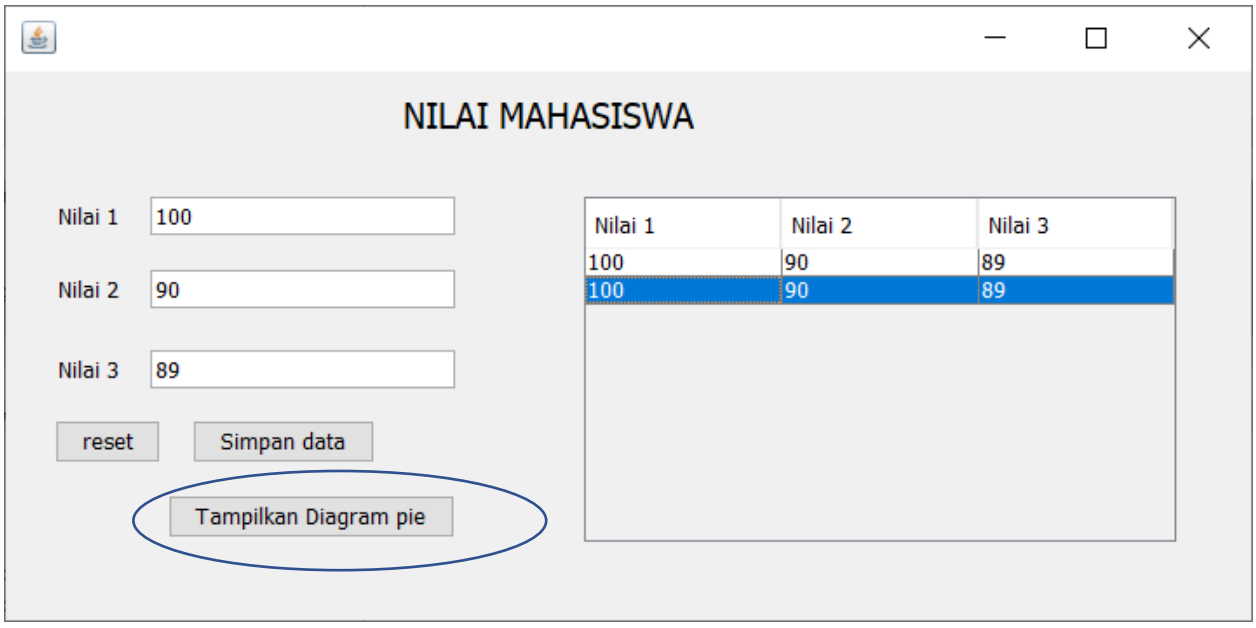
Untuk koding simpan data, menampilkan data di tabel dan menampilkan data di text field dengan melakukan klik tabel, silahkan lihat materi sebelumnya.
Untuk menampilkan diagram pie, klik dua kali di button “tampilkan diagram pie” dan tambahkan koding berikut :

```
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    DiagramPie hasil = new DiagramPie();
    hasil.setNilai(txtNilai1.getText(), txtNilai2.getText(), txtNilai3.getText());
    hasil.setVisible(true);
}
```

11. Jalankan DiagramPie.java



Inputkan data nilai dan simpan. Setelah itu klik salah satu di record tabel dan klik button “tampilkan diagram pie”



Akan muncul tampilan seperti berikut: