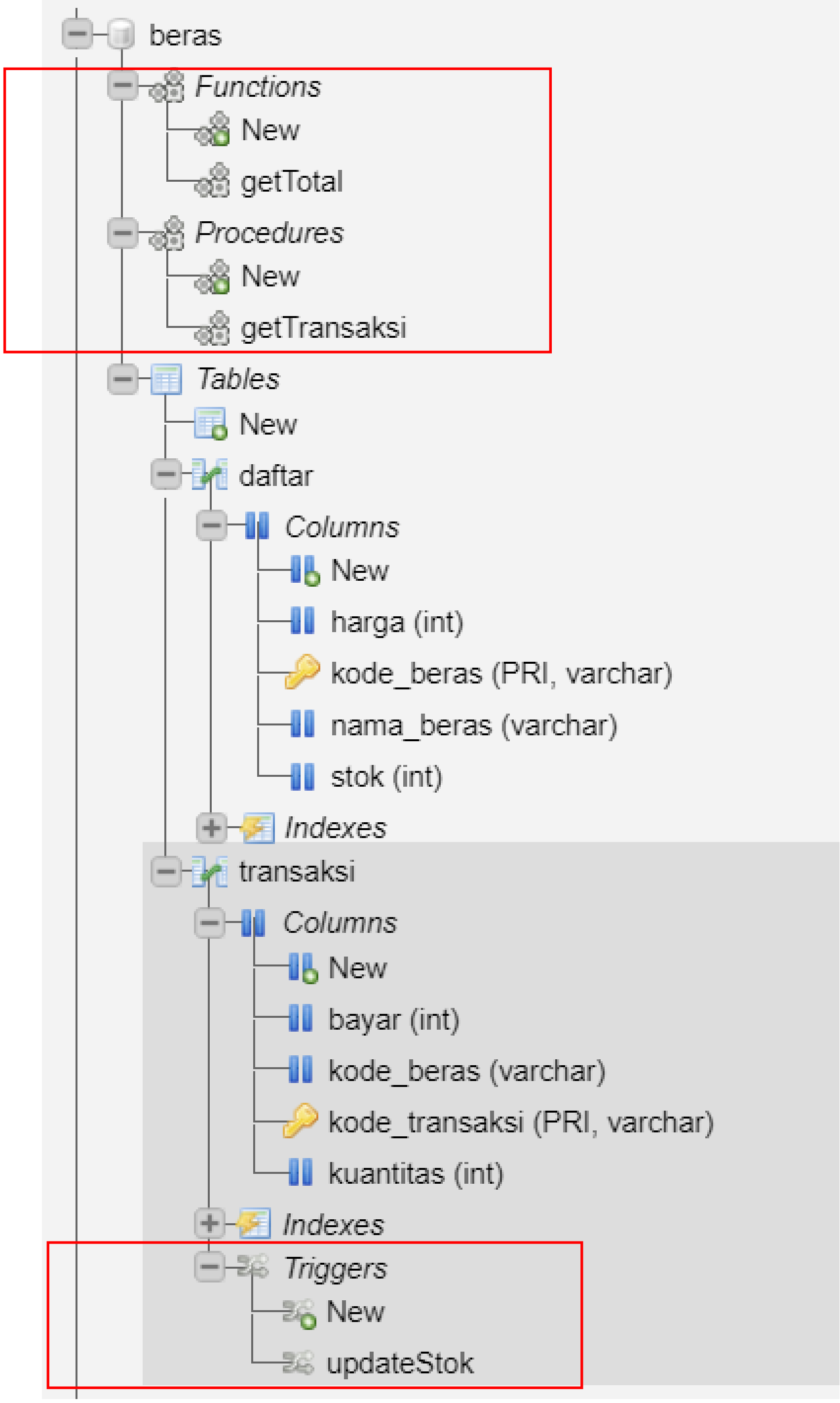
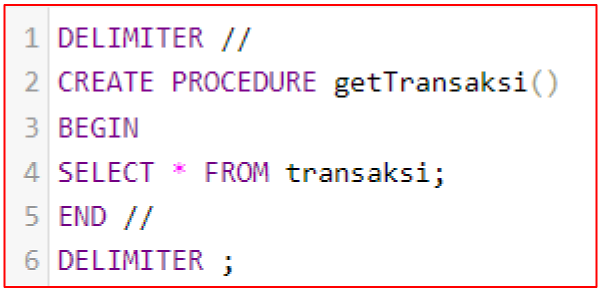
- Catatan: yang kotak merah adalah tambahan / perbaikan dari modul sebelumnya
  Yang belum mengerjakan modul sebelumnya, abaikan kotak merah

Database:



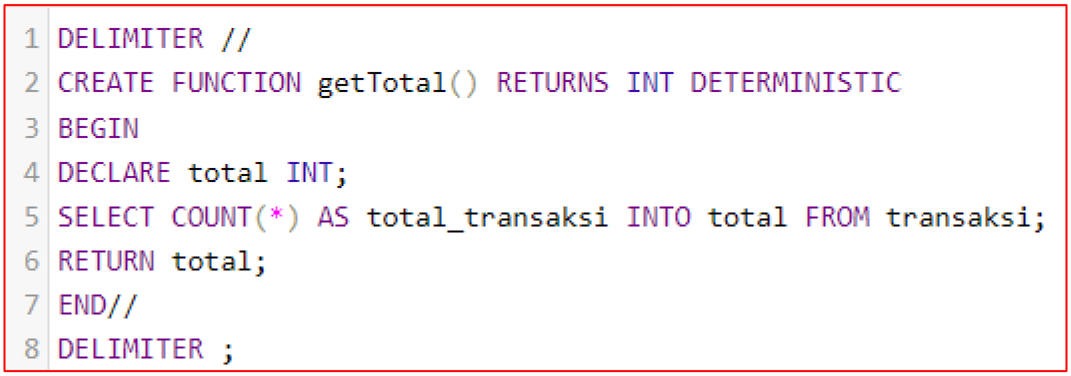
- beras
  - *Functions*
    - New
    - getTotal
  - *Procedures*
    - New
    - getTransaksi
  - *Tables*
    - New
    - daftar
      - *Columns*
        - New
        - harga (int)
        - kode_beras (PRI, varchar)
        - nama_beras (varchar)
        - stok (int)
      - *Indexes*
    - transaksi
      - *Columns*
        - New
        - bayar (int)
        - kode_beras (varchar)
        - kode_transaksi (PRI, varchar)
        - kuantitas (int)
      - *Indexes*
      - *Triggers*
        - New
        - updateStok

Stored procedure:



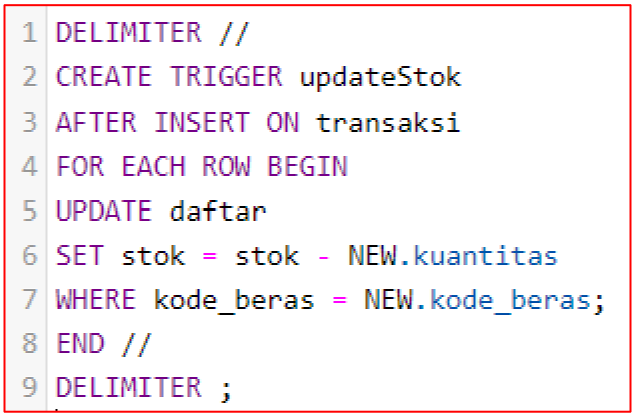
```
DELIMITER //
CREATE PROCEDURE getTransaksi()
BEGIN
SELECT * FROM transaksi;
END //
DELIMITER ;
```

Function



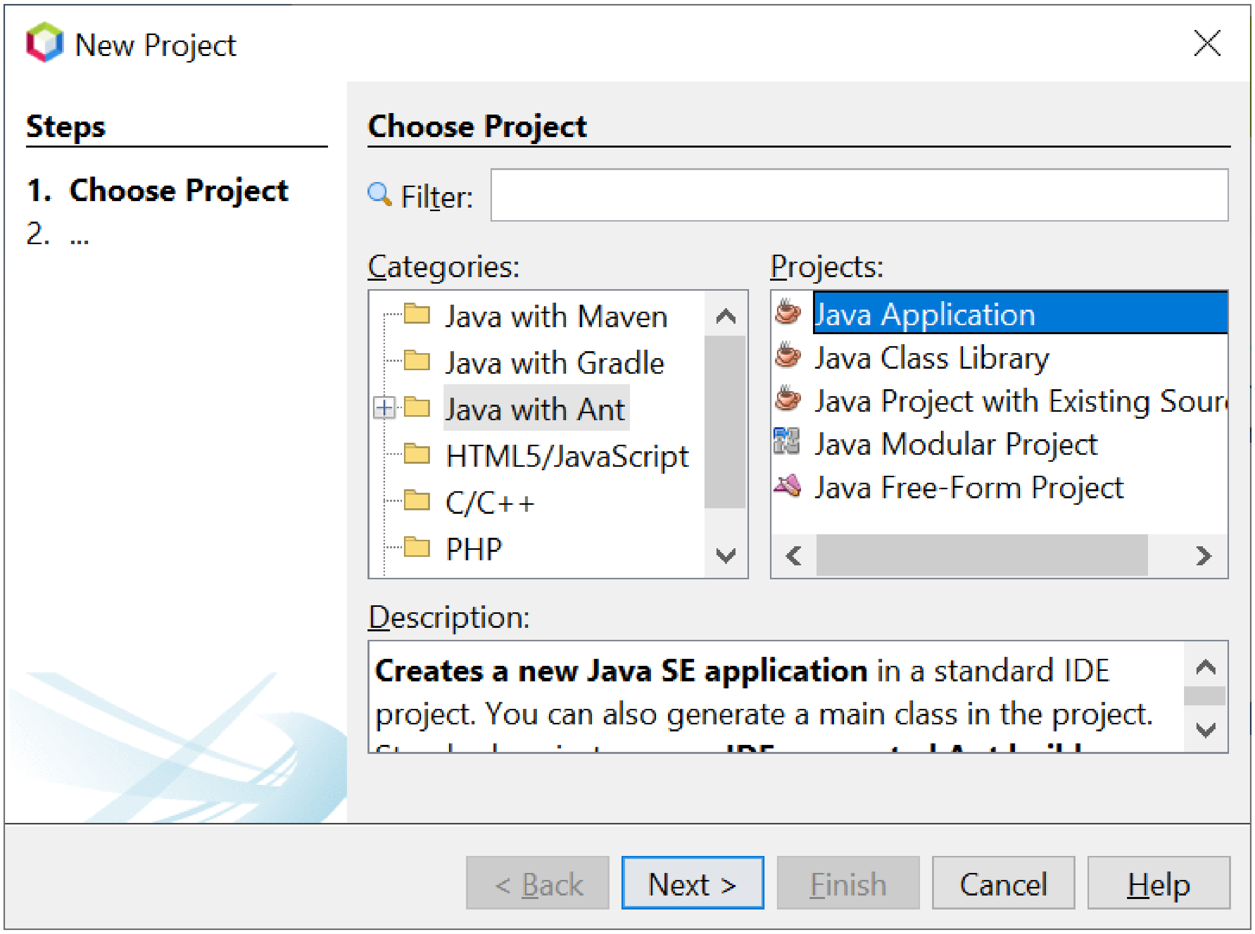
```
DELIMITER //
CREATE FUNCTION getTotal() RETURNS INT DETERMINISTIC
BEGIN
DECLARE total INT;
SELECT COUNT(*) AS total_transaksi INTO total FROM transaksi;
RETURN total;
END//
DELIMITER ;
```

Trigger:



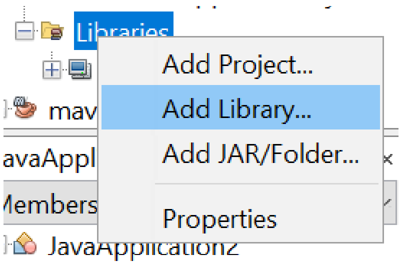
```
DELIMITER //
CREATE TRIGGER updateStok
AFTER INSERT ON transaksi
FOR EACH ROW BEGIN
UPDATE daftar
SET stok = stok - NEW.kuantitas
WHERE kode_beras = NEW.kode_beras;
END //
DELIMITER ;
```

Buat project baru dengan cara klik File – New Project – Java with Ant – Java Application – klik Next – klik Finish

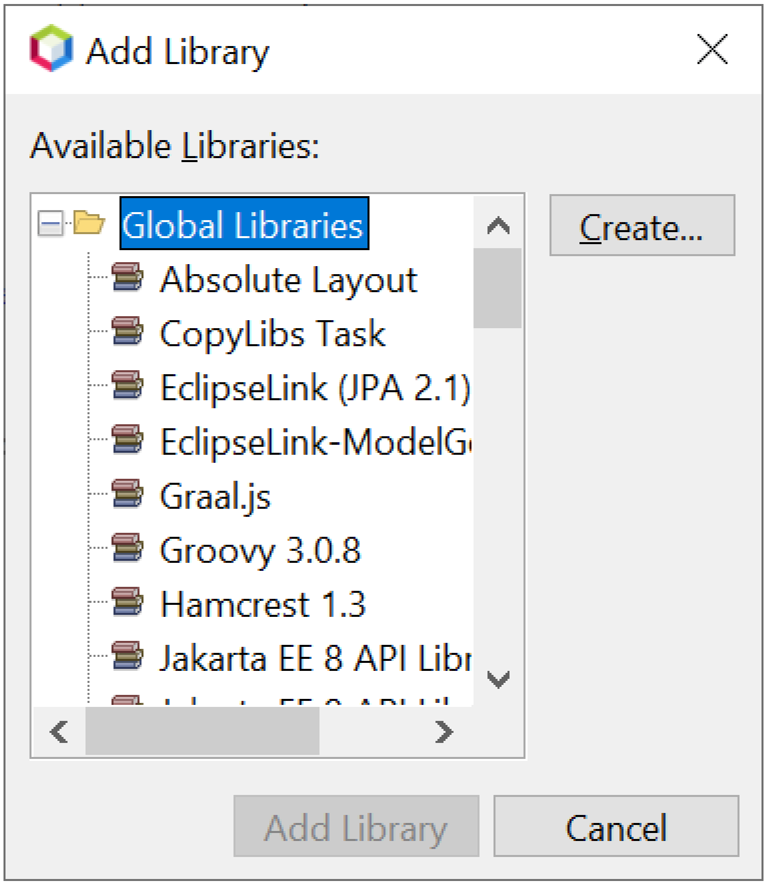


Creates a new Java SE application in a standard IDE project. You can also generate a main class in the project.

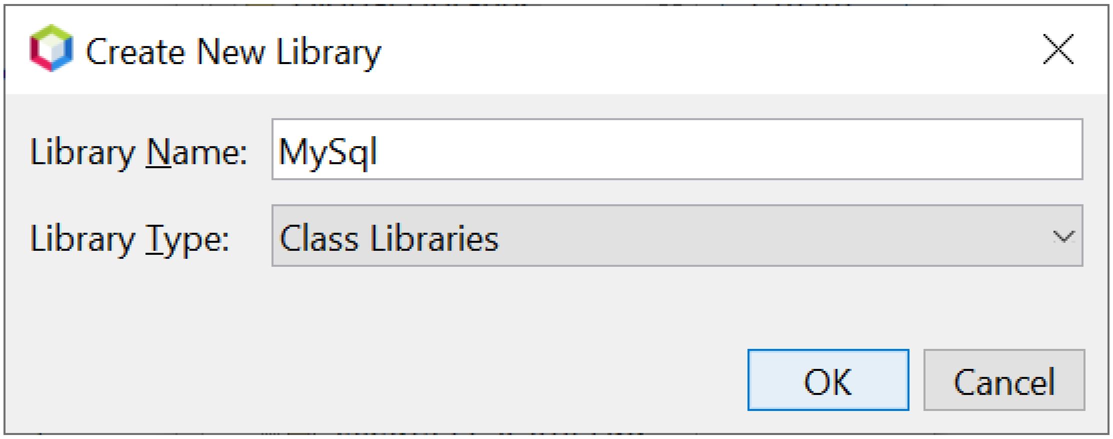
Tambahkan library, klik kanan Library – Add Library



Klik Create



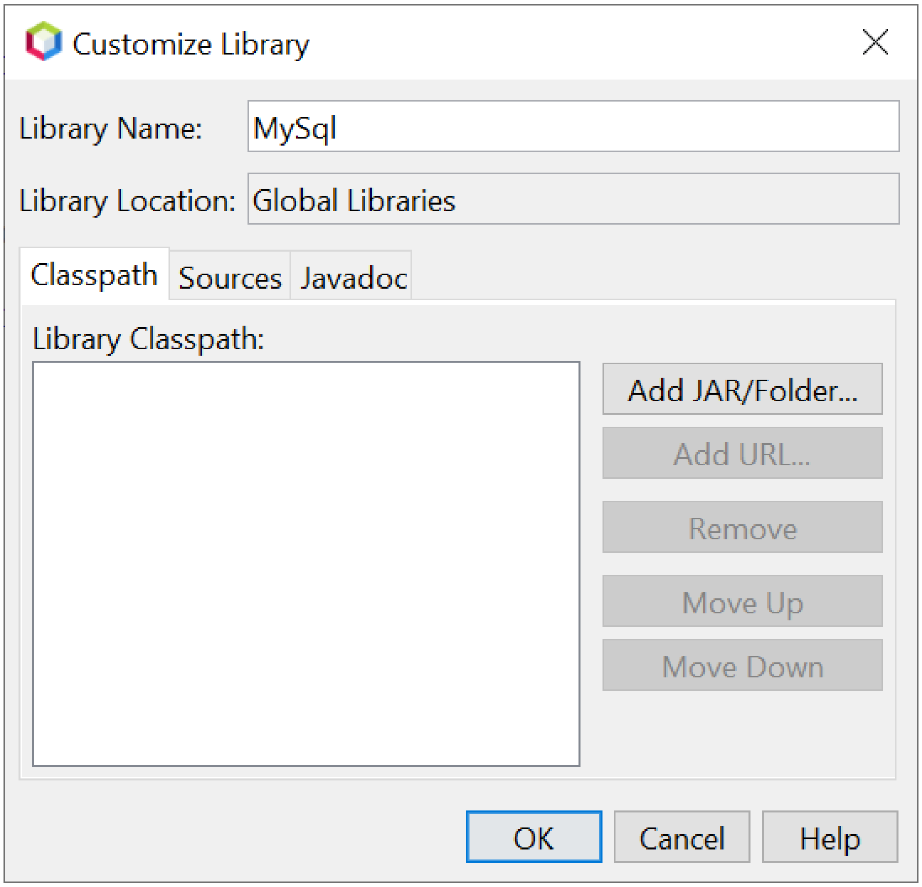
Ubah Library Name menjadi MySql - Ok



Library Name: MySql

Library Type: Class Libraries

Klik Add JAR/Folder

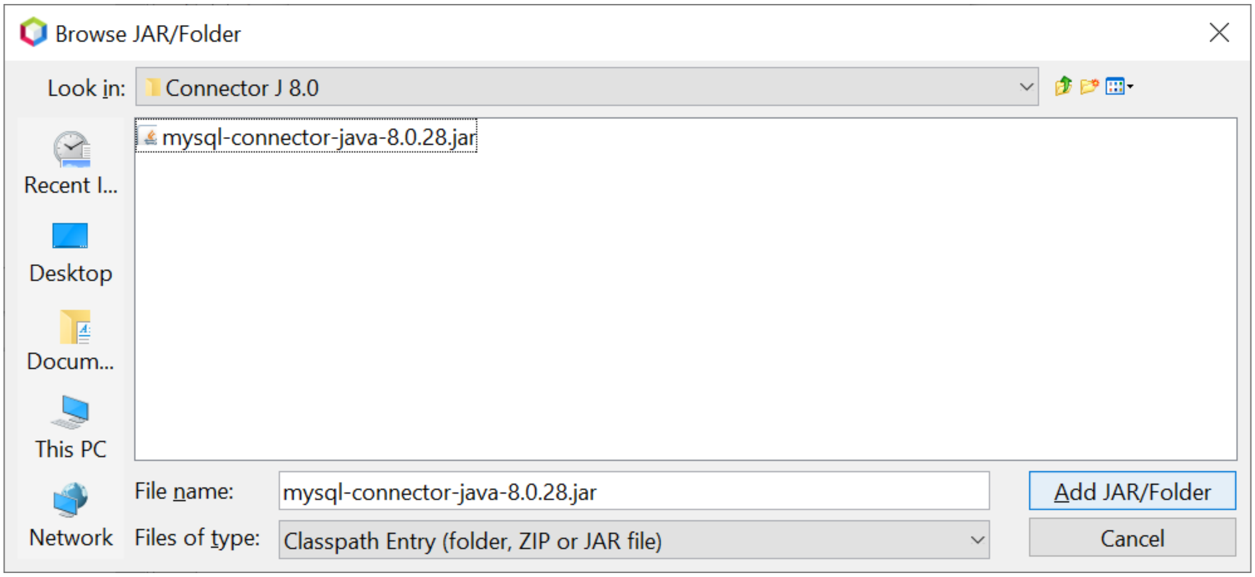


Customize Library

Library Name: MySql

Library Location: Global Libraries

Tambahkan file mysql-connector-java-8.0.28.jar yang tersimpan di C:\Program Files (x86)\MySQL\Connector J 8.0



Browse JAR/Folder

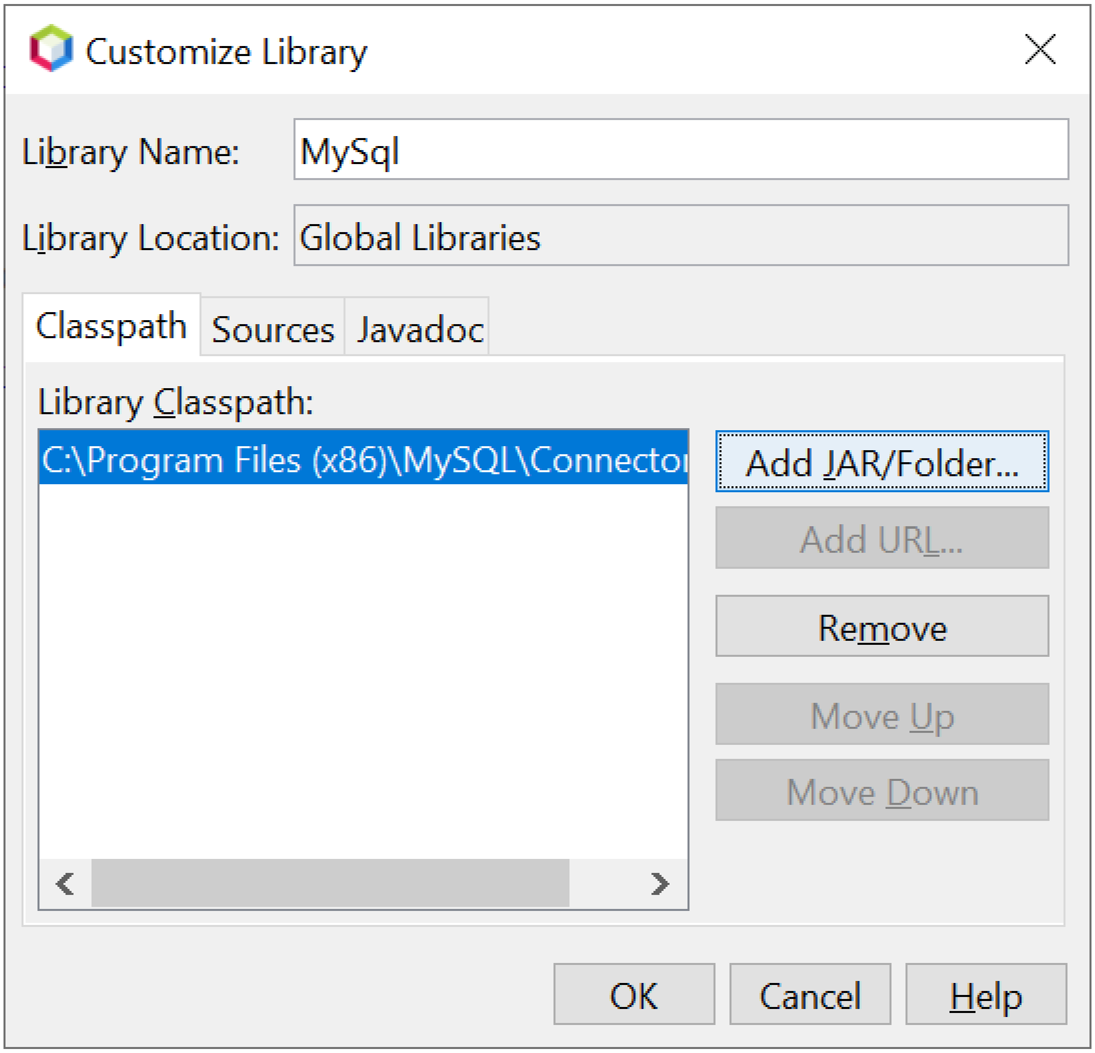
Look in: Connector J 8.0

mysql-connector-java-8.0.28.jar

File name: mysql-connector-java-8.0.28.jar

Files of type: Classpath Entry (folder, ZIP or JAR file)

Klik OK



Customize Library

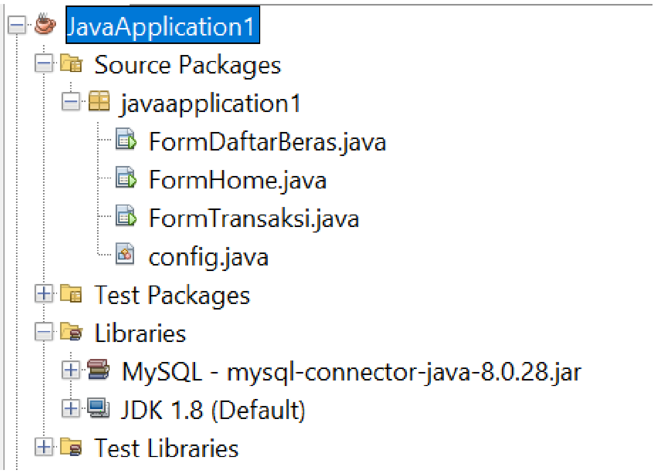
Library Name: MySql

Library Location: Global Libraries

Library Classpath:

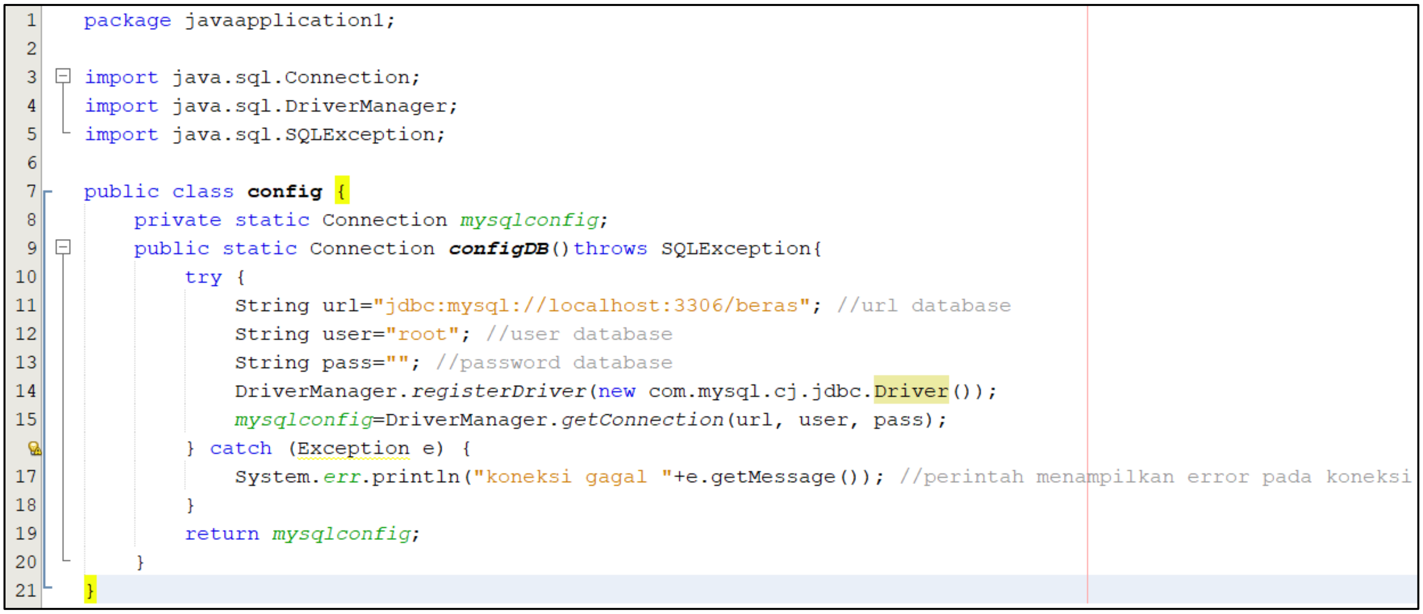
C:\Program Files (x86)\MySQL\Connector

Project:



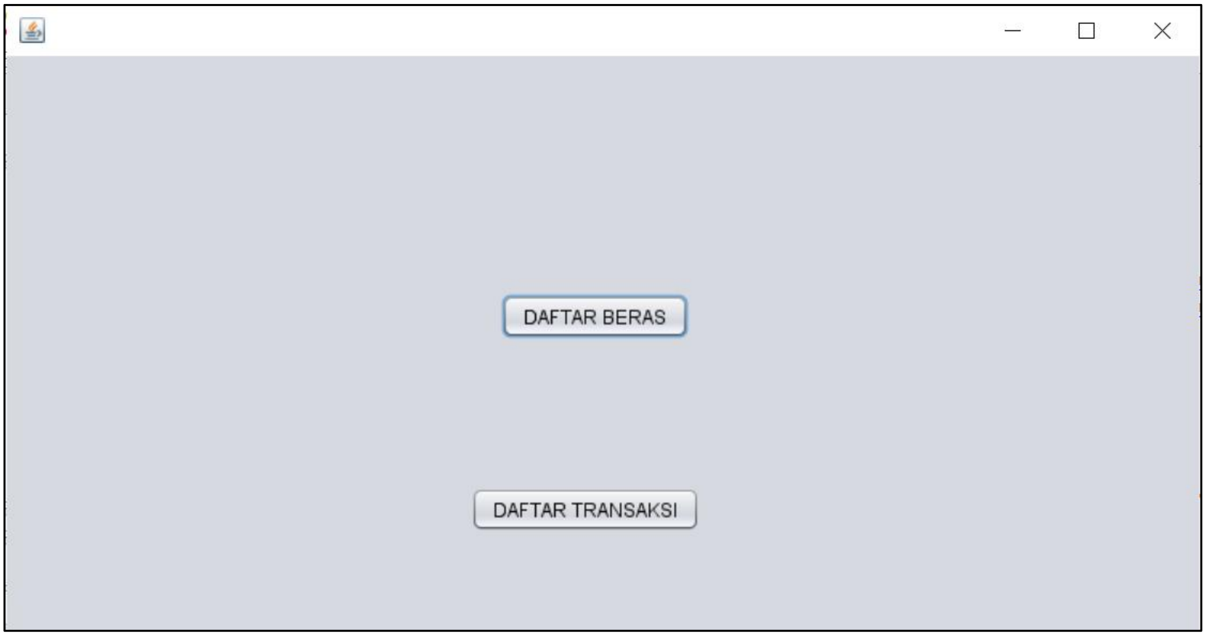
JavaApplication1
Source Packages
javaapplication1
FormDaftarBeras.java
FormHome.java
FormTransaksi.java
config.java
Test Packages
Libraries
MySQL - mysql-connector-java-8.0.28.jar
JDK 1.8 (Default)
Test Libraries

Config.java

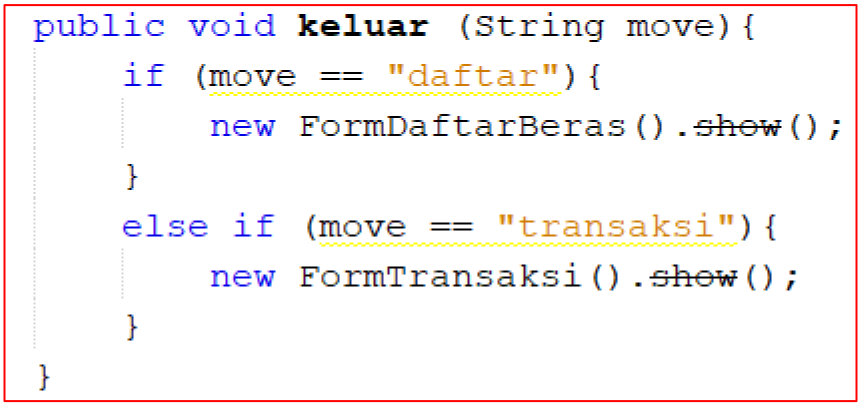


```
package javaapplication1;

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

public class config {
    private static Connection mysqlconfig;
    public static Connection configDB()throws SQLException{
        try {
            String url="jdbc:mysql://localhost:3306/beras"; //url database
            String user="root"; //user database
            String pass=""; //password database
            DriverManager.registerDriver(new com.mysql.cj.jdbc.Driver());
            mysqlconfig=DriverManager.getConnection(url, user, pass);
        } catch (Exception e) {
            System.err.println("koneksi gagal "+e.getMessage()); //perintah menampilkan error pada koneksi
        }
        return mysqlconfig;
    }
}
```

FormHome

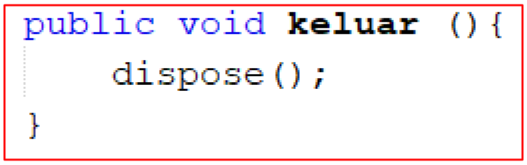


keluar (String move)



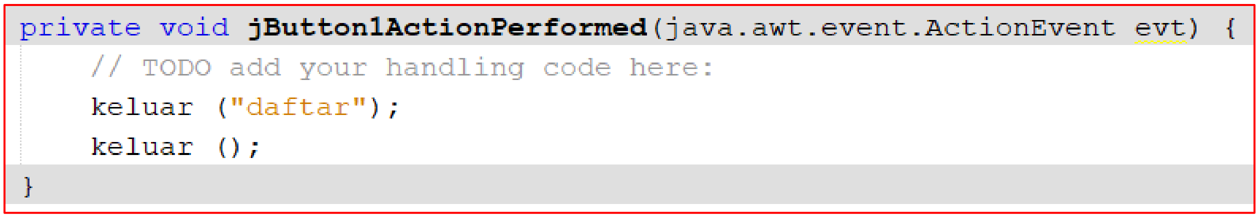
```
public void keluar (String move){
    if (move == "daftar"){
        new FormDaftarBeras().~~show~~();
    }
    else if (move == "transaksi"){
        new FormTransaksi().~~show~~();
    }
}
```

keluar()



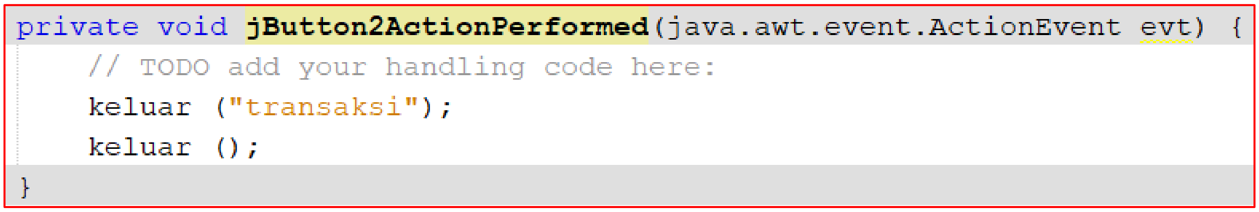
```
public void keluar (){
    dispose();
}
```

Button “DAFTAR BERAS” on click



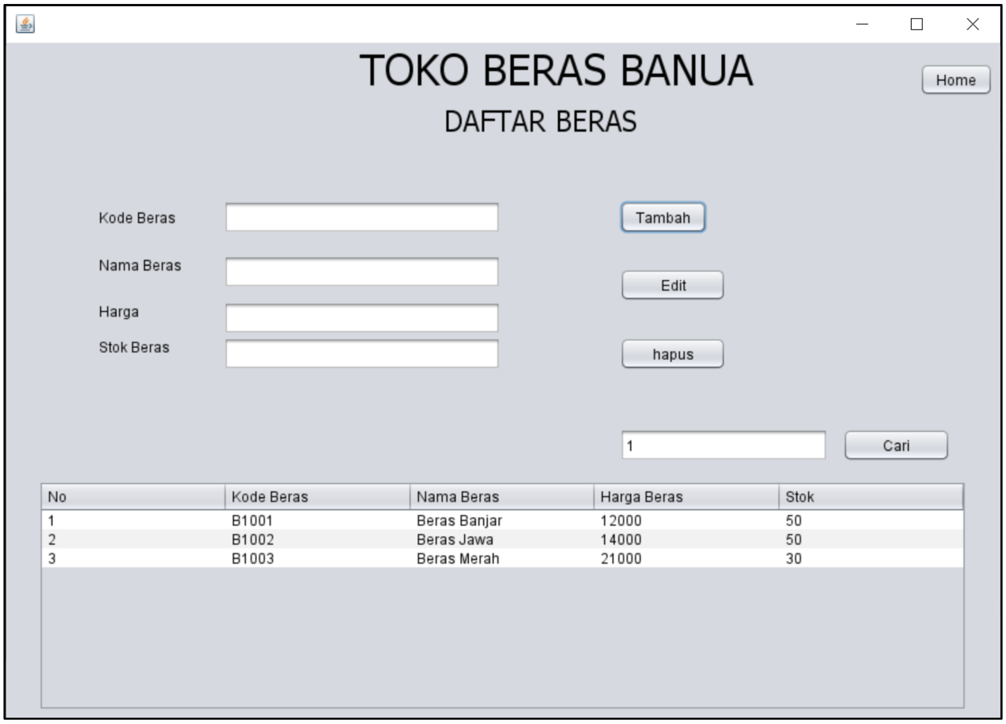
```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    keluar ("daftar");
    keluar ();
}
```

Button “DAFTAR TRANSAKSI”

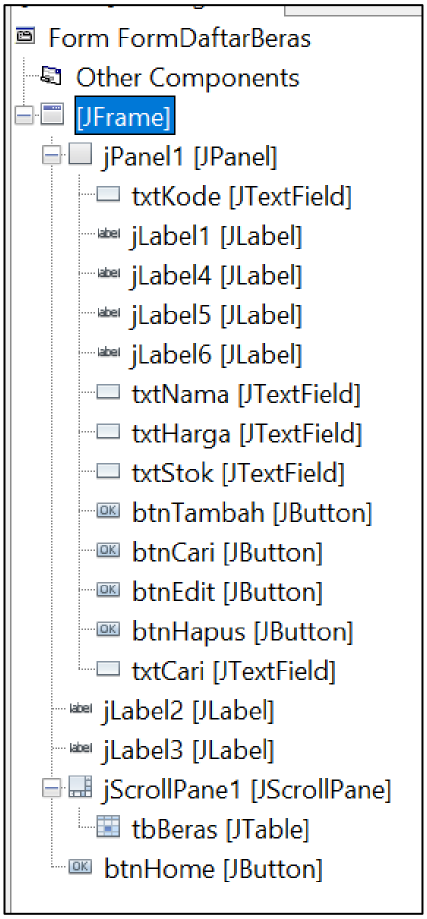


```
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    keluar ("transaksi");
    keluar ();
}
```

Form Daftar beras

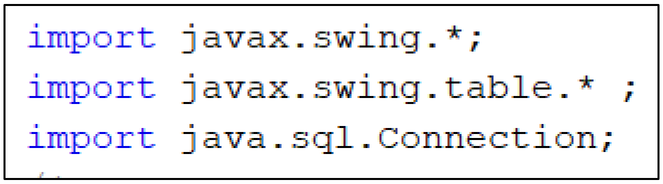


No	Kode Beras	Nama Beras	Harga Beras	Stok
1	B1001	Beras Banjar	12000	50
2	B1002	Beras Jawa	14000	50
3	B1003	Beras Merah	21000	30



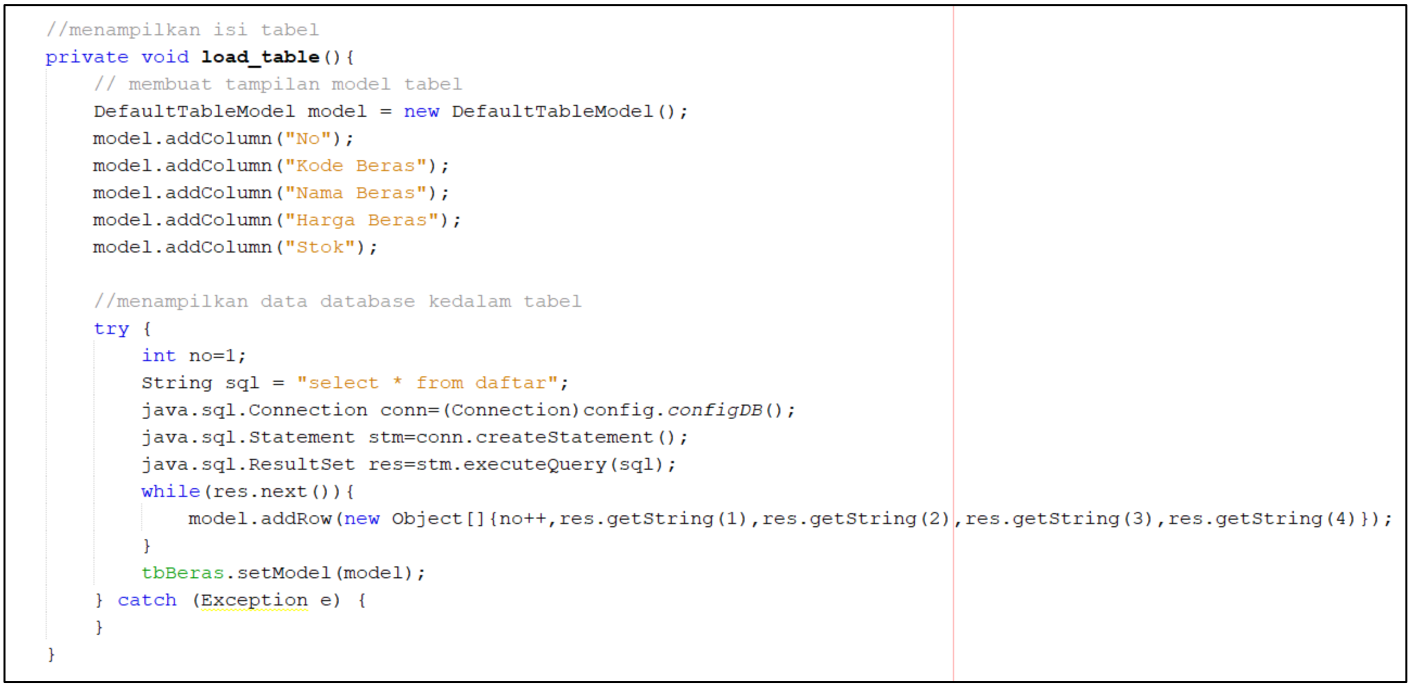
```
Form FormDaftarBeras
  Other Components
[JFrame]
  jPanel1 [JPanel]
    txtKode [JTextField]
    jLabel1 [JLabel]
    jLabel4 [JLabel]
    jLabel5 [JLabel]
    jLabel6 [JLabel]
    txtNama [JTextField]
    txtHarga [JTextField]
    txtStok [JTextField]
    btnTambah [JButton]
    btnCari [JButton]
    btnEdit [JButton]
    btnHapus [JButton]
    txtCari [JTextField]
  jLabel2 [JLabel]
  jLabel3 [JLabel]
  jScrollPane1 [JScrollPane]
    tbBeras [JTable]
  btnHome [JButton]
```

Import:



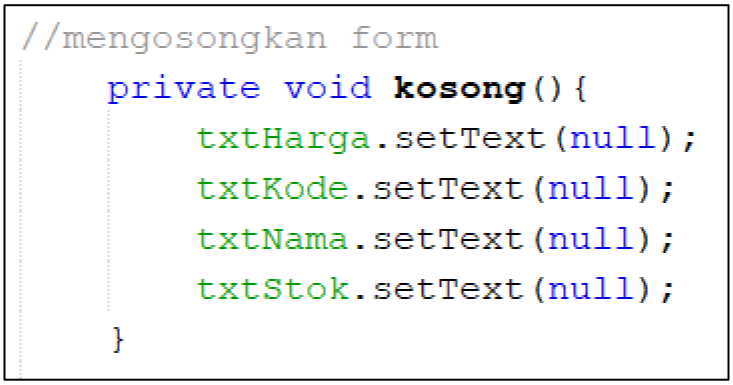
```
import javax.swing.*;
import javax.swing.table.* ;
import java.sql.Connection;
```

Method load_table()



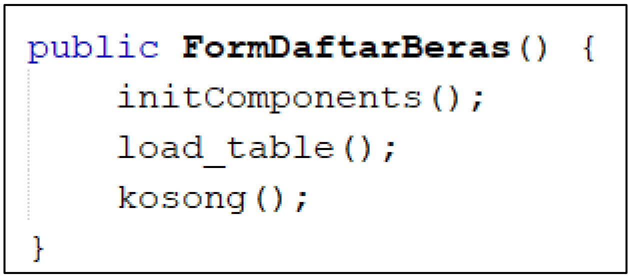
```
//menampilkan isi tabel
private void load_table(){
    // membuat tampilan model tabel
    DefaultTableModel model = new DefaultTableModel();
    model.addColumn("No");
    model.addColumn("Kode Beras");
    model.addColumn("Nama Beras");
    model.addColumn("Harga Beras");
    model.addColumn("Stok");

    //menampilkan data database kedalam tabel
    try {
        int no=1;
        String sql = "select * from daftar";
        java.sql.Connection conn=(Connection)config.configDB();
        java.sql.Statement stm=conn.createStatement();
        java.sql.ResultSet res=stm.executeQuery(sql);
        while(res.next()){
            model.addRow(new Object[]{no++,res.getString(1),res.getString(2),res.getString(3),res.getString(4)});
        }
        tbBeras.setModel(model);
    } catch (Exception e) {
    }
}
```

Method kosong()



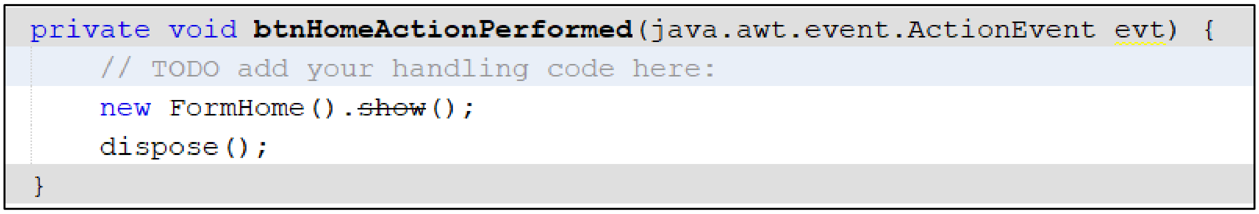
```
//mengosongkan form
    private void kosong(){
        txtHarga.setText(null);
        txtKode.setText(null);
        txtNama.setText(null);
        txtStok.setText(null);
    }
```

Memanggil load_table() dan kosong() ke dalam form



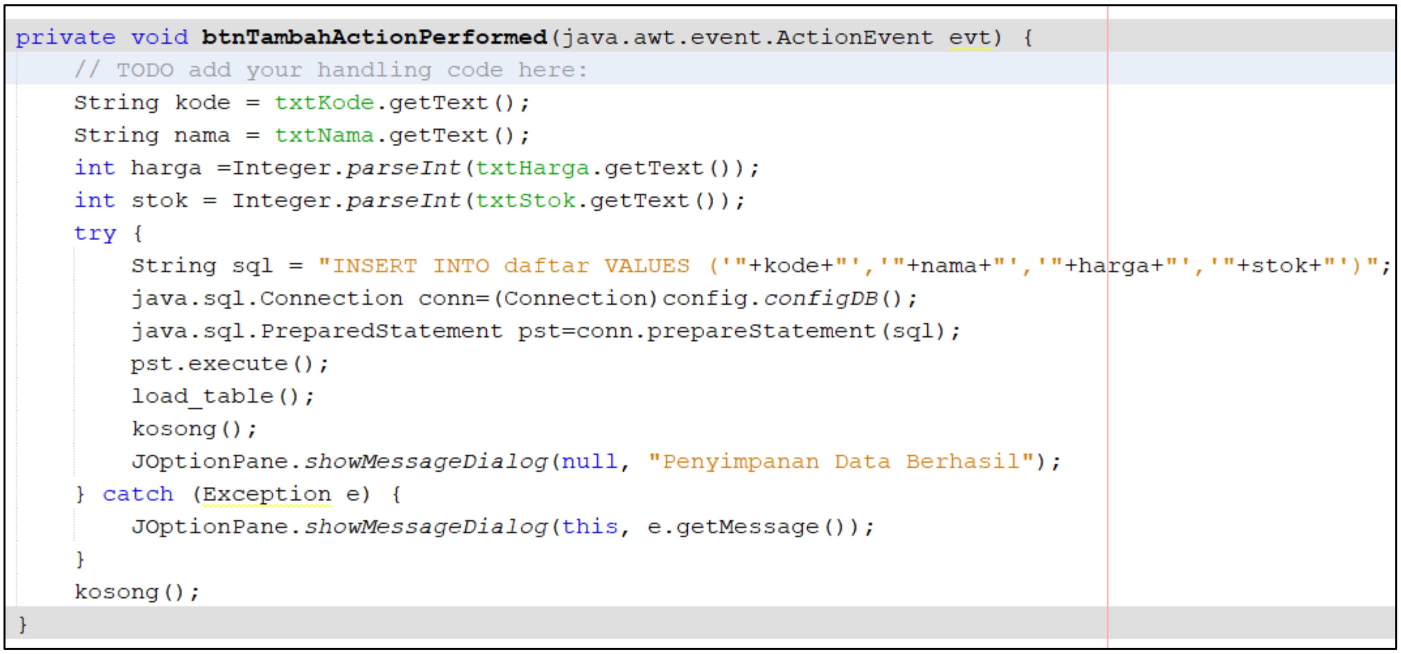
```
public FormDaftarBeras() {
    initComponents();
    load_table();
    kosong();
}
```

Button Home:



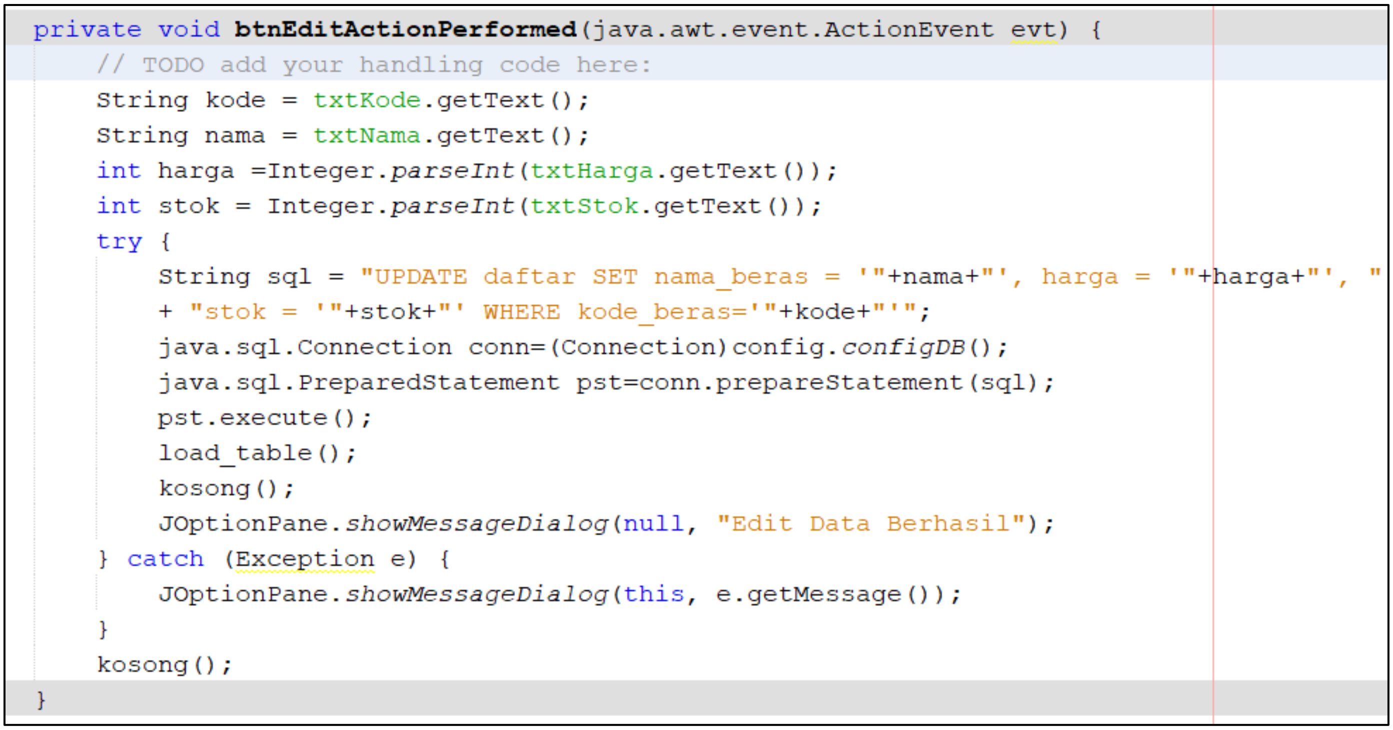
```
private void btnHomeActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    new FormHome().~~show~~();
    dispose();
}
```

Button Tambah



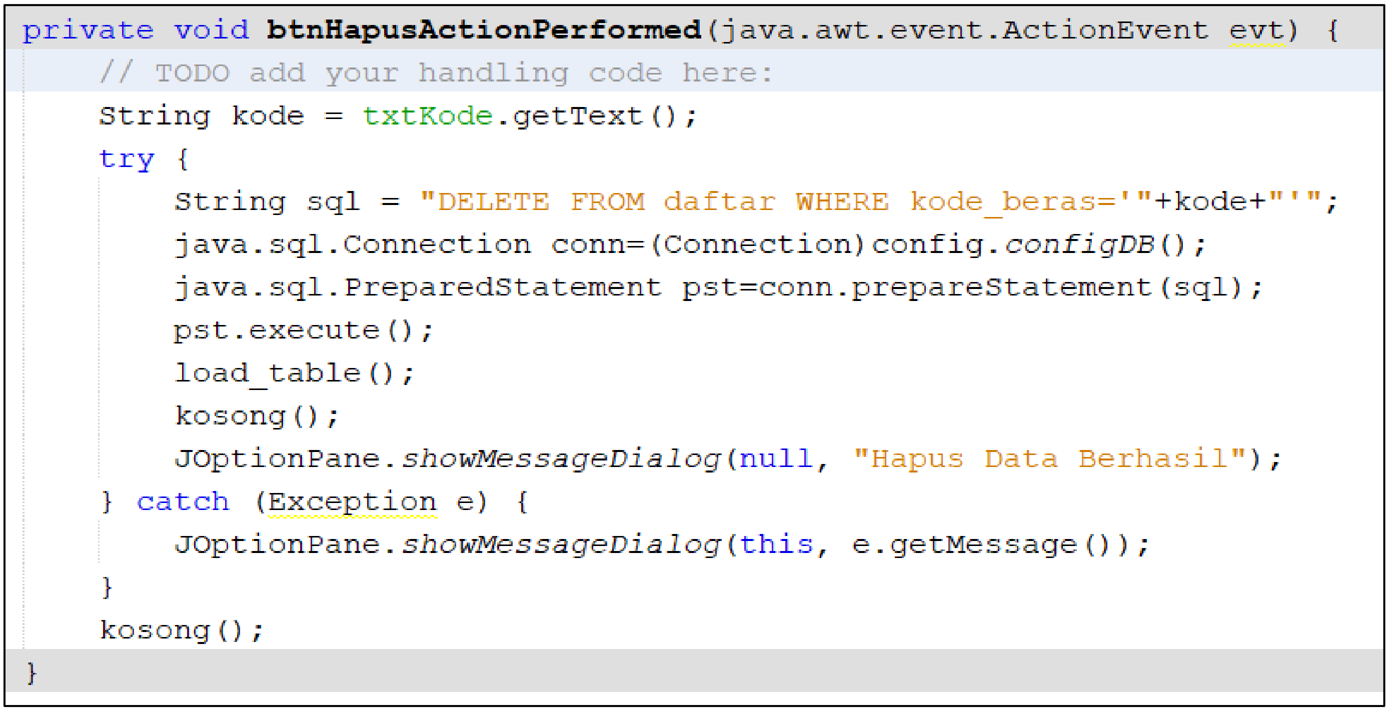
```
private void btnTambahActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    String kode = txtKode.getText();
    String nama = txtNama.getText();
    int harga =Integer.parseInt(txtHarga.getText());
    int stok = Integer.parseInt(txtStok.getText());
    try {
        String sql = "INSERT INTO daftar VALUES ('"+kode+"','"+nama+"','"+harga+"','"+stok+"')";
        java.sql.Connection conn=(Connection)config.configDB();
        java.sql.PreparedStatement pst=conn.prepareStatement(sql);
        pst.execute();
        load_table();
        kosong();
        JOptionPane.showMessageDialog(null, "Penyimpanan Data Berhasil");
    } catch (Exception e) {
        JOptionPane.showMessageDialog(this, e.getMessage());
    }
    kosong();
}
```

Button edit



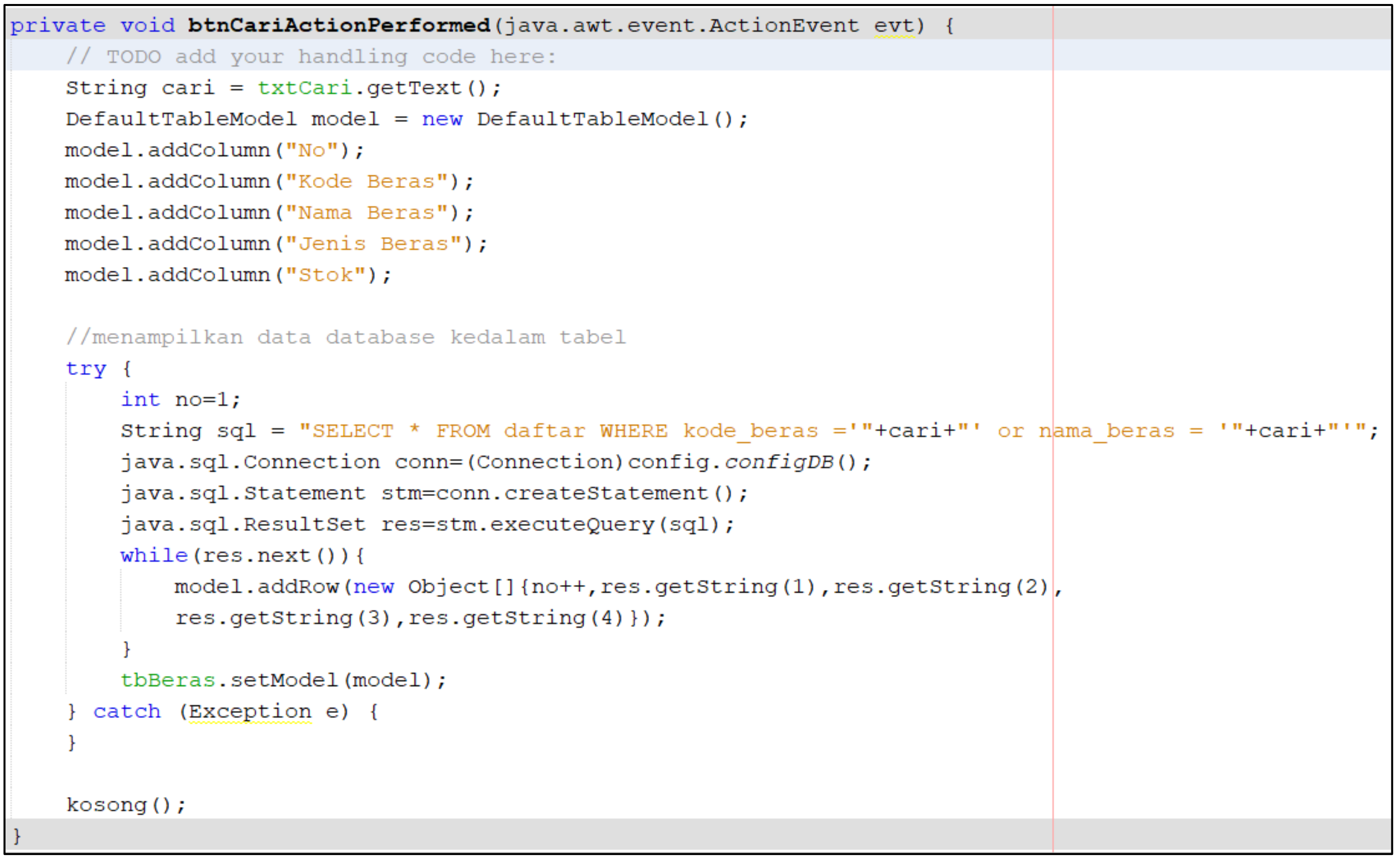
```
private void btnEditActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    String kode = txtKode.getText();
    String nama = txtNama.getText();
    int harga =Integer.parseInt(txtHarga.getText());
    int stok = Integer.parseInt(txtStok.getText());
    try {
        String sql = "UPDATE daftar SET nama_beras = '"+nama+"', harga = '"+harga+"', "
        + "stok = '"+stok+"' WHERE kode_beras='"+kode+"'";
        java.sql.Connection conn=(Connection)config.configDB();
        java.sql.PreparedStatement pst=conn.prepareStatement(sql);
        pst.execute();
        load_table();
        kosong();
        JOptionPane.showMessageDialog(null, "Edit Data Berhasil");
    } catch (Exception e) {
        JOptionPane.showMessageDialog(this, e.getMessage());
    }
    kosong();
}
```

Button hapus



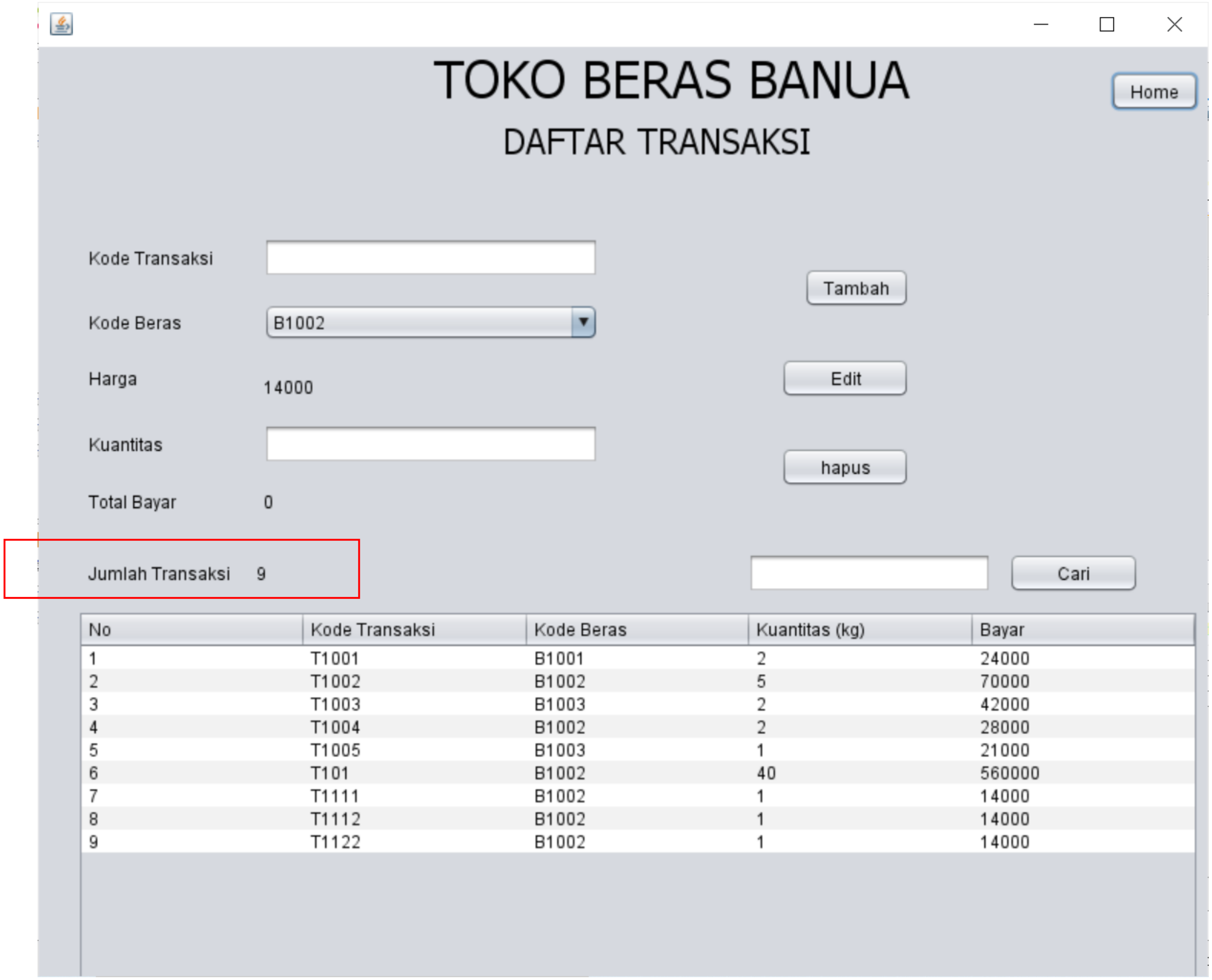
```
private void btnHapusActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    String kode = txtKode.getText();
    try {
        String sql = "DELETE FROM daftar WHERE kode_beras='"+kode+"'";
        java.sql.Connection conn=(Connection)config.configDB();
        java.sql.PreparedStatement pst=conn.prepareStatement(sql);
        pst.execute();
        load_table();
        kosong();
        JOptionPane.showMessageDialog(null, "Hapus Data Berhasil");
    } catch (Exception e) {
        JOptionPane.showMessageDialog(this, e.getMessage());
    }
    kosong();
}
```

Button cari



```
private void btnCariActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    String cari = txtCari.getText();
    DefaultTableModel model = new DefaultTableModel();
    model.addColumn("No");
    model.addColumn("Kode Beras");
    model.addColumn("Nama Beras");
    model.addColumn("Jenis Beras");
    model.addColumn("Stok");

    //menampilkan data database kedalam tabel
    try {
        int no=1;
        String sql = "SELECT * FROM daftar WHERE kode_beras ='"+cari+"' or nama_beras = '"+cari+"'";
        java.sql.Connection conn=(Connection)config.configDB();
        java.sql.Statement stm=conn.createStatement();
        java.sql.ResultSet res=stm.executeQuery(sql);
        while(res.next()){
            model.addRow(new Object[]{no++,res.getString(1),res.getString(2),
            res.getString(3),res.getString(4)});
        }
        tbBeras.setModel(model);
    } catch (Exception e) {
    }

    kosong();
}
```

Form Transaksi



TOKO BERAS BANUA

DAFTAR TRANSAKSI

Kode Transaksi

Kode Beras B1002

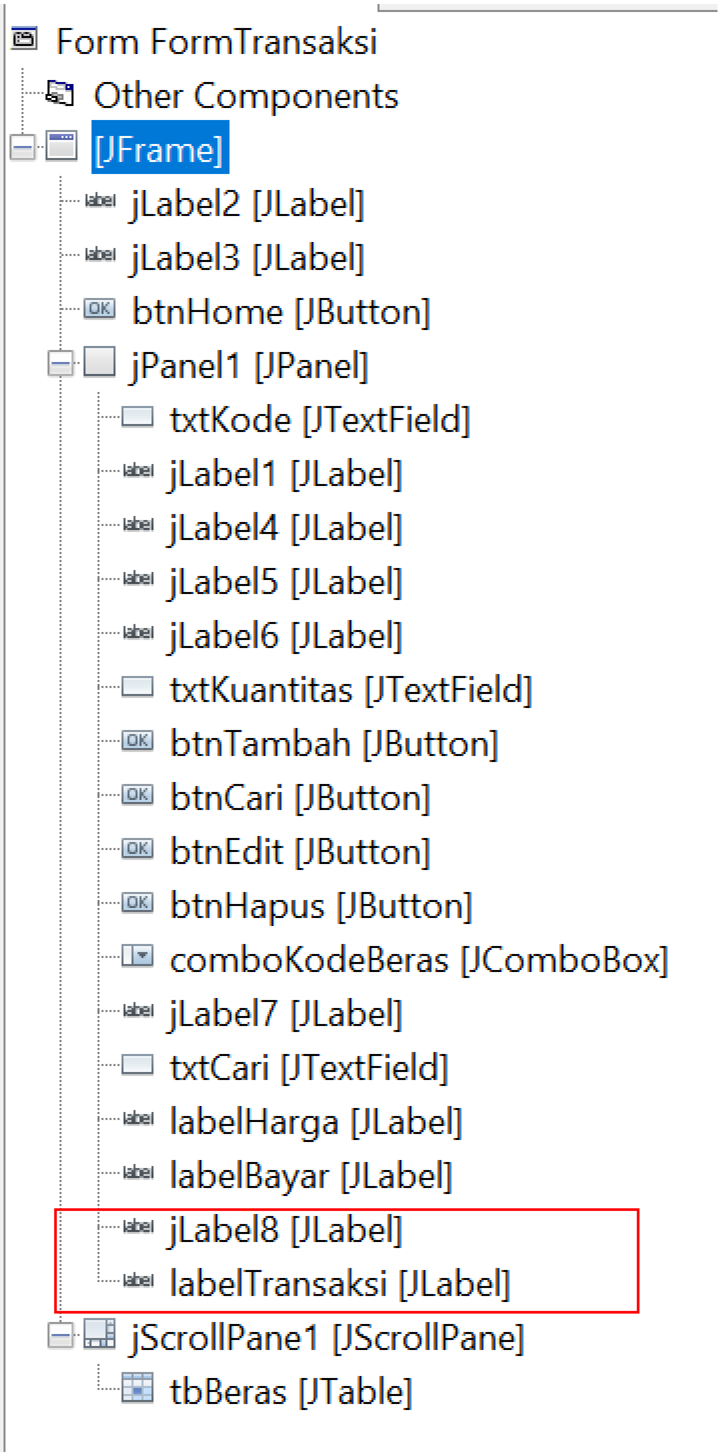
Harga 14000

Kuantitas

Total Bayar 0

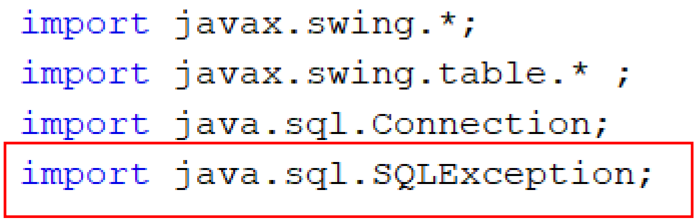
Jumlah Transaksi 9

No	Kode Transaksi	Kode Beras	Kuantitas (kg)	Bayar
1	T1001	B1001	2	24000
2	T1002	B1002	5	70000
3	T1003	B1003	2	42000
4	T1004	B1002	2	28000
5	T1005	B1003	1	21000
6	T101	B1002	40	560000
7	T1111	B1002	1	14000
8	T1112	B1002	1	14000
9	T1122	B1002	1	14000



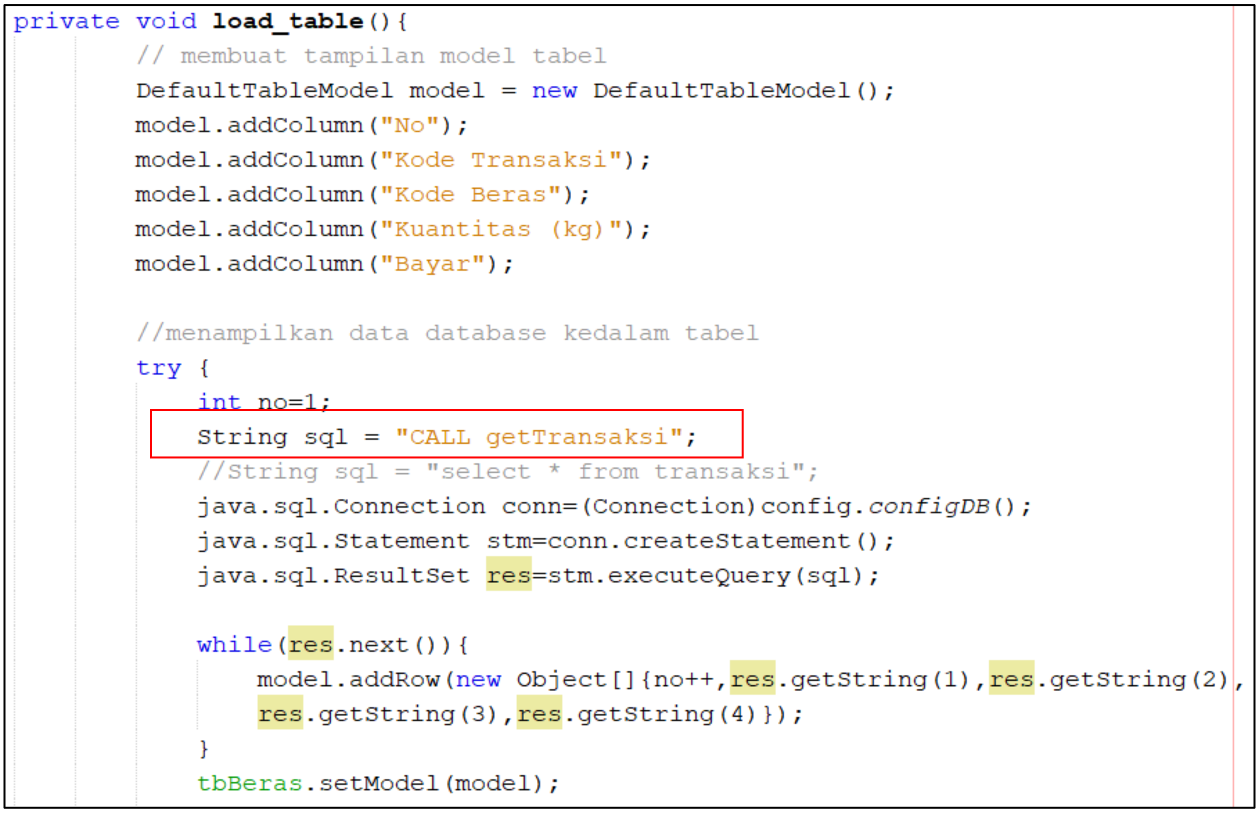
```
Form FormTransaksi
  Other Components
  [JFrame]
    jLabel2 [JLabel]
    jLabel3 [JLabel]
    btnHome [JButton]
    jPanel1 [JPanel]
      txtKode [JTextField]
      jLabel1 [JLabel]
      jLabel4 [JLabel]
      jLabel5 [JLabel]
      jLabel6 [JLabel]
      txtKuantitas [JTextField]
      btnTambah [JButton]
      btnCari [JButton]
      btnEdit [JButton]
      btnHapus [JButton]
      comboKodeBeras [JComboBox]
      jLabel7 [JLabel]
      txtCari [JTextField]
      labelHarga [JLabel]
      labelBayar [JLabel]
      jLabel8 [JLabel]
      labelTransaksi [JLabel]
    jScrollPane1 [JScrollPane]
      tbBeras [JTable]
```

Import:

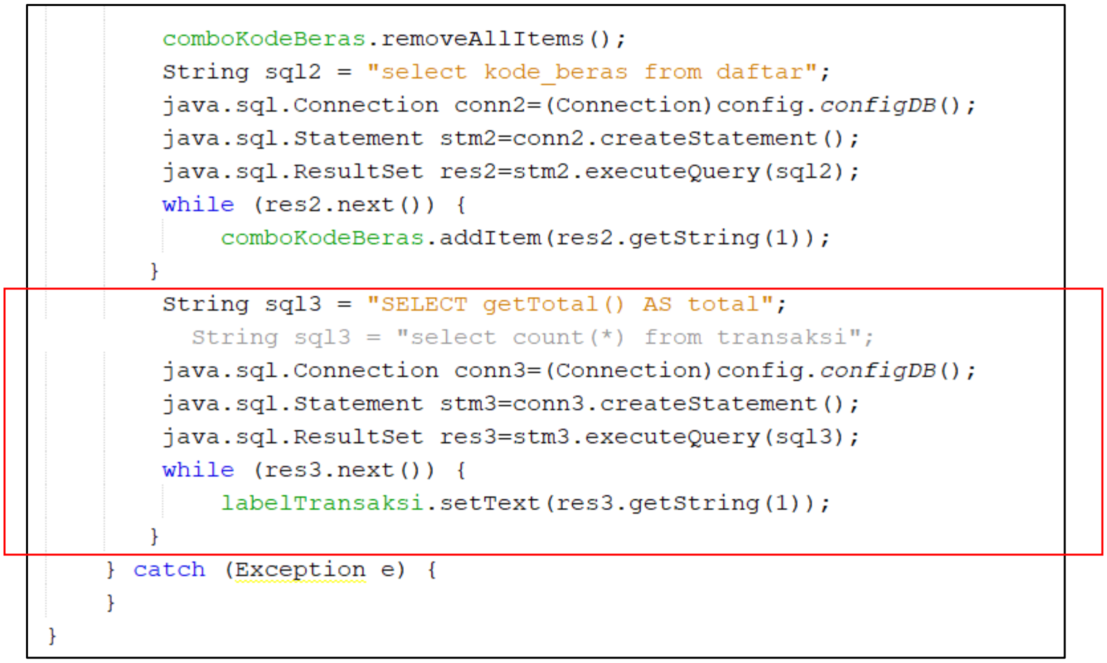


```
import javax.swing.*;
import javax.swing.table.* ;
import java.sql.Connection;
import java.sql.SQLException;
```

Method load_table();

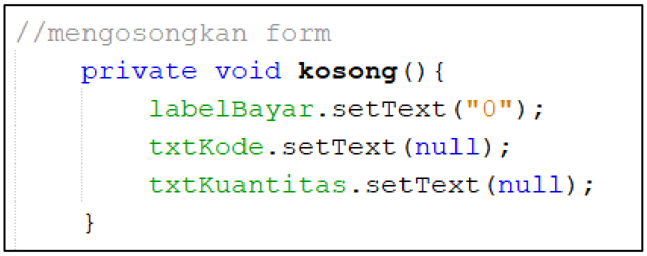


```
private void load_table(){
        // membuat tampilan model tabel
        DefaultTableModel model = new DefaultTableModel();
        model.addColumn("No");
        model.addColumn("Kode Transaksi");
        model.addColumn("Kode Beras");
        model.addColumn("Kuantitas (kg)");
        model.addColumn("Bayar");

        //menampilkan data database kedalam tabel
        try {
            int no=1;
            String sql = "CALL getTransaksi";
            //String sql = "select * from transaksi";
            java.sql.Connection conn=(Connection)config.configDB();
            java.sql.Statement stm=conn.createStatement();
            java.sql.ResultSet res=stm.executeQuery(sql);

            while(res.next()){
                model.addRow(new Object[]{no++,res.getString(1),res.getString(2),
                res.getString(3),res.getString(4)});
            }
            tbBeras.setModel(model);
```



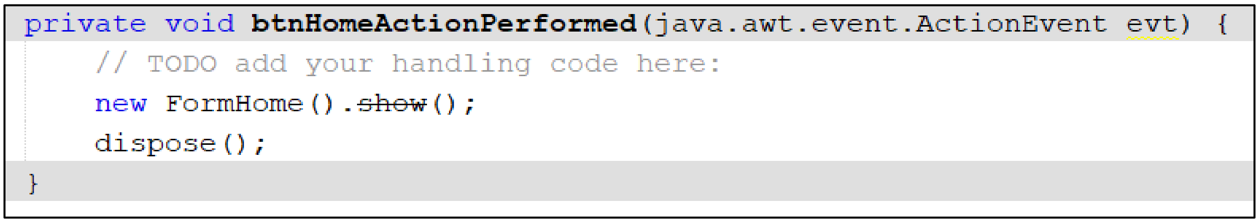
```
        comboKodeBeras.removeAllItems();
        String sql2 = "select kode_beras from daftar";
        java.sql.Connection conn2=(Connection)config.configDB();
        java.sql.Statement stm2=conn2.createStatement();
        java.sql.ResultSet res2=stm2.executeQuery(sql2);
        while (res2.next()) {
            comboKodeBeras.addItem(res2.getString(1));
        }
        String sql3 = "SELECT getTotal() AS total";
          String sql3 = "select count(*) from transaksi";
        java.sql.Connection conn3=(Connection)config.configDB();
        java.sql.Statement stm3=conn3.createStatement();
        java.sql.ResultSet res3=stm3.executeQuery(sql3);
        while (res3.next()) {
            labelTransaksi.setText(res3.getString(1));
        }
    } catch (Exception e) {
    }
}
```

Method kosong()



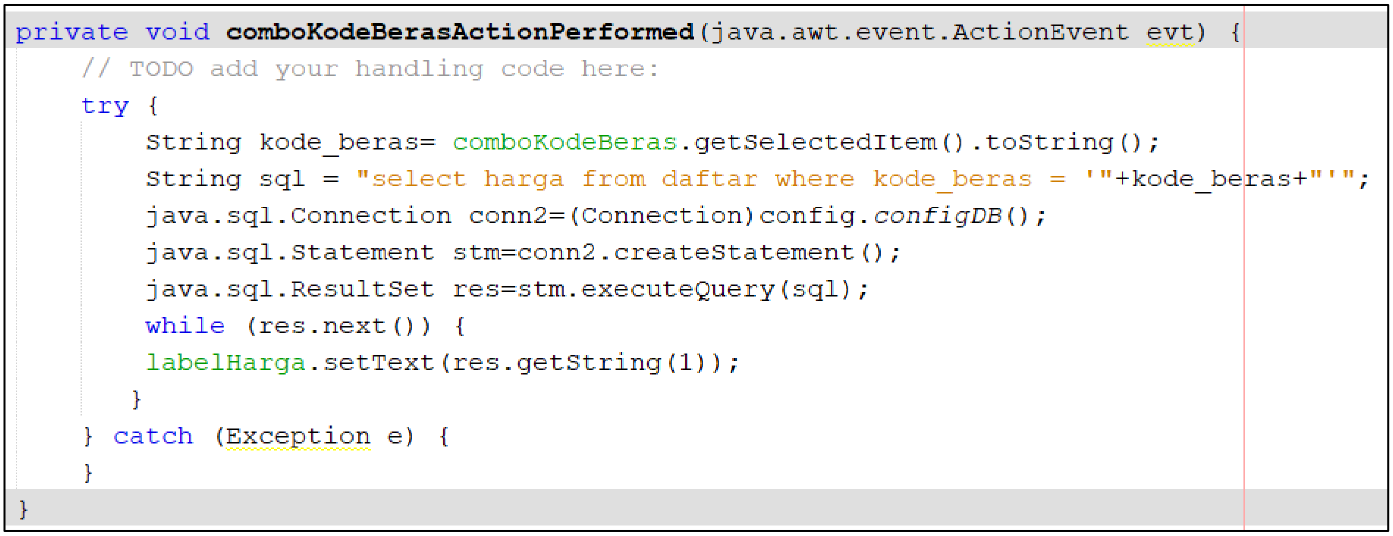
```
//mengosongkan form
    private void kosong(){
        labelBayar.setText("0");
        txtKode.setText(null);
        txtKuantitas.setText(null);
    }
```

Button home



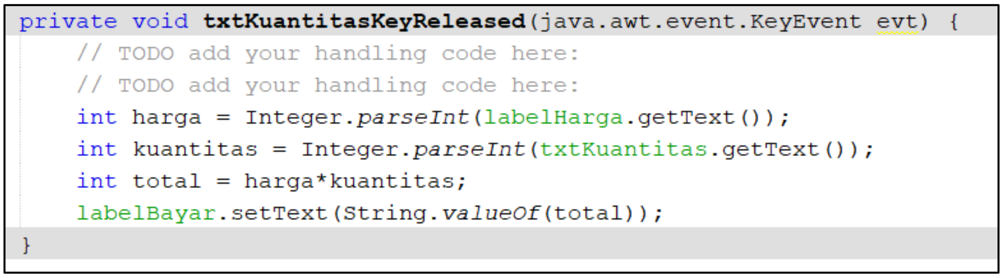
```
private void btnHomeActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    new FormHome().~~show~~();
    dispose();
}
```

Combobox kode beras



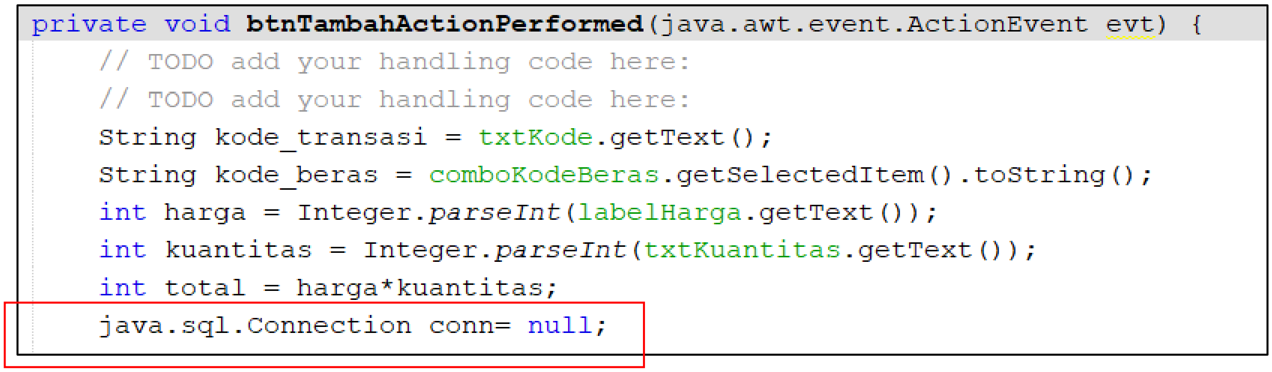
```
private void comboKodeBerasActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    try {
        String kode_beras= comboKodeBeras.getSelectedItem().toString();
        String sql = "select harga from daftar where kode_beras = '"+kode_beras+"'";
        java.sql.Connection conn2=(Connection)config.configDB();
        java.sql.Statement stm=conn2.createStatement();
        java.sql.ResultSet res=stm.executeQuery(sql);
        while (res.next()) {
        labelHarga.setText(res.getString(1));
       }
    } catch (Exception e) {
    }
}
```

Textfield Kuantitas, events: key – keyReleased

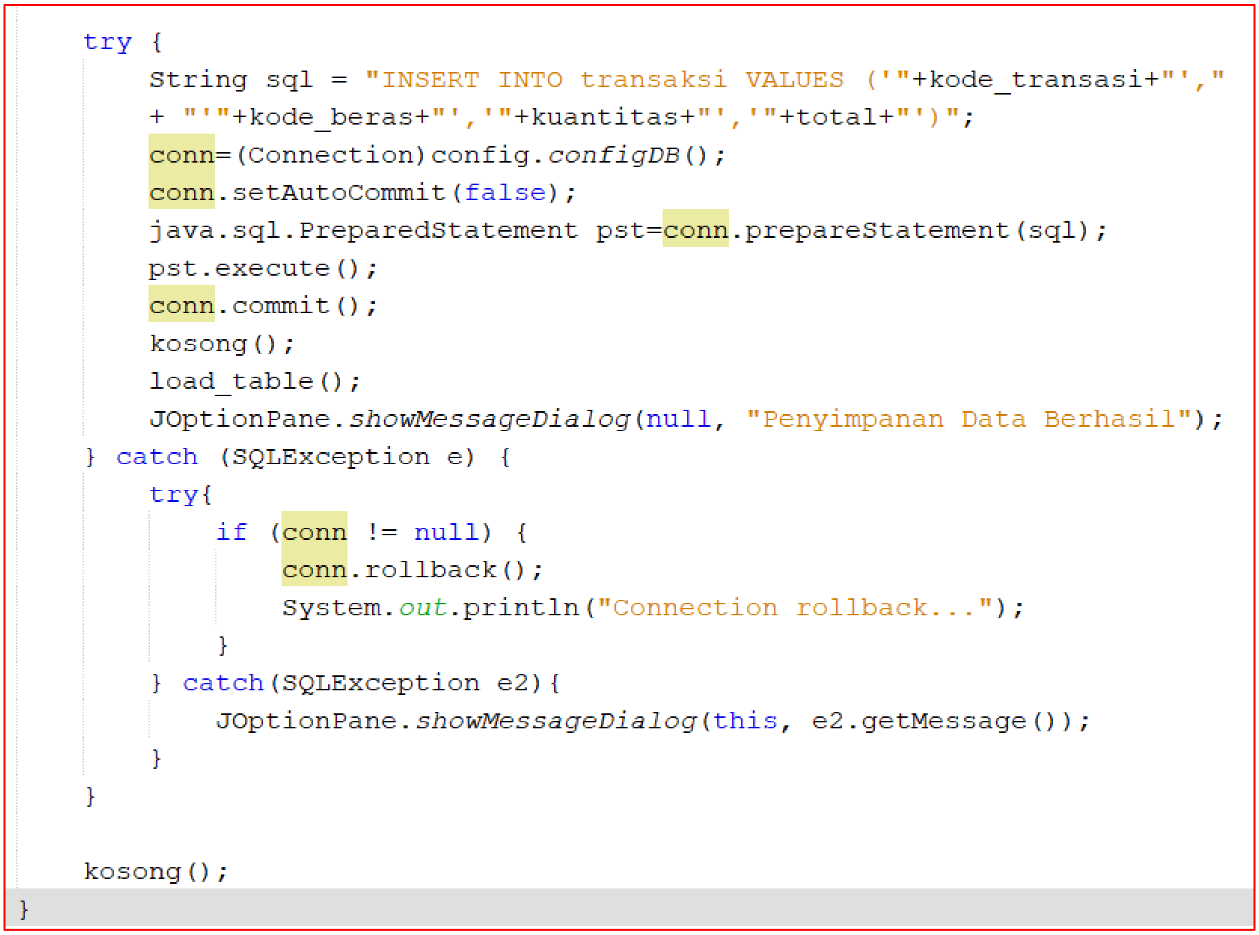


```
private void txtKuantitasKeyReleased(java.awt.event.KeyEvent evt) {
    // TODO add your handling code here:
    // TODO add your handling code here:
    int harga = Integer.parseInt(labelHarga.getText());
    int kuantitas = Integer.parseInt(txtKuantitas.getText());
    int total = harga*kuantitas;
    labelBayar.setText(String.valueOf(total));
}
```

Button tambah:

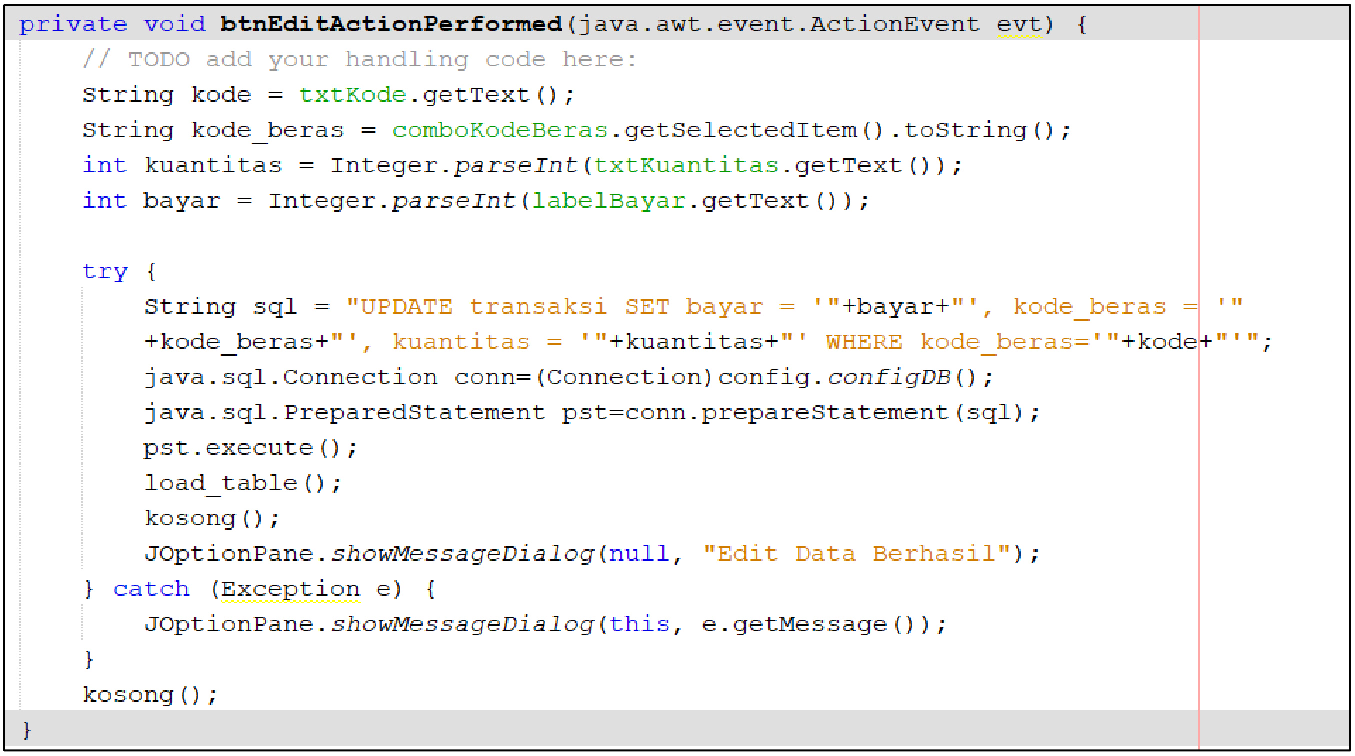


```
private void btnTambahActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    // TODO add your handling code here:
    String kode_transasi = txtKode.getText();
    String kode_beras = comboKodeBeras.getSelectedItem().toString();
    int harga = Integer.parseInt(labelHarga.getText());
    int kuantitas = Integer.parseInt(txtKuantitas.getText());
    int total = harga*kuantitas;
    java.sql.Connection conn= null;
```



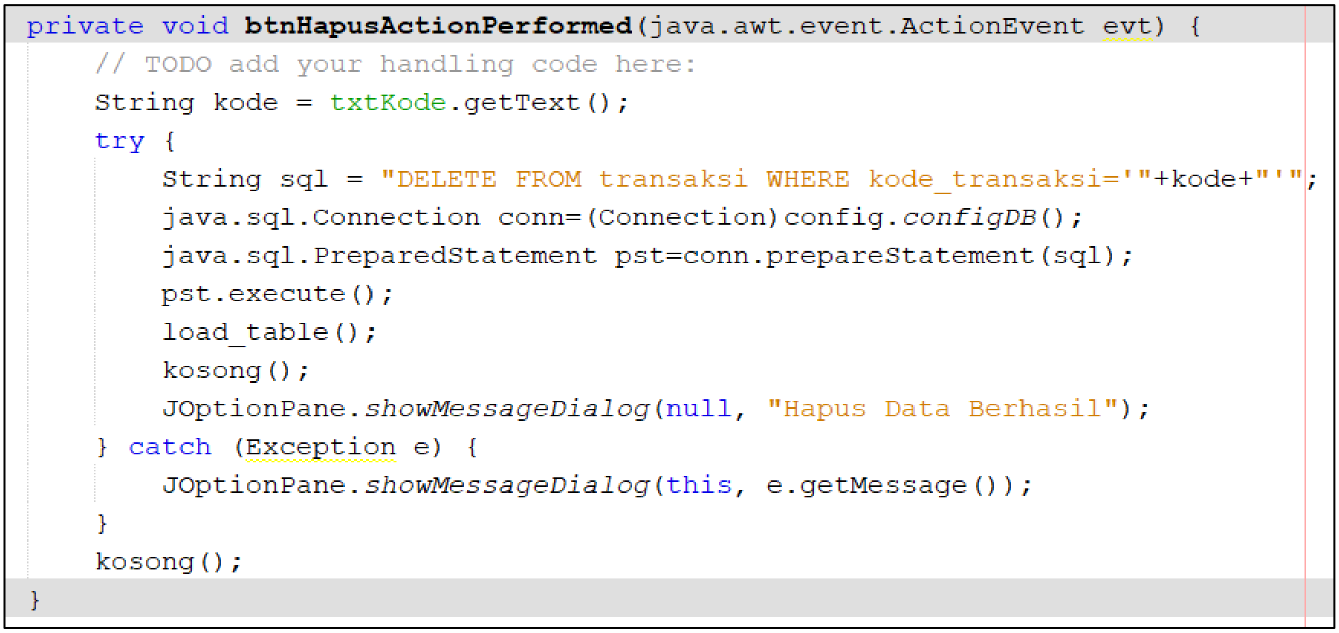
```
    try {
        String sql = "INSERT INTO transaksi VALUES ('"+kode_transasi+"',"
        + "'"+kode_beras+"','"+kuantitas+"','"+total+"')";
        conn=(Connection)config.configDB();
        conn.setAutoCommit(false);
        java.sql.PreparedStatement pst=conn.prepareStatement(sql);
        pst.execute();
        conn.commit();
        kosong();
        load_table();
        JOptionPane.showMessageDialog(null, "Penyimpanan Data Berhasil");
    } catch (SQLException e) {
        try{
            if (conn != null) {
                conn.rollback();
                System.out.println("Connection rollback...");
            }
        } catch(SQLException e2){
            JOptionPane.showMessageDialog(this, e2.getMessage());
        }
    }

    kosong();
}
```

Button edit



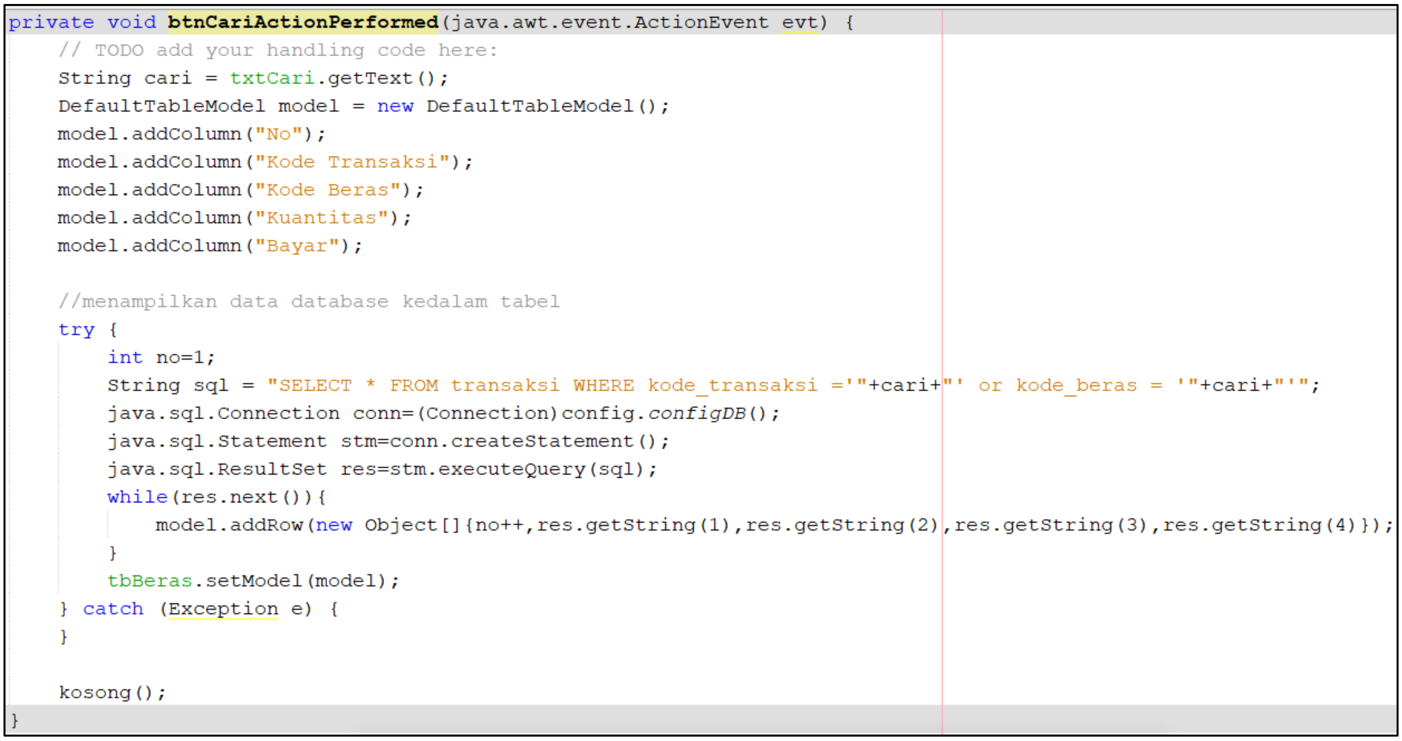
```
private void btnEditActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    String kode = txtKode.getText();
    String kode_beras = comboKodeBeras.getSelectedItem().toString();
    int kuantitas = Integer.parseInt(txtKuantitas.getText());
    int bayar = Integer.parseInt(labelBayar.getText());

    try {
        String sql = "UPDATE transaksi SET bayar = '"+bayar+"', kode_beras = '"
        +kode_beras+"', kuantitas = '"+kuantitas+"' WHERE kode_beras='"+kode+"'";
        java.sql.Connection conn=(Connection)config.configDB();
        java.sql.PreparedStatement pst=conn.prepareStatement(sql);
        pst.execute();
        load_table();
        kosong();
        JOptionPane.showMessageDialog(null, "Edit Data Berhasil");
    } catch (Exception e) {
        JOptionPane.showMessageDialog(this, e.getMessage());
    }
    kosong();
}
```

Button hapus



```
private void btnHapusActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    String kode = txtKode.getText();
    try {
        String sql = "DELETE FROM transaksi WHERE kode_transaksi='"+kode+"'";
        java.sql.Connection conn=(Connection)config.configDB();
        java.sql.PreparedStatement pst=conn.prepareStatement(sql);
        pst.execute();
        load_table();
        kosong();
        JOptionPane.showMessageDialog(null, "Hapus Data Berhasil");
    } catch (Exception e) {
        JOptionPane.showMessageDialog(this, e.getMessage());
    }
    kosong();
}
```

Button cari



```
private void btnCariActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    String cari = txtCari.getText();
    DefaultTableModel model = new DefaultTableModel();
    model.addColumn("No");
    model.addColumn("Kode Transaksi");
    model.addColumn("Kode Beras");
    model.addColumn("Kuantitas");
    model.addColumn("Bayar");

    //menampilkan data database kedalam tabel
    try {
        int no=1;
        String sql = "SELECT * FROM transaksi WHERE kode_transaksi ='"+cari+"' or kode_beras = '"+cari+"'";
        java.sql.Connection conn=(Connection)config.configDB();
        java.sql.Statement stm=conn.createStatement();
        java.sql.ResultSet res=stm.executeQuery(sql);
        while(res.next()){
            model.addRow(new Object[]{no++,res.getString(1),res.getString(2),res.getString(3),res.getString(4)});
        }
        tbBeras.setModel(model);
    } catch (Exception e) {
    }

    kosong();
}
```