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KELAS : B2

TUGAS 11


PEMROGRAMAN BERORIENTASI OBJEK

PEMBUATAN FORM DATA MAHASISWA

1. Buat database dan table

Database : mahasiswa

Table : tabel_mahasiswa



#	Nama	Jenis	Penyortiran	Atribut Kosong	Bawaan	Ekstra	Tindakan
1	nim	varchar(15)	latin1_swedish_ci	Tidak	Tidak ada		Ubah Hapus Kunci Utama Unik Indeks Spasial Teks penuh Distinct values
2	nama	varchar(30)	latin1_swedish_ci	Tidak	Tidak ada		Ubah Hapus Kunci Utama Unik Indeks Spasial Teks penuh Distinct values
3	jurusan	varchar(20)	latin1_swedish_ci	Tidak	Tidak ada		Ubah Hapus Kunci Utama Unik Indeks Spasial Teks penuh Distinct values
4	email	varchar(30)	latin1_swedish_ci	Tidak	Tidak ada		Ubah Hapus Kunci Utama Unik Indeks Spasial Teks penuh Distinct values

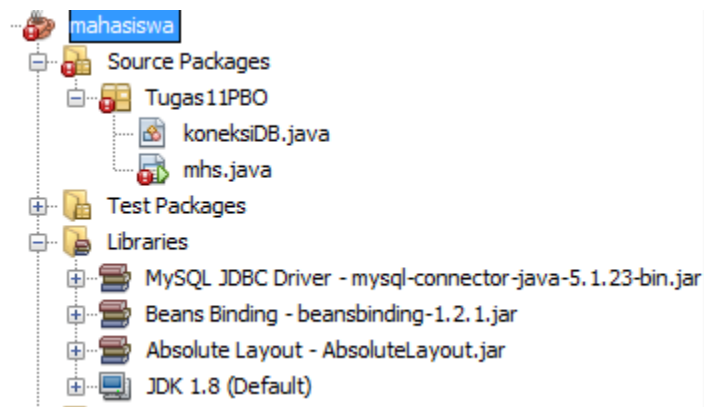
2. Program menghubungkan dengan database

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

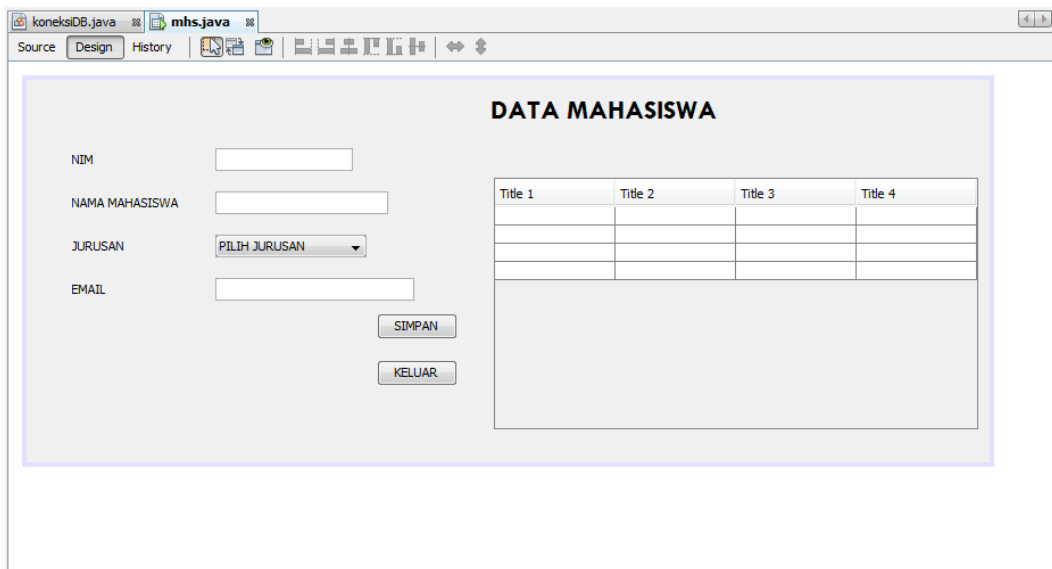
```
public class koneksiDB {  
    private static Connection mysqlconfig;  
    public static Connection configDB()throws SQLException{  
        try {  
            String url="jdbc:mysql://localhost:3306/mahasiswa"; //url database  
            String user="root"; //user database  
            String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

}

3. Menambahkan bagian Mysql JDBC driver untuk terhubung dengan database



4. Membuat form inputan



5. Listing form yang telah dibuat

Mhs.java

```
import java.sql.Connection;
import javax.swing.JTextField;
import javax.swing.table.DefaultTableModel;
/**
 *
 * @author Dell
 */
public class mhs extends javax.swing.JFrame {
```

```

private JTextField txtjurusan;
private Object smpn;

public mhs() {
    initComponents();
    load_table();
    kosong();
}

private void load_table(){
    // membuat tampilan model tabel
    DefaultTableModel model = new DefaultTableModel();
    model.addColumn("No");
    model.addColumn("Nim");
    model.addColumn("Nama");
    model.addColumn("Jurusan");
    model.addColumn("Email");

    //menampilkan data database kedalam tabel
    try {
        int no=1;
        String sql = "select * from tabel_mahasiswa";
        java.sql.Connection conn=(Connection)koneksiDB.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
)});
        }
        tab1.setModel(model);
    } catch (Exception e) {
    }
}

private void kosong(){
    txtnim.setEditable(true);
    txtnim.setText(null);
    txtnama.setText(null);
    cbjurusan.setSelectedItem(this);
    txtemail.setText(null);
}

```

```

}
/**
 * This method is called from within the constructor to initialize the form.
 * WARNING: Do NOT modify this code. The content of this method is always
 * regenerated by the Form Editor.
 */
private void initComponents() {
jLabel1 = new javax.swing.JLabel();
jLabel2 = new javax.swing.JLabel();
jLabel3 = new javax.swing.JLabel();
jLabel4 = new javax.swing.JLabel();
jLabel5 = new javax.swing.JLabel();
txtnim = new javax.swing.JTextField();
txtnama = new javax.swing.JTextField();
txtjurusan = new javax.swing.JTextField();
jScrollPane1 = new javax.swing.JScrollPane();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE)
;
setBackground(new java.awt.Color(44, 82, 240));

jLabel1.setFont(new java.awt.Font("Times New Roman", 1, 18)); // NOI18N
jLabel1.setText("BIODATA MAHASISWA");
getContentPane().add(jLabel1, new
org.netbeans.lib.awtextra.AbsoluteConstraints(48, 53, 41, 31));
jLabel2.setFont(new java.awt.Font("Tahoma 11 plain", 0, 12)); // NOI18N
jLabel2.setText("NIM");
getContentPane().add(jLabel2, new
org.netbeans.lib.awtextra.AbsoluteConstraints(48, 53, 41, 31));
jLabel3.setFont(new java.awt.Font("Tahoma 11 plain", 0, 12)); // NOI18N
jLabel3.setText("NAMA MAHASISWA");
getContentPane().add(jLabel3, new
org.netbeans.lib.awtextra.AbsoluteConstraints(48, 95, 41, 31));
jLabel4.setFont(new java.awt.Font("Tahoma 11 plain", 0, 12)); // NOI18N
jLabel4.setText("JURUSAN");
getContentPane().add(jLabel4, new
org.netbeans.lib.awtextra.AbsoluteConstraints(48, 137, 65, 31));
jLabel5.setFont(new java.awt.Font("Tahoma 11 plain", 0, 12)); // NOI18N
jLabel5.setText("EMAIL");

```

```

getContentPane().add(jLabel5, new
org.netbeans.lib.awtextra.AbsoluteConstraints(48, 179, 50, 31));
getContentPane().add(txtnim, new
org.netbeans.lib.awtextra.AbsoluteConstraints(172, 53, 213, 31));
txtnama.addActionListener(new java.awt.event.ActionListener() {
public void actionPerformed(java.awt.event.ActionEvent evt) {
txtnamaActionPerformed(evt);
}
});
getContentPane().add(txtnama, new
org.netbeans.lib.awtextra.AbsoluteConstraints(172, 95, 213, 31));
getContentPane().add(txtjurusan, new
org.netbeans.lib.awtextra.AbsoluteConstraints(172, 137, 213, 31));
simpan.setText("SIMPAN");
simpan.addActionListener(new java.awt.event.ActionListener() {
public void actionPerformed(java.awt.event.ActionEvent evt) {
simpanActionPerformed(evt);
}
});
getContentPane().add(simpan, new
org.netbeans.lib.awtextra.AbsoluteConstraints(231, 216, -1, 33));
edit.setText("EDIT");
edit.addActionListener(new java.awt.event.ActionListener() {
public void actionPerformed(java.awt.event.ActionEvent evt) {
reActionPerformed(evt);
}
});
getContentPane().add(edit, new org.netbeans.lib.awtextra.AbsoluteConstraints(308,
216, -1, 33));
tab1.setModel(new javax.swing.table.DefaultTableModel(
new Object [][] {
{null, null, null, null},
{null, null, null, null},
{null, null, null, null},
{null, null, null, null}
},
new String [] {
"Title 1", "Title 2", "Title 3", "Title 4"
}
));

```

```

tab1.addMouseListener(new java.awt.event.MouseAdapter() {
public void mouseClicked(java.awt.event.MouseEvent evt) {
tab1MouseClicked(evt);
}
});
jScrollPane1.setViewportView(tab1);
getContentPane().add(jScrollPane1, new
org.netbeans.lib.awtextra.AbsoluteConstraints(48, 260, 337, 93));
hps.setText("HAPUS");
hps.addActionListener(new java.awt.event.ActionListener() {
public void actionPerformed(java.awt.event.ActionEvent evt) {
edtActionPerformed(evt);
}
});
getContentPane().add(hps, new org.netbeans.lib.awtextra.AbsoluteConstraints(253,
359, -1, 33));
klr.setText("KELUAR");
klr.addActionListener(new java.awt.event.ActionListener() {
public void actionPerformed(java.awt.event.ActionEvent evt) {
hpsActionPerformed(evt);
}
});
getContentPane().add(, new org.netbeans.lib.awtextra.AbsoluteConstraints(314,
359, -1, 33));
pro.setFont(new java.awt.Font("Tahoma", 0, 12)); // NOI18N
pro.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "Teknik
Informatika", "Sistem Informasi" }));
pro.setName(""); // NOI18N
pro.addActionListener(new java.awt.event.ActionListener() {
public void actionPerformed(java.awt.event.ActionEvent evt) {
proActionPerformed(evt);
}
});
getContentPane().add(pro, new org.netbeans.lib.awtextra.AbsoluteConstraints(172,
179, 213, 31));
pack();
} // </editor-fold>
private void txtnamaActionPerformed(java.awt.event.ActionEvent evt) {
// TODO add your handling code here:
}

```

```

private void smpnActionPerformed(java.awt.event.ActionEvent evt) {
// TODO add your handling code here:
try {
String sql = "INSERT INTO tabel_mahasiswa VALUES
('"+txtnim.getText()+"','"+txtnama.getText()+"','"+txtfak.getText()+"','"+pro.getSelectedI
t
em()+"')";
java.sql.Connection conn=(Connection)koneksiDb.configDB();
java.sql.PreparedStatement pst=conn.prepareStatement(sql);
pst.execute();
JOptionPane.showMessageDialog(null, "Penyimpanan Data Berhasil");
} catch (Exception e) {
JOptionPane.showMessageDialog(this, e.getMessage());
}
load_table();
kosong();
}

@SuppressWarnings("unchecked")
// <editor-fold defaultstate="collapsed" desc="Generated Code">
private void initComponents() {

    jLabel1 = new javax.swing.JLabel();
    jLabel2 = new javax.swing.JLabel();
    txtnim = new javax.swing.JTextField();
    txtnama = new javax.swing.JTextField();
    jLabel3 = new javax.swing.JLabel();
    jLabel4 = new javax.swing.JLabel();
    cbjurusan = new javax.swing.JComboBox<>();
    jLabel5 = new javax.swing.JLabel();
    txtemail = new javax.swing.JTextField();
    btHapus = new javax.swing.JButton();
    btKeluar = new javax.swing.JButton();
    jScrollPane1 = new javax.swing.JScrollPane();
    tablemahasiswa = new javax.swing.JTable();
    btSimpan = new javax.swing.JButton();
    btEdit = new javax.swing.JButton();

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

    jLabel1.setFont(new java.awt.Font("Tw Cen MT", 1, 24)); // NOI18N

```

```

jLabel1.setText("DATA MAHASISWA");
jLabel1.setName(""); // NOI18N

jLabel2.setText("NIM");

txtnim.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        txtnimActionPerformed(evt);
    }
});

txtnama.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        txtnamaActionPerformed(evt);
    }
});

jLabel3.setText("NAMA MAHASISWA");

jLabel4.setText("JURUSAN");

cbjurusan.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] {
"PILIH JURUSAN", "TEKNIK INFORMATIKA", "SISTEM INFORMASI", " " }));
cbjurusan.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        cbjurusanActionPerformed(evt);
    }
});

jLabel5.setText("EMAIL");

txtemail.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        txtemailActionPerformed(evt);
    }
});

btHapus.setText("HAPUS");
btHapus.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {

```



```

        btHapusActionPerformed(evt);
    }
});

```

```

btKeluar.setText("KELUAR");
btKeluar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btKeluarActionPerformed(evt);
    }
});

```

```

tablemahasiswa.setModel(new javax.swing.table.DefaultTableModel(
    new Object [][] {
        {null, null, null, null},
        {null, null, null, null},
        {null, null, null, null},
        {null, null, null, null}
    },
    new String [] {
        "Title 1", "Title 2", "Title 3", "Title 4"
    }
));
jScrollPane1.setViewportViewView(tablemahasiswa);

```

```

btSimpan.setText("SIMPAN");
btSimpan.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btSimpanActionPerformed(evt);
    }
});

```

```

btEdit.setText("EDIT");
btEdit.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btEditActionPerformed(evt);
    }
});

```

```

        javax.swing.GroupLayout layout = new
        javax.swing.GroupLayout(getContentPane());

```

```

getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)
        .addComponent(jLabel1)
        .addGap(240, 240, 240))
        .addGroup(layout.createSequentialGroup()
        .addGap(40, 40, 40)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(jLabel2)
        .addComponent(jLabel3)
        .addComponent(jLabel4)
        .addComponent(jLabel5)
        .addComponent(btSimpan)
        .addComponent(btEdit))

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
        .addGap(32, 32, 32)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addComponent(cbjurusan,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(txtnim,
javax.swing.GroupLayout.PREFERRED_SIZE, 121,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(txtnama,
javax.swing.GroupLayout.PREFERRED_SIZE, 152,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(txtemail,
javax.swing.GroupLayout.PREFERRED_SIZE, 175,
javax.swing.GroupLayout.PREFERRED_SIZE)))
        .addGroup(layout.createSequentialGroup()
        .addGap(174, 174, 174)

```

```

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addComponent(btHapus)
    .addComponent(btKeluar))))
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
32, Short.MAX_VALUE)
.addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE,
426, javax.swing.GroupLayout.PREFERRED_SIZE)
.addContainerGap()
);
layout.setVerticalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()
        .addContainerGap()
        .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 31,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)

    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
)
        .addComponent(jLabel2)
        .addComponent(txtnim, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))

    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
            .addGap(18, 18, 18)

    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
)
        .addComponent(txtnama,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jLabel3))
        .addGap(18, 18, 18)

    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
)

```

```

        .addComponent(cbjurusan,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addComponent(jLabel4))
        .addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
)

        .addComponent(jLabel5)
        .addComponent(txtemail,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
)

        .addComponent(btHapus)
        .addComponent(btSimpan))
        .addGap(18, 18, 18)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE
)

        .addComponent(btKeluar)
        .addComponent(btEdit))
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup())

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addComponent(jScrollPane1,
javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(29, 29, 29))))
);

```

```

jLabel1.getAccessibleContext().setAccessibleName("");

getAccessibleContext().setAccessibleName("Aplikasi Data Mahasiswa");

pack();
setLocationRelativeTo(null);
} // </editor-fold>

private void txtnimActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:

}

private void btKeluarActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    system.exit(0);
}

private void txtnamaActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
}

private void cbjurusanActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
}

private void txtemailActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
}

private void btSimpanActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
}

private void btEditActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
}

private void btHapusActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
}

```

```

    }

    public static void main(String args[]) {
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new mhs().setVisible(true);
            }
        });
    }

    // Variables declaration - do not modify
    private javax.swing.JButton btEdit;
    private javax.swing.JButton btHapus;
    private javax.swing.JButton btKeluar;
    private javax.swing.JButton btSimpan;
    private javax.swing.JComboBox<String> cbjurusan;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;
    private javax.swing.JLabel jLabel4;
    private javax.swing.JLabel jLabel5;
    private javax.swing.JScrollPane jScrollPane1;
    private javax.swing.JTable tablemahasiswa;
    private javax.swing.JTextField txtemail;
    private javax.swing.JTextField txtnama;
    private javax.swing.JTextField txtnim;
    // End of variables declaration
}

```

6. Hasil run program

The screenshot shows a Java Swing window titled "Design Preview [mhs]". Inside the window, there is a form titled "DATA MAHASISWA". The form contains several input fields and buttons. On the left side, there are labels for "NIM", "NAMA MAHASISWA", "JURUSAN", and "EMAIL". The corresponding input fields contain the values "13020180120", "Ratu Millenia Febriyanti", "TEKNIK INFORMATIKA" (with a dropdown arrow), and "febriyantisam@gmail.com". Below these fields are four buttons: "SIMPAN", "HAPUS", "EDIT", and "KELUAR". On the right side of the form, there is a table with 4 columns labeled "Title 1", "Title 2", "Title 3", and "Title 4". The table has 5 rows, with the first row being the header and the remaining 4 rows being empty.

Title 1	Title 2	Title 3	Title 4