

LAPORAN PRAKTIKUM PEMROGRAMAN BERORIENTASI OBJEK MODUL 5 LATIHAN EXCEPTION HANDLING



Oleh:
Daffa Zachari
2311103118
S1SI – 07 – C

PROGRAM STUDI S1 SISTEM INFORMASI FAKULTAS REKAYASA INDUSTRI UNIVERSITAS TELKOM PURWOKERTO 2024



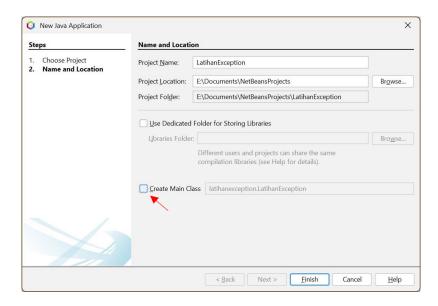
LATIHAN EXCEPTION HANDLING

A. Studi Kasus

Sistem Informasi Perpustakaan – Input Buku

B. Guided

1. Buat project baru pada Netbeans. Pada saat membuat project, hilangkan centang pada *Create Main Class*



- 2. Tambahkan package baru dengan nama **perpustakaan** dengan cara klik kanan pada *Source Packages* New Java Package...
- 3. Pada *package* perpustakaan, buat Class baru dengan nama **Buku**

Buku.Java

```
public class Buku {
    private String judul;
    private String pengarang;
    private String isbn;

public Buku(String judul, String pengarang, String isbn){
        this.judul = judul;
        this.pengarang = pengarang;
        this.isbn = isbn;
}
```



```
public String getJudul() {
    return judul;
}

public String getPengarang() {
    return pengarang;
}

public String getIsbn() {
    return isbn;
}
```

- 4. Tambahkan tampilan program untuk input data dengan cara klik kanan pada *package* perpustakaan□New JFrame Form..., beri nama **InputBuku**
- 5. Buat tampilan seperti di bawah ini:



No.	Component	Variable Name
1	JPanel	
2	JScrollPane	
3	JTextField	txtJudul
4	JTextField	txtPengarang
5	JTextField	txtIsbn
6	JButton	btnSubmit
7	JTable	tblBuku
8	JLabel	IblKeterangan

6. Klik 2x pada tombol Tambah Data, tambahkan kode berikut



```
private void btnSubmitActionPerformed(java.awt.event.ActionEvent evt) {
    String judul = txtJudul.getText();
    String pengarang = txtPengarang.getText();
    String isbn = txtIsbn.getText();

    // Membuat objek Buku baru
    Buku buku = new Buku(judul, pengarang, isbn);

    // Menambah data buku ke tabel
    DefaultTableModel data = (DefaultTableModel)

tblBuku.getModel();
```



```
data.addRow(new Object[]{buku.getJudul(), buku.getPengarang(),
buku.getIsbn()});

// Reset form input
    txtJudul.setText("");
    txtPengarang.setText("");
    txtIsbn.setText("");
}
```

- 7. Jalankan project lalu coba tambahkan data, maka akan muncul data pada tabel. Namun ketika form kosong lalu klik tambah data, maka akan ada data kosong yang masuk pada tabel. Hal ini bisa diantisipasi dengan membuat *user defined exception*.
- 8. Buat sebuah class baru dengan nama ValidasiInputException

ValidasiInputException.java

```
public class ValidasiInputException extends Exception{
   public ValidasiInputException(String message) {
     super(message);
   }
}
```

```
public class Buku {
    private String judul;
    private String pengarang;
    private String isbn;

public Buku(String judul, String pengarang, String isbn) throws
ValidasiInputException {
        if (judul.isEmpty()) {
            throw new ValidasiInputException("Judul buku tidak boleh
kosong!");
        }
        if (pengarang.isEmpty()) {
            throw new ValidasiInputException("Pengarang tidak boleh
kosong!");
        }
        if (!isbn.matches("\\d{13}")) {
            throw new ValidasiInputException("ISBN harus 13 digit angka!");
        }
}
```



9. Ubah kode pada Class buku

Buku.java

```
this.judul = judul;
    this.pengarang = pengarang;
    this.isbn = isbn;
}

public String getJudul() {
    return judul;
}

public String getPengarang() {
    return pengarang;
}

public String getIsbn() {
    return isbn;
}
```

10. Klik 2x pada tombol Tambah Data, ubah kode berikut



```
private void btnSubmitActionPerformed(java.awt.event.ActionEvent evt)
        try {
                    String judul = txtJudul.getText();
                    String pengarang = txtPengarang.getText();
                    String isbn = txtIsbn.getText();
                    // Membuat objek Buku baru
                    Buku buku = new Buku(judul, pengarang, isbn);
                    // Menambah data buku ke tabel
                    DefaultTableModel data = (DefaultTableModel)
tblBuku.getModel();
                    data.addRow(new Object[]{buku.getJudul(),
buku.getPengarang(), buku.getIsbn()});
                    // Reset form input
                    txtJudul.setText("");
                    txtPengarang.setText("");
                    txtIsbn.setText("");
                    lblKeterangan.setForeground(Color.GREEN);
                    lblKeterangan.setText("Buku berhasil ditambahkan!");
                } catch (ValidasiInputException e) {
                     lblKeterangan.setForeground(Color.RED);
                     lblKeterangan.setText("Error: " + e.getMessage());
```

11. Jalankan project, coba tambahkan data baru. Ketika form kosong maka akan muncul peringatan pada bagian bawah aplikasi

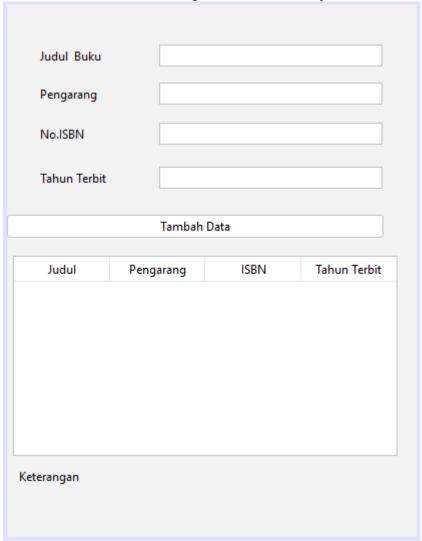


C. Unguided

Tambahkan inputan berikut pada aplikasi:

1. Tahun Terbit: Validasi untuk angka empat digit.

Buatlah Text field baru dan change variable name menjadi txtTahun



Kode:

ValidasiInputException.java

```
package perpustakaan;

/**
   *
    @author Daffa Zachari 2311103118 S1SI07C
    */
public class ValidasiInputException extends Exception {
```



```
public ValidasiInputException(String message){
   super (message);
  }
}
```

Buku.java

```
package perpustakaan;
 * @author Daffa Zachari 2311103118 S1SI07C
public class Buku {
   private String judul;
   private String pengarang;
   private String isbn;
    private String tahun;
    public Buku (String judul, String pengarang, String isbn, String tahun)throws
ValidasiInputException{
        if(judul.isEmpty()){
            throw new ValidasiInputException ("Judul Kosong Blokk");
        if(pengarang.isEmpty()){
            throw new ValidasiInputException ("Pengarang Kosong Jing");
        if(!isbn.matches("\\d{13}")){
            throw new ValidasiInputException ("ISBN ISI
                                                                                      DULU
13
GA!?!?");
        if(tahun.isEmpty()){
            throw new ValidasiInputException("Silahkan isi Tahun Terbit!!");
        if(!tahun.matches("\\d+")){
            throw new ValidasiInputException("Tahun Terbit tidak boleh pakai huruf broo");
        if(!tahun.matches("\\d{4}")){
            throw new ValidasiInputException("Tahun Terbit 4 angka ya broo");
```



```
this.judul = judul;
this.pengarang = pengarang;
this.isbn = isbn;
this.tahun = tahun;
}

public String getJudul (){
    return judul;
}

public String getPengarang (){
    return pengarang;
}

public String getIsbn (){
    return isbn;
}

public String getTahun (){
    return tahun;
}
```

InputData.java

```
package perpustakaan;
import java.awt.Color;
import javax.swing.table.DefaultTableModel;

/**
    * @author Daffa Zachari 2311103118 S1SI07C
    */
public class InputData extends javax.swing.JFrame {
    private Object Tahun;

    /**
     * Creates new form InputData
     */
    public InputData() {
        initComponents();
    }

    /**
     * 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.
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {
        jPanel1 = new javax.swing.JPanel();
        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();
        txtJudul = new javax.swing.JTextField();
        txtPengarang = new javax.swing.JTextField();
        txtIsbn = new javax.swing.JTextField();
        jLabel4 = new javax.swing.JLabel();
        txtTahun = new javax.swing.JTextField();
        jScrollPane1 = new javax.swing.JScrollPane();
        tableBuku = new javax.swing.JTable();
        lblMessage = new javax.swing.JLabel();
        btnSubmit = new javax.swing.JButton();
        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        jLabel1.setText("Judul Buku");
        jLabel2.setText("No.ISBN");
        jLabel3.setText("Pengarang");
        jLabel4.setText("Tahun Terbit");
        javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
        jPanel1.setLayout(jPanel1Layout);
        jPanel1Layout.setHorizontalGroup(
            jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap(18, 18, 18)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
LEADING)
                    .addComponent(jLabel1)
                    .addComponent(jLabel3)
                    .addComponent(jLabel2)
                    .addComponent(jLabel4))
                .addGap(53, 53, 53)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
LEADING)
```



```
.addComponent(txtTahun, javax.swing.GroupLayout.DEFAULT_SIZE, 223,
Short.MAX_VALUE)
                    .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignm
ent.LEADING, false)
                        .addComponent(txtIsbn, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, 223, Short.MAX_VALUE)
                        .addComponent(txtPengarang,
javax.swing.GroupLayout.Alignment.TRAILING)
                        .addComponent(txtJudul, javax.swing.GroupLayout.Alignment.TRAILING)))
                .addContainerGap(28, Short.MAX_VALUE))
        );
        jPanel1Layout.setVerticalGroup(
            jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap(15, 15, 15)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
BASELINE)
                    .addComponent(jLabel1)
                    .addComponent(txtJudul, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 16,
Short.MAX VALUE)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
BASELINE)
                    .addComponent(jLabel3)
                    .addComponent(txtPengarang, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(18, 18, 18)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
BASELINE)
                    .addComponent(jLabel2)
                    .addComponent(txtIsbn, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(22, 22, 22)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
BASELINE)
                    .addComponent(jLabel4)
                    .addComponent(txtTahun, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
        );
        tableBuku.setModel(new javax.swing.table.DefaultTableModel(
            new Object [][] {
            },
            new String [] {
```



```
"Judul", "Pengarang", "ISBN", "Tahun Terbit"
            Class[] types = new Class [] {
                java.lang.String.class, java.lang.String.class, java.lang.String.class,
java.lang.String.class
            };
            public Class getColumnClass(int columnIndex) {
                return types [columnIndex];
        });
        jScrollPane1.setViewportView(tableBuku);
        lblMessage.setText("Keterangan");
        btnSubmit.setText("Tambah Data");
        btnSubmit.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                btnSubmitActionPerformed(evt);
        });
        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
                    .addGroup(layout.createSequentialGroup()
                        .addContainerGap()
                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment
LEADING)
                            .addGroup(layout.createSequentialGroup()
                                .addGap(6, 6, 6)
                                .addComponent(lblMessage))
                            .addComponent(jScrollPane1,
javax.swing.GroupLayout.PREFERRED_SIZE, 384, javax.swing.GroupLayout.PREFERRED_SIZE)))
                    .addGroup(layout.createSequentialGroup()
                        .addGap(15, 15, 15)
                        .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
                .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
```



```
.addComponent(btnSubmit, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT SIZE, Short.MAX VALUE)
                .addGap(33, 33, 33))
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(25, 25, 25)
                .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 26,
Short.MAX VALUE)
                .addComponent(btnSubmit)
                .addGap(18, 18, 18)
                .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED SIZE, 200,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                .addComponent(lblMessage)
                .addGap(53, 53, 53))
        );
        pack();
    }// </editor-fold>
    private void btnSubmitActionPerformed(java.awt.event.ActionEvent evt)
        try{
        String judul = txtJudul.getText();
        String pengarang = txtPengarang.getText();
        String isbn = txtIsbn.getText();
        String tahun = txtTahun.getText();
        Buku buku = new Buku (judul, pengarang, isbn, tahun);
        DefaultTableModel data =(DefaultTableModel)tableBuku.getModel();
        data.addRow(new Object[]{buku.getJudul(), buku.getPengarang(), buku.getIsbn(),
buku.getTahun()});
        txtJudul.setText("");
        txtPengarang.setText("");
        txtIsbn.setText("");
        txtTahun.setText(" ");
        lblMessage.setText("Data Berhasil Ditambahkan");
        lblMessage.setForeground(Color.green);
        }catch(ValidasiInputException e){
        lblMessage.setText("Eror : "+e.getMessage());
```



```
lblMessage.setForeground(Color.red);
        }
     * @param args the command line arguments
    public static void main(String args[]) {
        /* Set the Nimbus look and feel */
        //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional)</pre>
        /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look
and feel.
         * For details see
http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
        try {
            for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break:
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(InputData.class.getName()).log(java.util.loggin
g.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(InputData.class.getName()).log(java.util.loggin
g.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(InputData.class.getName()).log(java.util.loggin
g.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(InputData.class.getName()).log(java.util.loggin
g.Level.SEVERE, null, ex);
        //</editor-fold>
        /* Create and display the form */
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new InputData().setVisible(true);
        });
```



```
// Variables declaration - do not modify
private javax.swing.JButton btnSubmit;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JLabel jLabel4;
private javax.swing.JPanel jPanel1;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JLabel lblMessage;
private javax.swing.JTable tableBuku;
private javax.swing.JTextField txtIsbn;
private javax.swing.JTextField txtJudul;
private javax.swing.JTextField txtPengarang;
private javax.swing.JTextField txtTahun;
// End of variables declaration
}
```

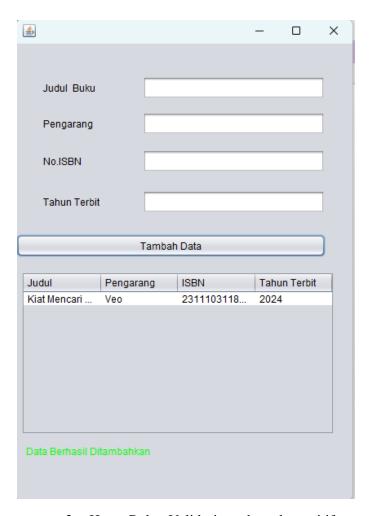
Hasil Run:





Tervalidasi untuk memasukan 4 angka tahub terbit dan jika berhasil maka tampilannya seperti dibawah ini,



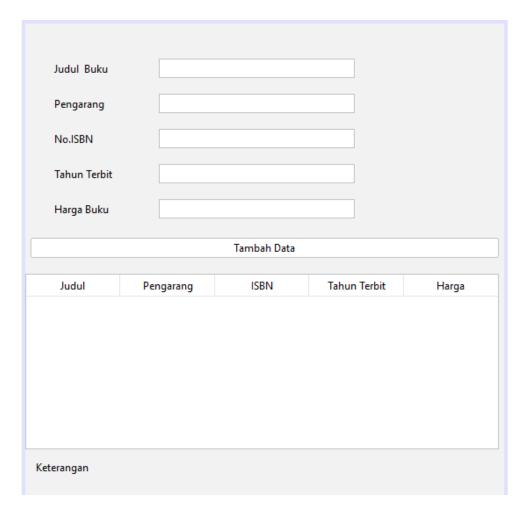


2. Harga Buku: Validasi untuk angka positif

Buat Text Field baru dan change variable name nya menjadi "txtHarga"

•





Kode:

Buku.java

```
package perpustakaan;

/**

* @author Daffa Zachari 2311103118 S1SI07C

*/
public class Buku {
    private String judul;
    private String pengarang;
    private String isbn;
    private String tahun;
    private String harga;
```



```
public Buku (String judul, String pengarang, String isbn, String tahun, String
harga)throws ValidasiInputException{
        if(judul.isEmpty()){
            throw new ValidasiInputException ("Judul Kosong Blokk");
        if(pengarang.isEmpty()){
            throw new ValidasiInputException ("Pengarang Kosong Jing");
        if(!isbn.matches("\\d{13}")){
            throw new ValidasiInputException ("ISBN ISI 13 DULU GA!?!?");
         if(tahun.isEmpty()){
            throw new ValidasiInputException("Silahkan isi Tahun Terbit!!");
        if(!tahun.matches("\\d+")){
            throw new ValidasiInputException("Tahun Terbit ga boleh pakai huruf broo");
        if(!tahun.matches("\\d{4}")){
            throw new ValidasiInputException("Tahun Terbit 4 angka ya broo");
        if(harga.isEmpty()){
        throw new ValidasiInputException("Silahkan isi Harga Buku Yaa");
        if(!harga.matches("\\d+")){
        throw new ValidasiInputException("Harga ya bukan kata kata, jadi pake angka!!");
        int hargaInt = Integer.parseInt(harga);
        if(hargaInt <= 0){</pre>
        throw new ValidasiInputException("Harga kok minus? emg sikap lo!");
        this.judul = judul;
        this.pengarang = pengarang;
        this.isbn = isbn;
        this.tahun = tahun;
        this.harga = harga;
    public String getJudul (){
        return judul;
    public String getPengarang (){
        return pengarang;
```



```
public String getIsbn (){
    return isbn;
}

public String getTahun (){
    return tahun;
}

public String getHarga (){
    return harga;
}
```

InputData.Java

```
package perpustakaan;
import java.awt.Color;
import javax.swing.table.DefaultTableModel;
/**
 * @author Daffa Zachari 2311103118 S1SI07C
public class InputData extends javax.swing.JFrame {
    private Object Tahun;
     * Creates new form InputData
    public InputData() {
        initComponents();
     * 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
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {
        jPanel1 = new javax.swing.JPanel();
        jLabel1 = new javax.swing.JLabel();
```



```
jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();
        txtJudul = new javax.swing.JTextField();
        txtPengarang = new javax.swing.JTextField();
        txtIsbn = new javax.swing.JTextField();
        jLabel5 = new javax.swing.JLabel();
        txtTahun = new javax.swing.JTextField();
        txtHarga = new javax.swing.JTextField();
        jLabel4 = new javax.swing.JLabel();
        jScrollPane1 = new javax.swing.JScrollPane();
        tableBuku = new javax.swing.JTable();
        lblMessage = new javax.swing.JLabel();
        btnSubmit = new javax.swing.JButton();
        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        jLabel1.setText("Judul Buku");
        jLabel2.setText("No.ISBN");
        jLabel3.setText("Pengarang");
        jLabel5.setText("Tahun Terbit");
        jLabel4.setText("Harga Buku");
        javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
        jPanel1.setLayout(jPanel1Layout);
        jPanel1Layout.setHorizontalGroup(
            jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap(18, 18, 18)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
LEADING)
                    .addComponent(jLabel1)
                    .addComponent(jLabel3)
                    .addComponent(jLabel2)
                    .addComponent(jLabel5)
                    .addComponent(jLabel4))
                .addGap(53, 53, 53)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
LEADING)
                    .addComponent(txtHarga)
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Al
ignment.LEADING, false)
```



```
.addComponent(txtIsbn, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, 223, Short.MAX_VALUE)
                            .addComponent(txtPengarang,
javax.swing.GroupLayout.Alignment.TRAILING)
                            .addComponent(txtJudul,
javax.swing.GroupLayout.Alignment.TRAILING)
                            .addComponent(txtTahun,
javax.swing.GroupLayout.Alignment.TRAILING, javax.swing.GroupLayout.DEFAULT_SIZE, 223,
Short.MAX_VALUE))
                        .addGap(0, 0, Short.MAX_VALUE)))
                .addContainerGap())
        );
        jPanel1Layout.setVerticalGroup(
            jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap(15, 15, 15)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
BASELINE)
                    .addComponent(jLabel1)
                    .addComponent(txtJudul, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(18, 18, 18)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
BASELINE)
                    .addComponent(txtPengarang, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel3))
                .addGap(18, 18, 18)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
BASELINE)
                    .addComponent(txtIsbn, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel2))
                .addGap(18, 18, 18)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
BASELINE)
                    .addComponent(jLabel5)
                    .addComponent(txtTahun, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(18, 18, 18)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
BASELINE)
                    .addComponent(txtHarga, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel4))
                .addGap(0, 0, Short.MAX_VALUE))
```



```
);
        tableBuku.setModel(new javax.swing.table.DefaultTableModel(
            new Object [][] {
            },
            new String [] {
                "Judul", "Pengarang", "ISBN", "Tahun Terbit", "Harga"
        ) {
            Class[] types = new Class [] {
                java.lang.String.class, java.lang.String.class, java.lang.String.class,
java.lang.String.class, java.lang.String.class
            public Class getColumnClass(int columnIndex) {
                return types [columnIndex];
        });
        jScrollPane1.setViewportView(tableBuku);
        lblMessage.setText("Keterangan");
        btnSubmit.setText("Tambah Data");
        btnSubmit.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                btnSubmitActionPerformed(evt);
        });
        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
                    .addGroup(layout.createSequentialGroup()
                        .addContainerGap()
                        .addComponent(btnSubmit, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
                    .addGroup(layout.createSequentialGroup()
                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.LEADING)
                            .addGroup(layout.createSequentialGroup()
                                .addGap(12, 12, 12)
```



```
.addComponent(lblMessage))
                            .addGroup(layout.createSequentialGroup()
                                .addGap(15, 15, 15)
                                 .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
                        .addGap(0, 0, Short.MAX_VALUE))
                    .addComponent(jScrollPane1, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, 539, Short.MAX_VALUE))
                .addContainerGap())
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(25, 25, 25)
                .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 22,
Short.MAX VALUE)
                .addComponent(btnSubmit)
                .addGap(18, 18, 18)
                .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 200,
javax.swing.GroupLayout.PREFERRED SIZE)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                .addComponent(lblMessage)
                .addGap(53, 53, 53))
        );
        pack();
    }// </editor-fold>
    private void btnSubmitActionPerformed(java.awt.event.ActionEvent evt)
        try{
        String judul = txtJudul.getText();
        String pengarang = txtPengarang.getText();
        String isbn = txtIsbn.getText();
        String tahun = txtTahun.getText();
        String harga = txtHarga.getText();
        Buku buku = new Buku (judul, pengarang, isbn, tahun, harga);
        String formatHarga = "Rp." + buku.getHarga();
        DefaultTableModel data =(DefaultTableModel)tableBuku.getModel();
        data.addRow(new Object[]{buku.getJudul(), buku.getPengarang(), buku.getIsbn(),
buku.getTahun(), formatHarga});
```



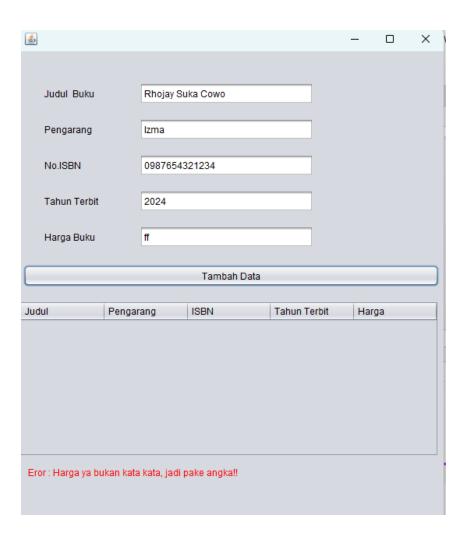
```
txtJudul.setText("");
        txtPengarang.setText("");
        txtIsbn.setText("");
        txtTahun.setText("");
        lblMessage.setText("Data Berhasil Ditambahkan");
        lblMessage.setForeground(Color.green);
        }catch(ValidasiInputException e){
        lblMessage.setText("Eror : "+e.getMessage());
        lblMessage.setForeground(Color.red);
     * @param args the command line arguments
    public static void main(String args[]) {
        /* Set the Nimbus look and feel */
        //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional)</pre>
        /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look
and feel.
         * For details see
http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
        try {
            for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(InputData.class.getName()).log(java.util.loggin
g.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(InputData.class.getName()).log(java.util.loggin
g.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(InputData.class.getName()).log(java.util.loggin
g.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(InputData.class.getName()).log(java.util.loggin
g.Level.SEVERE, null, ex);
```



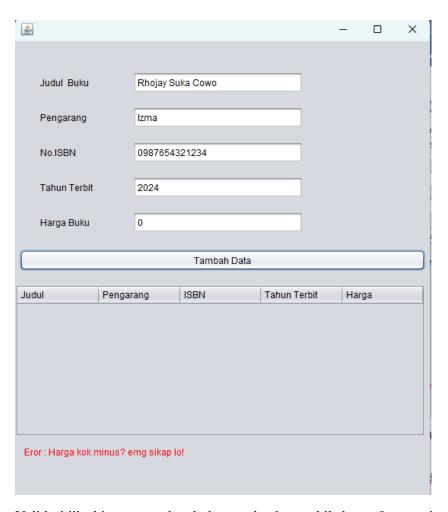
```
//</editor-fold>
    /* Create and display the form */
   java.awt.EventQueue.invokeLater(new Runnable() {
        public void run() {
            new InputData().setVisible(true);
   });
// Variables declaration - do not modify
private javax.swing.JButton btnSubmit;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JLabel jLabel4;
private javax.swing.JLabel jLabel5;
private javax.swing.JPanel jPanel1;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JLabel lblMessage;
private javax.swing.JTable tableBuku;
private javax.swing.JTextField txtHarga;
private javax.swing.JTextField txtIsbn;
private javax.swing.JTextField txtJudul;
private javax.swing.JTextField txtPengarang;
private javax.swing.JTextField txtTahun;
// End of variables declaration
```

Hasil Run:



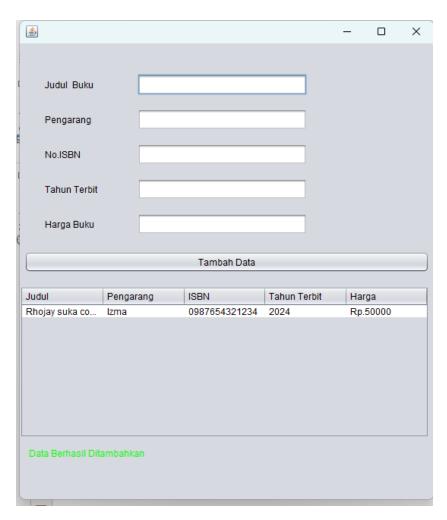






Validasi jika kita memasukan bukan angka dan apabila harga 0 atau minus

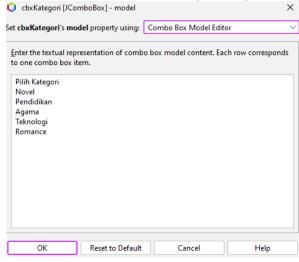




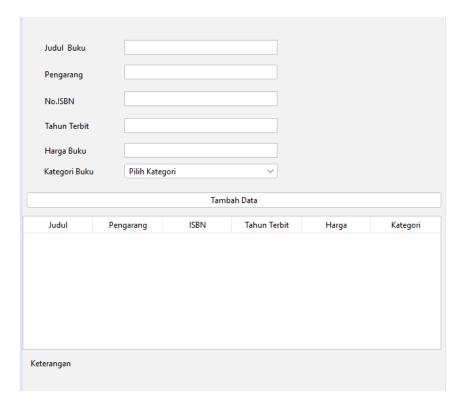
Tampilan Jika Berhasil

3. Kategori Buku: Validasi untuk input tidak kosong. (dalam bentuk Dropdown)

Buatlah Combo Box dan isi dengan kategori-kategori buku dan ganti variable nam nya menjadi "cbxKategori"







Kode:

Buku.java



```
if(!isbn.matches("\\d{13}")){
        throw new ValidasiInputException ("ISBN ISI 13 DULU GA!?!?");
     if(tahun.isEmpty()){
        throw new ValidasiInputException("Silahkan isi Tahun Terbit!!");
   if(!tahun.matches("\\d+")){
        throw new ValidasiInputException("Tahun Terbit ga boleh pakai huruf broo");
   if(!tahun.matches("\\d{4}")){
        throw new ValidasiInputException("Tahun Terbit 4 angka ya broo");
   if(harga.isEmpty()){
   throw new ValidasiInputException("Silahkan isi Harga Buku Yaa");
   if(!harga.matches("\\d+")){
    throw new ValidasiInputException("Harga ya bukan kata kata, jadi pake angka!!");
   int hargaInt = Integer.parseInt(harga);
    if(hargaInt <= 0){</pre>
   throw new ValidasiInputException("Harga kok minus? emg sikap lo!");
   if(kategori == "Pilih Kategori"){
   throw new ValidasiInputException("Kategori jangan kosong ya gantenk");
   this.judul = judul;
   this.pengarang = pengarang;
   this.isbn = isbn;
   this.tahun = tahun;
   this.harga = harga;
   this.kategori = kategori;
public String getJudul (){
   return judul;
public String getPengarang (){
   return pengarang;
public String getIsbn (){
   return isbn;
```



```
public String getTahun (){
    return tahun;
}

public String getHarga (){
    return harga;
}

public String getKategori(){
    return kategori;
}
```

InputData.java

```
package perpustakaan;
import java.awt.Color;
import javax.swing.table.DefaultTableModel;
/**
 * @author Daffa Zachari 2311103118 S1SI07C
public class InputData extends javax.swing.JFrame {
    private Object Tahun;
     * Creates new form InputData
    public InputData() {
        initComponents();
     * 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
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {
        jPanel1 = new javax.swing.JPanel();
        jLabel1 = new javax.swing.JLabel();
```



```
jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();
        txtJudul = new javax.swing.JTextField();
        txtPengarang = new javax.swing.JTextField();
        txtIsbn = new javax.swing.JTextField();
        jLabel5 = new javax.swing.JLabel();
        txtTahun = new javax.swing.JTextField();
        txtHarga = new javax.swing.JTextField();
        jLabel4 = new javax.swing.JLabel();
        jScrollPane1 = new javax.swing.JScrollPane();
        tableBuku = new javax.swing.JTable();
        lblMessage = new javax.swing.JLabel();
        btnSubmit = new javax.swing.JButton();
        jLabel6 = new javax.swing.JLabel();
        cbxKategori = new javax.swing.JComboBox<>();
        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
        jLabel1.setText("Judul Buku");
        jLabel2.setText("No.ISBN");
        jLabel3.setText("Pengarang");
        jLabel5.setText("Tahun Terbit");
        jLabel4.setText("Harga Buku");
        javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
        jPanel1.setLayout(jPanel1Layout);
        jPanel1Layout.setHorizontalGroup(
            jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap(18, 18, 18)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
LEADING)
                    .addComponent(jLabel1)
                    .addComponent(jLabel3)
                    .addComponent(jLabel2)
                    .addComponent(jLabel4)
                    .addComponent(jLabel5))
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
LEADING)
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(53, 53, 53)
                        .addComponent(txtHarga))
```



```
.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup()
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
53, Short.MAX_VALUE)
                        .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Al
ignment.LEADING)
                            .addComponent(txtTahun,
javax.swing.GroupLayout.Alignment.TRAILING, javax.swing.GroupLayout.PREFERRED_SIZE, 229,
javax.swing.GroupLayout.PREFERRED_SIZE)
                            .addComponent(txtIsbn, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 229, javax.swing.GroupLayout.PREFERRED_SIZE)
                            .addComponent(txtPengarang,
javax.swing.GroupLayout.Alignment.TRAILING, javax.swing.GroupLayout.PREFERRED_SIZE, 229,
javax.swing.GroupLayout.PREFERRED_SIZE)
                            .addComponent(txtJudul,
javax.swing.GroupLayout.Alignment.TRAILING, javax.swing.GroupLayout.PREFERRED_SIZE, 229,
javax.swing.GroupLayout.PREFERRED_SIZE)))))
        );
        jPanel1Layout.setVerticalGroup(
            jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap(12, 12, 12)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
BASELINE)
                    .addComponent(jLabel1)
                    .addComponent(txtJudul, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(15, 15, 15)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
TRAILING)
                    .addComponent(jLabel3)
                    .addComponent(txtPengarang, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
LEADING)
                    .addGroup(jPanel1Layout.createSequentialGroup()
                        .addGap(24, 24, 24)
                        .addComponent(jLabel2))
                    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup()
                        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                        .addComponent(txtIsbn, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)))
                .addGap(18, 18, 18)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
BASELINE)
```



```
.addComponent(txtTahun, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel5))
                .addGap(15, 15, 15)
                .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.
BASELINE)
                    .addComponent(txtHarga, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel4))
                .addGap(0, 0, Short.MAX_VALUE))
        );
        tableBuku.setModel(new javax.swing.table.DefaultTableModel(
            new Object [][] {
            },
            new String [] {
                "Judul", "Pengarang", "ISBN", "Tahun Terbit", "Harga"
        ) {
            Class[] types = new Class [] {
                java.lang.String.class, java.lang.String.class, java.lang.String.class,
java.lang.String.class, java.lang.String.class
            };
            public Class getColumnClass(int columnIndex) {
                return types [columnIndex];
        });
        jScrollPane1.setViewportView(tableBuku);
        lblMessage.setText("Keterangan");
        btnSubmit.setText("Tambah Data");
        btnSubmit.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                btnSubmitActionPerformed(evt);
        });
        jLabel6.setText("Kategori Buku");
        cbxKategori.setModel(new javax.swing.DefaultComboBoxModel<>(new String[] { "Pilih
Kategori", "Novel", "Pendidikan ", "Agama", "Teknologi", "Romance" }));
        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
```



```
getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
                    .addGroup(layout.createSequentialGroup()
                        .addContainerGap()
                        .addComponent(btnSubmit, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
                    .addComponent(jScrollPane1, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, 539, Short.MAX_VALUE)
                    .addGroup(layout.createSequentialGroup()
                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.TRAILING, false)
                            .addGroup(javax.swing.GroupLayout.Alignment.LEADING,
layout.createSequentialGroup()
                                .addGap(32, 32, 32)
                                .addComponent(jLabel6)
                                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RE
LATED, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                                .addComponent(cbxKategori,
javax.swing.GroupLayout.PREFERRED_SIZE, 229, javax.swing.GroupLayout.PREFERRED_SIZE))
                            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Align
ment.LEADING)
                                .addGroup(layout.createSequentialGroup()
                                    .addGap(12, 12, 12)
                                     .addComponent(lblMessage))
                                .addGroup(layout.createSequentialGroup()
                                    .addGap(15, 15, 15)
                                    .addComponent(jPanel1,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE))))
                        .addGap(0, 0, Short.MAX_VALUE)))
                .addContainerGap())
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(25, 25, 25)
                .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT SIZE, javax.swing.GroupLayout.PREFERRED SIZE)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 9,
Short.MAX VALUE)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELIN
E)
```



```
.addComponent(jLabel6)
                    .addComponent(cbxKategori, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(21, 21, 21)
                .addComponent(btnSubmit)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED_SIZE, 200,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                .addComponent(lblMessage)
                .addGap(53, 53, 53))
        );
        pack();
    }// </editor-fold>
    private void btnSubmitActionPerformed(java.awt.event.ActionEvent evt)
        try{
        String judul = txtJudul.getText();
        String pengarang = txtPengarang.getText();
        String isbn = txtIsbn.getText();
        String tahun = txtTahun.getText();
        String harga = txtHarga.getText();
        String kategori = (String)cbxKategori.getSelectedItem();
        Buku buku = new Buku (judul, pengarang, isbn, tahun, harga, kategori);
        String formatHarga = "Rp." + buku.getHarga();
        DefaultTableModel data =(DefaultTableModel)tableBuku.getModel();
        data.addRow(new Object[]{buku.getJudul(), buku.getPengarang(), buku.getIsbn(),
buku.getTahun(), formatHarga, buku.getKategori()});
        txtJudul.setText("");
        txtPengarang.setText("");
        txtIsbn.setText("");
        txtTahun.setText("");
        lblMessage.setText("Data Berhasil Ditambahkan");
        lblMessage.setForeground(Color.green);
        }catch(ValidasiInputException e){
        lblMessage.setText("Eror : "+e.getMessage());
        lblMessage.setForeground(Color.red);
```

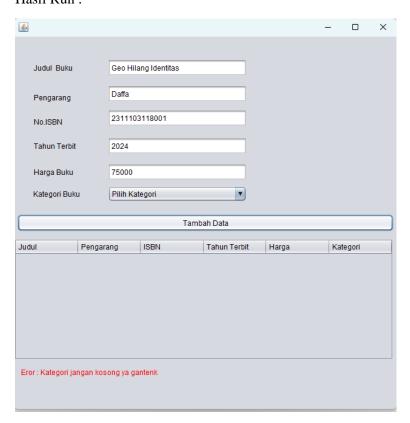


```
* @param args the command line arguments
    public static void main(String args[]) {
        /* Set the Nimbus look and feel */
        //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional)</pre>
        /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look
and feel.
         * For details see
http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
        try {
            for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(InputData.class.getName()).log(java.util.loggin
g.Level.SEVERE, null, ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(InputData.class.getName()).log(java.util.loggin
g.Level.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(InputData.class.getName()).log(java.util.loggin
g.Level.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
            java.util.logging.Logger.getLogger(InputData.class.getName()).log(java.util.loggin
g.Level.SEVERE, null, ex);
        //</editor-fold>
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new InputData().setVisible(true);
        });
    // Variables declaration - do not modify
    private javax.swing.JButton btnSubmit;
    private javax.swing.JComboBox<String> cbxKategori;
```



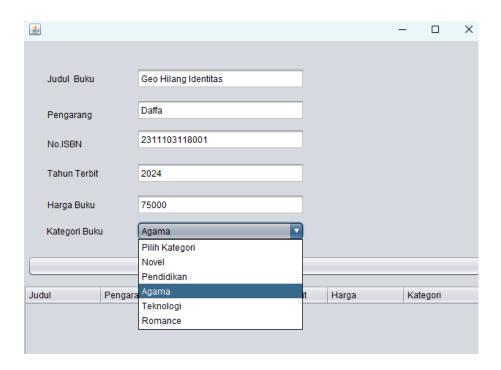
```
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JLabel jLabel4;
private javax.swing.JLabel jLabel5;
private javax.swing.JLabel jLabel6;
private javax.swing.JPanel jPanel1;
private javax.swing.JScrollPane jScrollPane1;
private javax.swing.JLabel lblMessage;
private javax.swing.JTable tableBuku;
private javax.swing.JTextField txtHarga;
private javax.swing.JTextField txtIsbn;
private javax.swing.JTextField txtJudul;
private javax.swing.JTextField txtPengarang;
private javax.swing.JTextField txtTahun;
// End of variables declaration
}
```

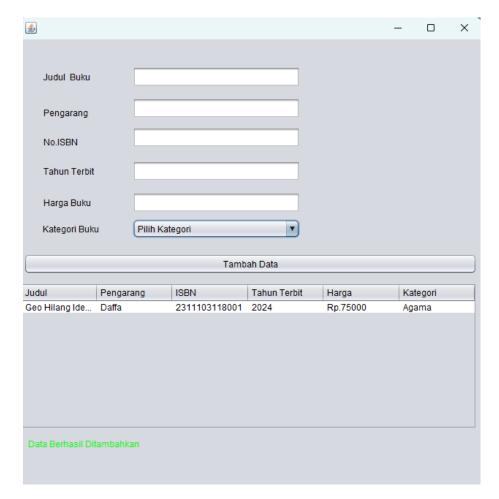
Hasil Run:



Validasi Jika kategori kosong







Tampilan Jika Berhasil.