Министерство образования Республики Беларусь Учреждение Образования «Брестский Государственный Технический Университет» Кафедра ИИТ

Лабораторная работа №10 По дисциплине СПП за 6 семестр

Тема: «Java»

Выполнил:

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Лабораторная работа №10

Цель работы: приобрести практические навыки разработки многооконных приложений на JavaFX для работы с базами данных.

Вариант 8.

Задание.

На основе БД, разработанной в лабораторной работе №9, реализовать многооконное приложение-клиент, позволяющее выполнять основные операции над таблицей в БД (добавление, удаление, модификацию данных).

Основные требования к приложению:

- Для отображения выбирать таблицу с внешними ключами;
- Осуществлять вывод основных данных в табличном представлении;
- При выводе краткого представления записи в таблице (т.е. если выводятся не все поля), по щелчку мышкой на запись осуществлять вывод всех полей в подготовленные компоненты на форме;
- Для всех полей, представленных внешними ключами, выводить их текстовое представление из связанных таблиц (например, таблица-справочник "Времена года" содержит два поля идентификатор и название сезона, в связанной таблице "Месяц года" есть внешний ключ на таблицу "Времена года"; в этом случае при выводе таблицы "Месяц года" нужно выводить название сезона, а не его идентификатор);
 - При выводе предусмотреть упорядочивание по столбцу;
 - Реализовать простейший фильтр данных по одному-двум полям;
 - При добавлении новых данных в таблицу использовать дополнительное окно для ввода;
- При модификации данных можно использовать ту же форму, что и для добавления, но с внесенными актуальными значениями полей;
- При добавлении/модификации выводить варианты значений полей с внешним ключом с помощью выпадающего списка;
- При удалении данных осуществлять удаление записи, на которой в данных момент находится фокус.

8) База данных «Прокат товаров и услуг»

Код консольной программы:

Menu.java

```
package laba4;
public class Menu extends javax.swing.JFrame {
    public Menu() {
       initComponents();
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-
BEGIN:initComponents
    private void initComponents() {
        jPanel1 = new javax.swing.JPanel();
        jLabel1 = new javax.swing.JLabel();
        jButton1 = new javax.swing.JButton();
        jButton2 = new javax.swing.JButton();
        jButton3 = new javax.swing.JButton();
        jButton4 = new javax.swing.JButton();
        jButton5 = new javax.swing.JButton();
        jButton6 = new javax.swing.JButton();
```

```
jButton7 = new javax.swing.JButton();
        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT ON CLOSE);
        setBackground(new java.awt.Color(255, 255, 255));
        jPanel1.setBackground(new java.awt.Color(153, 255, 153));
jPanel1.setBorder(javax.swing.BorderFactory.createBevelBorder(javax.swing.border.Beve
lBorder.RAISED));
        jLabel1.setFont(new java.awt.Font("Tahoma", 1, 48)); // NOI18N
        jLabel1.setText("Прокат товаров");
        javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
        jPanel1.setLayout(jPanel1Layout);
        jPanel1Layout.setHorizontalGroup(
jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup()
                .addGap(0, 56, Short.MAX VALUE)
                .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED SIZE, 466,
javax.swing.GroupLayout.PREFERRED SIZE))
       ) ;
        jPanel1Layout.setVerticalGroup(
jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addComponent(jLabel1)
                .addContainerGap(19, Short.MAX VALUE))
       ) ;
        jButton1.setFont(new java.awt.Font("Tahoma", 1, 20)); // NOI18N
        jButton1.setText("Товары");
        jButton1.setBorder(null);
        jButton1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton1ActionPerformed(evt);
        });
        jButton2.setFont(new java.awt.Font("Tahoma", 1, 20)); // NOI18N
        jButton2.setText("Продавцы");
        jButton2.setBorder(null);
        jButton2.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton2ActionPerformed(evt);
        });
        jButton3.setFont(new java.awt.Font("Tahoma", 1, 20)); // NOI18N
        jButton3.setText("Дата регистрации");
        jButton3.setBorder(null);
        jButton3.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton3ActionPerformed(evt);
        });
        jButton4.setFont(new java.awt.Font("Tahoma", 1, 20)); // NOI18N
        jButton4.setText("Время работы");
        jButton4.setBorder(null);
        jButton4.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton4ActionPerformed(evt);
```

```
});
        jButton5.setFont(new java.awt.Font("Tahoma", 1, 20)); // NOI18N
        jButton5.setText("Индексы");
        jButton5.setBorder(null);
        jButton5.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                 jButton5ActionPerformed(evt);
        });
        jButton6.setFont(new java.awt.Font("Tahoma", 1, 20)); // NOI18N
        jButton6.setText("Список");
        jButton6.setBorder(null);
        jButton6.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton6ActionPerformed(evt);
        });
        jButton7.setFont(new java.awt.Font("Tahoma", 1, 20)); // NOI18N
        jButton7.setText("Выход");
        jButton7.setBorder(null);
        jButton7.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton7ActionPerformed(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,
                 .addContainerGap(javax.swing.GroupLayout.DEFAULT SIZE,
Short.MAX VALUE)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING,
false)
                     .addComponent(jButton7, javax.swing.GroupLayout.DEFAULT SIZE,
javax.swing.GroupLayout.DEFAULT SIZE, Short.MAX VALUE)
                     .addComponent(jButton6, javax.swing.GroupLayout.DEFAULT SIZE,
javax.swing.GroupLayout.DEFAULT SIZE, Short.MAX VALUE)
                     .addComponent(jButton5, javax.swing.GroupLayout.DEFAULT SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                     .addComponent(jButton4, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT SIZE, Short.MAX VALUE)
.addComponent(jButton3, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
.addComponent(jButton2, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                     . \verb| addComponent(jButton1, javax.swing.GroupLayout.| \textit{PREFERRED\_SIZE}, \\
300, javax.swing.GroupLayout.PREFERRED SIZE))
                 .addGap(110, 110, 110))
             .addComponent(jPanell, javax.swing.GroupLayout.DEFAULT SIZE,
javax.swing.GroupLayout.DEFAULT SIZE, Short.MAX VALUE)
        ) ;
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                 .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                 .addGap(18, 18, Short.MAX VALUE)
```

```
.addComponent(jButton1, javax.swing.GroupLayout.PREFERRED SIZE, 65,
javax.swing.GroupLayout.PREFERRED SIZE)
                .addGap(18, 18, 18)
                .addComponent(jButton2, javax.swing.GroupLayout.PREFERRED SIZE, 65,
javax.swing.GroupLayout.PREFERRED SIZE)
                .addGap(27, 27, 27)
                .addComponent(jButton3, javax.swing.GroupLayout.PREFERRED SIZE, 65,
javax.swing.GroupLayout.PREFERRED SIZE)
                .addGap(18, 18, 18)
                .addComponent(jButton4, javax.swing.GroupLayout.PREFERRED SIZE, 65,
javax.swing.GroupLayout.PREFERRED SIZE)
                .addGap(18, 18, 18)
                .addComponent(jButton5, javax.swing.GroupLayout.PREFERRED_SIZE, 65,
javax.swing.GroupLayout.PREFERRED SIZE)
                .addGap(18, 18, 18)
                .addComponent(jButton6, javax.swing.GroupLayout.PREFERRED SIZE, 65,
javax.swing.GroupLayout.PREFERRED SIZE)
                .addGap(18, 18, 18)
                .addComponent(jButton7, javax.swing.GroupLayout.PREFERRED SIZE, 65,
javax.swing.GroupLayout.PREFERRED SIZE)
               .addGap(32, 32, 32))
       ) ;
        pack();
        setLocationRelativeTo(null);
    }// </editor-fold>//GEN-END:initComponents
   private void jButtonlActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton1ActionPerformed
        // Товары
        Tovar tn = new Tovar();
        tn.setVisible(true);
    }//GEN-LAST:event jButton1ActionPerformed
   private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton2ActionPerformed
        // Продавцы
        Prodavec r = new Prodavec();
        r.setVisible(true);
    }//GEN-LAST:event jButton2ActionPerformed
   private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton3ActionPerformed
        // Дата регистрации
        IntroDate id = new IntroDate();
        id.setVisible(true);
    }//GEN-LAST:event jButton3ActionPerformed
   private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton4ActionPerformed
        // Время работы
        WorkTime wt = new WorkTime();
        wt.setVisible(true);
    }//GEN-LAST:event jButton4ActionPerformed
   private void jButton5ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton5ActionPerformed
        // Индексы
        Indexes i = new Indexes();
        i.setVisible(true);
    }//GEN-LAST:event jButton5ActionPerformed
   private void jButton6ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_jButton6ActionPerformed
        // Список
        ProkatInfo t = new ProkatInfo();
```

```
t.setVisible(true);
    }//GEN-LAST:event jButton6ActionPerformed
    private void jButton7ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton7ActionPerformed
        // Выход
        System.exit(0);
    }//GEN-LAST:event jButton7ActionPerformed
    public static void main(String args[]) {
        /* Set the Nimbus look and feel */
        //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code
(optional) ">
        /* 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
         * /
        trv {
             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(Menu.class.getName()).log(java.util.logging.Level.
SEVERE, null, ex);
        } catch (InstantiationException ex) {
java.util.logging.Logger.getLogger(Menu.class.getName()).log(java.util.logging.Level.
SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
java.util.logging.Logger.getLogger(Menu.class.getName()).log(java.util.logging.Level.
SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
java.util.logging.Logger.getLogger(Menu.class.getName()).log(java.util.logging.Level.
SEVERE, null, ex);
        //</editor-fold>
        /* Create and display the form */
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                 new Menu().setVisible(true);
        });
    // Variables declaration - do not modify//GEN-BEGIN:variables
    private javax.swing.JButton jButton1;
    private javax.swing.JButton jButton2;
private javax.swing.JButton jButton3;
    private javax.swing.JButton jButton4;
private javax.swing.JButton jButton5;
private javax.swing.JButton jButton6;
    private javax.swing.JButton jButton7;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JPanel jPanel1;
    // End of variables declaration//GEN-END:variables
```

Tovar.java

```
package laba4;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.ResultSetMetaData;
import java.sql.SQLException;
import java.util.Vector;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.swing.JOptionPane;
import javax.swing.table.DefaultTableModel;
public class Tovar extends javax.swing.JFrame {
    public Tovar() {
        initComponents();
        Connect();
        Load();
    }
    Connection conn;
    PreparedStatement pst;
    ResultSet rs;
    public void Connect()
    {
        try
        {
            Class.forName("com.mysql.jdbc.Driver");
            conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/prokattovara", "root", "root")
        } catch (ClassNotFoundException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }
    public void Load()
    {
        try
        {
            pst = conn.prepareStatement("select * from tovar");
            rs = pst.executeQuery();
            ResultSetMetaData rsd = rs.getMetaData();
            int c = rsd.getColumnCount();
            DefaultTableModel d = (DefaultTableModel)jTable1.getModel();
            d.setRowCount(0);
            while(rs.next())
                Vector v = new \ Vector();
                for(int i = 0; i <= c; i++)</pre>
                    v.add(rs.getString("id t"));
                    v.add(rs.getString("name"));
                    v.add(rs.getString("kod"));
                d.addRow(v);
```

```
}
        } catch (SQLException ex) {
           Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-
BEGIN: initComponents
   private void initComponents() {
        jButton1 = new javax.swing.JButton();
        jButton3 = new javax.swing.JButton();
        jButton4 = new javax.swing.JButton();
        jLabel1 = new javax.swing.JLabel();
        jScrollPane1 = new javax.swing.JScrollPane();
        jTable1 = new javax.swing.JTable();
        jButton2 = new javax.swing.JButton();
        jPanel4 = new javax.swing.JPanel();
        jLabel8 = new javax.swing.JLabel();
        jLabel9 = new javax.swing.JLabel();
        txtname3 = new javax.swing.JTextField();
        txtnumber3 = new javax.swing.JTextField();
        jButton5 = new javax.swing.JButton();
        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT ON CLOSE);
        jButton1.setBackground(new java.awt.Color(204, 204, 255));
        jButton1.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton1.setText("Добавить");
        jButton1.setToolTipText("");
        jButton1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton1ActionPerformed(evt);
            }
        });
        jButton3.setBackground(new java.awt.Color(204, 204, 255));
        jButton3.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton3.setText("Удалить");
        jButton3.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton3ActionPerformed(evt);
            }
        });
        jButton4.setBackground(new java.awt.Color(204, 204, 255));
        jButton4.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton4.setText("Очистить");
        jButton4.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton4ActionPerformed(evt);
            }
        });
        jLabel1.setFont(new java.awt.Font("Tahoma", 1, 40)); // NOI18N
        jLabel1.setText("Названия товара");
        jTable1.setModel(new javax.swing.table.DefaultTableModel(
            new Object [][] {
            },
            new String [] {
                "ID", "Название", "Код"
            }
```

```
));
        jTable1.addMouseListener(new java.awt.event.MouseAdapter() {
            public void mouseClicked(java.awt.event.MouseEvent evt) {
                jTable1MouseClicked(evt);
        });
        jScrollPane1.setViewportView(jTable1);
        jButton2.setBackground(new java.awt.Color(204, 204, 255));
        jButton2.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton2.setText("Изменить");
        jButton2.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton2ActionPerformed(evt);
        });
        ¡Panel4.setBorder(new
javax.swing.border.SoftBevelBorder(javax.swing.border.BevelBorder.RAISED));
        jLabel8.setFont(new java.awt.Font("Tahoma", 1, 15)); // NOI18N
        jLabel8.setText("Код товара");
        jLabel9.setFont(new java.awt.Font("Tahoma", 1, 15)); // NOI18N
        jLabel9.setText("Название товара");
        javax.swing.GroupLayout jPanel4Layout = new javax.swing.GroupLayout(jPanel4);
        jPanel4.setLayout(jPanel4Layout);
        jPanel4Layout.setHorizontalGroup(
jPanel4Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel4Layout.createSequentialGroup()
                .addGap(29, 29, 29)
.addGroup(jPanel4Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
)
                    .addComponent(jLabel8)
                    .addComponent(jLabel9))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
18, Short. MAX VALUE)
.addGroup(jPanel4Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
)
                    .addComponent(txtnumber3, javax.swing.GroupLayout.PREFERRED SIZE,
181, javax.swing.GroupLayout.PREFERRED SIZE)
                    .addComponent(txtname3, javax.swing.GroupLayout.PREFERRED SIZE,
181, javax.swing.GroupLayout.PREFERRED SIZE))
                .addGap(28, 28, 28))
        jPanel4Layout.setVerticalGroup(
jPanel4Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel4Layout.createSequentialGroup()
                .addGap(46, 46, 46)
.addGroup(jPanel4Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELIN
E)
                    .addComponent(jLabel9, javax.swing.GroupLayout.PREFERRED SIZE,
34, javax.swing.GroupLayout.PREFERRED SIZE)
                    .addComponent(txtname3, javax.swing.GroupLayout.PREFERRED SIZE,
34, javax.swing.GroupLayout.PREFERRED SIZE))
                .addGap(26, 26, 26)
.addGroup(jPanel4Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELIN
E)
                    .addComponent(jLabel8, javax.swing.GroupLayout.PREFERRED SIZE,
```

```
34, javax.swing.GroupLayout.PREFERRED SIZE)
                    .addComponent(txtnumber3, javax.swing.GroupLayout.PREFERRED_SIZE,
34, javax.swing.GroupLayout.PREFERRED SIZE))
                .addContainerGap(58, Short.MAX VALUE))
        );
        jButton5.setFont(new java.awt.Font("Tahoma", 1, 13)); // NOI18N
        jButton5.setText("Назад");
        jButton5.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton5ActionPerformed(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()
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                            .addGroup(layout.createSequentialGroup()
                                .addGap(28, 28, 28)
                                .addComponent (jButton1,
javax.swing.GroupLayout.PREFERRED SIZE, 95, javax.swing.GroupLayout.PREFERRED SIZE)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                                .addComponent(jButton2)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                                .addComponent(jButton3,
javax.swing.GroupLayout.PREFERRED SIZE, 89, javax.swing.GroupLayout.PREFERRED SIZE)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                                .addComponent(jButton4,
javax.swing.GroupLayout.PREFERRED SIZE, 89, javax.swing.GroupLayout.PREFERRED SIZE))
                            .addGroup(layout.createSequentialGroup()
                                .addContainerGap()
                                .addComponent(jPanel4,
javax.swing.GroupLayout.PREFERRED SIZE, javax.swing.GroupLayout.DEFAULT SIZE,
javax.swing.GroupLayout.PREFERRED SIZE)))
                        .addGap(0, 16, Short.MAX VALUE))
                    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
                        .addGap(0, 0, Short.MAX VALUE)
                        .addComponent(jLabel1,
javax.swing.GroupLayout.PREFERRED SIZE, 432,
javax.swing.GroupLayout.PREFERRED SIZE)))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addComponent(jScrollPanel, javax.swing.GroupLayout.PREFERRED SIZE,
482, javax.swing.GroupLayout.PREFERRED SIZE)
                .addGap(30, 30, 30))
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
                .addGap(0, 0, Short.MAX VALUE)
                .addComponent(jButton5, javax.swing.GroupLayout.PREFERRED SIZE, 118,
javax.swing.GroupLayout.PREFERRED SIZE)
                .addGap(58, 58, 58))
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
```

```
.addGap(22, 22, 22)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING,
false)
                    .addGroup(layout.createSequentialGroup()
                         .addGap(14, 14, 14)
                         .addComponent(jLabel1)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT SIZE, Short.MAX VALUE)
                        .addComponent (jPanel4,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED SIZE)
                        .addGap(28, 28, 28)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                            .addComponent(jButton2,
javax.swing.GroupLayout.PREFERRED SIZE, 50, javax.swing.GroupLayout.PREFERRED SIZE)
                            .addComponent(jButton3,
javax.swing.GroupLayout.PREFERRED SIZE, 50, javax.swing.GroupLayout.PREFERRED SIZE)
                            .addComponent(jButton4,
javax.swing.GroupLayout.PREFERRED SIZE, 50, javax.swing.GroupLayout.PREFERRED SIZE)
                            .addComponent(jButton1,
javax.swing.GroupLayout.PREFERRED SIZE, 50, javax.swing.GroupLayout.PREFERRED SIZE)))
                    .addComponent (jScrollPanel,
javax.swing.GroupLayout.PREFERRED SIZE, 374, javax.swing.GroupLayout.PREFERRED SIZE))
                .addGap(18, 18, 18)
                .addComponent(jButton5, javax.swing.GroupLayout.DEFAULT SIZE, 42,
Short.MAX_VALUE)
                .addGap(19, 19, 19))
        ) ;
       pack();
        setLocationRelativeTo(null);
    }// </editor-fold>//GEN-END:initComponents
   private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST: event jButton1ActionPerformed
        // Добавить
        try
        {
            String tname = txtname3.getText();
            String tnumber = txtnumber3.getText();
            pst = conn.prepareStatement("insert into tovar(name, kod) values(?,?)");
            pst.setString(1, tname);
            pst.setString(2, tnumber);
            int k = pst.executeUpdate();
            if(k == 1)
                JOptionPane. showMessageDialog(this, "Данные успешно добавлены");
                txtname3.setText("");
                txtnumber3.setText("");
                txtname3.requestFocus();
                Load();
            }
            else
            {
                JOptionPane.showMessageDialog(this, "Ошибка, не удалось добавить
данные");
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }//GEN-LAST:event jButton1ActionPerformed
```

```
private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton3ActionPerformed
        // Удалить
        try
        {
            DefaultTableModel d = (DefaultTableModel) jTable1.getModel();
            int selectIndex = jTable1.getSelectedRow();
            String id = d.getValueAt(selectIndex, 0).toString();
            pst = conn.prepareStatement("delete from tovar where id t=?");
            pst.setString(1, id);
            int k = pst.executeUpdate();
            if(k == 1)
            {
                JOptionPane.showMessageDialog(this, "Данные успешно удалены");
                txtname3.setText("");
                txtnumber3.setText("");
                txtname3.requestFocus();
                jButton1.setEnabled(true);
               Load();
            }
            else
            {
                JOptionPane.showMessageDialog(this, "Ошибка, не удалось удалить
данные");
        } catch (SQLException ex) {
           Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }//GEN-LAST:event jButton3ActionPerformed
   private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST: event jButton4ActionPerformed
        // Очистить
        txtname3.setText("");
       txtnumber3.setText("");
       txtname3.requestFocus();
        jButton1.setEnabled(true);
       Load();
    }//GEN-LAST:event jButton4ActionPerformed
   private void jTable1MouseClicked(java.awt.event.MouseEvent evt) {//GEN-
FIRST:event jTable1MouseClicked
        // Удаление по клику на мышку
        DefaultTableModel d = (DefaultTableModel) jTable1.getModel();
        int selectIndex = jTable1.getSelectedRow();
        String id = d.getValueAt(selectIndex, 0).toString();
        txtname3.setText(d.getValueAt(selectIndex, 1).toString());
        txtnumber3.setText(d.getValueAt(selectIndex, 2).toString());
        jButton1.setEnabled(false);
    }//GEN-LAST:event jTable1MouseClicked
   private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST: event jButton2ActionPerformed
        // Изменить
        try
        {
            DefaultTableModel d = (DefaultTableModel) jTable1.getModel();
            int selectIndex = jTable1.getSelectedRow();
            String tname = txtname3.getText();
            String tnumber = txtnumber3.getText();
            String id = d.getValueAt(selectIndex, 0).toString();
            pst = conn.prepareStatement("update tovar set name=?, kod=? where
```

```
id t=?");
            pst.setString(1, tname);
            pst.setString(2, tnumber);
            pst.setString(3, id);
            int k = pst.executeUpdate();
            if(k == 1)
                JOptionPane.showMessageDialog(this, "Данные успешно изменены");
                txtname3.setText("");
                txtnumber3.setText("");
                txtname3.requestFocus();
                jButton1.setEnabled(true);
                Load();
            }
            else
            {
                JOptionPane. showMessageDialog(this, "Ошибка, не удалось изменить
данные");
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }//GEN-LAST:event jButton2ActionPerformed
    private void jButton5ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton5ActionPerformed
        // Назад
        this.setVisible(false);
    }//GEN-LAST:event jButton5ActionPerformed
    /**
     * @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) ">
        /* 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(Tovar.class.getName()).log(java.util.logging.Level
.SEVERE, null, ex);
        } catch (InstantiationException ex) {
java.util.logging.Logger.getLogger(Tovar.class.getName()).log(java.util.logging.Level
.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
java.util.logging.Logger.getLogger(Tovar.class.getName()).log(java.util.logging.Level
.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
java.util.logging.Logger.getLogger(Tovar.class.getName()).log(java.util.logging.Level
```

```
.SEVERE, null, ex);
        //</editor-fold>
        //</editor-fold>
        /* Create and display the form */
        java.awt.EventQueue.invokeLater(new Runnable() {
           public void run() {
               new Tovar().setVisible(true);
       });
    }
   // Variables declaration - do not modify//GEN-BEGIN:variables
   private javax.swing.JButton jButton1;
   private javax.swing.JButton jButton2;
   private javax.swing.JButton jButton3;
   private javax.swing.JButton jButton4;
   private javax.swing.JButton jButton5;
   private javax.swing.JLabel jLabel1;
   private javax.swing.JLabel jLabel8;
   private javax.swing.JLabel jLabel9;
   private javax.swing.JPanel jPanel4;
   private javax.swing.JScrollPane jScrollPane1;
   private javax.swing.JTable jTable1;
   private javax.swing.JTextField txtname3;
   private javax.swing.JTextField txtnumber3;
   // End of variables declaration//GEN-END:variables
}
```

Prodavec.java

```
package laba4;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.ResultSetMetaData;
import java.sql.SQLException;
import java.util.Vector;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.swing.JOptionPane;
import javax.swing.table.DefaultTableModel;
public class Prodavec extends javax.swing.JFrame {
    public Prodavec() {
        initComponents();
        Connect();
        Load();
    }
    Connection conn;
    PreparedStatement pst;
    ResultSet rs;
    public void Connect()
        try
        {
```

```
Class.forName("com.mysql.jdbc.Driver");
DriverManager.getConnection("jdbc:mysql://localhost:3306/prokattovara", "root", "root")
        } catch (ClassNotFoundException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }
   public void Load()
        try
        {
            pst = conn.prepareStatement("select * from prodavec");
            rs = pst.executeQuery();
            ResultSetMetaData rsd = rs.getMetaData();
            int c = rsd.getColumnCount();
            DefaultTableModel d = (DefaultTableModel) jTable1.getModel();
            d.setRowCount(0);
            while(rs.next())
                Vector v = new Vector();
                for(int i = 0; i <= c; i++)</pre>
                    v.add(rs.getString("id p"));
                    v.add(rs.getString("fnameprod"));
                    v.add(rs.getString("lnameprod"));
                d.addRow(v);
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }
   @SuppressWarnings("unchecked")
   // <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-
BEGIN: initComponents
   private void initComponents() {
        jButton2 = new javax.swing.JButton();
        jButton1 = new javax.swing.JButton();
        jButton3 = new javax.swing.JButton();
        jButton4 = new javax.swing.JButton();
        jLabel1 = new javax.swing.JLabel();
        jScrollPane1 = new javax.swing.JScrollPane();
        jTable1 = new javax.swing.JTable();
        jPanel1 = new javax.swing.JPanel();
        jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();
        txtstartm = new javax.swing.JTextField();
        txtendm = new javax.swing.JTextField();
        jButton5 = new javax.swing.JButton();
        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT ON CLOSE);
        setBackground(new java.awt.Color(255, 255, 255));
        jButton2.setBackground(new java.awt.Color(102, 255, 102));
        jButton2.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton2.setText("Изменить");
        jButton2.addActionListener(new java.awt.event.ActionListener() {
```

```
jButton2ActionPerformed(evt);
        });
        jButton1.setBackground(new java.awt.Color(102, 255, 102));
        jButton1.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton1.setText("Добавить");
        jButton1.setToolTipText("");
        jButton1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton1ActionPerformed(evt);
        });
        jButton3.setBackground(new java.awt.Color(102, 255, 102));
        jButton3.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton3.setText("Удалить");
        jButton3.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton3ActionPerformed(evt);
            }
        });
        jButton4.setBackground(new java.awt.Color(102, 255, 102));
        jButton4.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton4.setText("Очистить");
        jButton4.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton4ActionPerformed(evt);
        });
        jLabel1.setFont(new java.awt.Font("Tahoma", 1, 40)); // NOI18N
        jLabel1.setText("Продавцы товара");
        jTable1.setModel(new javax.swing.table.DefaultTableModel(
            new Object [][] {
            },
            new String [] {
                "ID", "Имя продавца", "Фамилия продавца"
        ));
        ¡Table1.addMouseListener(new java.awt.event.MouseAdapter() {
            public void mouseClicked(java.awt.event.MouseEvent evt) {
                iTable1MouseClicked(evt);
            }
        });
        jScrollPane1.setViewportView(jTable1);
        jPanel1.setBorder(new
javax.swing.border.SoftBevelBorder(javax.swing.border.BevelBorder.RAISED));
        jLabel2.setFont(new java.awt.Font("Tahoma", 1, 15)); // NOI18N
        jLabel2.setText("Фамилия продавца");
        jLabel3.setFont(new java.awt.Font("Tahoma", 1, 15)); // NOI18N
        jLabel3.setText("Имя продавца");
        javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
        jPanel1.setLayout(jPanel1Layout);
        jPanel1Layout.setHorizontalGroup(
jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
```

public void actionPerformed(java.awt.event.ActionEvent evt) {

```
.addGap(29, 29, 29)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
                    .addComponent(jLabel2)
                    .addComponent(jLabel3))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT SIZE, Short.MAX VALUE)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
                    .addComponent(txtendm, javax.swing.GroupLayout.PREFERRED SIZE,
181, javax.swing.GroupLayout.PREFERRED SIZE)
                    .addComponent(txtstartm, javax.swing.GroupLayout.PREFERRED_SIZE,
181, javax.swing.GroupLayout.PREFERRED SIZE))
                .addGap(28, 28, 28))
        ) ;
        ¡Panel1Layout.setVerticalGroup(
jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap(46, 46, 46)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELIN
E)
                    .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED SIZE,
34, javax.swing.GroupLayout.PREFERRED SIZE)
                    .addComponent(txtstartm, javax.swing.GroupLayout.PREFERRED_SIZE,
34, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(26, 26, 26)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELIN
                    .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED SIZE,
34, javax.swing.GroupLayout.PREFERRED SIZE)
                    .addComponent(txtendm, javax.swing.GroupLayout.PREFERRED SIZE,
34, javax.swing.GroupLayout.PREFERRED SIZE))
                .addContainerGap(58, Short.MAX VALUE))
        jButton5.setFont(new java.awt.Font("Tahoma", 1, 13)); // NOI18N
        jButton5.setText("Назад");
        jButton5.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton5ActionPerformed(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()
                        .addGap(21, 21, 21)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                            .addComponent(jPanel1,
javax.swing.GroupLayout.PREFERRED SIZE, javax.swing.GroupLayout.DEFAULT SIZE,
javax.swing.GroupLayout.PREFERRED SIZE)
                            .addGroup(layout.createSequentialGroup()
                                .addComponent(jButton1,
javax.swing.GroupLayout.PREFERRED SIZE, 95, javax.swing.GroupLayout.PREFERRED SIZE)
```

```
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                                .addComponent(jButton2)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                                .addComponent(jButton3,
javax.swing.GroupLayout.PREFERRED SIZE, 89, javax.swing.GroupLayout.PREFERRED SIZE)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                                .addComponent (jButton4,
javax.swing.GroupLayout.PREFERRED SIZE, 89, javax.swing.GroupLayout.PREFERRED SIZE)))
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT SIZE, Short.MAX VALUE))
                    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
                        .addContainerGap(23, Short.MAX VALUE)
                        .addComponent(jLabel1,
javax.swing.GroupLayout.PREFERRED SIZE, 432, javax.swing.GroupLayout.PREFERRED SIZE)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)))
                .addComponent(jScrollPanel, javax.swing.GroupLayout.PREFERRED SIZE,
482, javax.swing.GroupLayout.PREFERRED SIZE)
                .addGap(37, 37, 37))
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
                .addGap(0, 0, Short.MAX VALUE)
                .addComponent(jButton5, javax.swing.GroupLayout.PREFERRED SIZE, 118,
javax.swing.GroupLayout.PREFERRED SIZE)
                .addGap(52, 52, 52))
        ) ;
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addContainerGap(34, Short.MAX VALUE)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                    .addGroup(layout.createSequentialGroup()
                        .addComponent(jLabel1)
                        .addGap(44, 44, 44)
                        .addComponent(jPanel1,
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(jButton2,
javax.swing.GroupLayout.PREFERRED SIZE, 50, javax.swing.GroupLayout.PREFERRED SIZE)
                            .addComponent(jButton3,
javax.swing.GroupLayout.PREFERRED SIZE, 50, javax.swing.GroupLayout.PREFERRED SIZE)
                            .addComponent(jButton4,
javax.swing.GroupLayout.PREFERRED SIZE, 50, javax.swing.GroupLayout.PREFERRED SIZE)
                            .addComponent(jButton1,
javax.swing.GroupLayout.PREFERRED SIZE, 50, javax.swing.GroupLayout.PREFERRED SIZE)))
                    .addComponent(jScrollPanel,
javax.swing.GroupLayout.PREFERRED SIZE, 374, javax.swing.GroupLayout.PREFERRED SIZE))
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                .addComponent(jButton5, javax.swing.GroupLayout.DEFAULT SIZE, 42,
Short. MAX VALUE)
                .addContainerGap())
        ) ;
        pack();
        setLocationRelativeTo(null);
```

```
}// </editor-fold>//GEN-END:initComponents
    private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton2ActionPerformed
        // Изменить
        try
        {
            DefaultTableModel d = (DefaultTableModel) j Table1.getModel();
            int selectIndex = jTable1.getSelectedRow();
            String tstart = txtstartm.getText();
            String tend = txtendm.getText();
            String id = d.getValueAt(selectIndex, 0).toString();
            pst = conn.prepareStatement("update prodavec set fnameprod=?,lnameprod=?
where id_p=?");
            pst.setString(1, tstart);
            pst.setString(2, tend);
            pst.setString(3, id);
            int k = pst.executeUpdate();
            if(k == 1)
            {
                JOptionPane.showMessageDialog(this, "Данные успешно изменены");
                txtstartm.setText("");
                txtendm.setText("");
                txtstartm.requestFocus();
                jButton1.setEnabled(true);
                Load();
            }
            else
            {
                JOptionPane.showMessageDialog(this, "Ошибка, не удалось изменить
данные");
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }//GEN-LAST:event jButton2ActionPerformed
    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST: event jButton1ActionPerformed
        // Добавить
        try
        {
            String tstart = txtstartm.getText();
            String tend = txtendm.getText();
            pst = conn.prepareStatement("insert into prodavec(fnameprod, lnameprod)
values(?,?)");
            pst.setString(1, tstart);
            pst.setString(2, tend);
            int k = pst.executeUpdate();
            if(k == 1)
                JOptionPane. showMessageDialog(this, "Данные успешно добавлены");
                txtstartm.setText("");
                txtendm.setText("");
                txtstartm.requestFocus();
                Load();
            }
            else
            {
                JOptionPane. showMessageDialog(this, "Ошибка, не удалось добавить
данные");
            }
```

```
} catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }//GEN-LAST:event jButton1ActionPerformed
   private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST: event jButton3ActionPerformed
        // Удалить
        try
        {
            DefaultTableModel d = (DefaultTableModel) jTable1.getModel();
            int selectIndex = jTable1.getSelectedRow();
            String id = d.getValueAt(selectIndex, 0).toString();
            pst = conn.prepareStatement("delete from prodavec where id p=?");
            pst.setString(1, id);
            int k = pst.executeUpdate();
            if(k == 1)
            {
                JOptionPane.showMessageDialog(this, "Данные успешно удалены");
                txtstartm.setText("");
                txtendm.setText("");
                txtstartm.requestFocus();
                jButton1.setEnabled(true);
                Load();
            }
            else
            {
                JOptionPane.showMessageDialog(this, "Ошибка, не удалось удалить
данные");
        } catch (SQLException ex) {
           Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }//GEN-LAST:event jButton3ActionPerformed
   private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST: event jButton4ActionPerformed
        // Очистить
        txtstartm.setText("");
       txtendm.setText("");
       txtstartm.requestFocus();
        jButton1.setEnabled(true);
       Load();
    }//GEN-LAST:event jButton4ActionPerformed
   private void jTable1MouseClicked(java.awt.event.MouseEvent evt) {//GEN-
FIRST:event jTable1MouseClicked
        // Удаление по клику на мышку
        DefaultTableModel d = (DefaultTableModel)jTable1.getModel();
        int selectIndex = jTable1.getSelectedRow();
        String id = d.getValueAt(selectIndex, 0).toString();
        txtstartm.setText(d.getValueAt(selectIndex, 1).toString());
        txtendm.setText(d.getValueAt(selectIndex, 2).toString());
        jButton1.setEnabled(false);
    }//GEN-LAST:event jTable1MouseClicked
   private void jButton5ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST: event jButton5ActionPerformed
        // Назад
        this.setVisible(false);
    }//GEN-LAST:event jButton5ActionPerformed
   public static void main(String args[]) {
        /* Set the Nimbus look and feel */
```

```
//<editor-fold defaultstate="collapsed" desc=" Look and feel setting code
(optional) ">
        /* 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());
            }
        } catch (ClassNotFoundException ex) {
java.util.logging.Logger.getLogger(Prodavec.class.getName()).log(java.util.logging.Le
vel.SEVERE, null, ex);
        } catch (InstantiationException ex) {
java.util.logging.Logger.getLogger(Prodavec.class.getName()).log(java.util.logging.Le
vel.SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
java.util.logging.Logger.getLogger(Prodavec.class.getName()).log(java.util.logging.Le
vel.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
java.util.logging.Logger.getLogger(Prodavec.class.getName()).log(java.util.logging.Le
vel.SEVERE, null, ex);
        //</editor-fold>
        //</editor-fold>
        /* Create and display the form */
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new Prodavec().setVisible(true);
        });
    }
    // Variables declaration - do not modify//GEN-BEGIN:variables
    private javax.swing.JButton jButton1;
    private javax.swing.JButton jButton2;
    private javax.swing.JButton jButton3;
    private javax.swing.JButton jButton4;
    private javax.swing.JButton jButton5;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JLabel jLabel2;
    private javax.swing.JLabel jLabel3;
    private javax.swing.JPanel jPanel1;
    private javax.swing.JScrollPane jScrollPane1;
    private javax.swing.JTable jTable1;
    private javax.swing.JTextField txtendm;
    private javax.swing.JTextField txtstartm;
    // End of variables declaration//GEN-END:variables
}
```

IntroDate.java

```
package laba4;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.ResultSetMetaData;
import java.sql.SQLException;
import java.util.Vector;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.swing.JOptionPane;
import javax.swing.table.DefaultTableModel;
public class IntroDate extends javax.swing.JFrame {
    public IntroDate() {
        initComponents();
        Connect();
        Load();
    }
    Connection conn;
    PreparedStatement pst;
    ResultSet rs;
    public void Connect()
        try
            Class.forName("com.mysql.jdbc.Driver");
            conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/prokattovara", "root", "root")
        } catch (ClassNotFoundException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }
    public void Load()
    {
        try
        {
            pst = conn.prepareStatement("select * from dataintro");
            rs = pst.executeQuery();
            ResultSetMetaData rsd = rs.getMetaData();
            int c = rsd.getColumnCount();
            DefaultTableModel d = (DefaultTableModel) j Table1.getModel();
            d.setRowCount(0);
            while(rs.next())
                Vector v = new Vector();
                for(int i = 0; i <= c; i++)</pre>
                    v.add(rs.getString("id d"));
                    v.add(rs.getString("count"));
                    v.add(rs.getString("datareg"));
                }
```

```
d.addRow(v);
        } catch (SQLException ex) {
           Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-
BEGIN: initComponents
   private void initComponents() {
        jPanel1 = new javax.swing.JPanel();
        jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();
        txtdatareg = new javax.swing.JTextField();
        txtcount = new javax.swing.JTextField();
        jButton2 = new javax.swing.JButton();
        jButton1 = new javax.swing.JButton();
        jButton3 = new javax.swing.JButton();
        jButton4 = new javax.swing.JButton();
        jLabel1 = new javax.swing.JLabel();
        jScrollPane1 = new javax.swing.JScrollPane();
        jTable1 = new javax.swing.JTable();
        jButton5 = new javax.swing.JButton();
        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT ON CLOSE);
        jPanel1.setBorder(new
javax.swing.border.SoftBevelBorder(javax.swing.border.BevelBorder.RAISED));
        jLabel2.setFont(new java.awt.Font("Tahoma", 1, 15)); // NOI18N
        jLabel2.setText("Стоимость товара");
        jLabel3.setFont(new java.awt.Font("Tahoma", 1, 15)); // NOI18N
        jLabel3.setText("Дата регистрации");
        javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
        ¡Panel1.setLayout(jPanel1Layout);
        jPanel1Layout.setHorizontalGroup(
jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addContainerGap()
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
)
                    .addComponent(jLabel3)
                    .addComponent(jLabel2))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
30, Short. MAX VALUE)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
)
                    .addComponent(txtcount, javax.swing.GroupLayout.PREFERRED SIZE,
181, javax.swing.GroupLayout.PREFERRED SIZE)
                    .addComponent(txtdatareg, javax.swing.GroupLayout.PREFERRED SIZE,
181, javax.swing.GroupLayout.PREFERRED SIZE))
                .addGap(28, 28, 28))
        jPanel1Layout.setVerticalGroup(
jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap (46, 46, 46)
```

```
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELIN
                    .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED SIZE,
34, javax.swing.GroupLayout.PREFERRED SIZE)
                    .addComponent(txtdatareg, javax.swing.GroupLayout.PREFERRED SIZE,
34, javax.swing.GroupLayout.PREFERRED SIZE))
                .addGap(26, 26, 26)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELIN
                    .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED SIZE,
34, javax.swing.GroupLayout.PREFERRED SIZE)
                    .addComponent(txtcount, javax.swing.GroupLayout.PREFERRED_SIZE,
34, javax.swing.GroupLayout.PREFERRED SIZE))
                .addContainerGap(58, Short.MAX VALUE))
        ) ;
        jButton2.setBackground(new java.awt.Color(153, 153, 255));
        jButton2.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton2.setText("Изменить");
        jButton2.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton2ActionPerformed(evt);
            }
        });
        jButton1.setBackground(new java.awt.Color(153, 153, 255));
        jButton1.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton1.setText("Добавить");
        jButton1.setToolTipText("");
        jButton1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton1ActionPerformed(evt);
            }
        });
        jButton3.setBackground(new java.awt.Color(153, 153, 255));
        jButton3.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton3.setText("Удалить");
        jButton3.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton3ActionPerformed(evt);
            }
        });
        jButton4.setBackground(new java.awt.Color(153, 153, 255));
        ¡Button4.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton4.setText("Очистить");
        jButton4.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton4ActionPerformed(evt);
            }
        });
        jLabel1.setFont(new java.awt.Font("Tahoma", 1, 30)); // NOI18N
        jLabel1.setText("Дата регистрации товара");
        jTable1.setModel(new javax.swing.table.DefaultTableModel(
            new Object [][] {
            },
            new String [] {
                "ID", "Стоимость товара", "Дата регистрации"
            }
        jTable1.addMouseListener(new java.awt.event.MouseAdapter() {
```

```
public void mouseClicked(java.awt.event.MouseEvent evt) {
                jTable1MouseClicked(evt);
        });
        jScrollPane1.setViewportView(jTable1);
        jButton5.setFont(new java.awt.Font("Tahoma", 1, 13)); // NOI18N
        jButton5.setText("Назад");
        jButton5.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton5ActionPerformed(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()
                .addGap(18, 18, 18)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED SIZE,
432, javax.swing.GroupLayout.PREFERRED SIZE)
                    .addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED SIZE,
javax.swing.GroupLayout.DEFAULT SIZE, javax.swing.GroupLayout.PREFERRED SIZE)
                    .addGroup(layout.createSequentialGroup()
                        .addGap(10, 10, 10)
                        .addComponent(jButton1,
javax.swing.GroupLayout.PREFERRED SIZE, 95, javax.swing.GroupLayout.PREFERRED SIZE)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                        .addComponent(jButton2)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                        .addComponent(jButton3,
javax.swing.GroupLayout.PREFERRED SIZE, 89, javax.swing.GroupLayout.PREFERRED SIZE)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                        .addComponent(jButton4,
javax.swing.GroupLayout.PREFERRED SIZE, 89, javax.swing.GroupLayout.PREFERRED SIZE)))
                .addGap(18, 18, 18)
                .addComponent(jScrollPanel, javax.swing.GroupLayout.PREFERRED SIZE,
515, javax.swing.GroupLayout.PREFERRED SIZE)
                .addContainerGap(javax.swing.GroupLayout.DEFAULT SIZE,
Short. MAX VALUE))
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
                .addContainerGap(javax.swing.GroupLayout.DEFAULT SIZE,
Short. MAX VALUE)
                .addComponent(jButton5, javax.swing.GroupLayout.PREFERRED SIZE, 118,
javax.swing.GroupLayout.PREFERRED SIZE)
                .addGap(29, 29, 29))
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(22, 22, 22)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                    .addGroup(layout.createSequentialGroup()
                        .addComponent(jLabel1,
javax.swing.GroupLayout.PREFERRED_SIZE, 35, javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addGap(27, 27, 27)
                        .addComponent(jPanel1,
```

```
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(jButton2,
javax.swing.GroupLayout.PREFERRED SIZE, 50, javax.swing.GroupLayout.PREFERRED SIZE)
                            .addComponent(jButton3,
javax.swing.GroupLayout.PREFERRED SIZE, 50, javax.swing.GroupLayout.PREFERRED SIZE)
                            .addComponent(jButton4,
javax.swing.GroupLayout.PREFERRED_SIZE, 50, javax.swing.GroupLayout.PREFERRED_SIZE)
                            .addComponent(jButton1,
javax.swing.GroupLayout.PREFERRED_SIZE, 50, javax.swing.GroupLayout.PREFERRED_SIZE))
                        .addGap(5, 5, 5)
                    .addComponent (jScrollPanel,
javax.swing.GroupLayout.PREFERRED SIZE, 374, javax.swing.GroupLayout.PREFERRED SIZE))
                .addGap(18, 18, 18)
                .addComponent(jButton5, javax.swing.GroupLayout.DEFAULT SIZE, 41,
Short. MAX VALUE)
                .addGap(15, 15, 15)
       ) ;
       pack();
        setLocationRelativeTo(null);
    }// </editor-fold>//GEN-END:initComponents
   private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton2ActionPerformed
        // Изменить
        try
        {
            DefaultTableModel d = (DefaultTableModel) jTable1.getModel();
            int selectIndex = jTable1.getSelectedRow();
            String reg = txtdatareg.getText();
            String count = txtcount.getText();
            String id = d.getValueAt(selectIndex, 0).toString();
            pst = conn.prepareStatement("update dataintro set count=?, datareg=? where
id d=?");
            pst.setString(1, count);
            pst.setString(2, reg);
            pst.setString(3, id);
            int k = pst.executeUpdate();
            if(k == 1)
                JOptionPane.showMessageDialog(this, "Данные успешно изменены");
                txtdatareg.setText("");
                txtcount.setText("");
                txtdatareg.requestFocus();
                jButton1.setEnabled(true);
                Load();
            }
            else
            {
                JOptionPane.showMessageDialog(this, "Ошибка, не удалось изменить
данные");
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }//GEN-LAST:event jButton2ActionPerformed
   private void jButtonlActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton1ActionPerformed
```

```
// Добавить
        try
        {
            String reg = txtdatareg.getText();
            String count = txtcount.getText();
            pst = conn.prepareStatement("insert into dataintro(count, datareg)
values(?,?)");
            pst.setString(1, count);
            pst.setString(2, reg);
            int k = pst.executeUpdate();
            if(k == 1)
            {
                JOptionPane. showMessageDialog(this, "Данные успешно добавлены");
                txtdatareg.setText("");
                txtcount.setText("");
                txtdatareq.requestFocus();
                Load();
            }
            else
            {
                JOptionPane. showMessageDialog(this, "Ошибка, не удалось добавить
данные");
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
        }
    }//GEN-LAST:event jButton1ActionPerformed
    private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton3ActionPerformed
        // Удалить
        try
        {
            DefaultTableModel d = (DefaultTableModel) jTable1.getModel();
            int selectIndex = jTable1.getSelectedRow();
            String id = d.getValueAt(selectIndex, 0).toString();
            pst = conn.prepareStatement("delete from dataintro where id d=?");
            pst.setString(1, id);
            int k = pst.executeUpdate();
            if(k == 1)
                JOptionPane.showMessageDialog(this, "Данные успешно удалены");
                txtdatareg.setText("");
                txtcount.setText("");
                txtdatareg.requestFocus();
                jButton1.setEnabled(true);
                Load();
            }
            else
                JOptionPane. showMessageDialog(this, "Ошибка, не удалось удалить
данные");
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }//GEN-LAST:event jButton3ActionPerformed
    private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_jButton4ActionPerformed
        // Очистить
        txtdatareg.setText("");
```

```
txtcount.setText("");
        txtdatareg.requestFocus();
        jButton1.setEnabled(true);
        Load();
    }//GEN-LAST:event jButton4ActionPerformed
   private void jTable1MouseClicked(java.awt.event.MouseEvent evt) {//GEN-
FIRST:event_jTable1MouseClicked
           Удаление по клику на мышку
        DefaultTableModel d = (DefaultTableModel) jTable1.getModel();
        int selectIndex = jTable1.getSelectedRow();
        String id = d.getValueAt(selectIndex, 0).toString();
        txtcount.setText(d.getValueAt(selectIndex, 1).toString());
        txtdatareq.setText(d.getValueAt(selectIndex, 2).toString());
        jButton1.setEnabled(false);
    }//GEN-LAST:event jTable1MouseClicked
   private void jButton5ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton5ActionPerformed
        // Назад
        this.setVisible(false);
    }//GEN-LAST:event jButton5ActionPerformed
     * @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) ">
        /* 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(IntroDate.class.getName()).log(java.util.logging.L
evel. SEVERE, null, ex);
        } catch (InstantiationException ex) {
java.util.logging.Logger.getLogger(IntroDate.class.getName()).log(java.util.logging.L
evel. SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
java.util.logging.Logger.getLogger(IntroDate.class.getName()).log(java.util.logging.L
evel. SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
java.util.logging.Logger.getLogger(IntroDate.class.getName()).log(java.util.logging.L
evel. SEVERE, null, ex);
        //</editor-fold>
        /* Create and display the form */
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new IntroDate().setVisible(true);
```

```
});
   // Variables declaration - do not modify//GEN-BEGIN:variables
   private javax.swing.JButton jButton1;
   private javax.swing.JButton jButton2;
   private javax.swing.JButton jButton3;
   private javax.swing.JButton jButton4;
   private javax.swing.JButton jButton5;
   private javax.swing.JLabel jLabel1;
   private javax.swing.JLabel jLabel2;
   private javax.swing.JLabel jLabel3;
   private javax.swing.JPanel jPanel1;
   private javax.swing.JScrollPane jScrollPane1;
   private javax.swing.JTable jTable1;
   private javax.swing.JTextField txtcount;
   private javax.swing.JTextField txtdatareg;
   // End of variables declaration//GEN-END:variables
}
```

WorkTime.java

```
package laba4;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.ResultSetMetaData;
import java.sql.SQLException;
import java.util.Vector;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.swing.JOptionPane;
import javax.swing.table.DefaultTableModel;
public class WorkTime extends javax.swing.JFrame {
    public WorkTime() {
        initComponents();
        Connect();
        Load();
    }
    Connection conn;
    PreparedStatement pst;
    ResultSet rs;
    public void Connect()
    {
        try
        {
            Class.forName("com.mysql.jdbc.Driver");
            conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/prokattovara","root","root")
        } catch (ClassNotFoundException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
```

```
public void Load()
        try
        {
            pst = conn.prepareStatement("select * from worktime");
            rs = pst.executeQuery();
            ResultSetMetaData rsd = rs.getMetaData();
            int c = rsd.getColumnCount();
            DefaultTableModel d = (DefaultTableModel) jTable1.getModel();
            d.setRowCount(0);
            while(rs.next())
                Vector v = new \ Vector();
                for (int i = 0; i <= c; i++)</pre>
                    v.add(rs.getString("id w"));
                    v.add(rs.getString("starttime"));
                    v.add(rs.getString("endtime"));
                d.addRow(v);
            }
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-
BEGIN: initComponents
   private void initComponents() {
        jButton2 = new javax.swing.JButton();
        jButton1 = new javax.swing.JButton();
        jButton3 = new javax.swing.JButton();
        jButton4 = new javax.swing.JButton();
        jLabel1 = new javax.swing.JLabel();
        jScrollPane1 = new javax.swing.JScrollPane();
        jTable1 = new javax.swing.JTable();
        jPanel1 = new javax.swing.JPanel();
        jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();
        txtstarttime = new javax.swing.JTextField();
        txtendtime = new javax.swing.JTextField();
        jButton5 = new javax.swing.JButton();
        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT ON CLOSE);
        jButton2.setBackground(new java.awt.Color(0, 204, 204));
        jButton2.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton2.setText("Изменить");
        jButton2.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton2ActionPerformed(evt);
            }
        });
        jButton1.setBackground(new java.awt.Color(0, 204, 204));
        jButton1.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton1.setText("Добавить");
        jButton1.setToolTipText("");
        jButton1.addActionListener(new java.awt.event.ActionListener() {
```

```
public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton1ActionPerformed(evt);
        });
        jButton3.setBackground(new java.awt.Color(0, 204, 204));
        jButton3.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton3.setText("Удалить");
        jButton3.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton3ActionPerformed(evt);
        });
        jButton4.setBackground(new java.awt.Color(0, 204, 204));
        jButton4.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton4.setText("Очистить");
        jButton4.addActionListener(new java.awt.event.ActionListener() {
           public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton4ActionPerformed(evt);
        });
        jLabel1.setFont(new java.awt.Font("Tahoma", 1, 34)); // NOI18N
        jLabel1.setText("Время работы проката");
        jTable1.setModel(new javax.swing.table.DefaultTableModel(
            new Object [][] {
            },
            new String [] {
                "ID", "Время начала работы", "Время конца работы"
        ));
        jTable1.addMouseListener(new java.awt.event.MouseAdapter() {
            public void mouseClicked(java.awt.event.MouseEvent evt) {
                jTable1MouseClicked(evt);
        });
        jScrollPane1.setViewportView(jTable1);
        ¡Panel1.setBorder(new
javax.swing.border.SoftBevelBorder(javax.swing.border.BevelBorder.RAISED));
        jLabel2.setFont(new java.awt.Font("Tahoma", 1, 15)); // NOI18N
        jLabel2.setText("Время конца работы");
        jLabel3.setFont(new java.awt.Font("Tahoma", 1, 15)); // NOI18N
        jLabel3.setText("Время начала работы");
        javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
        jPanel1.setLayout(jPanel1Layout);
        jPanel1Layout.setHorizontalGroup(
jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addContainerGap()
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
)
                    .addComponent(jLabel3)
                    .addComponent(jLabel2))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
30, Short. MAX VALUE)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING
```

```
)
                    .addComponent(txtendtime, javax.swing.GroupLayout.PREFERRED_SIZE,
181, javax.swing.GroupLayout.PREFERRED SIZE)
                    .addComponent(txtstarttime,
javax.swing.GroupLayout.PREFERRED SIZE, 181, javax.swing.GroupLayout.PREFERRED SIZE))
                .addGap(28, 28, 28))
        jPanel1Layout.setVerticalGroup(
jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(jPanel1Layout.createSequentialGroup()
                .addGap(46, 46, 46)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELIN
                    .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED SIZE,
34, javax.swing.GroupLayout.PREFERRED SIZE)
                    .addComponent(txtstarttime,
javax.swing.GroupLayout.PREFERRED_SIZE, 34, javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGap(26, 26, 26)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELIN
E)
                    .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED SIZE,
34, javax.swing.GroupLayout.PREFERRED SIZE)
                    .addComponent(txtendtime, javax.swing.GroupLayout.PREFERRED SIZE,
34, javax.swing.GroupLayout.PREFERRED SIZE))
                .addContainerGap(58, Short.MAX VALUE))
        );
        jButton5.setFont(new java.awt.Font("Tahoma", 1, 13)); // NOI18N
        jButton5.setText("Назад");
        jButton5.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton5ActionPerformed(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()
                        .addGap(18, 18, 18)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                            .addComponent(jPanel1,
javax.swing.GroupLayout.PREFERRED SIZE, javax.swing.GroupLayout.DEFAULT SIZE,
javax.swing.GroupLayout.PREFERRED SIZE)
                            .addGroup(layout.createSequentialGroup()
                                .addGap(10, 10, 10)
                                .addComponent(jButton1,
javax.swing.GroupLayout.PREFERRED SIZE, 95, javax.swing.GroupLayout.PREFERRED SIZE)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                                .addComponent(jButton2)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                                .addComponent(jButton3,
javax.swing.GroupLayout.PREFERRED SIZE, 89, javax.swing.GroupLayout.PREFERRED SIZE)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
```

```
.addComponent(jButton4,
javax.swing.GroupLayout.PREFERRED SIZE, 89, javax.swing.GroupLayout.PREFERRED SIZE)))
                        .addGap(24, 24, 24))
                    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
                        .addContainerGap()
                        .addComponent(jLabel1,
javax.swing.GroupLayout.PREFERRED SIZE, 432, javax.swing.GroupLayout.PREFERRED SIZE)
                        .addGap(18, 18, 18))
                .addComponent(jScrollPanel, javax.swing.GroupLayout.PREFERRED SIZE,
515, javax.swing.GroupLayout.PREFERRED SIZE)
                .addContainerGap(27, Short.MAX VALUE))
            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
                .addContainerGap(javax.swing.GroupLayout.DEFAULT SIZE,
Short. MAX VALUE)
                .addComponent(jButton5, javax.swing.GroupLayout.PREFERRED SIZE, 118,
javax.swing.GroupLayout.PREFERRED SIZE)
                .addGap(57, 57, 57))
        ) ;
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(22, 22, 22)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)
                    .addGroup(layout.createSequentialGroup()
                        .addComponent(jLabel1,
javax.swing.GroupLayout.PREFERRED SIZE, 44, javax.swing.GroupLayout.PREFERRED SIZE)
                        .addGap(36, 36, 36)
                        .addComponent(jPanel1,
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(jButton2,
javax.swing.GroupLayout.PREFERRED SIZE, 50, javax.swing.GroupLayout.PREFERRED SIZE)
                            .addComponent(jButton3,
javax.swing.GroupLayout.PREFERRED SIZE, 50, javax.swing.GroupLayout.PREFERRED SIZE)
                            .addComponent(jButton4,
javax.swing.GroupLayout.PREFERRED SIZE, 50, javax.swing.GroupLayout.PREFERRED SIZE)
                            .addComponent(jButton1,
javax.swing.GroupLayout.PREFERRED SIZE, 50, javax.swing.GroupLayout.PREFERRED SIZE))
                        .addGap(5, 5, 5))
                    .addComponent(jScrollPanel,
javax.swing.GroupLayout.PREFERRED SIZE, 374, javax.swing.GroupLayout.PREFERRED SIZE))
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                .addComponent(jButton5, javax.swing.GroupLayout.DEFAULT SIZE, 42,
Short. MAX VALUE)
                .addContainerGap())
        ) ;
        pack();
        setLocationRelativeTo(null);
    }// </editor-fold>//GEN-END:initComponents
   private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton2ActionPerformed
        // Изменить
        try
        {
            DefaultTableModel d = (DefaultTableModel) jTable1.getModel();
            int selectIndex = jTable1.getSelectedRow();
```

```
String tstart = txtstarttime.getText();
            String tend = txtendtime.getText();
            String id = d.getValueAt(selectIndex, 0).toString();
            pst = conn.prepareStatement("update worktime set starttime=?,endtime=?
where id w=?");
            pst.setString(1, tstart);
            pst.setString(2, tend);
            pst.setString(3, id);
            int k = pst.executeUpdate();
            if(k == 1)
            {
                JOptionPane. showMessageDialog(this, "Данные успешно изменены");
                txtstarttime.setText("");
                txtendtime.setText("");
                txtstarttime.requestFocus();
                jButton1.setEnabled(true);
                Load();
            }
            else
            {
                JOptionPane. showMessageDialog(this, "Ошибка, не удалось изменить
данные");
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
        }
    }//GEN-LAST:event jButton2ActionPerformed
    private void jButtonlActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton1ActionPerformed
        // Добавить
        try
        {
            String tstart = txtstarttime.getText();
            String tend = txtendtime.getText();
            pst = conn.prepareStatement("insert into worktime(starttime, endtime)
values(?,?)");
            pst.setString(1, tstart);
            pst.setString(2, tend);
            int k = pst.executeUpdate();
            if(k == 1)
            {
                JOptionPane. showMessageDialog(this, "Данные успешно добавлены");
                txtstarttime.setText("");
                txtendtime.setText("");
                txtstarttime.requestFocus();
                Load();
            }
            else
                JOptionPane. showMessageDialog(this, "Ошибка, не удалось добавить
данные");
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }//GEN-LAST:event jButton1ActionPerformed
    private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_jButton3ActionPerformed
        // Удалить
        try
```

```
{
            DefaultTableModel d = (DefaultTableModel) jTable1.getModel();
            int selectIndex = jTable1.getSelectedRow();
            String id = d.getValueAt(selectIndex, 0).toString();
            pst = conn.prepareStatement("delete from worktime where id w=?");
            pst.setString(1, id);
            int k = pst.executeUpdate();
            if(k == 1)
                JOptionPane.showMessageDialog(this, "Данные успешно удалены");
                txtstarttime.setText("");
                txtendtime.setText("");
                txtstarttime.requestFocus();
                jButton1.setEnabled(true);
                Load();
            }
            else
            {
                JOptionPane.showMessageDialog(this, "Ошибка, не удалось удалить
данные");
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }//GEN-LAST:event jButton3ActionPerformed
    private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST: event jButton4ActionPerformed
        // Очистить
        txtstarttime.setText("");
        txtendtime.setText("");
        txtstarttime.requestFocus();
        jButton1.setEnabled(true);
        Load();
    }//GEN-LAST:event jButton4ActionPerformed
    private void jTable1MouseClicked(java.awt.event.MouseEvent evt) {//GEN-
FIRST:event jTable1MouseClicked
        // Удаление по клику на мышку
        DefaultTableModel d = (DefaultTableModel) jTable1.getModel();
        int selectIndex = jTable1.getSelectedRow();
        String id = d.getValueAt(selectIndex, 0).toString();
        txtstarttime.setText(d.getValueAt(selectIndex, 1).toString());
        txtendtime.setText(d.getValueAt(selectIndex, 2).toString());
        jButton1.setEnabled(false);
    }//GEN-LAST:event jTable1MouseClicked
    private void jButton5ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton5ActionPerformed
        // Назад
        this.setVisible(false);
    }//GEN-LAST:event jButton5ActionPerformed
    /**
     ^{\star} \emph{Cparam} 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) ">
        /* 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());
        } catch (ClassNotFoundException ex) {
java.util.logging.Logger.getLogger(WorkTime.class.getName()).log(java.util.logging.Le
vel.SEVERE, null, ex);
        } catch (InstantiationException ex) {
java.util.logging.Logger.getLogger(WorkTime.class.getName()).log(java.util.logging.Le
vel. SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
java.util.logging.Logger.getLogger(WorkTime.class.getName()).log(java.util.logging.Le
vel.SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
java.util.logging.Logger.getLogger(WorkTime.class.getName()).log(java.util.logging.Le
vel.SEVERE, null, ex);
        //</editor-fold>
        /* Create and display the form */
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new WorkTime().setVisible(true);
        });
    }
   // Variables declaration - do not modify//GEN-BEGIN:variables
   private javax.swing.JButton jButton1;
   private javax.swing.JButton jButton2;
   private javax.swing.JButton jButton3;
   private javax.swing.JButton jButton4;
   private javax.swing.JButton jButton5;
   private javax.swing.JLabel jLabel1;
   private javax.swing.JLabel jLabel2;
   private javax.swing.JLabel jLabel3;
   private javax.swing.JPanel jPanel1;
   private javax.swing.JScrollPane jScrollPane1;
   private javax.swing.JTable jTable1;
   private javax.swing.JTextField txtendtime;
   private javax.swing.JTextField txtstarttime;
   // End of variables declaration//GEN-END:variables
}
```

Indexes.java

```
package laba4;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.ResultSetMetaData;
import java.sql.SQLException;
import java.sql.Statement;
import java.util.Arrays;
import java.util.Vector;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.swing.JOptionPane;
import javax.swing.table.DefaultTableModel;
public class Indexes extends javax.swing.JFrame {
    public Indexes() {
        initComponents();
        Connect();
        Load();
    }
    Connection conn;
    Statement s;
    PreparedStatement pst;
    ResultSet rs;
    DefaultTableModel d;
    public void Connect()
    {
        try
        {
            Class.forName("com.mysql.jdbc.Driver");
DriverManager.getConnection("jdbc:mysgl://localhost:3306/prokattovara", "root", "root")
        } catch (ClassNotFoundException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }
    public void Load()
    {
        try
        {
            pst = conn.prepareStatement("select * from indexes");
            rs = pst.executeQuery();
            ResultSetMetaData rsd = rs.getMetaData();
            int c = rsd.getColumnCount();
            d = (DefaultTableModel) jTable1.getModel();
            d.setRowCount(0);
            while(rs.next())
                Vector v = new Vector();
                for(int i = 0; i <= c; i++)
                {
```

```
v.add(rs.getString("id"));
                    v.add(rs.getString("data id"));
                    v.add(rs.getString("prod id"));
                    v.add(rs.getString("work id"));
                    v.add(rs.getString("tovar id"));
                d.addRow(v);
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
        }
    }
   @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-
BEGIN: initComponents
   private void initComponents() {
        jButton1 = new javax.swing.JButton();
        jButton3 = new javax.swing.JButton();
        jLabel1 = new javax.swing.JLabel();
        jScrollPane1 = new javax.swing.JScrollPane();
        jTable1 = new javax.swing.JTable();
        jButton2 = new javax.swing.JButton();
        jButton4 = new javax.swing.JButton();
        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT ON CLOSE);
        jButton1.setBackground(new java.awt.Color(255, 0, 204));
        jButton1.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton1.setText("Добавить");
        jButton1.setToolTipText("");
        jButton1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton1ActionPerformed(evt);
            }
        });
        jButton3.setBackground(new java.awt.Color(255, 0, 204));
        jButton3.setFont(new java.awt.Font("Tahoma", 1, 12)); // NOI18N
        jButton3.setText("Удалить");
        jButton3.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton3ActionPerformed(evt);
            }
        });
        jLabel1.setFont(new java.awt.Font("Tahoma", 1, 30)); // NOI18N
        jLabel1.setText("Индексы ");
        jTable1.setModel(new javax.swing.table.DefaultTableModel(
            new Object [][] {
            },
            new String [] {
                "ID", "data id", "prod id", "work_id", "tovar_id"
        ));
        jTable1.addMouseListener(new java.awt.event.MouseAdapter() {
            public void mouseClicked(java.awt.event.MouseEvent evt) {
                jTable1MouseClicked(evt);
        jScrollPane1.setViewportView(jTable1);
        jButton2.setBackground(new java.awt.Color(255, 0, 204));
```

```
jButton2.setFont(new java.awt.Font("Tahoma", 1, 13)); // NOI18N
        jButton2.setText("Очистить");
        jButton2.setToolTipText("");
        jButton2.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton2ActionPerformed(evt);
        });
        jButton4.setFont(new java.awt.Font("Tahoma", 1, 13)); // NOI18N
        jButton4.setText("Назад");
        jButton4.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton4ActionPerformed(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(31, Short.MAX VALUE)
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
                        .addComponent(jScrollPanel,
javax.swing.GroupLayout.PREFERRED SIZE, 650, javax.swing.GroupLayout.PREFERRED SIZE)
                        .addGap(43, 43, 43))
                    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
                        .addComponent(jButton4,
javax.swing.GroupLayout.PREFERRED SIZE, 118, javax.swing.GroupLayout.PREFERRED SIZE)
                        .addGap(70, 70, 70))))
            .addGroup(layout.createSequentialGroup()
                .addGap(57, 57, 57)
                .addComponent(jLabel1)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT SIZE, Short.MAX VALUE)
                .addComponent(jButton1, javax.swing.GroupLayout.PREFERRED SIZE, 95,
javax.swing.GroupLayout.PREFERRED SIZE)
                .addGap(29, 29, 29)
                .addComponent(jButton2)
                .addGap(30, 30, 30)
                .addComponent(jButton3, javax.swing.GroupLayout.PREFERRED SIZE, 89,
javax.swing.GroupLayout.PREFERRED SIZE)
                .addGap (57, 57, 57)
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(layout.createSequentialGroup()
                        .addGap(24, 24, 24)
                        .addComponent(jLabel1,
javax.swing.GroupLayout.PREFERRED_SIZE, 35, javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()
                        .addContainerGap()
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                            .addComponent (jButton3,
```

```
javax.swing.GroupLayout.PREFERRED SIZE, 42, javax.swing.GroupLayout.PREFERRED SIZE)
                            .addComponent(jButton2,
javax.swing.GroupLayout.PREFERRED SIZE, 42, javax.swing.GroupLayout.PREFERRED SIZE)
                            .addComponent(jButton1,
javax.swing.GroupLayout.PREFERRED SIZE, 43,
javax.swing.GroupLayout.PREFERRED SIZE))))
                .addGap(18, 18, 18)
                .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED SIZE,
264, javax.swing.GroupLayout.PREFERRED SIZE)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                .addComponent(jButton4, javax.swing.GroupLayout.DEFAULT SIZE, 41,
Short. MAX VALUE)
                .addContainerGap())
       ) ;
       pack();
        setLocationRelativeTo(null);
    }// </editor-fold>//GEN-END:initComponents
   private void jButtonlActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event_jButton1ActionPerformed
       // Добавить
       try
        {
            String sql = "select count(*) from tovar";
            s = conn.createStatement();
            ResultSet ress = s.executeQuery(sql);
            int count = 0;
            while(ress.next()){
               count = ress.getInt(1);
            }
            String sql sel = "select id p from prodavec";
            s = conn.createStatement();
            ResultSet res = s.executeQuery(sql sel);
            int prod = 0;
            int[] r = new int[count];
            int i = 0;
            while (res.next()) {
                prod = res.getInt(1);
               r[i] = prod;
                i++;
            }
            String sql sel2 = "select id d from dataintro";
            s = conn.createStatement();
            ResultSet res2 = s.executeQuery(sql sel2);
            int data = 0;
            int[] d = new int[count];
            int j = 0;
            while (res2.next()) {
                data = res2.getInt(1);
                d[j] = data;
                j++;
            }
            String sql sel3 = "select id w from worktime";
            s = conn.createStatement();
            ResultSet res3 = s.executeQuery(sql sel3);
            int work = 0;
            int[] w = new int[count];
            int l = 0;
            while (res3.next()) {
                work = res3.getInt(1);
                w[1] = work;
```

```
1++;
            }
            String sql sel4 = "select id t from tovar";
            s = conn.createStatement();
            ResultSet res4 = s.executeQuery(sql sel4);
            int tovar = 0;
            int[] t = new int[count];
            int e = 0;
            while (res4.next()) {
                tovar = res4.getInt(1);
                t[e] = tovar;
                e++;
            }
            int k = 0;
            for (int p = 0; p < count; p++) {
                pst = conn.prepareStatement("insert into indexes(data id, prod id,
work_id, tovar_id) values(?,?,?,?)");
                pst.setInt(1, d[p]);
                pst.setInt(2, r[p]);
                pst.setInt(3, w[p]);
                pst.setInt(4, t[p]);
                k = pst.executeUpdate();
            }
            if(k > 0)
                JOptionPane. showMessageDialog(this, "Данные успешно добавлены");
                Load();
            }
            else
            {
                JOptionPane. showMessageDialog(this, "Ошибка, не удалось добавить
данные");
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
        }
    }//GEN-LAST:event jButton1ActionPerformed
    private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton3ActionPerformed
        // Удалить
        try
        {
            d = (DefaultTableModel) jTable1.getModel();
            int selectIndex = jTable1.getSelectedRow();
            String id = d.getValueAt(selectIndex, 0).toString();
            pst = conn.prepareStatement("delete from indexes where id=?");
            pst.setString(1, id);
            int k = pst.executeUpdate();
            if(k == 1)
                JOptionPane.showMessageDialog(this, "Данные успешно удалены");
                jButton1.setEnabled(true);
                Load();
            }
            else
            {
                JOptionPane. showMessageDialog(this, "Ошибка, не удалось удалить
данные");
            }
```

```
} catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }//GEN-LAST:event jButton3ActionPerformed
    private void jTable1MouseClicked(java.awt.event.MouseEvent evt) {//GEN-
FIRST:event jTable1MouseClicked
            Удаление по клику на мышку
        d = (DefaultTableModel) jTable1.getModel();
        int selectIndex = jTable1.getSelectedRow();
        String id = d.getValueAt(selectIndex, 0).toString();
    }//GEN-LAST:event jTable1MouseClicked
    private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton2ActionPerformed
        // Очистить
        try
        {
            d.setRowCount(0);
            pst = conn.prepareStatement("delete from indexes");
            int k = pst.executeUpdate();
            JOptionPane.showMessageDialog(this, "Данные успешно удалены");
        }catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }//GEN-LAST:event jButton2ActionPerformed
    private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST: event jButton4ActionPerformed
        // Назад
        this.setVisible(false);
    }//GEN-LAST:event jButton4ActionPerformed
    /**
     * @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) ">
        /* 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(Indexes.class.getName()).log(java.util.logging.Lev
el. SEVERE, null, ex);
        } catch (InstantiationException ex) {
java.util.logging.Logger.getLogger(Indexes.class.getName()).log(java.util.logging.Lev
el. SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
java.util.logging.Logger.getLogger(Indexes.class.getName()).log(java.util.logging.Lev
el. SEVERE, null, ex);
```

```
} catch (javax.swing.UnsupportedLookAndFeelException ex) {
java.util.logging.Logger.getLogger(Indexes.class.getName()).log(java.util.logging.Lev
el. SEVERE, null, ex);
        }
        //</editor-fold>
        /* Create and display the form */
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new Indexes().setVisible(true);
            }
       });
    }
   // Variables declaration - do not modify//GEN-BEGIN:variables
   private javax.swing.JButton jButton1;
   private javax.swing.JButton jButton2;
   private javax.swing.JButton jButton3;
   private javax.swing.JButton jButton4;
   private javax.swing.JLabel jLabel1;
   private javax.swing.JScrollPane jScrollPane1;
   private javax.swing.JTable jTable1;
   // End of variables declaration//GEN-END:variables
}
```

ProkatInfo.java

```
package laba4;
import java.sql.*;
import java.util.Arrays;
import java.util.Vector;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.swing.JOptionPane;
import javax.swing.table.DefaultTableModel;
public class ProkatInfo extends javax.swing.JFrame {
    public ProkatInfo() {
        initComponents();
        Connect();
        Load();
    }
    Connection conn;
    Statement s;
    PreparedStatement pst;
    ResultSet rs;
    DefaultTableModel d;
    public void Connect()
    {
        try
        {
            Class.forName("com.mysql.jdbc.Driver");
            conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/prokattovara", "root", "root")
        } catch (ClassNotFoundException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
```

```
public void Load()
        try
        {
            pst = conn.prepareStatement("select * from prokatinfo");
            rs = pst.executeQuery();
            ResultSetMetaData rsd = rs.getMetaData();
            int c = rsd.getColumnCount();
            d = (DefaultTableModel) jTable1.getModel();
            d.setRowCount(0);
            while(rs.next())
                Vector v = new \ Vector();
                for (int i = 0; i <= c; i++)</pre>
                {
                    v.add(rs.getString("id pr"));
                    v.add(rs.getString("name"));
                    v.add(rs.getString("kod"));
                    v.add(rs.getString("count"));
                    v.add(rs.getString("starttime"));
                    v.add(rs.getString("endtime"));
                    v.add(rs.getString("datareg"));
                    v.add(rs.getString("fnameprod"));
                    v.add(rs.getString("lnameprod"));
                d.addRow(v);
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }
   @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">//GEN-
BEGIN: initComponents
   private void initComponents() {
        jLabel1 = new javax.swing.JLabel();
        jButton1 = new javax.swing.JButton();
        jButton3 = new javax.swing.JButton();
        jScrollPane1 = new javax.swing.JScrollPane();
        jTable1 = new javax.swing.JTable();
        jButton2 = new javax.swing.JButton();
        jButton5 = new javax.swing.JButton();
        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT ON CLOSE);
        setBackground(new java.awt.Color(0, 0, 0));
        jLabel1.setFont(new java.awt.Font("Tahoma", 1, 40)); // NOI18N
        jLabel1.setText("Инфо о прокате товара");
        jButton1.setBackground(new java.awt.Color(255, 153, 153));
        jButton1.setFont(new java.awt.Font("Tahoma", 1, 13)); // NOI18N
        jButton1.setText("Добавить");
        jButton1.setToolTipText("");
        jButton1.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton1ActionPerformed(evt);
        });
```

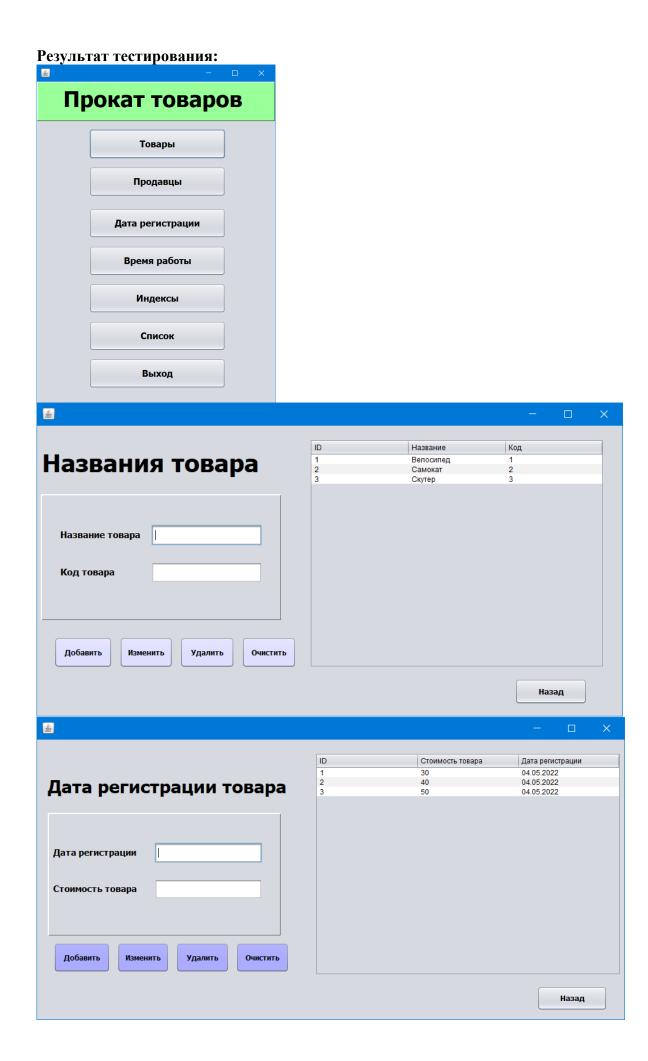
```
jButton3.setBackground(new java.awt.Color(255, 153, 153));
        jButton3.setFont(new java.awt.Font("Tahoma", 1, 13)); // NOI18N
        jButton3.setText("Удалить");
        jButton3.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton3ActionPerformed(evt);
        });
        jTable1.setModel(new javax.swing.table.DefaultTableModel(
            new Object [][] {
            },
            new String [] {
                "ІО", "Название", "Код", "Стоимость", "НачалоРаб", "КонецРаб",
"ДатаРег", "Имя продавца", "Фам продавца"
            }
        ));
        jTable1.addMouseListener(new java.awt.event.MouseAdapter() {
            public void mouseClicked(java.awt.event.MouseEvent evt) {
                jTable1MouseClicked(evt);
            }
        });
        jScrollPane1.setViewportView(jTable1);
        jButton2.setBackground(new java.awt.Color(255, 153, 153));
        jButton2.setFont(new java.awt.Font("Tahoma", 1, 13)); // NOI18N
        jButton2.setText("Очистить");
        jButton2.setToolTipText("");
        jButton2.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton2ActionPerformed(evt);
        });
        jButton5.setBackground(new java.awt.Color(255, 255, 255));
        jButton5.setFont(new java.awt.Font("Tahoma", 1, 13)); // NOI18N
        jButton5.setText("Назад");
        jButton5.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton5ActionPerformed(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()
                        .addGap(58, 58, 58)
                        .addComponent(jLabel1,
javax.swing.GroupLayout.PREFERRED SIZE, 529, javax.swing.GroupLayout.PREFERRED SIZE)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                        .addComponent(jButton1)
                        .addGap(18, 18, 18)
                        .addComponent(jButton2)
                        .addGap(18, 18, 18)
                        .addComponent(jButton3,
javax.swing.GroupLayout.PREFERRED_SIZE, 89, javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addGap(18, 18, 18)
                        .addComponent (jButton5,
```

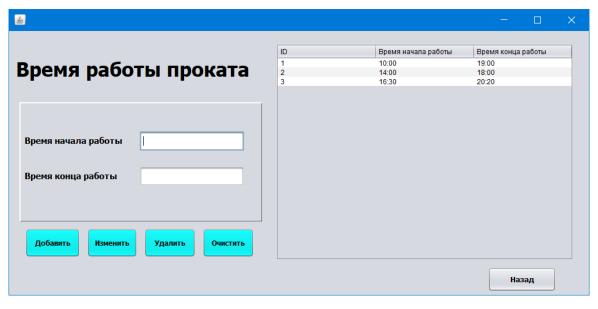
```
javax.swing.GroupLayout.PREFERRED SIZE, 95, javax.swing.GroupLayout.PREFERRED SIZE))
                    .addGroup(layout.createSequentialGroup()
                        .addGap(34, 34, 34)
                        .addComponent(jScrollPane1,
javax.swing.GroupLayout.PREFERRED SIZE, 1008,
javax.swing.GroupLayout.PREFERRED SIZE)))
                .addContainerGap(54, Short.MAX VALUE))
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addContainerGap()
.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addComponent(jButton5,
javax.swing.GroupLayout.Alignment.TRAILING, 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.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                                .addComponent(jButton3,
javax.swing.GroupLayout.PREFERRED SIZE, 50, javax.swing.GroupLayout.PREFERRED SIZE)
                                .addComponent(jButton1,
javax.swing.GroupLayout.PREFERRED SIZE, 50, javax.swing.GroupLayout.PREFERRED SIZE)
                                .addComponent(jButton2,
javax.swing.GroupLayout.PREFERRED SIZE, 50, javax.swing.GroupLayout.PREFERRED SIZE))
                            .addComponent(jLabel1))
                        .addGap(0, 0, Short.MAX VALUE)))
                .addGap(18, 18, 18)
                .addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED SIZE,
415, javax.swing.GroupLayout.PREFERRED SIZE)
                .addContainerGap(30, Short.MAX VALUE))
        ) ;
       pack();
        setLocationRelativeTo(null);
    }// </editor-fold>//GEN-END:initComponents
   private void jButtonlActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST: event jButton1ActionPerformed
        // Добавить
        try
        {
            String sql = "select count(*) from tovar";
            s = conn.createStatement();
            ResultSet ress = s.executeQuery(sql);
            int count = 0;
            while(ress.next()){
                count = ress.getInt(1);
            }
            String sql sel2 = "select count, datareg from dataintro";
            s = conn.createStatement();
            ResultSet res2 = s.executeQuery(sql sel2);
            double coun = 0;
            String datareg;
            double[] c = new double[count];
            String[] dat = new String[count];
            int j = 0;
            while (res2.next()) {
                coun = res2.getInt("count");
                c[j] = coun;
                datareg = res2.getString("datareg");
                dat[j] = datareg;
```

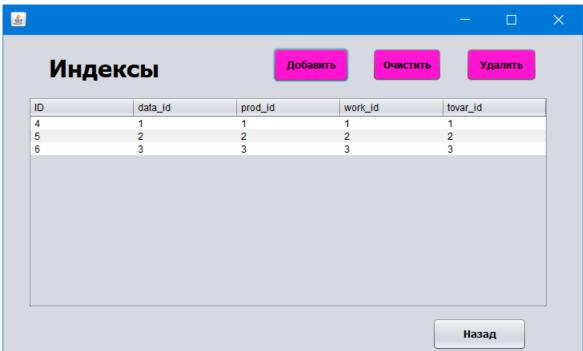
```
j++;
System.out.println("count: " + Arrays.toString(c));
System.out.println("datareg: " + Arrays.toString(dat));
String sql sel3 = "select fnameprod, lnameprod from prodavec";
s = conn.createStatement();
ResultSet res3 = s.executeQuery(sql sel3);
String startmar;
String endmar;
String[] sm = new String[count];
String[] em = new String[count];
int 1 = 0;
while (res3.next()) {
   startmar = res3.getString("fnameprod");
    sm[l] = startmar;
   endmar = res3.getString("lnameprod");
   em[1] = endmar;
   1++;
}
System.out.println("fnameprod: " + Arrays.toString(sm));
System.out.println("lnameprod: " + Arrays.toString(em));
String sql sel4 = "select starttime, endtime from worktime";
s = conn.createStatement();
ResultSet res4 = s.executeQuery(sql sel4);
String starttime;
String endtime;
String[] st = new String[count];
String[] et = new String[count];
int q = 0;
while (res4.next()) {
    starttime = res4.getString("starttime");
    st[q] = starttime;
   endtime = res4.getString("endtime");
   et[q] = endtime;
   q++;
}
System.out.println("starttime: " + Arrays.toString(st));
System.out.println("endtime: " + Arrays.toString(et));
String sql sel5 = "select name, kod from tovar";
s = conn.createStatement();
ResultSet res5 = s.executeQuery(sql sel5);
String name;
int number;
String[] n = new String[count];
int[] num = new int[count];
int w = 0;
while (res5.next()) {
    name = res5.getString("name");
    n[w] = name;
    number = res5.getInt("kod");
   num[w] = number;
    w++;
System.out.println("name: " + Arrays.toString(n));
System.out.println("kod: " + Arrays.toString(num));
int k = 0;
```

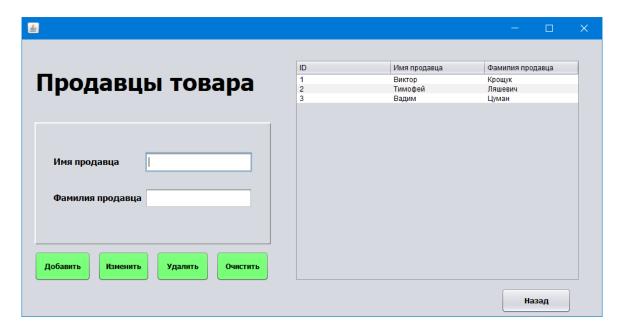
```
for (int p = 0; p < count; p++) {
                pst = conn.prepareStatement("insert into prokatinfo(name, kod, count,
starttime, endtime, datareg, fnameprod, lnameprod) values(?,?,?,?,?,?,?)");
                pst.setString(1, n[p]);
                pst.setInt(2, num[p]);
                pst.setDouble(3, c[p]);
                pst.setString(4, st[p]);
                pst.setString(5, et[p]);
                pst.setString(6, dat[p]);
                pst.setString(7, sm[p]);
                pst.setString(8, em[p]);
                k = pst.executeUpdate();
            }
            if(k > 0)
            {
                JOptionPane. showMessageDialog(this, "Данные успешно добавлены");
                Load();
            }
            else
            {
                JOptionPane.showMessageDialog(this, "Ошибка, не удалось добавить
данные");
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
        }
    }//GEN-LAST:event jButton1ActionPerformed
    private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton3ActionPerformed
        // Удалить
        try
        {
            d = (DefaultTableModel) jTable1.getModel();
            int selectIndex = jTable1.getSelectedRow();
            String id = d.getValueAt(selectIndex, 0).toString();
            pst = conn.prepareStatement("delete from prokatinfo where id pr=?");
            pst.setString(1, id);
            int k = pst.executeUpdate();
            if(k == 1)
                JOptionPane. showMessageDialog(this, "Данные успешно удалены");
                jButton1.setEnabled(true);
                Load();
            }
            else
                JOptionPane. showMessageDialog(this, "Ошибка, не удалось удалить
данные");
        } catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }//GEN-LAST:event jButton3ActionPerformed
    private void jTable1MouseClicked(java.awt.event.MouseEvent evt) {//GEN-
FIRST:event_jTable1MouseClicked
        // Удаление по клику на мышку
        d = (DefaultTableModel) jTable1.getModel();
        int selectIndex = jTable1.getSelectedRow();
        String id = d.getValueAt(selectIndex, 0).toString();
    }//GEN-LAST:event jTable1MouseClicked
```

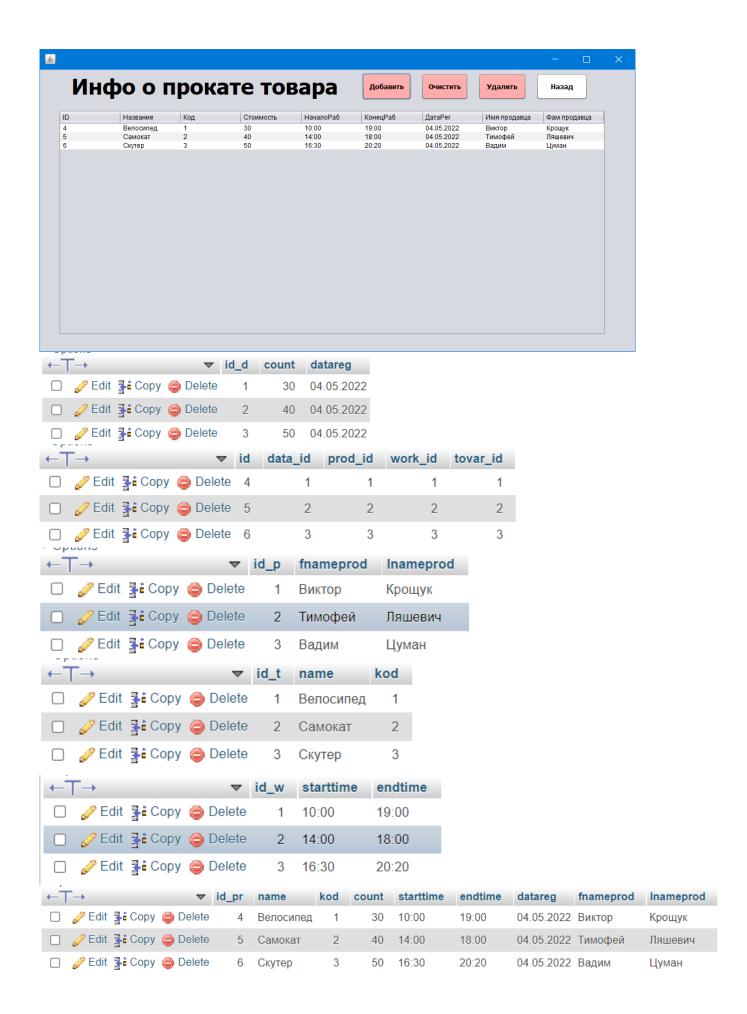
```
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton2ActionPerformed
        // Очистить
        try
        {
            d.setRowCount(0);
            pst = conn.prepareStatement("delete from prokatinfo");
            int k = pst.executeUpdate();
            JOptionPane. showMessageDialog(this, "Данные успешно удалены");
        }catch (SQLException ex) {
            Logger.getLogger(ProkatInfo.class.getName()).log(Level.SEVERE, null, ex);
    }//GEN-LAST:event jButton2ActionPerformed
    private void jButton5ActionPerformed(java.awt.event.ActionEvent evt) {//GEN-
FIRST:event jButton5ActionPerformed
        // Назад
        this.setVisible(false);
    }//GEN-LAST:event jButton5ActionPerformed
    public static void main(String args[]) {
        try {
            for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
            }
        } catch (ClassNotFoundException ex) {
java.util.logging.Logger.getLogger(ProkatInfo.class.getName()).log(java.util.logging.
Level. SEVERE, null, ex);
        } catch (InstantiationException ex) {
java.util.logging.Logger.getLogger(ProkatInfo.class.getName()).log(java.util.logging.
Level. SEVERE, null, ex);
        } catch (IllegalAccessException ex) {
java.util.logging.Logger.getLogger(ProkatInfo.class.getName()).log(java.util.logging.
Level. SEVERE, null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
java.util.logging.Logger.getLogger(ProkatInfo.class.getName()).log(java.util.logging.
Level. SEVERE, null, ex);
        }
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new ProkatInfo().setVisible(true);
        });
    }
    // Variables declaration - do not modify//GEN-BEGIN:variables
    private javax.swing.JButton jButton1;
    private javax.swing.JButton jButton2;
    private javax.swing.JButton jButton3;
    private javax.swing.JButton jButton5;
    private javax.swing.JLabel jLabel1;
    private javax.swing.JScrollPane jScrollPane1;
    private javax.swing.JTable jTable1;
    // End of variables declaration//GEN-END:variables
}
```











Вывод: приобрел практические навыки разработки многооконных приложений на JavaFX для работы с базами данных.