

```

package cpu;

import Items.Job;
import Items.Queue;

import java.util.ArrayList;

import javax.swing.JOptionPane;

/*import com.jgoodies.forms.layout.FormLayout;
import com.jgoodies.forms.layout.ColumnSpec;
import com.jgoodies.forms.factories.FormFactory;
import com.jgoodies.forms.layout.RowSpec;*/

import javax.swing.JFileChooser;
import javax.swing.JLabel;
import javax.swing.SwingConstants;

import java.awt.Dimension;

import javax.swing.JTextField;

import net.miginfocom.swing.MigLayout;

import javax.swing.JButton;

import java.awt.Cursor;
import java.awt.SystemColor;
import java.awt.Color;
import java.awt.Font;

import javax.swing.border.LineBorder;

import java.io.*;
import java.util.*;

/**
 *
 * used to add the jobs data manually
 */
@SuppressWarnings("serial")
public class AddData extends javax.swing.JFrame {

    /**

```

```

* Creates new form AddData
*/
public AddData() {
    getContentPane().setBackground(SystemColor.inactiveCaptionText);
    setTitle("JOB DATA");
    setRootPaneCheckingEnabled(false);
    initComponents();
    setLocationRelativeTo(null);
}

/**
 * This method is called from within the constructor to initialize the form.
 * WARNING: Do NOT modify this code. The content of this method is always
 * regenerated by the Form Editor.
 */

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

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
    getContentPane().setLayout(new MigLayout("",
"[39.00px][47.00px][47.00px][49.00px][9.00px][157.00]",
"[23px][][][23px][23px][23px][23px][23px][23px][23px][23px][23px][23px]"));
    jLabel11 = new javax.swing.JLabel();
    jLabel11.setFont(new Font("Book Antiqua", Font.BOLD, 12));
    jLabel11.setForeground(new Color(255, 255, 0));
    jLabel11.setBackground(new Color(255, 235, 205));

    jLabel11.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
    jLabel11.setText("Arrive");
    jLabel11.setMaximumSize(new java.awt.Dimension(40, 20));
    jLabel11.setMinimumSize(new java.awt.Dimension(40, 20));
    jLabel11.setPreferredSize(new java.awt.Dimension(40, 20));
    getContentPane().add(jLabel11, "cell 1 1,alignx center,aligny center");
    jLabel12 = new javax.swing.JLabel();
    jLabel12.setForeground(new Color(255, 255, 0));
    jLabel12.setFont(new Font("Book Antiqua", Font.BOLD, 12));

    jLabel12.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
    jLabel12.setText("Burst");
    jLabel12.setMaximumSize(new java.awt.Dimension(40, 20));
    jLabel12.setMinimumSize(new java.awt.Dimension(40, 20));
    jLabel12.setPreferredSize(new java.awt.Dimension(40, 20));
    getContentPane().add(jLabel12, "cell 2 1,alignx center,growy");

    lblPriority = new JLabel("Priority");
    lblPriority.setForeground(new Color(255, 255, 0));
    lblPriority.setFont(new Font("Book Antiqua", Font.BOLD, 12));

```

```

getContentPane().add(lblPriority, "cell 3 1,alignx center");

lblTo = new JLabel("(0 to 30)");
lblTo.setForeground(new Color(255, 255, 0));
lblTo.setFont(new Font("Book Antiqua", Font.BOLD, 12));
getContentPane().add(lblTo, "cell 1 2,alignx center,aligny center");

lblNewLabel = new JLabel("(1 to 13)");
lblNewLabel.setForeground(new Color(255, 255, 0));
lblNewLabel.setFont(new Font("Book Antiqua", Font.BOLD, 12));
getContentPane().add(lblNewLabel, "cell 2 2,alignx center,aligny center");

lblNewLabel_1 = new JLabel("(1 to 127)");
lblNewLabel_1.setForeground(new Color(255, 255, 0));
lblNewLabel_1.setFont(new Font("Book Antiqua", Font.BOLD, 12));
getContentPane().add(lblNewLabel_1, "cell 3 2,alignx center,aligny center");

jTextField1 = new javax.swing.JTextField();
jTextField1.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField1.setForeground(new Color(255, 218, 185));
jTextField1.setBackground(SystemColor.inactiveCaptionText);
    jTextField1.setHorizontalAlignment(javax.swing.JTextField.CENTER);
    jTextField1.setText("0");
    jTextField1.setMaximumSize(new java.awt.Dimension(40, 20));
    jTextField1.setMinimumSize(new java.awt.Dimension(40, 20));
    jTextField1.setPreferredSize(new java.awt.Dimension(40, 20));
    getContentPane().add(jTextField1, "cell 1 3,alignx center,growy");
jTextField2 = new javax.swing.JTextField();
jTextField2.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField2.setForeground(new Color(255, 218, 185));
jTextField2.setBackground(SystemColor.inactiveCaptionText);

    jTextField2.setHorizontalAlignment(javax.swing.JTextField.CENTER);
    jTextField2.setText("0");
    jTextField2.setMaximumSize(new java.awt.Dimension(40, 20));
    jTextField2.setMinimumSize(new java.awt.Dimension(40, 20));
    jTextField2.setPreferredSize(new java.awt.Dimension(40, 20));
    getContentPane().add(jTextField2, "cell 2 3,alignx center,growy");
jTextField3 = new javax.swing.JTextField();
jTextField3.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField3.setForeground(new Color(255, 218, 185));
jTextField3.setBackground(SystemColor.inactiveCaptionText);

    jTextField3.setHorizontalAlignment(javax.swing.JTextField.CENTER);
    jTextField3.setText("0");
    jTextField3.setMaximumSize(new java.awt.Dimension(40, 20));
    jTextField3.setMinimumSize(new java.awt.Dimension(40, 20));
    jTextField3.setPreferredSize(new java.awt.Dimension(40, 20));

```

```

        getContentPane().add(jTextField3, "cell 3 3,alignx center,growy");
jLabel2 = new javax.swing.JLabel();
jLabel2.setForeground(new Color(255, 255, 0));
jLabel2.setFont(new Font("Book Antiqua", Font.ITALIC, 12));

        jLabel2.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
jLabel2.setText("2");
jLabel2.setMaximumSize(new java.awt.Dimension(40, 20));
jLabel2.setMinimumSize(new java.awt.Dimension(40, 20));
jLabel2.setPreferredSize(new java.awt.Dimension(40, 20));
        getContentPane().add(jLabel2, "cell 0 4,alignx center,growy");
jTextField4 = new javax.swing.JTextField();
jTextField4.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField4.setForeground(new Color(255, 218, 185));
jTextField4.setBackground(SystemColor.inactiveCaptionText);

        jTextField4.setHorizontalAlignment(javax.swing.JTextField.CENTER);
jTextField4.setText("0");
jTextField4.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField4.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField4.setPreferredSize(new java.awt.Dimension(40, 20));
        getContentPane().add(jTextField4, "cell 1 4,alignx center,growy");
jTextField5 = new javax.swing.JTextField();
jTextField5.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField5.setForeground(new Color(255, 218, 185));
jTextField5.setBackground(SystemColor.inactiveCaptionText);

        jTextField5.setHorizontalAlignment(javax.swing.JTextField.CENTER);
jTextField5.setText("0");
jTextField5.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField5.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField5.setPreferredSize(new java.awt.Dimension(40, 20));
        getContentPane().add(jTextField5, "cell 2 4,alignx center,growy");
jTextField6 = new javax.swing.JTextField();
jTextField6.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField6.setForeground(new Color(255, 218, 185));
jTextField6.setBackground(SystemColor.inactiveCaptionText);

        jTextField6.setHorizontalAlignment(javax.swing.JTextField.CENTER);
jTextField6.setText("0");
jTextField6.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField6.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField6.setPreferredSize(new java.awt.Dimension(40, 20));
        getContentPane().add(jTextField6, "cell 3 4,alignx center,growy");
LoadBttn = new javax.swing.JButton();
LoadBttn.setBackground(new Color(105, 105, 105));
LoadBttn.setForeground(new Color(144, 238, 144));
LoadBttn.setFont(new Font("Cambria", Font.BOLD, 12));

```

```
LoadBtn.setCursor(Cursor.getPredefinedCursor(Cursor.HAND_CURSOR));
```

```
LoadBtn.setText("Load");
LoadBtn.addActionListener(new java.awt.event.ActionListener()
{
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        LoadBtnActionPerformed(evt);
    }
});
getContentPane().add(LoadBtn, "cell 5 4,alignx center,growy");
jLabel3 = new javax.swing.JLabel();
jLabel3.setForeground(new Color(255, 255, 0));
jLabel3.setFont(new Font("Book Antiqua", Font.ITALIC, 12));

jLabel3.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
jLabel3.setText("3");
jLabel3.setMaximumSize(new java.awt.Dimension(40, 20));
jLabel3.setMinimumSize(new java.awt.Dimension(40, 20));
jLabel3.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jLabel3, "cell 0 5,alignx center,growy");
jTextField7 = new javax.swing.JTextField();
jTextField7.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField7.setForeground(new Color(255, 218, 185));
jTextField7.setBackground(SystemColor.inactiveCaptionText);

jTextField7.setHorizontalAlignment(javax.swing.JTextField.CENTER);
jTextField7.setText("0");
jTextField7.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField7.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField7.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jTextField7, "cell 1 5,alignx center,growy");
jTextField8 = new javax.swing.JTextField();
jTextField8.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField8.setForeground(new Color(255, 218, 185));
jTextField8.setBackground(SystemColor.inactiveCaptionText);

jTextField8.setHorizontalAlignment(javax.swing.JTextField.CENTER);
jTextField8.setText("0");
jTextField8.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField8.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField8.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jTextField8, "cell 2 5,alignx center,growy");
jTextField9 = new javax.swing.JTextField();
jTextField9.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField9.setForeground(new Color(255, 218, 185));
jTextField9.setBackground(SystemColor.inactiveCaptionText);

jTextField9.setHorizontalAlignment(javax.swing.JTextField.CENTER);
```

```

jTextField9.setText("0");
jTextField9.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField9.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField9.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jTextField9, "cell 3 5,alignx center,growy");
DefaultBttn = new javax.swing.JButton();
DefaultBttn.setBackground(new Color(105, 105, 105));
DefaultBttn.setForeground(new Color(144, 238, 144));
DefaultBttn.setFont(new Font("Cambria", Font.BOLD, 12));
DefaultBttn.setCursor(Cursor.getPredefinedCursor(Cursor.HAND_CURSOR));

DefaultBttn.setText("Load default");
DefaultBttn.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        DefaultBttnActionPerformed(evt);
    }
});
getContentPane().add(DefaultBttn, "cell 5 5,alignx center,aligny center");
jLabel4 = new javax.swing.JLabel();
jLabel4.setForeground(new Color(255, 255, 0));
jLabel4.setFont(new Font("Book Antiqua", Font.ITALIC, 12));

jLabel4.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
jLabel4.setText("4");
jLabel4.setMaximumSize(new java.awt.Dimension(40, 20));
jLabel4.setMinimumSize(new java.awt.Dimension(40, 20));
jLabel4.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jLabel4, "cell 0 6,alignx center,growy");
jTextField10 = new javax.swing.JTextField();
jTextField10.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField10.setForeground(new Color(255, 218, 185));
jTextField10.setBackground(SystemColor.inactiveCaptionText);

jTextField10.setHorizontalAlignment(javax.swing.JTextField.CENTER);
jTextField10.setText("0");
jTextField10.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField10.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField10.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jTextField10, "cell 1 6,alignx center,growy");
jTextField11 = new javax.swing.JTextField();
jTextField11.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField11.setForeground(new Color(255, 218, 185));
jTextField11.setBackground(SystemColor.inactiveCaptionText);

jTextField11.setHorizontalAlignment(javax.swing.JTextField.CENTER);
jTextField11.setText("0");
jTextField11.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField11.setMinimumSize(new java.awt.Dimension(40, 20));

```

```

        jTextField11.setPreferredSize(new java.awt.Dimension(40, 20));
        getContentPane().add(jTextField11, "cell 2 6,alignx center,growy");
jTextField12 = new javax.swing.JTextField();
jTextField12.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField12.setForeground(new Color(255, 218, 185));
jTextField12.setBackground(SystemColor.inactiveCaptionText);

        jTextField12.setHorizontalAlignment(javax.swing.JTextField.CENTER);
        jTextField12.setText("0");
        jTextField12.setMaximumSize(new java.awt.Dimension(40, 20));
        jTextField12.setMinimumSize(new java.awt.Dimension(40, 20));
        jTextField12.setPreferredSize(new java.awt.Dimension(40, 20));
        getContentPane().add(jTextField12, "cell 3 6,alignx center,growy");

// data entered by the user

btnImportFile = new JButton();
btnImportFile.addActionListener(new java.awt.event.ActionListener()
{
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        importFile(evt);
    }
});

btnImportFile.setBackground(new Color(105, 105, 105));
btnImportFile.setForeground(new Color(144, 238, 144));
btnImportFile.setFont(new Font("Cambria", Font.BOLD, 12));
btnImportFile.setCursor(Cursor.getPredefinedCursor(Cursor.HAND_CURSOR));
btnImportFile.setText("Import File");
getContentPane().add(btnImportFile, "cell 5 6,alignx center");
jLabel5 = new javax.swing.JLabel();
jLabel5.setForeground(new Color(255, 255, 0));
jLabel5.setFont(new Font("Book Antiqua", Font.ITALIC, 12));

        jLabel5.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
        jLabel5.setText("5");
        jLabel5.setMaximumSize(new java.awt.Dimension(40, 20));
        jLabel5.setMinimumSize(new java.awt.Dimension(40, 20));
        jLabel5.setPreferredSize(new java.awt.Dimension(40, 20));
        getContentPane().add(jLabel5, "cell 0 7,alignx center,growy");
jTextField13 = new javax.swing.JTextField();
jTextField13.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField13.setForeground(new Color(255, 218, 185));
jTextField13.setBackground(SystemColor.inactiveCaptionText);

        jTextField13.setHorizontalAlignment(javax.swing.JTextField.CENTER);
        jTextField13.setText("0");

```

```

jTextField13.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField13.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField13.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jTextField13, "cell 1 7,alignx center,growy");
jTextField14 = new javax.swing.JTextField();
jTextField14.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField14.setForeground(new Color(255, 218, 185));
jTextField14.setBackground(SystemColor.inactiveCaptionText);

jTextField14.setHorizontalAlignment(javax.swing.JTextField.CENTER);
jTextField14.setText("0");
jTextField14.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField14.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField14.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jTextField14, "cell 2 7,alignx center,growy");
jTextField15 = new javax.swing.JTextField();
jTextField15.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField15.setForeground(new Color(255, 218, 185));
jTextField15.setBackground(SystemColor.inactiveCaptionText);

jTextField15.setHorizontalAlignment(javax.swing.JTextField.CENTER);
jTextField15.setText("0");
jTextField15.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField15.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField15.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jTextField15, "cell 3 7,alignx center,growy");
jLabel6 = new javax.swing.JLabel();
jLabel6.setForeground(new Color(255, 255, 0));
jLabel6.setFont(new Font("Book Antiqua", Font.ITALIC, 12));

jLabel6.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
jLabel6.setText("6");
jLabel6.setMaximumSize(new java.awt.Dimension(40, 20));
jLabel6.setMinimumSize(new java.awt.Dimension(40, 20));
jLabel6.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jLabel6, "cell 0 8,alignx center,growy");
jTextField16 = new javax.swing.JTextField();
jTextField16.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField16.setForeground(new Color(255, 218, 185));
jTextField16.setBackground(SystemColor.inactiveCaptionText);

jTextField16.setHorizontalAlignment(javax.swing.JTextField.CENTER);
jTextField16.setText("0");
jTextField16.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField16.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField16.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jTextField16, "cell 1 8,alignx center,growy");
jTextField17 = new javax.swing.JTextField();

```



```

jTextField17.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField17.setForeground(new Color(255, 218, 185));
jTextField17.setBackground(SystemColor.inactiveCaptionText);

jTextField17.setHorizontalAlignment(javax.swing.JTextField.CENTER);
jTextField17.setText("0");
jTextField17.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField17.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField17.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jTextField17, "cell 2 8,alignx center,growy");
jTextField18 = new javax.swing.JTextField();
jTextField18.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField18.setForeground(new Color(255, 218, 185));
jTextField18.setBackground(SystemColor.inactiveCaptionText);

jTextField18.setHorizontalAlignment(javax.swing.JTextField.CENTER);
jTextField18.setText("0");
jTextField18.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField18.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField18.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jTextField18, "cell 3 8,alignx center,growy");
jLabel7 = new javax.swing.JLabel();
jLabel7.setForeground(new Color(255, 255, 0));
jLabel7.setFont(new Font("Book Antiqua", Font.ITALIC, 12));

jLabel7.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
jLabel7.setText("7");
jLabel7.setMaximumSize(new java.awt.Dimension(40, 20));
jLabel7.setMinimumSize(new java.awt.Dimension(40, 20));
jLabel7.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jLabel7, "cell 0 9,alignx center,growy");
jTextField19 = new javax.swing.JTextField();
jTextField19.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField19.setForeground(new Color(255, 218, 185));
jTextField19.setBackground(SystemColor.inactiveCaptionText);

jTextField19.setHorizontalAlignment(javax.swing.JTextField.CENTER);
jTextField19.setText("0");
jTextField19.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField19.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField19.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jTextField19, "cell 1 9,alignx center,growy");
jTextField20 = new javax.swing.JTextField();
jTextField20.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField20.setForeground(new Color(255, 218, 185));
jTextField20.setBackground(SystemColor.inactiveCaptionText);

jTextField20.setHorizontalAlignment(javax.swing.JTextField.CENTER);

```

```

jTextField20.setText("0");
jTextField20.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField20.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField20.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jTextField20, "cell 2 9,alignx center,growy");
jTextField21 = new javax.swing.JTextField();
jTextField21.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField21.setForeground(new Color(255, 218, 185));
jTextField21.setBackground(SystemColor.inactiveCaptionText);

jTextField21.setHorizontalAlignment(javax.swing.JTextField.CENTER);
jTextField21.setText("0");
jTextField21.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField21.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField21.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jTextField21, "cell 3 9,alignx center,growy");

lblNote = new JLabel("Note: If arrival, burst");
lblNote.setFont(new Font("Book Antiqua", Font.ITALIC, 12));
lblNote.setForeground(new Color(255, 255, 0));
getContentPane().add(lblNote, "flowx,cell 5 9,alignx center,aligny center");
jLabel8 = new javax.swing.JLabel();
jLabel8.setForeground(new Color(255, 255, 0));
jLabel8.setFont(new Font("Book Antiqua", Font.ITALIC, 12));

jLabel8.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
jLabel8.setText("8");
jLabel8.setMaximumSize(new java.awt.Dimension(40, 20));
jLabel8.setMinimumSize(new java.awt.Dimension(40, 20));
jLabel8.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jLabel8, "cell 0 10,grow");
jTextField22 = new javax.swing.JTextField();
jTextField22.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField22.setForeground(new Color(255, 218, 185));
jTextField22.setBackground(SystemColor.inactiveCaptionText);

jTextField22.setHorizontalAlignment(javax.swing.JTextField.CENTER);
jTextField22.setText("0");
jTextField22.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField22.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField22.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jTextField22, "cell 1 10,alignx center,growy");
jTextField23 = new javax.swing.JTextField();
jTextField23.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField23.setForeground(new Color(255, 218, 185));
jTextField23.setBackground(SystemColor.inactiveCaptionText);

jTextField23.setHorizontalAlignment(javax.swing.JTextField.CENTER);

```

```

jTextField23.setText("0");
jTextField23.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField23.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField23.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jTextField23, "cell 2 10,alignx center,growy");
jTextField24 = new javax.swing.JTextField();
jTextField24.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField24.setForeground(new Color(255, 218, 185));
jTextField24.setBackground(SystemColor.inactiveCaptionText);

jTextField24.setHorizontalAlignment(javax.swing.JTextField.CENTER);
jTextField24.setText("0");
jTextField24.setMaximumSize(new java.awt.Dimension(40, 20));
jTextField24.setMinimumSize(new java.awt.Dimension(40, 20));
jTextField24.setPreferredSize(new java.awt.Dimension(40, 20));
getContentPane().add(jTextField24, "cell 3 10,alignx center,growy");

lblAndPriorityIs = new JLabel("and priority is equal to zero, ");
lblAndPriorityIs.setFont(new Font("Book Antiqua", Font.ITALIC, 12));
lblAndPriorityIs.setForeground(new Color(255, 255, 0));
getContentPane().add(lblAndPriorityIs, "cell 5 10,alignx center,aligny center");

JLabel jLabel9 = new JLabel();
jLabel9.setForeground(new Color(255, 255, 0));
jLabel9.setFont(new Font("Book Antiqua", Font.ITALIC, 12));
jLabel9.setText("9");
jLabel9.setPreferredSize(new Dimension(40, 20));
jLabel9.setMinimumSize(new Dimension(40, 20));
jLabel9.setMaximumSize(new Dimension(40, 20));
jLabel9.setHorizontalAlignment(SwingConstants.CENTER);
getContentPane().add(jLabel9, "cell 0 11,grow");

jTextField25 = new JTextField();
jTextField25.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField25.setForeground(new Color(255, 218, 185));
jTextField25.setBackground(SystemColor.inactiveCaptionText);
jTextField25.setText("0");
jTextField25.setPreferredSize(new Dimension(40, 20));
jTextField25.setMinimumSize(new Dimension(40, 20));
jTextField25.setMaximumSize(new Dimension(40, 20));
jTextField25.setHorizontalAlignment(SwingConstants.CENTER);
getContentPane().add(jTextField25, "cell 1 11,alignx center,growy");

jTextField26 = new JTextField();
jTextField26.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField26.setForeground(new Color(255, 218, 185));
jTextField26.setBackground(SystemColor.inactiveCaptionText);
jTextField26.setText("0");

```

```
jTextField26.setPreferredSize(new Dimension(40, 20));
jTextField26.setMinimumSize(new Dimension(40, 20));
jTextField26.setMaximumSize(new Dimension(40, 20));
jTextField26.setHorizontalAlignment(SwingConstants.CENTER);
getContentPane().add(jTextField26, "cell 2 11,alignx center,growy");
```

```
jTextField27 = new JTextField();
jTextField27.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField27.setForeground(new Color(255, 218, 185));
jTextField27.setBackground(SystemColor.inactiveCaptionText);
jTextField27.setText("0");
jTextField27.setPreferredSize(new Dimension(40, 20));
jTextField27.setMinimumSize(new Dimension(40, 20));
jTextField27.setMaximumSize(new Dimension(40, 20));
jTextField27.setHorizontalAlignment(SwingConstants.CENTER);
getContentPane().add(jTextField27, "cell 3 11,alignx center,growy");
```

```
lblItMeansNull = new JLabel("it means null job.");
lblItMeansNull.setFont(new Font("Book Antiqua", Font.ITALIC, 12));
lblItMeansNull.setForeground(new Color(255, 255, 0));
getContentPane().add(lblItMeansNull, "cell 5 11,alignx center,aligny center");
```

```
JLabel jLabel10 = new JLabel();
jLabel10.setForeground(new Color(255, 255, 0));
jLabel10.setFont(new Font("Book Antiqua", Font.ITALIC, 12));
jLabel10.setText("10");
jLabel10.setPreferredSize(new Dimension(40, 20));
jLabel10.setMinimumSize(new Dimension(40, 20));
jLabel10.setMaximumSize(new Dimension(40, 20));
jLabel10.setHorizontalAlignment(SwingConstants.CENTER);
getContentPane().add(jLabel10, "cell 0 12,grow");
```

```
jTextField28 = new JTextField();
jTextField28.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField28.setForeground(new Color(255, 218, 185));
jTextField28.setBackground(SystemColor.inactiveCaptionText);
jTextField28.setText("0");
jTextField28.setPreferredSize(new Dimension(40, 20));
jTextField28.setMinimumSize(new Dimension(40, 20));
jTextField28.setMaximumSize(new Dimension(40, 20));
jTextField28.setHorizontalAlignment(SwingConstants.CENTER);
getContentPane().add(jTextField28, "cell 1 12,alignx center,growy");
```

```
jTextField29 = new JTextField();
jTextField29.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField29.setForeground(new Color(255, 218, 185));
jTextField29.setBackground(SystemColor.inactiveCaptionText);
jTextField29.setText("0");
```

```

jTextField29.setPreferredSize(new Dimension(40, 20));
jTextField29.setMinimumSize(new Dimension(40, 20));
jTextField29.setMaximumSize(new Dimension(40, 20));
jTextField29.setHorizontalAlignment(SwingConstants.CENTER);
getContentPane().add(jTextField29, "cell 2 12,alignx center,growy");

jTextField30 = new JTextField();
jTextField30.setBorder(new LineBorder(new Color(255, 218, 185), 1, true));
jTextField30.setForeground(new Color(255, 218, 185));
jTextField30.setBackground(SystemColor.inactiveCaptionText);
jTextField30.setText("0");
jTextField30.setPreferredSize(new Dimension(40, 20));
jTextField30.setMinimumSize(new Dimension(40, 20));
jTextField30.setMaximumSize(new Dimension(40, 20));
jTextField30.setHorizontalAlignment(SwingConstants.CENTER);
getContentPane().add(jTextField30, "cell 3 12,alignx center,growy");
jLabel1 = new javax.swing.JLabel();
jLabel1.setForeground(new Color(255, 255, 0));
jLabel1.setFont(new Font("Book Antiqua", Font.ITALIC, 12));
jLabel1.setAlignmentX(0.5f);

        jLabel1.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);
        jLabel1.setText("1");
        jLabel1.setMaximumSize(new java.awt.Dimension(40, 20));
        jLabel1.setMinimumSize(new java.awt.Dimension(40, 20));
        jLabel1.setPreferredSize(new java.awt.Dimension(40, 20));
        getContentPane().add(jLabel1, "cell 0 3,alignx center,growy");

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

@SuppressWarnings("deprecation")
private void LoadBttnActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    fillJobList();
    Face face = new Face(); // create new object of the main frame
    face.setAssignedQueue(new Queue(list)); // add list of jobs to the main queue
    face.show();
    this.dispose();
}

private ArrayList<Job> list = new ArrayList<Job>(); // list of jobs entered by the user

```

```

        /*private int checkImportData() {
            // TODO Auto-generated method stub

            // getData(); // collect data from the frame
            for(int i=0 ; i<9 ; i++)
            {
                int arriveTime = Integer.parseInt(importData[i*3]);
                int burstTime = Integer.parseInt(importData[(i*3)+1]);
                int priority = Integer.parseInt(importData[(i*3)+2]);
                if(checkJob(arriveTime,burstTime,priority ))
                {
                    list.add(new Job(i+1, arriveTime, burstTime, priority));
                }
            }
            return 0;

        }*/

private void importFile(java.awt.event.ActionEvent evt) {

    // TODO Auto-generated method stub
    JFileChooser fileChooser = new JFileChooser();
    int returnValue = fileChooser.showOpenDialog(null);
    if (returnValue == JFileChooser.APPROVE_OPTION)
    {
        File selectedFile = fileChooser.getSelectedFile();
        // System.out.println(selectedFile.getName());

        try
        {

            int i=0;

            Scanner x = new Scanner(selectedFile);

            while (x.hasNext())
            {
                importData[i*3] = x.next();
                importData[(i*3)+1] = x.next();
                importData[(i*3)+2] = x.next();

                // System.out.printf("%s %s
                %s\n",importData[i*3],importData[(i*3)+1],importData[(i*3)+2]);
                // System.out.println(importData[(i*3)+1]);
                // System.out.println(importData[(i*3)+2]);
            }
        }
    }
}

```

```
        jTextField1.setText(importData[0]);
        jTextField2.setText(importData[1]);
        jTextField3.setText(importData[2]);
        jTextField4.setText(importData[3]);
        jTextField5.setText(importData[4]);
        jTextField6.setText(importData[5]);
        jTextField7.setText(importData[6]);
        jTextField8.setText(importData[7]);
        jTextField9.setText(importData[8]);
        jTextField10.setText(importData[9]);
        jTextField11.setText(importData[10]);
        jTextField12.setText(importData[11]);
        jTextField13.setText(importData[12]);
        jTextField14.setText(importData[13]);
        jTextField15.setText(importData[14]);
        jTextField16.setText(importData[15]);
        jTextField17.setText(importData[16]);
        jTextField18.setText(importData[17]);
        jTextField19.setText(importData[18]);
        jTextField20.setText(importData[19]);
        jTextField21.setText(importData[20]);
        jTextField22.setText(importData[21]);
        jTextField23.setText(importData[22]);
        jTextField24.setText(importData[23]);
        jTextField25.setText(importData[24]);
        jTextField26.setText(importData[25]);
        jTextField27.setText(importData[26]);
        jTextField28.setText(importData[27]);
        jTextField29.setText(importData[28]);
        jTextField30.setText(importData[29]);

        i++;

    }

    x.close();
```

```
    }
    catch(Exception e){
        JOptionPane.showMessageDialog(null,"error");
    }
}
```

```
}
```

```
// TODO Auto-generated method stub
```

```
/**
```

```
 * load default data for all the jobs
```

```
 * @param evt
```

```
 */
```

```
private void DefaultBtnActionPerformed(java.awt.event.ActionEvent evt) {
```

```
    // TODO add your handling code here:
```

```
    jTextField1.setText("0");
```

```
    jTextField2.setText("1");
```

```
    jTextField3.setText("21");
```

```
    jTextField4.setText("24");
```

```
    jTextField5.setText("3");
```

```
    jTextField6.setText("39");
```

```
    jTextField7.setText("15");
```

```
    jTextField8.setText("12");
```

```
    jTextField9.setText("85");
```

```
    jTextField10.setText("1");
```

```
    jTextField11.setText("2");
```

```
    jTextField12.setText("3");
```

```
    jTextField13.setText("12");
```

```
    jTextField14.setText("8");
```

```
    jTextField15.setText("84");
```

```
    jTextField16.setText("26");
```

```
    jTextField17.setText("11");
```

```
    jTextField18.setText("49");
```

```
    jTextField19.setText("16");
```

```
    jTextField20.setText("7");
```

```
    jTextField21.setText("69");
```

```
    jTextField22.setText("11");
```

```
    jTextField23.setText("8");
```

```
    jTextField24.setText("16");
```

```
    jTextField25.setText("22");
```

```
    jTextField26.setText("9");
```

```
    jTextField27.setText("67");
```

```
    jTextField28.setText("18");
```

```
    jTextField29.setText("6");
```

```
    jTextField30.setText("17");
```

```
}
```

```
// private ArrayList<Job> list = new ArrayList<Job>(); // list of jobs entered by the user
```

```
private int [] userData = new int [30]; // data entered by the user
```



```

private int fillJobList()
{
    getData(); // collect data from the frame
    for(int i=0 ; i<9 ; i++)
    {
        int arriveTime = userData[i*3];
        int burstTime = userData[(i*3)+1];
        int priority = userData[(i*3)+2];
        if(checkJob(arriveTime,burstTime,priority ))
        {
            list.add(new Job(i+1, arriveTime, burstTime, priority));
        }
    }
    return 0;
}

```

```

/**
 * fillJobList that the entered data are within limits.
 * limits are set by try and error according to the GUI limits
 * @param arrive arrive time of the job
 * @param burst burst time of the job
 * @param priority priority of the job
 * @return true if data are within limits
 */

```

```

private boolean checkJob(int arrive , int burst , int priority)
{
    if( arrive < 0 || arrive > 30 ) {return false;}
    if( burst <= 0 || burst > 13 ) {return false;}
    if( priority <=0 || priority > 127) {return false;}
    return true;
}

```

```

/**
 * get the data from the frame and put it in an array
 */

```

```

private void getData ()
{
    try {
        userData[0] = Integer.parseInt(jTextField1.getText());
        userData[1] = Integer.parseInt(jTextField2.getText());
        userData[2] = Integer.parseInt(jTextField3.getText());
        userData[3] = Integer.parseInt(jTextField4.getText());
        userData[4] = Integer.parseInt(jTextField5.getText());
        userData[5] = Integer.parseInt(jTextField6.getText());
        userData[6] = Integer.parseInt(jTextField7.getText());
        userData[7] = Integer.parseInt(jTextField8.getText());
        userData[8] = Integer.parseInt(jTextField9.getText());
        userData[9] = Integer.parseInt(jTextField10.getText());
    }
}

```

```

        userData[10] = Integer.parseInt(jTextField11.getText());
        userData[11] = Integer.parseInt(jTextField12.getText());
        userData[12] = Integer.parseInt(jTextField13.getText());
        userData[13] = Integer.parseInt(jTextField14.getText());
        userData[14] = Integer.parseInt(jTextField15.getText());
        userData[15] = Integer.parseInt(jTextField16.getText());
        userData[16] = Integer.parseInt(jTextField17.getText());
        userData[17] = Integer.parseInt(jTextField18.getText());
        userData[18] = Integer.parseInt(jTextField19.getText());
        userData[19] = Integer.parseInt(jTextField20.getText());
        userData[20] = Integer.parseInt(jTextField21.getText());
        userData[21] = Integer.parseInt(jTextField22.getText());
        userData[22] = Integer.parseInt(jTextField23.getText());
        userData[23] = Integer.parseInt(jTextField24.getText());
        userData[24] = Integer.parseInt(jTextField25.getText());
        userData[25] = Integer.parseInt(jTextField26.getText());
        userData[26] = Integer.parseInt(jTextField27.getText());
        userData[27] = Integer.parseInt(jTextField28.getText());
        userData[28] = Integer.parseInt(jTextField29.getText());
        userData[29] = Integer.parseInt(jTextField30.getText());
    }
    catch (Exception e) // insufficeint input will trigger an error message
    { }
}

/**
 * @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(AddData.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (InstantiationException ex) {
        java.util.logging.Logger.getLogger(AddData.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    }
}

```

```

    } catch (IllegalAccessException ex) {
        java.util.logging.Logger.getLogger(AddData.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
    } catch (javax.swing.UnsupportedLookAndFeelException ex) {
        java.util.logging.Logger.getLogger(AddData.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 AddData().setVisible(true);
    }
});
}

```

```

// Variables declaration - do not modify
private javax.swing.JButton DefaultBttn;
private javax.swing.JButton LoadBttn;
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel11;
private javax.swing.JLabel jLabel12;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JLabel jLabel4;
private javax.swing.JLabel jLabel5;
private javax.swing.JLabel jLabel6;
private javax.swing.JLabel jLabel7;
private javax.swing.JLabel jLabel8;
private javax.swing.JTextField jTextField1;
private javax.swing.JTextField jTextField10;
private javax.swing.JTextField jTextField11;
private javax.swing.JTextField jTextField12;
private javax.swing.JTextField jTextField13;
private javax.swing.JTextField jTextField14;
private javax.swing.JTextField jTextField15;
private javax.swing.JTextField jTextField16;
private javax.swing.JTextField jTextField17;
private javax.swing.JTextField jTextField18;
private javax.swing.JTextField jTextField19;
private javax.swing.JTextField jTextField2;
private javax.swing.JTextField jTextField20;
private javax.swing.JTextField jTextField21;
private javax.swing.JTextField jTextField22;
private javax.swing.JTextField jTextField23;
private javax.swing.JTextField jTextField24;
private javax.swing.JTextField jTextField3;
private javax.swing.JTextField jTextField4;

```

```
private javax.swing.JTextField jTextField5;  
private javax.swing.JTextField jTextField6;  
private javax.swing.JTextField jTextField7;  
private javax.swing.JTextField jTextField8;  
private javax.swing.JTextField jTextField9;  
private JTextField jTextField25;  
private JTextField jTextField26;  
private JTextField jTextField27;  
private JTextField jTextField28;  
private JTextField jTextField29;  
private JTextField jTextField30;  
private JButton btnImportFile;  
private JLabel lblTo;  
private JLabel lblNewLabel;  
private JLabel lblNewLabel_1;  
private JLabel lblNote;  
private JLabel lblAndPriorityIs;  
private JLabel lblItMeansNull;  
private JLabel lblPriority;  
private String [] importData = new String [30];  
}
```