

Report on

## **Telephone System Simulation**



Submitted to

**Department of Computer Science and  
Engineering**

**Nepal Engineering College**

By

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Submitted to: Sundar Kumar

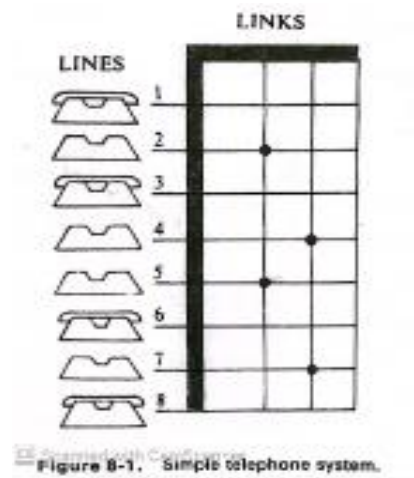
Date: 07/18/2024

## OBJECTIVE

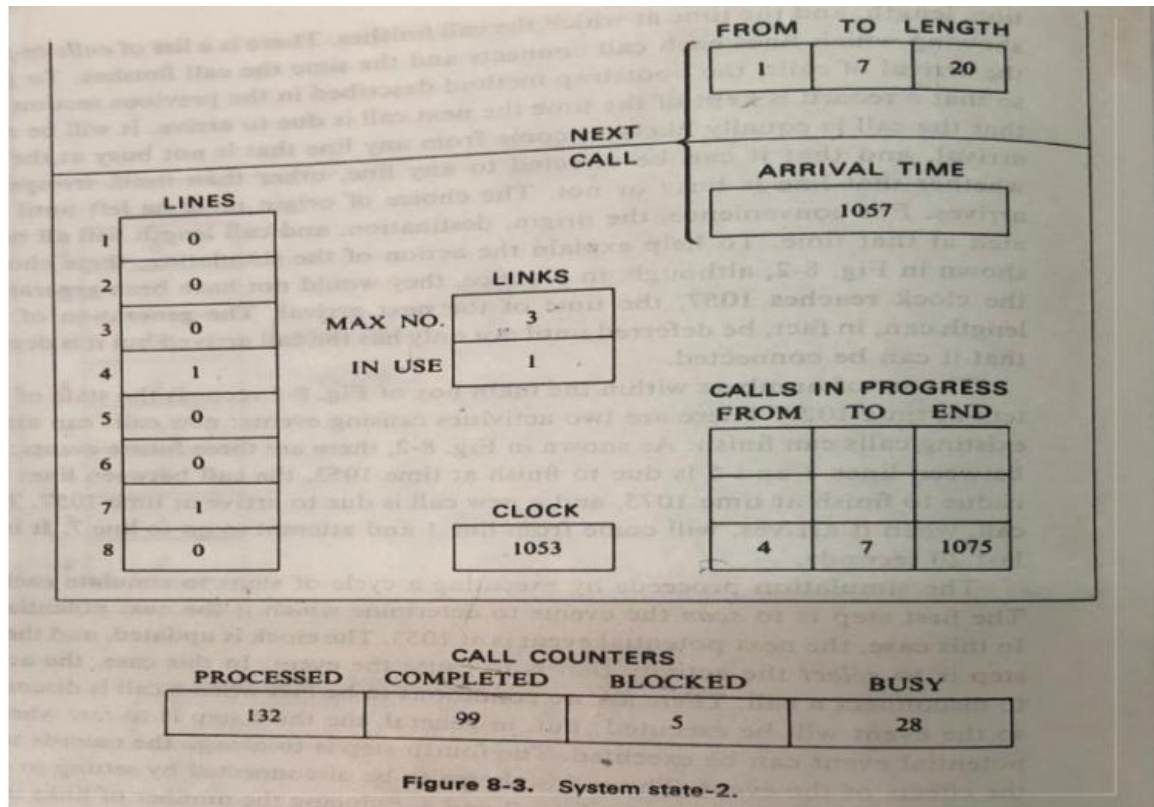
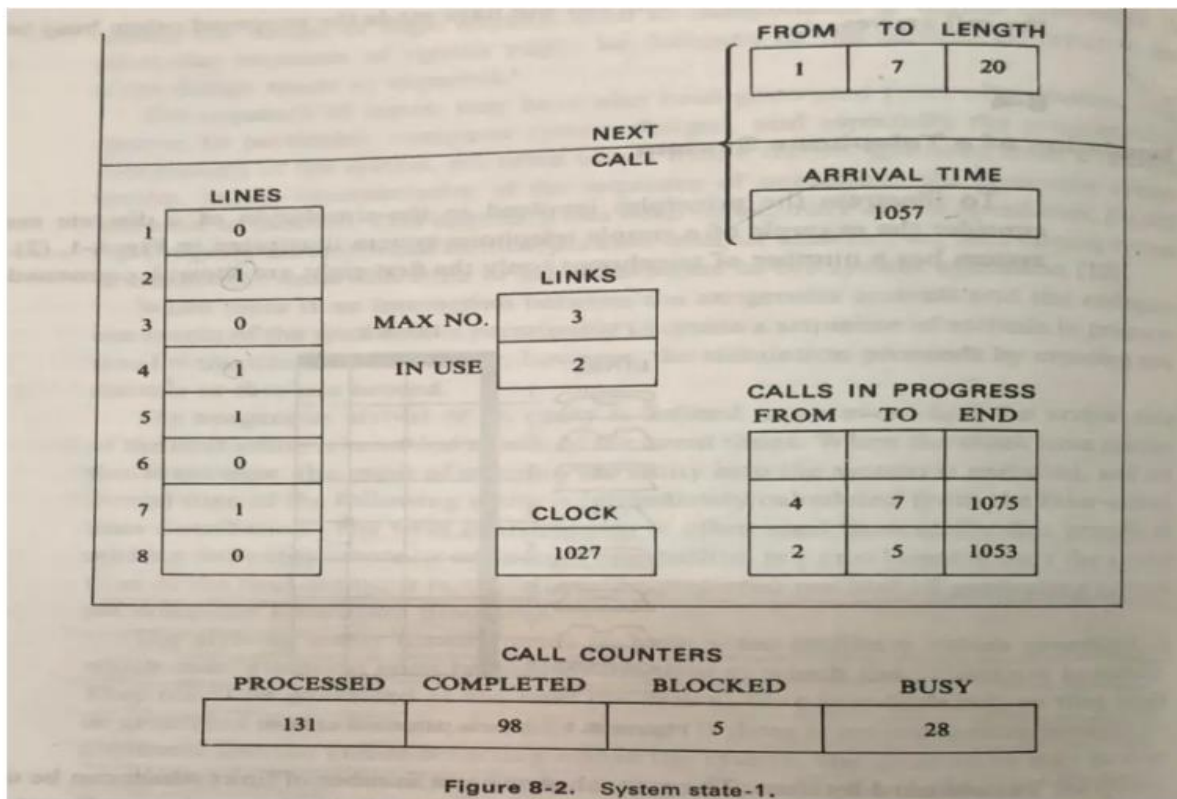
To Simulate a Telephone System

## THEORY

The System has a number of Telephone connecting to a switch board by lines. A switch has a number of links which can be used to connect any two lines subject to the condition that only one connecting at a time can be made to each line.



It assume that it lost call system. A call may be lost because no link is available it is called as a lost call. The object of the simulation is to process a given number of calls and determine what proportion are successfully completed block or busy. The current state of the system is that line-2 is connected to line-5 and a line-4 is connected to line-7. Each line is treated as an entity and it's availability is an attribute a table of numbers is establish which show the current status of each line. A zero in the table means the line is free and where 1 means it is busy.



## PROGRAM

```
package com.mycompany.telephonesystem;

import java.text.SimpleDateFormat;

import java.util.Calendar;

import java.util.Date;

public class Telephone extends javax.swing.JFrame implements Runnable{

    int hour,second,minute;

    int

    telephone1=1,telephone2=8,link1,link2,link3,link4,link5,link6,duration1,duration2,duration3,due1=

    5,due2=20;

    public Telephone() {

        initComponents();

        //creating thread

        Thread t=new Thread(this);

        t.start(); // start thread go for run method for implementations

    }

    private void initComponents() {

        jPanel1 = new javax.swing.JPanel();

        jLabel1 = new javax.swing.JLabel();

        jLabel2 = new javax.swing.JLabel();

        jTextField1 = new javax.swing.JTextField();

        jLabel3 = new javax.swing.JLabel();

        jPanel3 = new javax.swing.JPanel();

        jPanel4 = new javax.swing.JPanel();

        jPanel5 = new javax.swing.JPanel();
```

```
jPanel6 = new javax.swing.JPanel();
jPanel7 = new javax.swing.JPanel();
jPanel8 = new javax.swing.JPanel();
jPanel9 = new javax.swing.JPanel();
jPanel10 = new javax.swing.JPanel();
jLabel4 = new javax.swing.JLabel();
jLabel5 = new javax.swing.JLabel();
jLabel6 = new javax.swing.JLabel();
jLabel7 = new javax.swing.JLabel();
jLabel8 = new javax.swing.JLabel();
jLabel9 = new javax.swing.JLabel();
jLabel10 = new javax.swing.JLabel();
jLabel11 = new javax.swing.JLabel();
jLabel12 = new javax.swing.JLabel();
jLabel13 = new javax.swing.JLabel();
jLabel14 = new javax.swing.JLabel();
jLabel15 = new javax.swing.JLabel();
jLabel16 = new javax.swing.JLabel();
jLabel17 = new javax.swing.JLabel();
jLabel18 = new javax.swing.JLabel();
jLabel19 = new javax.swing.JLabel();
jLabel20 = new javax.swing.JLabel();
jLabel21 = new javax.swing.JLabel();
jLabel22 = new javax.swing.JLabel();
jLabel23 = new javax.swing.JLabel();
jLabel24 = new javax.swing.JLabel();
jButton1 = new javax.swing.JButton();
```

```
jLabel25 = new javax.swing.JLabel();
jLabel26 = new javax.swing.JLabel();
jLabel27 = new javax.swing.JLabel();
jLabel28 = new javax.swing.JLabel();
jLabel29 = new javax.swing.JLabel();
jLabel30 = new javax.swing.JLabel();
jLabel31 = new javax.swing.JLabel();
jLabel32 = new javax.swing.JLabel();
jLabel33 = new javax.swing.JLabel();
jLabel34 = new javax.swing.JLabel();
jLabel35 = new javax.swing.JLabel();
jLabel36 = new javax.swing.JLabel();
jLabel37 = new javax.swing.JLabel();
jLabel38 = new javax.swing.JLabel();
jLabel39 = new javax.swing.JLabel();
jLabel40 = new javax.swing.JLabel();
jLabel41 = new javax.swing.JLabel();
jLabel42 = new javax.swing.JLabel();

jLabel43 = new javax.swing.JLabel();
jLabel44 = new javax.swing.JLabel();
jLabel45 = new javax.swing.JLabel();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
setAutoRequestFocus(false);
setFocusable(false);
setFocusableWindowState(false);
jPanel1.setBackground(new java.awt.Color(0, 0, 0));
```

```
jPanel1.setBorder(javax.swing.BorderFactory.createBevelBorder(javax.swing.border.BevelBorder.  
RAISED));  
  
jPanel1.setForeground(new java.awt.Color(255, 0, 0));  
  
jLabel1.setFont(new java.awt.Font("Liberation Sans", 1, 22)); // NOI18N  
jLabel1.setForeground(new java.awt.Color(255, 0, 0));  
  
jLabel1.setText("Simulation of Telephone System");  
  
jLabel2.setFont(new java.awt.Font("Liberation Sans", 3, 20)); // NOI18N  
jLabel2.setForeground(new java.awt.Color(51, 51, 255));  
  
jLabel2.setText("CLOCK :");  
  
jTextField1.setFont(new java.awt.Font("Liberation Sans", 2, 20)); // NOI18N  
jTextField1.setForeground(new java.awt.Color(255, 0, 0));  
  
jTextField1.addActionListener(new java.awt.event.ActionListener() {  
    public void actionPerformed(java.awt.event.ActionEvent evt) {  
        jTextField1ActionPerformed(evt);  
    }  
});  
  
jLabel3.setFont(new java.awt.Font("Liberation Sans", 3, 20)); // NOI18N  
jLabel3.setForeground(new java.awt.Color(204, 0, 0));  
  
jLabel3.setText("Telephones");  
  
jPanel3.setPreferredSize(new java.awt.Dimension(34, 29));  
  
javax.swing.GroupLayout jPanel3Layout = new javax.swing.GroupLayout(jPanel3);  
jPanel3.setLayout(jPanel3Layout);  
jPanel3Layout.setHorizontalGroup(  
    jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
        .addGap(0, 34, Short.MAX_VALUE)  
);
```

```
jPanel3Layout.setVerticalGroup(  
jPanel3Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
.addGap(0, 29, Short.MAX_VALUE)  
);  
jPanel4.setBackground(new java.awt.Color(255, 0, 255));  
jPanel4.setPreferredSize(new java.awt.Dimension(34, 29));  
javax.swing.GroupLayout jPanel4Layout = new javax.swing.GroupLayout(jPanel4);  
  
jPanel4.setLayout(jPanel4Layout);  
jPanel4Layout.setHorizontalGroup(  
jPanel4Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
.addGap(0, 40, Short.MAX_VALUE)  
);  
jPanel4Layout.setVerticalGroup(  
jPanel4Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
.addGap(0, 29, Short.MAX_VALUE)  
);  
jPanel5.setBackground(new java.awt.Color(255, 255, 0));  
jPanel5.setPreferredSize(new java.awt.Dimension(34, 29));  
javax.swing.GroupLayout jPanel5Layout = new javax.swing.GroupLayout(jPanel5);  
jPanel5.setLayout(jPanel5Layout);  
jPanel5Layout.setHorizontalGroup(  
jPanel5Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)  
.addGap(0, 34, Short.MAX_VALUE)  
);  
jPanel5Layout.setVerticalGroup(  
jPanel5Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```



```
.addGap(0, 29, Short.MAX_VALUE)
);
jPanel6.setBackground(new java.awt.Color(0, 0, 255));
jPanel6.setPreferredSize(new java.awt.Dimension(34, 29));
javax.swing.GroupLayout jPanel6Layout = new javax.swing.GroupLayout(jPanel6);
jPanel6.setLayout(jPanel6Layout);
jPanel6Layout.setHorizontalGroup(
jPanel6Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGap(0, 34, Short.MAX_VALUE)
);
jPanel6Layout.setVerticalGroup(
jPanel6Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGap(0, 29, Short.MAX_VALUE)
);
jPanel7.setBackground(new java.awt.Color(255, 51, 0));
jPanel7.setPreferredSize(new java.awt.Dimension(34, 29));
javax.swing.GroupLayout jPanel7Layout = new javax.swing.GroupLayout(jPanel7);
jPanel7.setLayout(jPanel7Layout);
jPanel7Layout.setHorizontalGroup(
jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGap(0, 34, Short.MAX_VALUE)
);
jPanel7Layout.setVerticalGroup(
jPanel7Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGap(0, 29, Short.MAX_VALUE)
);
```

```
jPanel8.setBackground(new java.awt.Color(0, 255, 0));
jPanel8.setPreferredSize(new java.awt.Dimension(34, 29));
javax.swing.GroupLayout jPanel8Layout = new javax.swing.GroupLayout(jPanel8);
jPanel8.setLayout(jPanel8Layout);
jPanel8Layout.setHorizontalGroup(
    jPanel8Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGap(0, 34, Short.MAX_VALUE)
);
jPanel8Layout.setVerticalGroup(
    jPanel8Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGap(0, 29, Short.MAX_VALUE)
);
jPanel9.setBackground(new java.awt.Color(0, 255, 204));
jPanel9.setPreferredSize(new java.awt.Dimension(34, 29));
javax.swing.GroupLayout jPanel9Layout = new javax.swing.GroupLayout(jPanel9);
jPanel9.setLayout(jPanel9Layout);
jPanel9Layout.setHorizontalGroup(
    jPanel9Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGap(0, 34, Short.MAX_VALUE)
);
jPanel9Layout.setVerticalGroup(
    jPanel9Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGap(0, 29, Short.MAX_VALUE)
);
jPanel10.setBackground(new java.awt.Color(255, 153, 0));
jPanel10.setPreferredSize(new java.awt.Dimension(34, 29));
javax.swing.GroupLayout jPanel10Layout = new javax.swing.GroupLayout(jPanel10);
```

```
jPanel10.setLayout(jPanel10Layout);
jPanel10Layout.setHorizontalGroup(
jPanel10Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGap(0, 34, Short.MAX_VALUE)
);
jPanel10Layout.setVerticalGroup(
jPanel10Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
.addGap(0, 29, Short.MAX_VALUE)
);
jLabel4.setFont(new java.awt.Font("Liberation Sans", 1, 20)); // NOI18N
jLabel4.setForeground(new java.awt.Color(255, 255, 255));
jLabel4.setText("1");
jLabel5.setFont(new java.awt.Font("Liberation Sans", 1, 20)); // NOI18N
jLabel5.setForeground(new java.awt.Color(255, 255, 255));
jLabel5.setText("2");
jLabel6.setFont(new java.awt.Font("Liberation Sans", 1, 20)); // NOI18N
jLabel6.setForeground(new java.awt.Color(255, 255, 255));
jLabel6.setText("5");
jLabel7.setFont(new java.awt.Font("Liberation Sans", 1, 20)); // NOI18N
jLabel7.setForeground(new java.awt.Color(255, 255, 255));
jLabel7.setText("3");
jLabel8.setFont(new java.awt.Font("Liberation Sans", 1, 20)); // NOI18N
jLabel8.setForeground(new java.awt.Color(255, 255, 255));
jLabel8.setText("6");
jLabel9.setFont(new java.awt.Font("Liberation Sans", 1, 20)); // NOI18N
jLabel9.setForeground(new java.awt.Color(255, 255, 255));
jLabel9.setText("4");
```

```
jLabel10.setFont(new java.awt.Font("Liberation Sans", 1, 20)); // NOI18N
jLabel10.setForeground(new java.awt.Color(255, 255, 255));
jLabel10.setText("7");
jLabel11.setFont(new java.awt.Font("Liberation Sans", 1, 20)); // NOI18N
jLabel11.setForeground(new java.awt.Color(255, 255, 255));
jLabel11.setText("8");
jLabel12.setFont(new java.awt.Font("Liberation Sans", 3, 25)); // NOI18N
jLabel12.setForeground(new java.awt.Color(0, 0, 255));
jLabel12.setText("Link In use");
jLabel13.setFont(new java.awt.Font("Liberation Sans", 0, 25)); // NOI18N
jLabel13.setForeground(new java.awt.Color(255, 0, 0));
jLabel14.setFont(new java.awt.Font("Liberation Sans", 0, 25)); // NOI18N
jLabel14.setForeground(new java.awt.Color(51, 51, 255));
jLabel14.setText(":");
jLabel15.setFont(new java.awt.Font("Liberation Sans", 0, 25)); // NOI18N
jLabel15.setForeground(new java.awt.Color(255, 255, 255));
jLabel16.setFont(new java.awt.Font("Liberation Sans", 0, 15)); // NOI18N
jLabel16.setForeground(new java.awt.Color(255, 0, 0));
jLabel17.setFont(new java.awt.Font("Liberation Sans", 0, 25)); // NOI18N
jLabel17.setForeground(new java.awt.Color(255, 0, 51));
jLabel18.setFont(new java.awt.Font("Liberation Sans", 0, 25)); // NOI18N
jLabel18.setForeground(new java.awt.Color(0, 0, 255));
jLabel18.setText(":");
jLabel19.setFont(new java.awt.Font("Liberation Sans", 0, 25)); // NOI18N
jLabel19.setForeground(new java.awt.Color(255, 255, 255));
jLabel20.setFont(new java.awt.Font("Liberation Sans", 0, 15)); // NOI18N
jLabel20.setForeground(new java.awt.Color(255, 0, 51));
```

```
jLabel21.setFont(new java.awt.Font("Liberation Sans", 0, 25)); // NOI18N
jLabel21.setForeground(new java.awt.Color(255, 0, 51));
jLabel22.setFont(new java.awt.Font("Liberation Sans", 0, 25)); // NOI18N
jLabel22.setForeground(new java.awt.Color(0, 0, 255));
jLabel22.setText(":");
jLabel23.setFont(new java.awt.Font("Liberation Sans", 0, 25)); // NOI18N
jLabel23.setForeground(new java.awt.Color(255, 255, 255));
jLabel24.setFont(new java.awt.Font("Liberation Sans", 0, 15)); // NOI18N
jLabel24.setForeground(new java.awt.Color(255, 0, 0));
jButton1.setBackground(new java.awt.Color(0, 0, 255));
jButton1.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N
jButton1.setForeground(new java.awt.Color(255, 255, 255));
jButton1.setText("Make a Call");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});
jLabel25.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N
jLabel25.setForeground(new java.awt.Color(255, 0, 0));
jLabel25.setText("Next Call in Line");
jLabel26.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N
jLabel26.setForeground(new java.awt.Color(0, 0, 255));
jLabel26.setText("jLabel26");
jLabel27.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N
jLabel27.setForeground(new java.awt.Color(255, 0, 0));
```

```
jLabel27.setText(":");  
jLabel28.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N  
jLabel28.setForeground(new java.awt.Color(0, 0, 255));  
jLabel28.setText("jLabel28");  
jLabel29.setFont(new java.awt.Font("Liberation Sans", 2, 20)); // NOI18N  
jLabel29.setForeground(new java.awt.Color(255, 0, 0));  
jLabel29.setText("jLabel29");  
jLabel30.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N  
jLabel30.setForeground(new java.awt.Color(255, 0, 0));  
jLabel30.setText("List of Calls in Progress");  
jLabel31.setBackground(new java.awt.Color(0, 0, 153));  
jLabel31.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N  
jLabel31.setForeground(new java.awt.Color(255, 0, 0));  
jLabel31.setText("jLabel31");  
  
jLabel32.setBackground(new java.awt.Color(204, 153, 0));  
jLabel32.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N  
jLabel32.setForeground(new java.awt.Color(255, 0, 0));  
jLabel32.setText("jLabel32");  
jLabel33.setForeground(new java.awt.Color(0, 0, 204));  
jLabel33.setText("jLabel33");  
jLabel34.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N  
jLabel34.setForeground(new java.awt.Color(255, 255, 255));  
jLabel34.setText("From");  
jLabel35.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N  
jLabel35.setForeground(new java.awt.Color(255, 255, 255));  
jLabel35.setText("To");
```

```
jLabel36.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N
jLabel36.setForeground(new java.awt.Color(255, 255, 255));
jLabel36.setText("Duration");
jLabel37.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N
jLabel37.setForeground(new java.awt.Color(255, 0, 51));
jLabel37.setText("jLabel37");
jLabel38.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N
jLabel38.setForeground(new java.awt.Color(255, 0, 0));
jLabel38.setText("jLabel38");
jLabel39.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N
jLabel39.setForeground(new java.awt.Color(0, 0, 255));
jLabel39.setText("jLabel39");
jLabel40.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N
jLabel40.setForeground(new java.awt.Color(255, 0, 0));
jLabel40.setText("jLabel40");
jLabel41.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N
jLabel41.setForeground(new java.awt.Color(255, 0, 0));
jLabel41.setText("jLabel41");
jLabel42.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N
jLabel42.setForeground(new java.awt.Color(0, 0, 204));
jLabel42.setText("jLabel42");
jLabel43.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N
jLabel43.setForeground(new java.awt.Color(255, 0, 0));
jLabel43.setText("jLabel43");
jLabel44.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N
jLabel44.setForeground(new java.awt.Color(255, 0, 0));
jLabel44.setText("jLabel44");
```

```
jLabel45.setFont(new java.awt.Font("Liberation Sans", 0, 20)); // NOI18N
jLabel45.setForeground(new java.awt.Color(0, 0, 204));
jLabel45.setText("jLabel45");
javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
jPanel1.setLayout(jPanel1Layout);
jPanel1Layout.setHorizontalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup()
            .addGap(6, 6, 6)
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(jPanel1Layout.createSequentialGroup()
                    .addGap(6, 6, 6)
                    .addComponent(jLabel4)
                    .addGap(29, 29, 29))
                .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
                    jPanel1Layout.createSequentialGroup()
                        .addComponent(jPanel3, javax.swing.GroupLayout.PREFERRED_SIZE,
                            javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addGap(18, 18, 18)))
            .addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGap(40, 40, 40))
        )
    );
jPanel1Layout.setVerticalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(jPanel1Layout.createSequentialGroup()
            .addGap(6, 6, 6)
            .addComponent(jLabel45, javax.swing.GroupLayout.PREFERRED_SIZE, 40,
                javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE)
            .addGap(18, 18, 18)
            .addComponent(jPanel3, javax.swing.GroupLayout.PREFERRED_SIZE,
                javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE)
            .addGap(18, 18, 18)
            .addComponent(jLabel4, javax.swing.GroupLayout.PREFERRED_SIZE, 40,
                javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE)
            .addGap(18, 18, 18)
        )
    );
```



```
javax.swing.GroupLayout.PREFERRED_SIZE)
.addGroup(jPanel1Layout.createSequentialGroup())
.addGap(6, 6, 6)
.addComponent(jLabel5, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)))
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.TRAILING)
.addComponent(jPanel5, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
.addComponent(jLabel7, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE))
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.TRAILING)
.addComponent(jPanel6, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
.addComponent(jLabel9, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE))
.addGap(18, 18, 18)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.LEADING)
.addComponent(jPanel7, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

.addComponent(jLabel6, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE))
```

```
.addGap(18, 18, 18)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.LEADING)

.addComponent(jPanel8, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

.addComponent(jLabel8, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE))

.addGap(18, 18, 18)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.TRAILING)

.addComponent(jPanel9, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

.addComponent(jLabel10, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE))

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

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.LEADING)

.addGroup(jPanel1Layout.createSequentialGroup())

.addGap(6, 6, 6)

.addComponent(jLabel11, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addGap(0, 0, Short.MAX_VALUE))

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup())

.addComponent(jPanel10, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
.addComponent(jLabel21, javax.swing.GroupLayout.PREFERRED_SIZE, 17,
javax.swing.GroupLayout.PREFERRED_SIZE))
.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup())
.addGap(0, 0, Short.MAX_VALUE)
.addComponent(jLabel17, javax.swing.GroupLayout.PREFERRED_SIZE, 17,
javax.swing.GroupLayout.PREFERRED_SIZE)))
.addGap(318, 318, 318))
.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup())
.addGap(0, 0, Short.MAX_VALUE)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.LEADING)
.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup())
.addComponent(jLabel13, javax.swing.GroupLayout.PREFERRED_SIZE, 25,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Align
ment.LEADING)
.addComponent(jButton1)

.addGroup(jPanel1Layout.createSequentialGroup())
.addComponent(jLabel14, javax.swing.GroupLayout.PREFERRED_SIZE,
22, javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
.addGap(6, 6, 6)
```

```
.addComponent(jLabel19, javax.swing.GroupLayout.PREFERRED_SIZE,
```

```
41, javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELAT  
ED)
```

```
.addComponent(jLabel20, javax.swing.GroupLayout.PREFERRED_SIZE,  
214, javax.swing.GroupLayout.PREFERRED_SIZE))
```

```
.addGroup(jPanel1Layout.createSequentialGroup())
```

```
.addComponent(jLabel18, javax.swing.GroupLayout.PREFERRED_SIZE,  
13, javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELAT  
ED)
```

```
.addComponent(jLabel15, javax.swing.GroupLayout.PREFERRED_SIZE,  
22, javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
.addGap(18, 18, 18)
```

```
.addComponent(jLabel16, javax.swing.GroupLayout.PREFERRED_SIZE,
```

```
202, javax.swing.GroupLayout.PREFERRED_SIZE))
```

```
.addGroup(jPanel1Layout.createSequentialGroup())
```

```
.addComponent(jLabel22, javax.swing.GroupLayout.PREFERRED_SIZE,  
20, javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELAT  
ED)
```

```
.addComponent(jLabel23, javax.swing.GroupLayout.PREFERRED_SIZE,
```

```
16, javax.swing.GroupLayout.PREFERRED_SIZE)
.addGap(35, 35, 35)

.addComponent(jLabel24, javax.swing.GroupLayout.PREFERRED_SIZE,

229, javax.swing.GroupLayout.PREFERRED_SIZE))))
.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup())
.addComponent(jLabel25, javax.swing.GroupLayout.PREFERRED_SIZE, 153,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addGap(171, 171, 171))))
.addGap(112, 112, 112))
.addGroup(jPanel1Layout.createSequentialGroup())
.addGap(18, 18, 18)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEA
DING)
.addGroup(jPanel1Layout.createSequentialGroup())
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.LEADING)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignm
ent.TRAILING)
.addComponent(jLabel40)
.addComponent(jLabel43)
.addComponent(jLabel37, javax.swing.GroupLayout.PREFERRED_SIZE, 74,
javax.swing.GroupLayout.PREFERRED_SIZE))
.addComponent(jLabel34))
.addGap(18, 18, 18)
```

```
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.LEADING)
.addGroup(jPanel1Layout.createSequentialGroup())
.addComponent(jLabel35)
.addGap(49, 49, 49)
.addComponent(jLabel36))
.addGroup(jPanel1Layout.createSequentialGroup())
.addComponent(jLabel44)
.addGap(18, 18, 18)
.addComponent(jLabel45))
.addGroup(jPanel1Layout.createSequentialGroup())
.addComponent(jLabel41)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATE
D)
.addComponent(jLabel42))
.addGroup(jPanel1Layout.createSequentialGroup())
.addComponent(jLabel38)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATE
D)
.addComponent(jLabel39))))
.addComponent(jLabel30))
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
.addComponent(jLabel26)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
.addComponent(jLabel27, javax.swing.GroupLayout.PREFERRED_SIZE, 6,
```

```
javax.swing.GroupLayout.PREFERRED_SIZE)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
.addComponent(jLabel28)
.addGap(18, 18, 18)
.addComponent(jLabel29)
.addGap(249, 249, 249))
.addGroup(jPanel1Layout.createSequentialGroup())
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
DING)
.addGroup(jPanel1Layout.createSequentialGroup())
.addContainerGap()
.addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 113,
javax.swing.GroupLayout.PREFERRED_SIZE))
.addGroup(jPanel1Layout.createSequentialGroup())
.addGap(247, 247, 247)
.addComponent(jLabel33, javax.swing.GroupLayout.PREFERRED_SIZE, 354,
javax.swing.GroupLayout.PREFERRED_SIZE))
.addGroup(jPanel1Layout.createSequentialGroup())
.addGap(194, 194, 194)
.addComponent(jLabel32, javax.swing.GroupLayout.PREFERRED_SIZE, 535,
javax.swing.GroupLayout.PREFERRED_SIZE))
.addGroup(jPanel1Layout.createSequentialGroup())
.addGap(167, 167, 167)
.addComponent(jLabel31, javax.swing.GroupLayout.PREFERRED_SIZE, 693,
javax.swing.GroupLayout.PREFERRED_SIZE))
.addGroup(jPanel1Layout.createSequentialGroup())
```

```
.addGap(238, 238, 238)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.LEADING)

.addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 450,
javax.swing.GroupLayout.PREFERRED_SIZE)

.addGroup(jPanel1Layout.createSequentialGroup())

.addComponent(jLabel2)

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

.addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
101, javax.swing.GroupLayout.PREFERRED_SIZE)

.addGap(84, 84, 84)

.addComponent(jLabel12, javax.swing.GroupLayout.PREFERRED_SIZE, 135,
javax.swing.GroupLayout.PREFERRED_SIZE))))))

.addContainerGap(88, Short.MAX_VALUE))

);

jPanel1Layout.setVerticalGroup(

jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(jPanel1Layout.createSequentialGroup())

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEA
DING)

.addGroup(jPanel1Layout.createSequentialGroup())

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.LEADING)

.addGroup(jPanel1Layout.createSequentialGroup())

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Align
ment.LEADING)

.addGroup(jPanel1Layout.createSequentialGroup())
```



```
.addGap(102, 102, 102)

.addComponent(jLabel3))

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup())
.addComponent(jLabel1)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELAT
ED, 53, Short.MAX_VALUE)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING)

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup())

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLay
out.Alignment.BASELINE)
.addComponent(jLabel2)
.addComponent(jTextField1,
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addComponent(jLabel12))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RE
LATED)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLay
out.Alignment.LEADING)

.addComponent(jLabel13,
javax.swing.GroupLayout.PREFERRED_SIZE, 30,
```

```
javax.swing.GroupLayout.PREFERRED_SIZE) .addComponent(jLabel18)
.addComponent(jLabel15,
javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE)))
.addComponent(jLabel16,
javax.swing.GroupLayout.Alignment.TRAILING, javax.swing.GroupLayout.PREFERRED_SIZE,
22, javax.swing.GroupLayout.PREFERRED_SIZE))
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.
Alignment.LEADING)
.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup()
.addGap(20, 20, 20)
.addComponent(jLabel20,
javax.swing.GroupLayout.PREFERRED_SIZE, 22,
javax.swing.GroupLayout.PREFERRED_SIZE))
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayou
t.Alignment.LEADING)
.addGroup(jPanel1Layout.createSequentialGroup()
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.
UNRELATED)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.Group
Layout.Alignment.TRAILING)
.addComponent(jLabel14)
.addComponent(jLabel17,
javax.swing.GroupLayout.PREFERRED_SIZE, 30,
javax.swing.GroupLayout.PREFERRED_SIZE)))
.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
```

```
jPanel1Layout.createSequentialGroup()  
.addGap(20, 20, 20)  
.addComponent(jLabel19,  
javax.swing.GroupLayout.PREFERRED_SIZE, 22,  
javax.swing.GroupLayout.PREFERRED_SIZE)))  
.addGap(10, 10, 10))  
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Align  
ment.LEADING)  
.addGroup(jPanel1Layout.createSequentialGroup()  
.addGap(9, 9, 9)  
  
.addComponent(jLabel22))  
  
.addComponent(jLabel24, javax.swing.GroupLayout.Alignment.TRAILING,  
javax.swing.GroupLayout.PREFERRED_SIZE, 20,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
.addComponent(jPanel5, javax.swing.GroupLayout.Alignment.TRAILING,  
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
.addComponent(jPanel3, javax.swing.GroupLayout.Alignment.TRAILING,  
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE)))  
.addGroup(jPanel1Layout.createSequentialGroup()  
.addGap(0, 0, Short.MAX_VALUE)  
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Align  
ment.LEADING)
```

```
.addComponent(jPanel4, javax.swing.GroupLayout.Alignment.TRAILING,  
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
.addComponent(jPanel6, javax.swing.GroupLayout.Alignment.TRAILING,  
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
.addComponent(jPanel7, javax.swing.GroupLayout.Alignment.TRAILING,  
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
.addComponent(jPanel8, javax.swing.GroupLayout.Alignment.TRAILING,  
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
.addComponent(jPanel9, javax.swing.GroupLayout.Alignment.TRAILING,  
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
.addComponent(jPanel10, javax.swing.GroupLayout.Alignment.TRAILING,  
javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
.addComponent(jLabel21, javax.swing.GroupLayout.Alignment.TRAILING,  
javax.swing.GroupLayout.PREFERRED_SIZE, 20,  
javax.swing.GroupLayout.PREFERRED_SIZE)  
.addComponent(jLabel23, javax.swing.GroupLayout.Alignment.TRAILING,  
javax.swing.GroupLayout.PREFERRED_SIZE, 30,  
javax.swing.GroupLayout.PREFERRED_SIZE))))  
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)  
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment  
.LEADING)
```

```
.addGroup(jPanel1Layout.createSequentialGroup())
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Align
ment.BASELINE)
.addComponent(jLabel4)
.addComponent(jLabel5)
.addComponent(jLabel6)
.addComponent(jLabel7)
.addComponent(jLabel9)
.addComponent(jLabel8)
.addComponent(jLabel10, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
.addComponent(jLabel11, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
.addGap(167, 167, 167))
.addGroup(jPanel1Layout.createSequentialGroup())
.addGap(59, 59, 59)
.addComponent(jButton1)
.addGap(56, 56, 56)
.addComponent(jLabel25)
.addGap(16, 16, 16)))
.addComponent(jLabel30)
.addGap(7, 7, 7)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.BASELINE)
.addComponent(jLabel34)

.addComponent(jLabel35)
```

```
.addComponent(jLabel36))
.addGap(18, 18, 18))
.addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
jPanel1Layout.createSequentialGroup()
.addGap(0, 0, Short.MAX_VALUE)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment
.BASELINE)
.addComponent(jLabel29)
.addComponent(jLabel28)
.addComponent(jLabel27)
.addComponent(jLabel26))
.addGap(30, 30, 30)))
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BAS
ELINE)
.addComponent(jLabel38)
.addComponent(jLabel37)
.addComponent(jLabel39))
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BAS
ELINE)
.addComponent(jLabel40)
.addComponent(jLabel41)
.addComponent(jLabel42))
.addGap(18, 18, 18)
.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BAS
ELINE)
.addComponent(jLabel43)
```

```
.addComponent(jLabel44)
.addComponent(jLabel45))
.addGap(90, 90, 90)
.addComponent(jLabel31, javax.swing.GroupLayout.PREFERRED_SIZE, 37,
javax.swing.GroupLayout.PREFERRED_SIZE)
.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
.addComponent(jLabel32)
.addGap(18, 18, 18)
.addComponent(jLabel33)
.addGap(301, 301, 301))
);
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(468, 468, 468)
.addComponent(jPanel1, javax.swing.GroupLayout.DEFAULT_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
.addContainerGap())
);
layout.setVerticalGroup(
layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jPanel1, javax.swing.GroupLayout.Alignment.TRAILING,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE,
Short.MAX_VALUE)
```

```

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

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
// TODO add your handling code here:
link1=(int) (Math.random()*(telephone2-telephone1+1)+telephone1);
link2=(int) (Math.random()*(telephone2-telephone1+1)+telephone1);
link3=(int) (Math.random()*(telephone2-telephone1+1)+telephone1);
link4=(int) (Math.random()*(telephone1-telephone1+1)+telephone1);
link5=(int) (Math.random()*(telephone2-telephone1+1)+telephone1);
link6=(int) (Math.random()*(telephone2-telephone1+1)+telephone1);
duration1=(int) (Math.random()*(due2-due1+1)+due1);
duration2=(int) (Math.random()*(due2-due1+1)+due1);
duration3=(int) (Math.random()*(due2-due1+1)+due1);
String s1=String.valueOf(link1);
String s2=String.valueOf(link2);
String s3=String.valueOf(link3);
String s4=String.valueOf(link4);
String s5=String.valueOf(link5);
String s6=String.valueOf(link6);
String s7=String.valueOf(duration1);
String s8=String.valueOf(duration2);
String s9=String.valueOf(duration3);
if(link1 != link2 && link3 != link4 && link5 != link6 && link4 != link1 && link3 != link2
&& link4 != link2 && link3 != link1 && link5 != link1 && link5 != 2 && link5 != link3 &&
link5 != link4 && link6 != link1 && link6 != link2 && link6 != link3 && link6!=link4){
jLabel13.setText(s1);

```



```
jLabel15.setText(s2);
jLabel16.setText("Connected Successfully...");
jLabel17.setText(s3);
jLabel19.setText(s4);
jLabel20.setText("Connected Successfully...");
jLabel21.setText(s5);
jLabel23.setText(s6);
jLabel24.setText("Connected Successfully...");
//for calls in progress
jLabel37.setText(s1);
jLabel38.setText(s2);
jLabel40.setText(s3);
jLabel41.setText(s4);
jLabel43.setText(s5);
jLabel44.setText(s6);
if(duration1!=duration2 && duration3!=duration2){
jLabel39.setText(s7);
jLabel42.setText(s7);
jLabel45.setText(s7);
}
}
else {
jLabel13.setText(s1);
jLabel15.setText(s2);
jLabel16.setText("Call is busy, Try again!!!");
jLabel17.setText(s3);
jLabel19.setText(s4);
```

```
jLabel20.setText("Call is busy, Try again!!!");
jLabel21.setText(s5);
jLabel23.setText(s6);
jLabel24.setText("Call is busy, Try again!!!!");
jLabel37.setText(s1);
jLabel38.setText(s2);
jLabel39.setText("Null");
jLabel40.setText(s3);
jLabel41.setText(s4);
jLabel42.setText("Null");
jLabel43.setText(s5);
jLabel44.setText(s6);
jLabel45.setText("NULL");
}
if(s6 == null ? s5 != null : !s6.equals(s5))
{
jLabel26.setText(s6);
jLabel28.setText(s5);
jLabel29.setText("Call is waiting to connect...");
}
else{
jLabel29.setText("Didn't make a call, Your call is lost");
}
jLabel31.setText("A special thanks to our Lecturer and guide Assoc.Prof. Sundar Kunwar");
jLabel32.setText("This program is written by Samika Taja 020-380");
jLabel33.setText("(A student of Nepal Engineering College)");
}
```

```

private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {
// TODO add your handling code here:
//for line link
}
/**

* @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) ">
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 | InstantiationException | IllegalAccessException |
javax.swing.UnsupportedLookAndFeelException ex) {
java.util.logging.Logger.getLogger(Telephone.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 Telephone().setVisible(true);  
    }  
});  
  
// Variables declaration - do not modify  
private javax.swing.JButton jButton1;  
private javax.swing.JLabel jLabel1;  
private javax.swing.JLabel jLabel10;  
private javax.swing.JLabel jLabel11;  
private javax.swing.JLabel jLabel12;  
private javax.swing.JLabel jLabel13;  
private javax.swing.JLabel jLabel14;  
private javax.swing.JLabel jLabel15;  
private javax.swing.JLabel jLabel16;  
private javax.swing.JLabel jLabel17;  
private javax.swing.JLabel jLabel18;  
private javax.swing.JLabel jLabel19;  
private javax.swing.JLabel jLabel2;  
private javax.swing.JLabel jLabel20;  
private javax.swing.JLabel jLabel21;  
private javax.swing.JLabel jLabel22;  
private javax.swing.JLabel jLabel23;  
  
private javax.swing.JLabel jLabel24;  
private javax.swing.JLabel jLabel25;
```

```
private javax.swing.JLabel jLabel26;  
private javax.swing.JLabel jLabel27;  
private javax.swing.JLabel jLabel28;  
private javax.swing.JLabel jLabel29;  
private javax.swing.JLabel jLabel3;  
private javax.swing.JLabel jLabel30;  
private javax.swing.JLabel jLabel31;  
private javax.swing.JLabel jLabel32;  
private javax.swing.JLabel jLabel33;  
private javax.swing.JLabel jLabel34;  
private javax.swing.JLabel jLabel35;  
private javax.swing.JLabel jLabel36;  
private javax.swing.JLabel jLabel37;  
private javax.swing.JLabel jLabel38;  
private javax.swing.JLabel jLabel39;  
private javax.swing.JLabel jLabel4;  
private javax.swing.JLabel jLabel40;  
private javax.swing.JLabel jLabel41;  
private javax.swing.JLabel jLabel42;  
private javax.swing.JLabel jLabel43;  
private javax.swing.JLabel jLabel44;  
private javax.swing.JLabel jLabel45;  
private javax.swing.JLabel jLabel5;  
private javax.swing.JLabel jLabel6;  
private javax.swing.JLabel jLabel7;  
private javax.swing.JLabel jLabel8;  
private javax.swing.JLabel jLabel9;
```

```
private javax.swing.JPanel jPanel1;
private javax.swing.JPanel jPanel10;
private javax.swing.JPanel jPanel3;
private javax.swing.JPanel jPanel4;
private javax.swing.JPanel jPanel5;
private javax.swing.JPanel jPanel6;
private javax.swing.JPanel jPanel7;
private javax.swing.JPanel jPanel8;
private javax.swing.JPanel jPanel9;
private javax.swing.JTextField jTextField1;
// End of variables declaration

@Override
public void run() {
while(true){
Calendar cal= Calendar.getInstance();
//To get Current hour,minute and second.
hour=cal.get(Calendar.HOUR_OF_DAY);
minute=cal.get(Calendar.MINUTE);
second=cal.get(Calendar.SECOND);
// for 24 hour time
SimpleDateFormat sdf24= new SimpleDateFormat("hh:mm:ss");

Date dat=cal.getTime();
String time24=sdf24.format(dat);
//set to textfield
jTextField1.setText(time24);
}
```

```
}  
  
}
```

## Output before Simulation

Simulation of Telephone System

CLOCK :

Link In use  
:  
:  
:

Telephones

1

2

3

4

5

6

7

8

Make a Call

List of Calls in Progress

From	To	Duration
jLabel37	jLabel38	jLabel39
jLabel40	jLabel41	jLabel42
jLabel43	jLabel44	jLabel45

Next Call in Line

jLabel26 : jLabel28 jLabel29

jLabel31

jLabel32

jLabel33

## Output after Simulation

**Simulation of Telephone System**

**CLOCK :** 04:40:42

**Link In use**

**Telephones**

1 2 3 4 5 6 7 8

4 : 7 Call is busy, Try again!!!

4 : 1 Call is busy, Try again!!!

7 : 3 Call is busy, Try again!!!

**Make a Call**

**Next Call in Line**

**List of Calls in Progress**

From	To	Duration
4	7	Null
4	1	Null
7	3	Null

A special thanks to our Lecturer and guide Assoc.Prof. Sundar Kunwar

This program is Written by Samika Taja

**Simulation of Telephone System**

**CLOCK :** 04:41:40

**Link In use**

**Telephones**

1 2 3 4 5 6 7 8

6 : 1 Call is busy, Try again!!!

6 : 1 Call is busy, Try again!!!

8 : 6 Call is busy, Try again!!!!

**Make a Call**

**Next Call in Line**

**List of Calls in Progress**

From	To	Duration
6	1	Null
6	1	Null
8	6	Null

A special thanks to our Lecturer and guide Assoc.Prof. Sundar Kunwar

This program is Written by Samika Taja



## Simulation of Telephone System

CLOCK : 04:42:19 Link In use

**Telephones**

12345678

8 : 1    Call is busy, Try again!!!

7 : 1    Call is busy, Try again!!!

7 : 7    Call is busy, Try again!!!!

Make a Call

Next Call in Line

**List of Calls in Progress**

From	To	Duration
8	1	Null
7	1	Null
7	7	Null

6 : 8    Didn't make a call, Your call is lost

A special thanks to our Lecturer and guide Assoc.Prof. Sundar Kunwar  
This program is Written by Samika Taja

## Simulation of Telephone System

CLOCK : 04:43:04 Link In use

**Telephones**

12345678

7 : 5    Call is busy, Try again!!!

6 : 1    Call is busy, Try again!!!

4 : 5    Call is busy, Try again!!!!

Make a Call

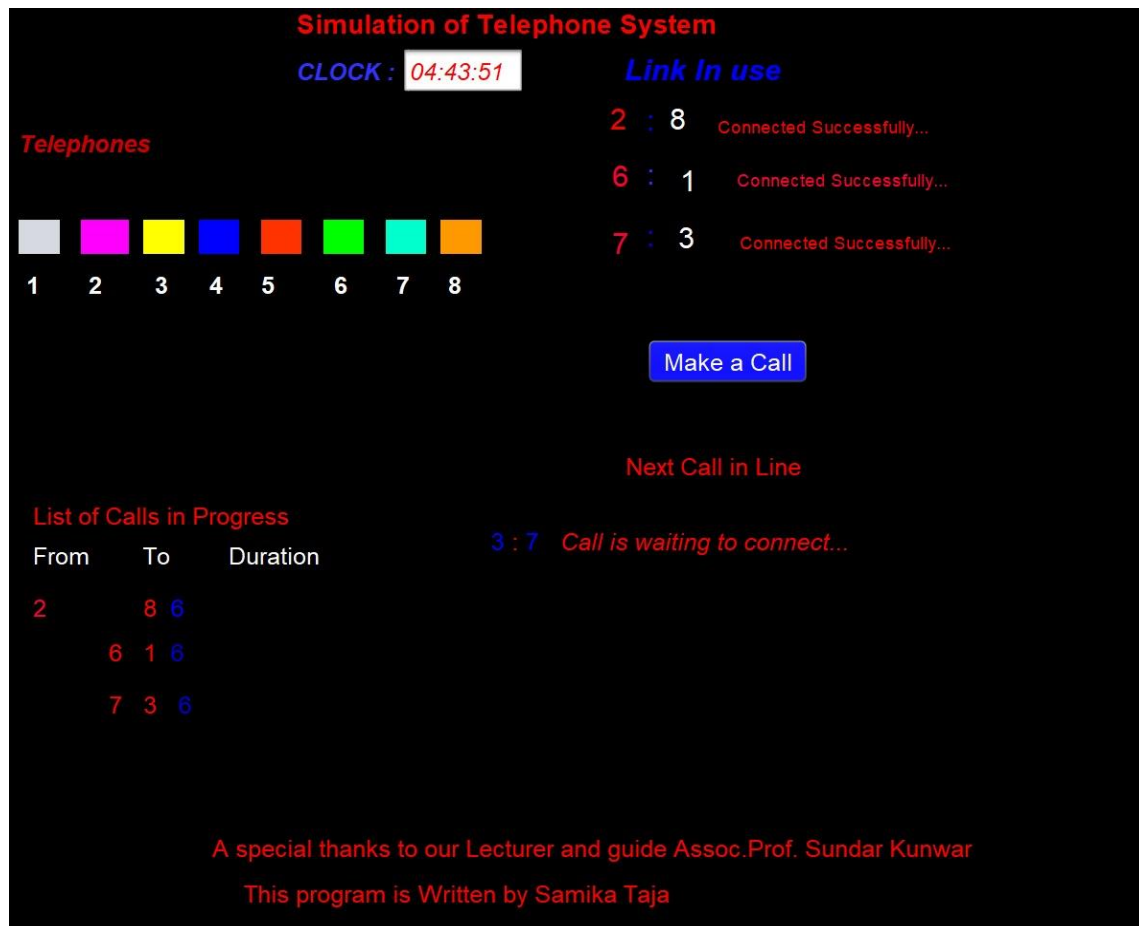
Next Call in Line

**List of Calls in Progress**

From	To	Duration
7	5	Null
6	1	Null
4	5	Null

5 : 4    Call is waiting to connect...

A special thanks to our Lecturer and guide Assoc.Prof. Sundar Kunwar  
This program is Written by Samika Taja



## Conclusion:

In this way with the proper program, the simulation of the telephone system is done.