

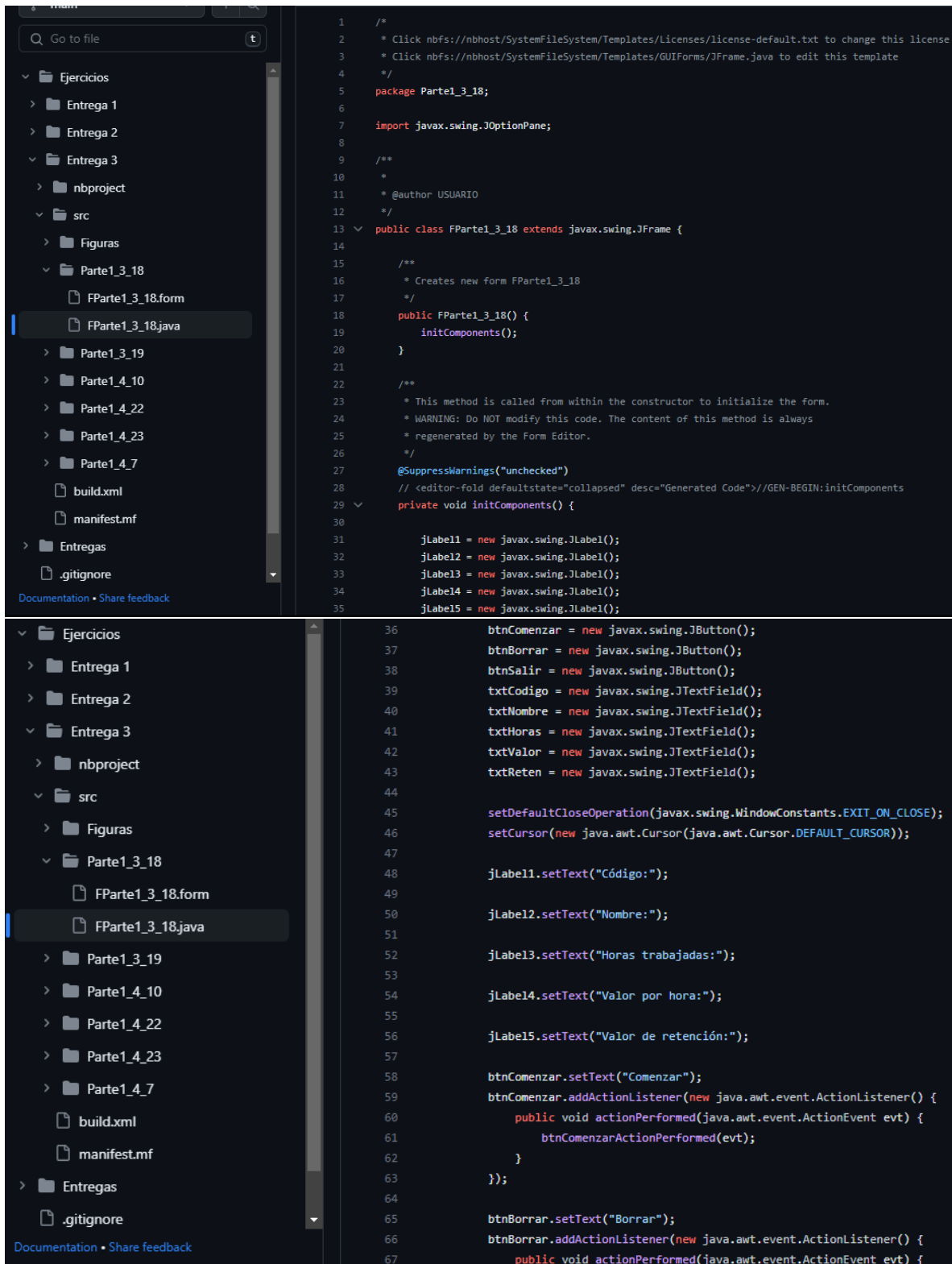
Entrega 3 POO 2023-2

Nombre: Mateo Sánchez

Correo: matsanchez@unal.edu.co

Profesor: Walter Hugo Arboleda Mazo

Link Github: <https://github.com/MateoS0/Entregas-POO-2023-2>



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btnBorrarActionPerformed(evt);

}

});

btnSalir.setText("Salir");

btnSalir.addActionListener(new java.awt.event.ActionListener() {

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

btnSalirActionPerformed(evt);

}

});

txtCodigo.addActionListener(new java.awt.event.ActionListener() {

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

txtCodigoActionPerformed(evt);

}

});

txtNombre.addActionListener(new java.awt.event.ActionListener() {

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

txtNombreActionPerformed(evt);

}

});

txtHoras.addActionListener(new java.awt.event.ActionListener() {

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

txtHorasActionPerformed(evt);

}

});

txtValor.addActionListener(new java.awt.event.ActionListener() {

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

txtValorActionPerformed(evt);

}

});

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128

129

130

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132

133

});

txtReten.addActionListener(new java.awt.event.ActionListener() {

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

txtRetenActionPerformed(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()

.addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)

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

.addComponent(jLabel5)

.addComponent(jLabel4)

.addComponent(jLabel3)

.addComponent(jLabel2)

.addComponent(jLabel1)

.addComponent(btnComenzar))

.addPreferredGap(javax.swing.GroupLayout.Alignment.UNRELATED)

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

.addGroup(layout.createSequentialGroup()

.addComponent(btnBorrar)

.addPreferredGap(javax.swing.GroupLayout.Alignment.UNRELATED)

.addComponent(btnSalir))

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING, false)

.addComponent(txtReten, javax.swing.GroupLayout.Alignment.LEADING, javax.swing.GroupLayout.DEFAULT_SIZE, 150, Short.MAX_VALUE)

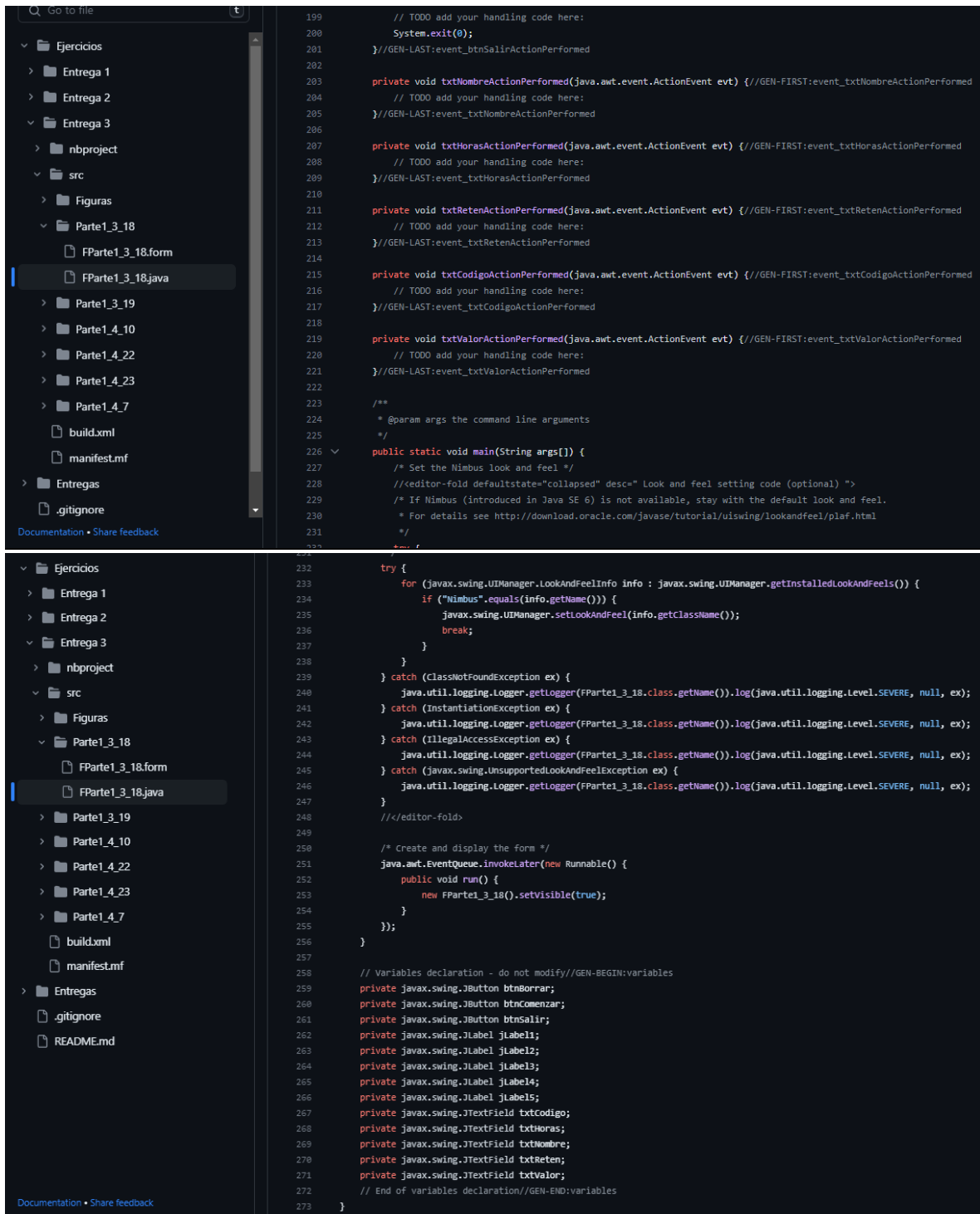
.addComponent(txtValor, javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(txtHoras, javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(txtNombre, javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(txtCodigo, javax.swing.GroupLayout.Alignment.LEADING))))

```
134    });
135
136    layout.setVerticalGroup(
137        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
138        .addGroup(layout.createSequentialGroup()
139            .addGap(17, 17)
140            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
141                .addComponent(jLabel1)
142                .addComponent(txtCodigo, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
143            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
144            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
145                .addComponent(jLabel2)
146                .addComponent(txtNombre, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
147            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
148            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
149                .addComponent(jLabel3)
150                .addComponent(txtHoras, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
151            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
152            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
153                .addComponent(jLabel4)
154                .addComponent(txtValor, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
155            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
156            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
157                .addComponent(jLabel5)
158                .addComponent(txtReten, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
159            .addGap(18, 18)
160            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
161                .addComponent(btnComenzar)
162                .addComponent(btnBorrar)
163                .addComponent(btnSalir))
164            .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
165        );
166
167    pack();
168
169    // </editor-fold> //GEN-END: initComponents
170
171    private void btnComenzarActionPerformed(java.awt.event.ActionEvent evt) { //GEN-FIRST:event_btnComenzarActionPerformed
172        // TODO add your handling code here:
173        int codigo;
174        double hTrabajo, pHora, vReten, sBruto, sNeto, rFuente, porReten;
175        String nombre;
176
177        codigo = Integer.parseInt(txtCodigo.getText());
178        nombre = txtNombre.getText();
179        hTrabajo = Double.parseDouble(txtHoras.getText());
180        pHora = Double.parseDouble(txtValor.getText());
181        vReten = Double.parseDouble(txtReten.getText());
182
183        porReten = vReten/100;
184        sBruto = hTrabajo*pHora;
185        rFuente = sBruto*porReten;
186        sNeto = sBruto-rFuente;
187
188        JOptionPane.showMessageDialog(this,"Código: "+codigo+"\nNombre: "+nombre+"\nSalario bruto: $"+"sBruto+"\nSalario neto: $"+"sNeto");
189    } //GEN-LAST:event_btnComenzarActionPerformed
190
191    private void btnBorrarActionPerformed(java.awt.event.ActionEvent evt) { //GEN-FIRST:event_btnBorrarActionPerformed
192        // TODO add your handling code here:
193        txtCodigo.setText("");
194        txtNombre.setText("");
195        txtHoras.setText("");
196        txtValor.setText("");
197        txtReten.setText("");
198    } //GEN-LAST:event_btnBorrarActionPerformed
199
200    private void btnSalirActionPerformed(java.awt.event.ActionEvent evt) { //GEN-FIRST:event_btnSalirActionPerformed
201        // TODO add your handling code here:
202    } //GEN-LAST:event_btnSalirActionPerformed
```



Código:
 Nombre:
 Horas trabajadas:
 Valor por hora:
 Valor de retención:

FParte1_3_18
-btnComenzar() -btnBorrar() -btnSalir()

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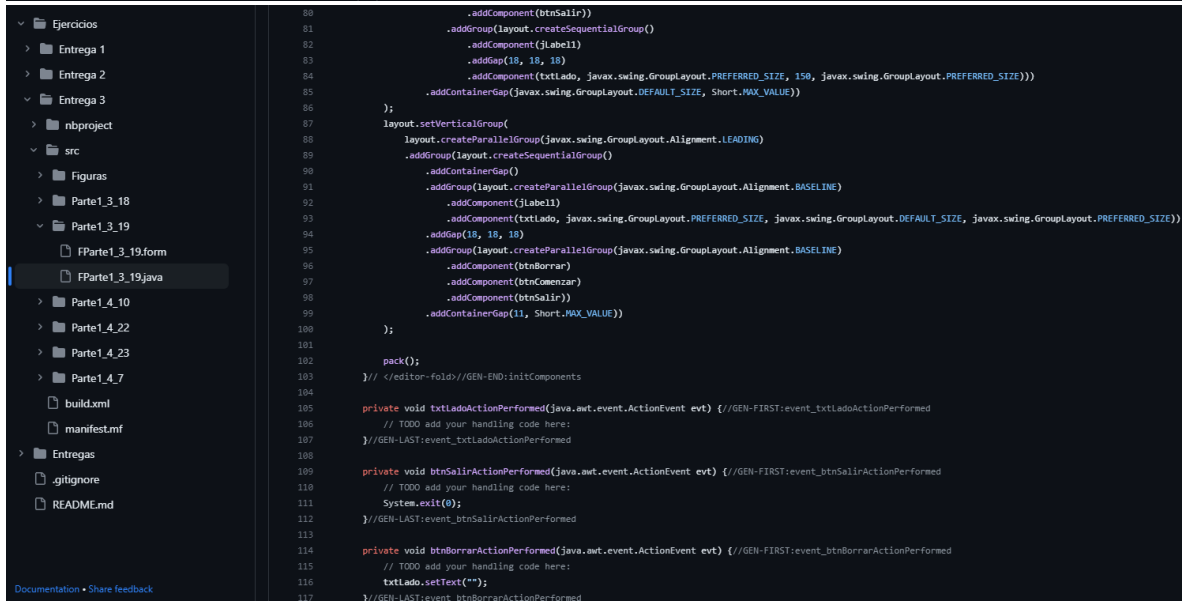
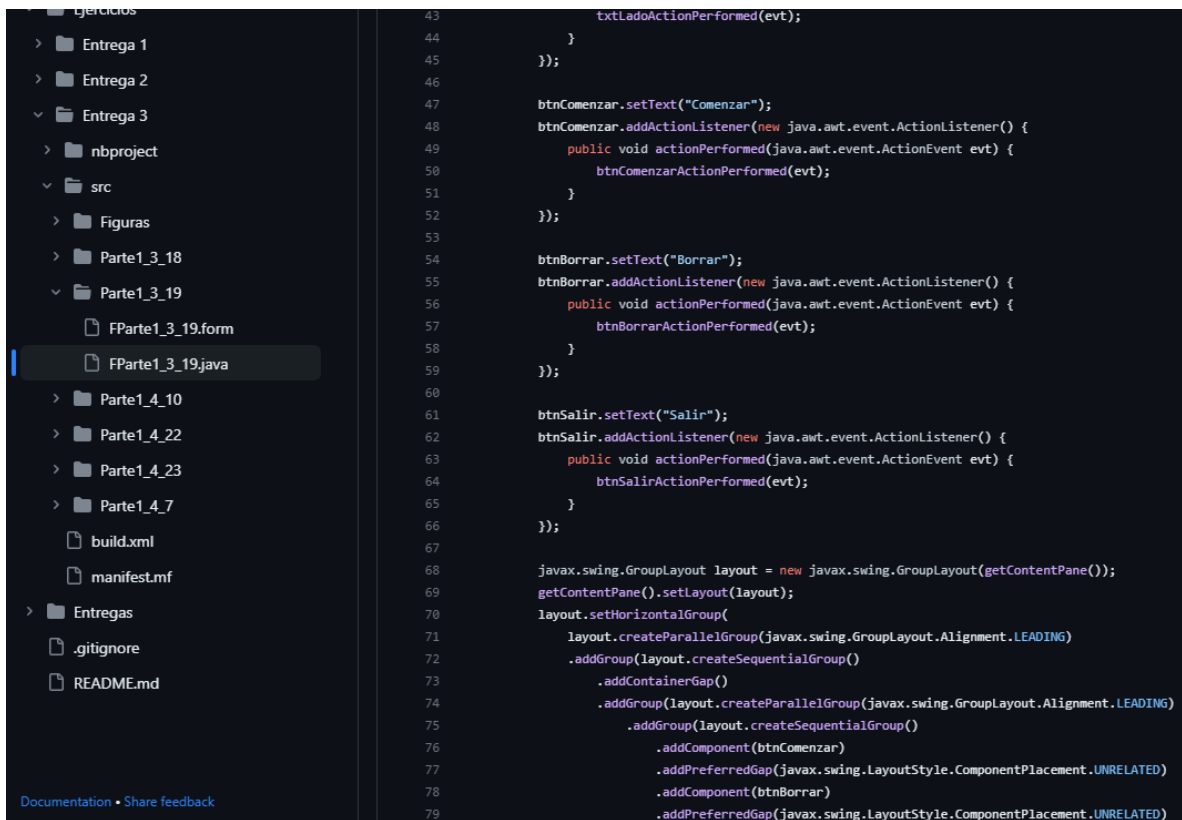
README.md

Documentation • Share feedback

```

1  /*
2  * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
3  * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java to edit this template
4  */
5  package Parte1_3_19;
6
7  import javax.swing.JOptionPane;
8
9  /**
10   *
11   * @author USUARIO
12   */
13  public class FParte1_3_19 extends javax.swing.JFrame {
14
15      /**
16       * Creates new form FParte1_3_19
17       */
18      public FParte1_3_19() {
19          initComponents();
20      }
21
22      /**
23       * This method is called from within the constructor to initialize the form.
24       * WARNING: Do NOT modify this code. The content of this method is always
25       * regenerated by the Form Editor.
26       */
27      @SuppressWarnings("unchecked")
28      // <editor-fold defaultstate="collapsed" desc="Generated Code">
29      private void initComponents() {
30
31          jLabel1 = new javax.swing.JLabel();
32          txtLado = new javax.swing.JTextField();
33          btnComenzar = new javax.swing.JButton();
34          btnBorrar = new javax.swing.JButton();
35          btnSalir = new javax.swing.JButton();
36
37          setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
38
39          jLabel1.setText("Lado:");
40
41          txtLado.addActionListener(new java.awt.event.ActionListener() {
42              public void actionPerformed(java.awt.event.ActionEvent evt) {

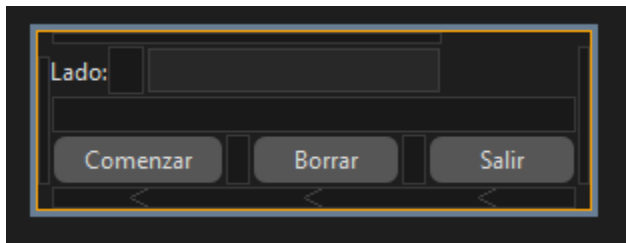
```



The screenshot shows an IDE with a project structure on the left and a code editor on the right. The project structure includes folders for 'Ejercicios', 'Entrega 1', 'Entrega 2', 'Entrega 3', 'nbproject', 'src', 'Figuras', 'Parte1_3_18', 'Parte1_3_19', and 'Entregas'. The 'Parte1_3_19' folder contains 'FParte1_3_19.form' and 'FParte1_3_19.java'. The code editor shows the following Java code:

```
118
119 private void btnComenzarActionPerformed(java.awt.event.ActionEvent evt) {GEN-FIRST:event_btnComenzarActionPerformed
120 // TODO add your handling code here:
121 double lado, perimetro, altura, area;
122
123 lado = Double.parseDouble(txtLado.getText());
124
125 perimetro = 3*lado;
126 altura = (Math.sqrt(3)/2)*lado;
127 area = (Math.sqrt(3)/4)*Math.pow(lado,2);
128
129 JOptionPane.showMessageDialog(this, "Perímetro: "+perimetro+"\nAltura: "+altura+"\nÁrea: "+area);
130 }GEN-LAST:event_btnComenzarActionPerformed
131
132 /**
133  * @param args the command line arguments
134  */
135 public static void main(String args[]) {
136     /* Set the Nimbus look and feel */
137     //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
138     /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
139      * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
140      */
141     try {
142         for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
143             if ("Nimbus".equals(info.getName())) {
144                 javax.swing.UIManager.setLookAndFeel(info.getClassName());
145                 break;
146             }
147         }
148     } catch (ClassNotFoundException ex) {
149         java.util.logging.Logger.getLogger(FParte1_3_19.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
150     } catch (InstantiationException ex) {
151         java.util.logging.Logger.getLogger(FParte1_3_19.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
152     } catch (IllegalAccessException ex) {
153         java.util.logging.Logger.getLogger(FParte1_3_19.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
154     } catch (javax.swing.UnsupportedLookAndFeelException ex) {
155         java.util.logging.Logger.getLogger(FParte1_3_19.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
156     }
157 }
```

```
157 //</editor-fold>
158
159 /* Create and display the form */
160 java.awt.EventQueue.invokeLater(new Runnable() {
161     public void run() {
162         new FParte1_3_19().setVisible(true);
163     }
164 });
165 }
166
167 // Variables declaration - do not modify//GEN-BEGIN:variables
168 private javax.swing.JButton btnBorrar;
169 private javax.swing.JButton btnComenzar;
170 private javax.swing.JButton btnSalir;
171 private javax.swing.JLabel jLabel1;
172 private javax.swing.JTextField txtLado;
173 // End of variables declaration//GEN-END:variables
174 }
```

FParte1_3_19
-btnComenzar()
-btnBorrar()
-btnSalir()

main

+

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FParte1_4_7.form

FParte1_4_7.java

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```

1  /*
2   * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
3   * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java to edit this template
4   */
5   package Parte1_4_7;
6
7   import javax.swing.JOptionPane;
8
9   /**
10    *
11    * @author USUARIO
12    */
13   public class FParte1_4_7 extends javax.swing.JFrame {
14
15       /**
16        * Creates new form FParte1_4_7
17        */
18       public FParte1_4_7() {
19           initComponents();
20       }
21
22       /**
23        * This method is called from within the constructor to initialize the form.
24        * WARNING: Do NOT modify this code. The content of this method is always
25        * regenerated by the Form Editor.
26        */
27       @SuppressWarnings("unchecked")
28       // <editor-fold defaultstate="collapsed" desc="Generated Code">
29       private void initComponents() {
30
31           jLabel1 = new javax.swing.JLabel();
32           jLabel2 = new javax.swing.JLabel();
33           btnComenzar = new javax.swing.JButton();
34           btnBorrar = new javax.swing.JButton();
35           btnSalir = new javax.swing.JButton();
36           txtA = new javax.swing.JTextField();
37           txtB = new javax.swing.JTextField();
38
39           setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
40
41           jLabel1.setText("Valor de A:");
42

```

```
43     jLabel2.setText("Valor de B:");
44
45     btnComenzar.setText("Comenzar");
46     btnComenzar.addActionListener(new java.awt.event.ActionListener() {
47         public void actionPerformed(java.awt.event.ActionEvent evt) {
48             btnComenzarActionPerformed(evt);
49         }
50     });
51
52     btnBorrar.setText("Borrar");
53     btnBorrar.addActionListener(new java.awt.event.ActionListener() {
54         public void actionPerformed(java.awt.event.ActionEvent evt) {
55             btnBorrarActionPerformed(evt);
56         }
57     });
58
59     btnSalir.setText("Salir");
60     btnSalir.addActionListener(new java.awt.event.ActionListener() {
61         public void actionPerformed(java.awt.event.ActionEvent evt) {
62             btnSalirActionPerformed(evt);
63         }
64     });
65
66     javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
67     getContentPane().setLayout(layout);
68     layout.setHorizontalGroup(
69         layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
70         .addGroup(layout.createSequentialGroup()
71             .addGap(10, 10, 10)
72             .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
73                 .addComponent(btnComenzar)
74                 .addComponent(btnBorrar)
75                 .addComponent(btnSalir))
76             .addContainerGap(10, Short.MAX_VALUE))
77     );
78
79     layout.setVerticalGroup(
80         layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
81         .addGroup(layout.createSequentialGroup()
82             .addGap(10, 10, 10)
83             .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
84                 .addComponent(jLabel2)
85                 .addComponent(btnComenzar)
86                 .addComponent(btnBorrar)
87                 .addComponent(btnSalir))
88             .addContainerGap(10, Short.MAX_VALUE))
89     );
90 }
```

```

80         .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
81             .addComponent(jLabel1)
82             .addComponent(jLabel2))
83         .addGap(17, 17, 17)
84         .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING, false)
85             .addComponent(txtA, javax.swing.GroupLayout.Alignment.LEADING, javax.swing.GroupLayout.DEFAULT_SIZE, 150, Short.MAX_VALUE)
86             .addComponent(txtB, javax.swing.GroupLayout.Alignment.LEADING))))))
87     );
88     layout.setVerticalGroup(
89         layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
90         .addGroup(layout.createSequentialGroup()
91             .addContainerGap()
92             .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
93                 .addComponent(jLabel1)
94                 .addComponent(txtA, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
95             .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
96             .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
97                 .addComponent(jLabel2)
98                 .addComponent(txtB, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
99             .addGap(18, 18, 18)
100             .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
101                 .addComponent(btnComenzar)
102                 .addComponent(btnBorrar)
103                 .addComponent(btnSalir))
104             .addContainerGap(26, Short.MAX_VALUE))
105     );
106
107     pack();
108 } // </editor-fold> // GEN-END: initComponents
109
110 private void btnSalirActionPerformed(java.awt.event.ActionEvent evt) { // GEN-FIRST:event_btnSalirActionPerformed
111     // TODO add your handling code here:
112     System.exit(0);
113 } // GEN-LAST:event_btnSalirActionPerformed
114
115 private void btnBorrarActionPerformed(java.awt.event.ActionEvent evt) { // GEN-FIRST:event_btnBorrarActionPerformed
116     // TODO add your handling code here:

```

```

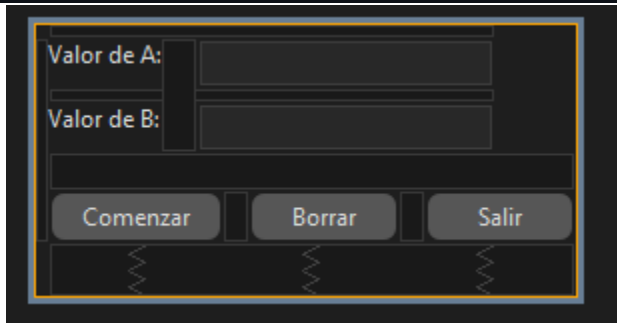
117         txtA.setText("");
118         txtB.setText("");
119     }//GEN-LAST:event_btnBorrarActionPerformed
120
121     private void btnComenzarActionPerformed(java.awt.event.ActionEvent evt) {///GEN-FIRST:event_btnComenzarActionPerformed
122         // TODO add your handling code here:
123         double A, B;
124         String R;
125
126         A = Double.parseDouble(txtA.getText());
127         B = Double.parseDouble(txtB.getText());
128
129         if (A > B) {
130             R = "A ES MAYOR QUE B";
131         }
132         else if (A < B) {
133             R = "A ES MENOR QUE B";
134         }
135         else {
136             R = "A ES IGUAL A B";
137         }
138
139         JOptionPane.showMessageDialog(this, R);
140     }//GEN-LAST:event_btnComenzarActionPerformed
141
142     /**
143      * @param args the command line arguments
144      */
145     public static void main(String args[]) {
146         /* Set the Nimbus look and feel */
147         //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
148         /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
149          * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
150          */
151         try {
152             for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
153                 if ("Nimbus".equals(info.getName())) {
154                     javax.swing.UIManager.setLookAndFeel(info.getClassName());

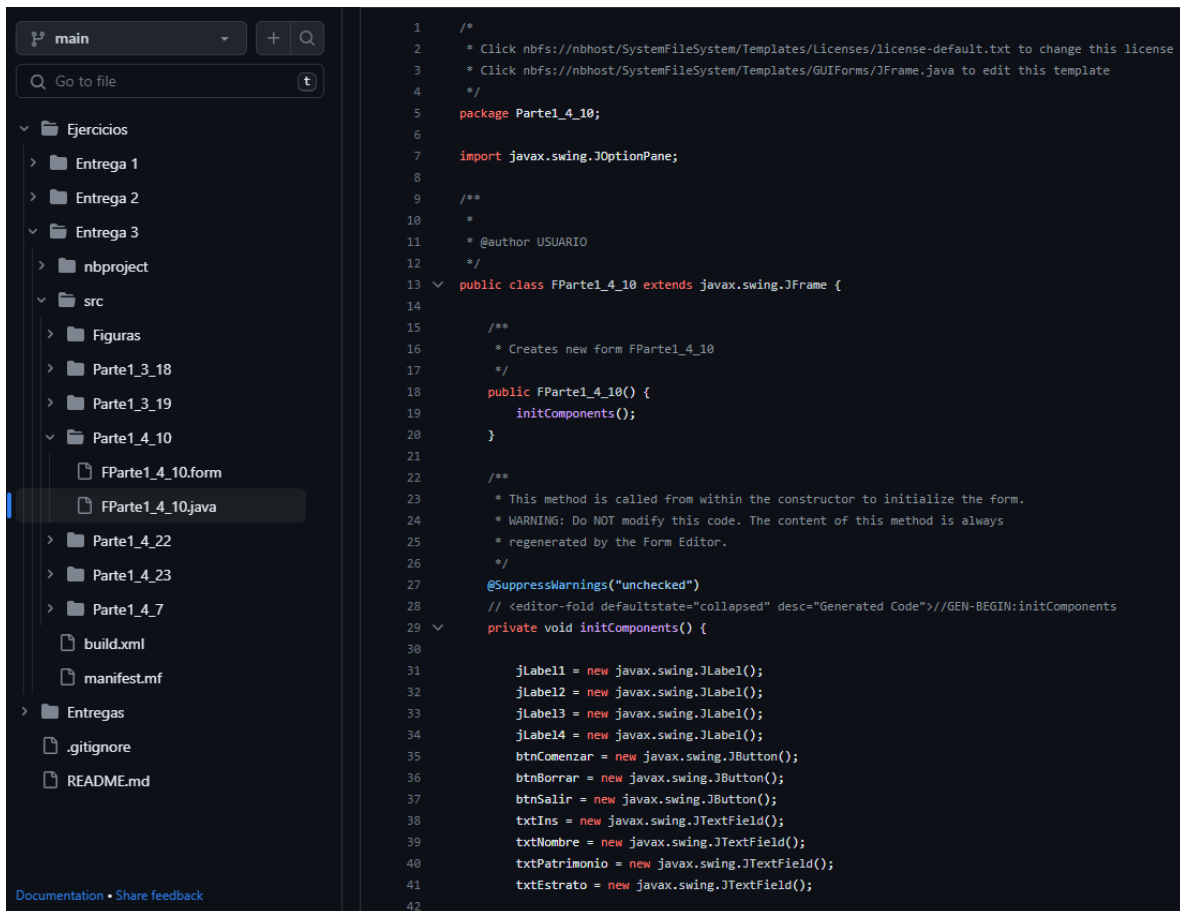
```

```

155         break;
156     }
157 }
158 } catch (ClassNotFoundException ex) {
159     java.util.logging.Logger.getLogger(FParte1_4_7.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
160 } catch (InstantiationException ex) {
161     java.util.logging.Logger.getLogger(FParte1_4_7.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
162 } catch (IllegalAccessException ex) {
163     java.util.logging.Logger.getLogger(FParte1_4_7.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
164 } catch (javax.swing.UnsupportedLookAndFeelException ex) {
165     java.util.logging.Logger.getLogger(FParte1_4_7.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
166 }
167 //</editor-fold>
168
169 /* Create and display the form */
170 java.awt.EventQueue.invokeLater(new Runnable() {
171     public void run() {
172         new FParte1_4_7().setVisible(true);
173     }
174 });
175 }
176
177 // Variables declaration - do not modify//GEN-BEGIN:variables
178 private javax.swing.JButton btnBorrar;
179 private javax.swing.JButton btnComenzar;
180 private javax.swing.JButton btnSalir;
181 private javax.swing.JLabel jLabel1;
182 private javax.swing.JLabel jLabel2;
183 private javax.swing.JTextField txtA;
184 private javax.swing.JTextField txtB;
185 // End of variables declaration//GEN-END:variables
186 }

```





```
43         setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
44
45         jLabel1.setText("Número de inscripción:");
46
47         jLabel2.setText("Nombre:");
48
49         jLabel3.setText("Patrimonio:");
50
51         jLabel4.setText("Estrato:");
52
53         btnComenzar.setText("Comenzar");
54         btnComenzar.addActionListener(new java.awt.event.ActionListener() {
55             public void actionPerformed(java.awt.event.ActionEvent evt) {
56                 btnComenzarActionPerformed(evt);
57             }
58         });
59
60         btnBorrar.setText("Borrar");
61         btnBorrar.addActionListener(new java.awt.event.ActionListener() {
62             public void actionPerformed(java.awt.event.ActionEvent evt) {
63                 btnBorrarActionPerformed(evt);
64             }
65         });
66
67         btnSalir.setText("Salir");
68         btnSalir.addActionListener(new java.awt.event.ActionListener() {
69             public void actionPerformed(java.awt.event.ActionEvent evt) {
70                 btnSalirActionPerformed(evt);
71             }
72         });
73
74         javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
75         getContentPane().setLayout(layout);
76         layout.setHorizontalGroup(
77             layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
78                 .addGroup(layout.createSequentialGroup()
79                     .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```

80         .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
81         .addGroup(layout.createSequentialGroup()
82             .addComponent(btnComenzar)
83             .addPreferredGap(javax.swing.GroupLayout.ComponentPlacement.UNRELATED)
84             .addComponent(btnBorrar)
85             .addPreferredGap(javax.swing.GroupLayout.ComponentPlacement.UNRELATED)
86             .addComponent(btnSalir))
87         .addGroup(layout.createSequentialGroup()
88             .addComponent(jLabel1)
89             .addGap(18, 18, 18)
90             .addComponent(txtIns, javax.swing.GroupLayout.PREFERRED_SIZE, 150, javax.swing.GroupLayout.PREFERRED_SIZE))
91         .addGroup(layout.createSequentialGroup()
92             .addComponent(jLabel2)
93             .addGap(98, 98, 98)
94             .addComponent(txtNombre))
95         .addGroup(layout.createSequentialGroup()
96             .addComponent(jLabel3)
97             .addGap(83, 83, 83)
98             .addComponent(txtPatrimonio))
99         .addGroup(layout.createSequentialGroup()
100             .addComponent(jLabel4)
101             .addGap(104, 104, 104)
102             .addComponent(txtEstrato)))
103         .addGap(14, 14, 14))
104     );
105     layout.setVerticalGroup(
106         layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
107         .addGroup(layout.createSequentialGroup()
108             .addContainerGap()
109             .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
110                 .addComponent(jLabel1)
111                 .addComponent(txtIns, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
112             .addPreferredGap(javax.swing.GroupLayout.ComponentPlacement.RELATED)
113             .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
114                 .addComponent(jLabel2)
115                 .addComponent(txtNombre, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
116             .addPreferredGap(javax.swing.GroupLayout.ComponentPlacement.RELATED)
117             .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
118                 .addComponent(jLabel3)
119                 .addComponent(txtPatrimonio, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
120             .addPreferredGap(javax.swing.GroupLayout.ComponentPlacement.RELATED)
121             .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
122                 .addComponent(jLabel4)
123                 .addComponent(txtEstrato, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
124             .addGap(18, 18, 18)
125             .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
126                 .addComponent(btnComenzar)
127                 .addComponent(btnBorrar)
128                 .addComponent(btnSalir))
129             .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
130         );
131
132     pack();
133 } // </editor-fold> // GEN-END: initComponents
134
135 private void btnSalirActionPerformed(java.awt.event.ActionEvent evt) { // GEN-FIRST:event_btnSalirActionPerformed
136     // TODO add your handling code here:
137     System.exit(0);
138 } // GEN-LAST:event_btnSalirActionPerformed
139
140 private void btnBorrarActionPerformed(java.awt.event.ActionEvent evt) { // GEN-FIRST:event_btnBorrarActionPerformed
141     // TODO add your handling code here:
142     txtIns.setText("");
143     txtNombre.setText("");
144     txtPatrimonio.setText("");
145     txtEstrato.setText("");
146 } // GEN-LAST:event_btnBorrarActionPerformed
147
148 private void btnComenzarActionPerformed(java.awt.event.ActionEvent evt) { // GEN-FIRST:event_btnComenzarActionPerformed
149     // TODO add your handling code here:
150     String nombre;
151     int nInscripcion, estrato;
152     double patrimonio, pMatricula;
153
154     nombre = txtNombre.getText();

```



```

155         nInscripcion = Integer.parseInt(txtIns.getText());
156         estrato = Integer.parseInt(txtEstrato.getText());
157         patrimonio = Double.parseDouble(txtPatrimonio.getText());
158
159         pMatricula = 50000;
160         if (patrimonio>20000000 && estrato>3) {
161             pMatricula += 0.03*patrimonio;
162         }
163
164         JOptionPane.showMessageDialog(this, "EL ESTUDIANTE CON NÚMERO DE INSCRIPCIÓN "+nInscripcion+" Y NOMBRE "+nombre+" DEBE PAGAR: $"+pMatricula);
165     } //GEN-LAST:event_btnComenzarActionPerformed
166
167     /**
168      * @param args the command line arguments
169      */
170     public static void main(String args[]) {
171         /* Set the Nimbus look and feel */
172         //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
173         /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
174          * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
175          */
176         try {
177             for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
178                 if ("Nimbus".equals(info.getName())) {
179                     javax.swing.UIManager.setLookAndFeel(info.getClassName());
180                     break;
181                 }
182             }
183         } catch (ClassNotFoundException ex) {
184             java.util.logging.Logger.getLogger(FParte1_4_10.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
185         } catch (InstantiationException ex) {
186             java.util.logging.Logger.getLogger(FParte1_4_10.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
187         } catch (IllegalAccessException ex) {
188             java.util.logging.Logger.getLogger(FParte1_4_10.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
189         } catch (javax.swing.UnsupportedLookAndFeelException ex) {
190             java.util.logging.Logger.getLogger(FParte1_4_10.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
191         }
192         //</editor-fold>
193

```

```

194         /* Create and display the form */
195         java.awt.EventQueue.invokeLater(new Runnable() {
196             public void run() {
197                 new FParte1_4_10().setVisible(true);
198             }
199         });
200     }
201
202     // Variables declaration - do not modify//GEN-BEGIN:variables
203     private javax.swing.JButton btnBorrar;
204     private javax.swing.JButton btnComenzar;
205     private javax.swing.JButton btnSalir;
206     private javax.swing.JLabel jLabel1;
207     private javax.swing.JLabel jLabel2;
208     private javax.swing.JLabel jLabel3;
209     private javax.swing.JLabel jLabel4;
210     private javax.swing.JTextField txtEstrato;
211     private javax.swing.JTextField txtIns;
212     private javax.swing.JTextField txtNombre;
213     private javax.swing.JTextField txtPatrimonio;
214     // End of variables declaration//GEN-END:variables
215 }

```

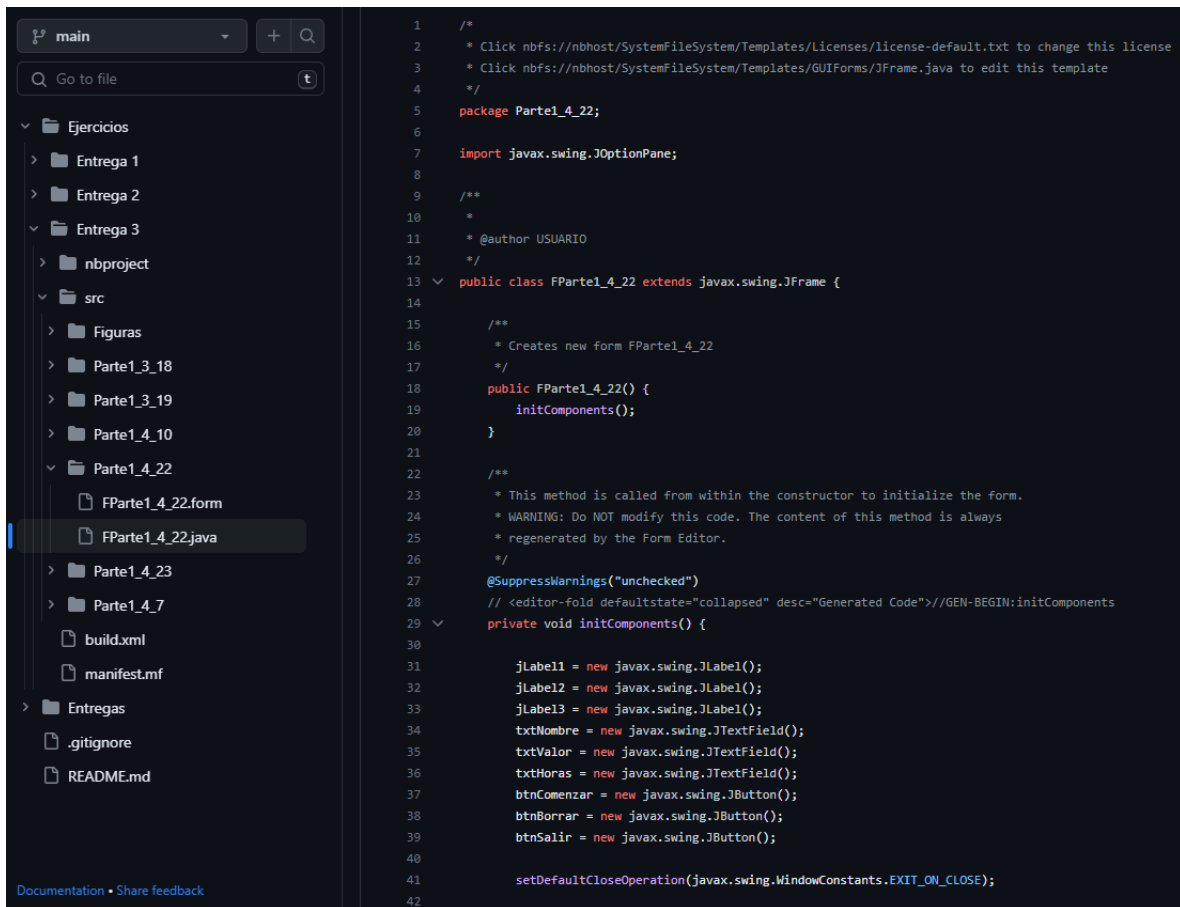
Número de inscripción:

Nombre:

Patrimonio:

Estrato:

FParte1_4_10
<ul style="list-style-type: none"> -btnComenzar() -btnBorrar() -btnSalir()



```

jLabel1.setText("Nombre:");

jLabel2.setText("Valor por hora:");

jLabel3.setText("Número de horas trabajadas:");

btnComenzar.setText("Comenzar");
btnComenzar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnComenzarActionPerformed(evt);
    }
});

btnBorrar.setText("Borrar");
btnBorrar.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnBorrarActionPerformed(evt);
    }
});

btnSalir.setText("Salir");
btnSalir.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        btnSalirActionPerformed(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(10, 10, 10)
            .addComponent(btnComenzar)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
            .addComponent(btnBorrar)
            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
            .addComponent(btnSalir)
            .addContainerGap(10, Short.MAX_VALUE))
);

```

```

80         .addComponent(btnBorrar)
81         .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
82         .addComponent(btnSalir))
83     .addGroup(layout.createSequentialGroup())
84     .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
85         .addComponent(jLabel3)
86         .addComponent(jLabel2)
87         .addComponent(jLabel1))
88     .addGap(18, 18, 18)
89     .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
90         .addComponent(txtNombre, javax.swing.GroupLayout.DEFAULT_SIZE, 150, Short.MAX_VALUE)
91         .addComponent(txtValor)
92         .addComponent(txtHoras))))
93     .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
94 );
95 layout.setVerticalGroup(
96     layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
97     .addGroup(layout.createSequentialGroup()
98         .addContainerGap()
99         .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
100             .addComponent(jLabel1)
101             .addComponent(txtNombre, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
102         .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
103         .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
104             .addComponent(jLabel2)
105             .addComponent(txtValor, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
106         .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
107         .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
108             .addComponent(jLabel3)
109             .addComponent(txtHoras, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
110         .addGap(18, 18, 18)
111         .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
112             .addComponent(btnComenzar)
113             .addComponent(btnBorrar)
114             .addComponent(btnSalir))
115         .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
116 );
117

```

```

118         pack();
119     }// </editor-fold>//GEN-END: initComponents
120
121     private void btnSalirActionPerformed(java.awt.event.ActionEvent evt) { //GEN-FIRST: event_btnSalirActionPerformed
122         // TODO add your handling code here:
123         System.exit(0);
124     } //GEN-LAST: event_btnSalirActionPerformed
125
126     private void btnBorrarActionPerformed(java.awt.event.ActionEvent evt) { //GEN-FIRST: event_btnBorrarActionPerformed
127         // TODO add your handling code here:
128         txtNombre.setText("");
129         txtValor.setText("");
130         txtHoras.setText("");
131     } //GEN-LAST: event_btnBorrarActionPerformed
132
133     private void btnComenzarActionPerformed(java.awt.event.ActionEvent evt) { //GEN-FIRST: event_btnComenzarActionPerformed
134         // TODO add your handling code here:
135         String nombre;
136         double sBasico, hTrabajo, sMensual;
137
138         nombre = txtNombre.getText();
139         sBasico = Double.parseDouble(txtValor.getText());
140         hTrabajo = Double.parseDouble(txtHoras.getText());
141
142         sMensual = sBasico * hTrabajo;
143
144         if (sMensual > 450000) {
145             JOptionPane.showMessageDialog(this, "Nombre: " + nombre + "\nSalario mensual: " + sMensual);
146         }
147         else {
148             JOptionPane.showMessageDialog(this, "Nombre: " + nombre);
149         }
150     } //GEN-LAST: event_btnComenzarActionPerformed
151
152     /**
153     * @param args the command line arguments
154     */

```

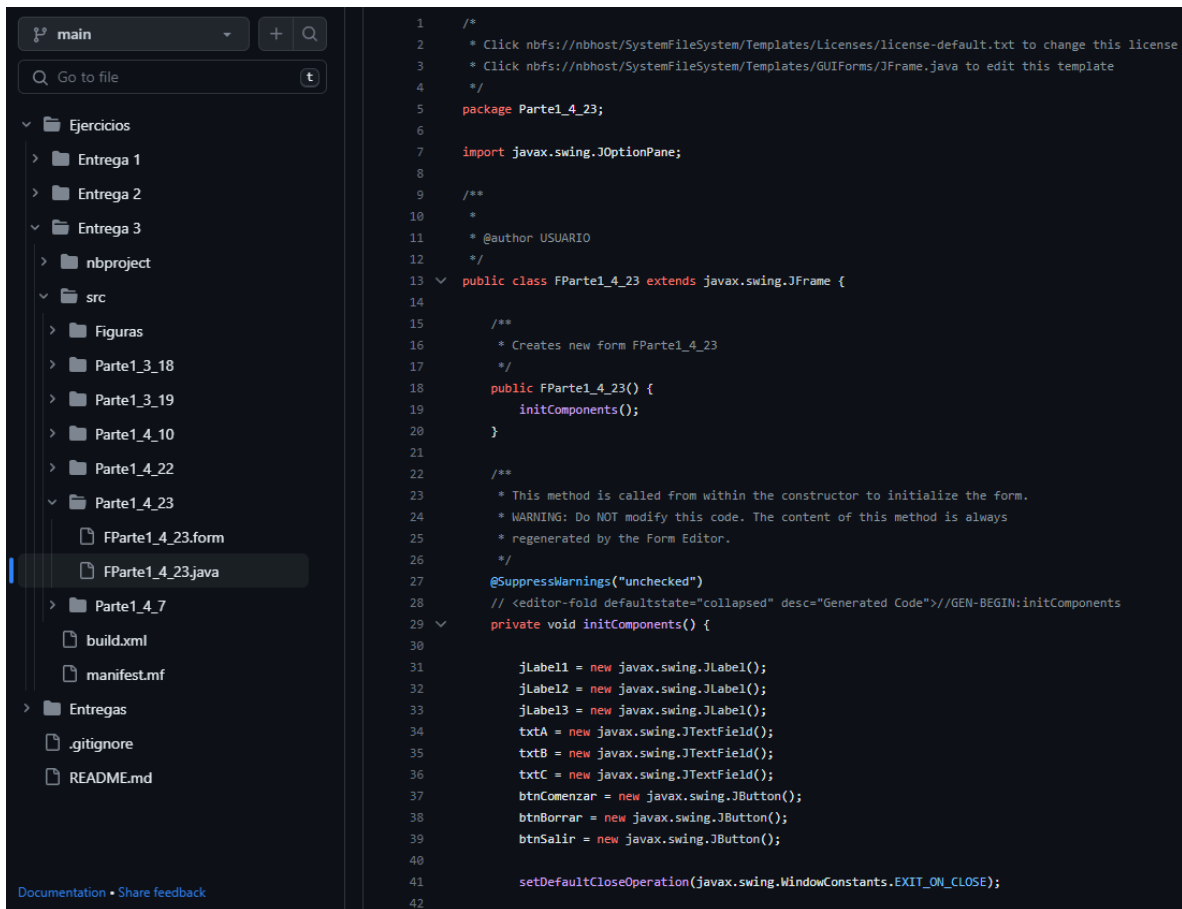
```

155  public static void main(String args[]) {
156      /* Set the Nimbus look and feel */
157      //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
158      /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
159       * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
160       */
161      try {
162          for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
163              if ("Nimbus".equals(info.getName())) {
164                  javax.swing.UIManager.setLookAndFeel(info.getClassName());
165                  break;
166              }
167          }
168      } catch (ClassNotFoundException ex) {
169          java.util.logging.Logger.getLogger(FParte1_4_22.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
170      } catch (InstantiationException ex) {
171          java.util.logging.Logger.getLogger(FParte1_4_22.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
172      } catch (IllegalAccessException ex) {
173          java.util.logging.Logger.getLogger(FParte1_4_22.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
174      } catch (javax.swing.UnsupportedLookAndFeelException ex) {
175          java.util.logging.Logger.getLogger(FParte1_4_22.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
176      }
177      //</editor-fold>
178
179      /* Create and display the form */
180      java.awt.EventQueue.invokeLater(new Runnable() {
181          public void run() {
182              new FParte1_4_22().setVisible(true);
183          }
184      });
185  }
186
187  // Variables declaration - do not modify//GEN-BEGIN:variables
188  private javax.swing.JButton btnBorrar;
189  private javax.swing.JButton btnComenzar;
190  private javax.swing.JButton btnSalir;
191  private javax.swing.JLabel jLabel1;
192  private javax.swing.JLabel jLabel2;
193  private javax.swing.JLabel jLabel3;
194  private javax.swing.JTextField txtHoras;
195  private javax.swing.JTextField txtNombre;
196  private javax.swing.JTextField txtValor;
197  // End of variables declaration//GEN-END:variables
198  }

```

The screenshot shows a Java Swing window titled "FParte1_4_22". Inside the window, there are three text input fields with labels: "Nombre:", "Valor por hora:", and "Número de horas trabajadas:". Below these fields, there are three buttons labeled "Comenzar", "Borrar", and "Salir". The window has a standard Mac OS X title bar with red, yellow, and green buttons.

FParte1_4_22
-btnComenzar() -btnBorrar() -btnSalir()




```
43     jLabel1.setText("Valor de A:");
44
45     jLabel2.setText("Valor de B:");
46
47     jLabel3.setText("Valor de C:");
48
49     txtB.addActionListener(new java.awt.event.ActionListener() {
50         public void actionPerformed(java.awt.event.ActionEvent evt) {
51             txtBActionPerformed(evt);
52         }
53     });
54
55     btnComenzar.setText("Comenzar");
56     btnComenzar.addActionListener(new java.awt.event.ActionListener() {
57         public void actionPerformed(java.awt.event.ActionEvent evt) {
58             btnComenzarActionPerformed(evt);
59         }
60     });
61
62     btnBorrar.setText("Borrar");
63     btnBorrar.addActionListener(new java.awt.event.ActionListener() {
64         public void actionPerformed(java.awt.event.ActionEvent evt) {
65             btnBorrarActionPerformed(evt);
66         }
67     });
68
69     btnSalir.setText("Salir");
70     btnSalir.addActionListener(new java.awt.event.ActionListener() {
71         public void actionPerformed(java.awt.event.ActionEvent evt) {
72             btnSalirActionPerformed(evt);
73         }
74     });
75
76     javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
77     getContentPane().setLayout(layout);
78     layout.setHorizontalGroup(
79         layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
```

```

80         .addGroup(layout.createSequentialGroup())
81         .addContainerGap()
82         .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
83         .addGroup(layout.createSequentialGroup())
84             .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
85                 .addComponent(jLabel1)
86                 .addComponent(jLabel2)
87                 .addComponent(jLabel3))
88             .addGap(18, 18, 18)
89             .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
90                 .addComponent(txtA, javax.swing.GroupLayout.DEFAULT_SIZE, 150, Short.MAX_VALUE)
91                 .addComponent(txtB)
92                 .addComponent(txtC))
93         .addGroup(layout.createSequentialGroup())
94             .addComponent(btnComenzar)
95             .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
96             .addComponent(btnBorrar)
97             .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
98             .addComponent(btnSalir)))
99         .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
100     );
101     layout.setVerticalGroup(
102         layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
103         .addGroup(layout.createSequentialGroup())
104             .addContainerGap()
105             .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
106                 .addComponent(jLabel1)
107                 .addComponent(txtA, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
108             .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
109             .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
110                 .addComponent(jLabel2)
111                 .addComponent(txtB, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
112             .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
113             .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
114                 .addComponent(jLabel3)
115                 .addComponent(txtC, javax.swing.GroupLayout.PREFERRED_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
116             .addGap(18, 18, 18)

```

```

117         .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
118             .addComponent(btnComenzar)
119             .addComponent(btnBorrar)
120             .addComponent(btnSalir))
121         .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
122     );
123
124     pack();
125 }// </editor-fold>//GEN-END:initComponents
126
127 private void txtBActionPerformed(java.awt.event.ActionEvent evt) {GEN-FIRST:event_txtBActionPerformed
128     // TODO add your handling code here:
129 }//GEN-LAST:event_txtBActionPerformed
130
131 private void btnSalirActionPerformed(java.awt.event.ActionEvent evt) {GEN-FIRST:event_btnSalirActionPerformed
132     // TODO add your handling code here:
133     System.exit(0);
134 }//GEN-LAST:event_btnSalirActionPerformed
135
136 ▼ private void btnBorrarActionPerformed(java.awt.event.ActionEvent evt) {GEN-FIRST:event_btnBorrarActionPerformed
137     // TODO add your handling code here:
138     txtA.setText("");
139     txtB.setText("");
140     txtC.setText("");
141 }//GEN-LAST:event_btnBorrarActionPerformed
142
143 ▼ private void btnComenzarActionPerformed(java.awt.event.ActionEvent evt) {GEN-FIRST:event_btnComenzarActionPerformed
144     // TODO add your handling code here:
145     double aA, bB, cC, disc, x1, x2;
146
147     aA = Double.parseDouble(txtA.getText());
148     bB = Double.parseDouble(txtB.getText());
149     cC = Double.parseDouble(txtC.getText());
150
151     disc = Math.pow(bB,2)-4*aA*cC;
152
153     if (disc > 0) {
154         x1 = (-bB+Math.sqrt(disc))/(2*aA);

```

```

155         x2 = (-bB-Math.sqrt(disc))/(2*aA);
156         JOptionPane.showMessageDialog(this, "X1: "+x1+"\nX2: "+x2);
157     }
158     else if (disc == 0) {
159         x1 = -bB/(2*aA);
160         JOptionPane.showMessageDialog(this, "X1: "+x1);
161     }
162     else {
163         JOptionPane.showMessageDialog(this, "No hay soluciones reales.");
164     }
165 } //GEN-LAST:event_btnComenzarActionPerformed
166
167 /**
168  * @param args the command line arguments
169  */
170 public static void main(String args[]) {
171     /* Set the Nimbus look and feel */
172     //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
173     /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
174      * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
175      */
176     try {
177         for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
178             if ("Nimbus".equals(info.getName())) {
179                 javax.swing.UIManager.setLookAndFeel(info.getClassName());
180                 break;
181             }
182         }
183     } catch (ClassNotFoundException ex) {
184         java.util.logging.Logger.getLogger(FParte1_4_23.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
185     } catch (InstantiationException ex) {
186         java.util.logging.Logger.getLogger(FParte1_4_23.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
187     } catch (IllegalAccessException ex) {
188         java.util.logging.Logger.getLogger(FParte1_4_23.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
189     } catch (javax.swing.UnsupportedLookAndFeelException ex) {
190         java.util.logging.Logger.getLogger(FParte1_4_23.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
191     }
192     //</editor-fold>

```

```

193
194     /* Create and display the form */
195     java.awt.EventQueue.invokeLater(new Runnable() {
196         public void run() {
197             new FParte1_4_23().setVisible(true);
198         }
199     });
200 }
201
202 // Variables declaration - do not modify//GEN-BEGIN:variables
203 private javax.swing.JButton btnBorrar;
204 private javax.swing.JButton btnComenzar;
205 private javax.swing.JButton btnSalir;
206 private javax.swing.JLabel jLabel1;
207 private javax.swing.JLabel jLabel2;
208 private javax.swing.JLabel jLabel3;
209 private javax.swing.JTextField txtA;
210 private javax.swing.JTextField txtB;
211 private javax.swing.JTextField txtC;
212 // End of variables declaration//GEN-END:variables
213 }

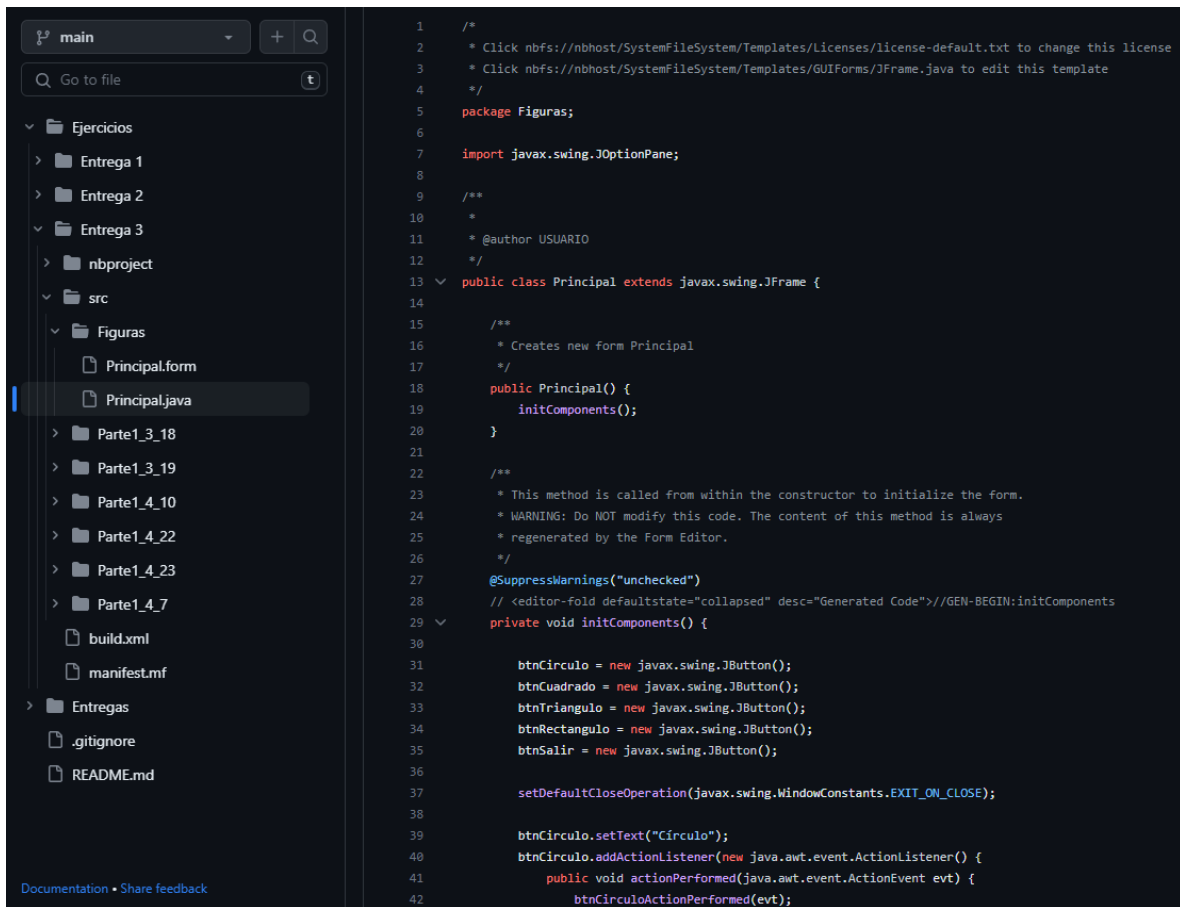
```

Valor de A:

Valor de B:

Valor de C:

FParte1_4_23
<ul style="list-style-type: none"> -btnComenzar() -btnBorrar() -btnSalir()



```
43         }
44     });
45
46     btnCuadrado.setText("Cuadrado");
47     btnCuadrado.addActionListener(new java.awt.event.ActionListener() {
48         public void actionPerformed(java.awt.event.ActionEvent evt) {
49             btnCuadradoActionPerformed(evt);
50         }
51     });
52
53     btnTriangulo.setText("Triángulo Rectángulo");
54     btnTriangulo.addActionListener(new java.awt.event.ActionListener() {
55         public void actionPerformed(java.awt.event.ActionEvent evt) {
56             btnTrianguloActionPerformed(evt);
57         }
58     });
59
60     btnRectangulo.setText("Rectángulo");
61     btnRectangulo.addActionListener(new java.awt.event.ActionListener() {
62         public void actionPerformed(java.awt.event.ActionEvent evt) {
63             btnRectanguloActionPerformed(evt);
64         }
65     });
66
67     btnSalir.setText("Salir");
68     btnSalir.addActionListener(new java.awt.event.ActionListener() {
69         public void actionPerformed(java.awt.event.ActionEvent evt) {
70             btnSalirActionPerformed(evt);
71         }
72     });
73
74     javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
75     getContentPane().setLayout(layout);
76     layout.setHorizontalGroup(
77         layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
78         .addGroup(layout.createSequentialGroup()
79             .addGap(46, 46, 46)
```

```

80         .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
81             .addComponent(btnCirculo)
82             .addComponent(btnTriangulo))
83         .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 67, Short.MAX_VALUE)
84         .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
85             .addComponent(btnCuadrado)
86             .addComponent(btnRectangulo))
87         .addGap(38, 38, 38))
88     .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()
89         .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
90         .addComponent(btnSalir)
91         .addGap(159, 159, 159))
92 );
93 layout.setVerticalGroup(
94     layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
95     .addGroup(layout.createSequentialGroup()
96         .addGap(52, 52, 52)
97         .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
98             .addComponent(btnCirculo)
99             .addComponent(btnCuadrado))
100         .addGap(44, 44, 44)
101         .addComponent(btnSalir)
102         .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 72, Short.MAX_VALUE)
103         .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
104             .addComponent(btnRectangulo)
105             .addComponent(btnTriangulo))
106         .addGap(51, 51, 51))
107 );
108
109 pack();
110 }// </editor-fold>//GEN-END: initComponents
111
112 private void btnCirculoActionPerformed(java.awt.event.ActionEvent evt) {GEN-FIRST:event_btnCirculoActionPerformed
113     // TODO add your handling code here:
114     int radio;
115     double area, perimetro;
116

```



```

117         radio = 2;
118         area = Math.PI*Math.pow(radio, 2);
119         perimetro = 2*Math.PI*radio;
120
121         JOptionPane.showMessageDialog(this, "El área del círculo es = "+area+"\nEl perímetro del círculo es = "+perimetro);
122     }//GEN-LAST:event_btnCírculoActionPerformed
123
124     private void btnCuadradoActionPerformed(java.awt.event.ActionEvent evt) {GEN-FIRST:event_btnCuadradoActionPerformed
125         // TODO add your handling code here:
126         int lado;
127         double area, perimetro;
128
129         lado = 3;
130         area = lado*lado;
131         perimetro = 4*lado;
132
133         JOptionPane.showMessageDialog(this, "El área del cuadrado es = "+area+"\nEl perímetro del cuadrado es = "+perimetro);
134     }//GEN-LAST:event_btnCuadradoActionPerformed
135
136     private void btnRectanguloActionPerformed(java.awt.event.ActionEvent evt) {GEN-FIRST:event_btnRectanguloActionPerformed
137         // TODO add your handling code here:
138         int base, altura;
139         double area, perimetro;
140
141         base = 1;
142         altura = 2;
143         area = base*altura;
144         perimetro = (2*base)+(2*altura);
145
146         JOptionPane.showMessageDialog(this, "El área del rectángulo es = "+area+"\nEl perímetro del rectángulo es = "+perimetro);
147     }//GEN-LAST:event_btnRectanguloActionPerformed
148
149     private void btnTrianguloActionPerformed(java.awt.event.ActionEvent evt) {GEN-FIRST:event_btnTrianguloActionPerformed
150         // TODO add your handling code here:
151         int base, altura;
152         double area, perimetro, hipotenusa;
153         String tipo;
154

```

```

155         base = 3;
156         altura = 5;
157         area = base*altura/2;
158         hipotenusa= Math.pow(base*base+altura*altura, 0.5);
159         perimetro = base+altura+hipotenusa;
160         if ((base == altura) && (base == hipotenusa) && (altura == hipotenusa)) {
161             tipo = "Es un triángulo equilátero";
162         }
163         else if ((base != altura) && (base != hipotenusa) && (altura != hipotenusa)) {
164             tipo = "Es un triángulo escaleno";
165         }
166         else {
167             tipo = "Es un triángulo isósceles";
168         }
169
170         JOptionPane.showMessageDialog(this, "El área del triángulo es = "+area+"\nEl perímetro del triángulo es = "+perimetro+"\n"+tipo);
171     } //GEN-LAST:event_btnTrianguloActionPerformed
172
173     private void btnSalirActionPerformed(java.awt.event.ActionEvent evt) { //GEN-FIRST:event_btnSalirActionPerformed
174         // TODO add your handling code here:
175         System.exit(0);
176     } //GEN-LAST:event_btnSalirActionPerformed
177
178     /**
179      * @param args the command line arguments
180      */
181     public static void main(String args[]) {
182         /* Set the Nimbus look and feel */
183         //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
184         /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
185          * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
186          */
187         try {
188             for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {
189                 if ("Nimbus".equals(info.getName())) {
190                     javax.swing.UIManager.setLookAndFeel(info.getClassName());
191                     break;
192                 }
193             }
194         } catch (ClassNotFoundException ex) {
195             java.util.logging.Logger.getLogger(Principal.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
196         } catch (InstantiationException ex) {
197             java.util.logging.Logger.getLogger(Principal.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
198         } catch (IllegalAccessException ex) {
199             java.util.logging.Logger.getLogger(Principal.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
200         } catch (javax.swing.UnsupportedLookAndFeelException ex) {
201             java.util.logging.Logger.getLogger(Principal.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
202         }
203         //</editor-fold>
204
205         /* Create and display the form */
206         java.awt.EventQueue.invokeLater(new Runnable() {
207             public void run() {
208                 new Principal().setVisible(true);
209             }
210         });
211     }
212
213     // Variables declaration - do not modify//GEN-BEGIN:variables
214     private javax.swing.JButton btnCirculo;
215     private javax.swing.JButton btnCuadrado;
216     private javax.swing.JButton btnRectangulo;
217     private javax.swing.JButton btnSalir;
218     private javax.swing.JButton btnTriangulo;
219     // End of variables declaration//GEN-END:variables
220 }

```



Principal
-btnCuadrado() -btnCirculo() -btnRectangulo() -btnTriangulo() -btnSalir()