

# Codificación para IMC Hospital – Actividad 1

## Lenguajes de programación IV

**Código para introducir los datos solicitados a los campos correspondientes y realizar los calculos:**

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
 */
package imc.hospital;

/**
 *
 * @author junie
 */
public class Persona {
    //atributos
    private double peso;
    private double estatura;

    //propiedades get y set
    public double getPeso(){
        return peso;
    }

    public void setPeso (Double p){
        this.peso = p;
    }

    public double getEstatura(){
        return estatura;
    }

    public void setEstatura (Double e){
        this.estatura = e;
    }

    public double calcularIMC(){
        double imc = this.getPeso()/Math.pow(this.getEstatura(),2);
        return imc;
    }
}
```

**Código para realizar la conversión y definir qué tipo y grado de obesidad tiene la persona:**

```
/*
 * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change this license
 * Click nbfs://nbhost/SystemFileSystem/Templates/GUIForms/JFrame.java to edit this template
 */
package imc.hospital;

import javax.swing.JOptionPane;

/**
```

```

*
* @author junie
*/
public class IMCJFrame extends javax.swing.JFrame {

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

    /**
     * This method is called from within the constructor to initialize the form.
     * WARNING: Do NOT modify this code. The content of this method is always
     * regenerated by the Form Editor.
     */
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {

        jLabel1 = new javax.swing.JLabel();
        jLabel2 = new javax.swing.JLabel();
        jLabel3 = new javax.swing.JLabel();
        jtxtfPeso = new javax.swing.JTextField();
        jtxtfEstatura = new javax.swing.JTextField();
        jbntCalcular = new javax.swing.JButton();

        setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

        jLabel1.setFont(new java.awt.Font("Baskerville Old Face", 1, 18)); // NOI18N
        jLabel1.setText("IMC Hospital");

        jLabel2.setFont(new java.awt.Font("Baskerville Old Face", 1, 12)); // NOI18N
        jLabel2.setText("Peso en kilogramos:");

        jLabel3.setFont(new java.awt.Font("Baskerville Old Face", 1, 12)); // NOI18N
        jLabel3.setText("Estatura en metros:");

        jbntCalcular.setText("Calcular");
        jbntCalcular.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jbntCalcularActionPerformed(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(47, 47, 47)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                        .addComponent(jLabel3)
                        .addComponent(jtxtfEstatura, javax.swing.GroupLayout.PREFERRED_SIZE, 228,
                            javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(jtxtfPeso, javax.swing.GroupLayout.PREFERRED_SIZE, 228,
                            javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(jLabel2))
                    .addGap(0, 46, Short.MAX_VALUE))
        );
    }
}

```

```

        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()
        .addComponent(jLabel1)
        .addGap(110, 110, 110))
        .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, layout.createSequentialGroup()
        .addComponent(jbntCalcular)
        .addGap(16, 16, 16))))
    );
    layout.setVerticalGroup(
        layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
        .addGroup(layout.createSequentialGroup()
        .addGap(14, 14, 14)
        .addComponent(jLabel1)
        .addGap(28, 28, 28)
        .addComponent(jLabel2)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addComponent(jtxtfPeso, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(18, 18, 18)
        .addComponent(jLabel3)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
        .addComponent(jtxtfEstatura, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 27,
Short.MAX_VALUE)
        .addComponent(jbntCalcular)
        .addGap(15, 15, 15))
    );

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

```

```

private void jbntCalcularActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    try{

```

```

        String p = jtxtfPeso.getText();
        String e = jtxtfEstatura.getText();

```

```

        //Instancia de la clase persona
        Persona persona = new Persona ();

```

```

        double peso = Double.parseDouble(p);
        double estatura = Double.parseDouble(e);

```

```

        persona.setPeso(peso);
        persona.setEstatura(estatura);

```

```

        double imc = persona.calcularIMC();

```

```

        JOptionPane.showMessageDialog(null, "Su IMC es: " + imc);

```

```

        if(imc<18.5){
            JOptionPane.showMessageDialog(null, "Su peso es bajo");
        } else if(imc>=18.5 && imc<24.9){
            JOptionPane.showMessageDialog(null, "Su peso es normal");
        } else if(imc>=25 && imc<=29.9){
            JOptionPane.showMessageDialog(null, "Tiene sobrepeso");
        }
    }
}

```

```

        } else if(imc>=30 && imc<=34.9){
            JOptionPane.showMessageDialog(null, "Tiene obesidad tipo I");
        } else if(imc>=35 && imc<=39.9){
            JOptionPane.showMessageDialog(null, "Tiene obesidad tipo II");
        } else {
            JOptionPane.showMessageDialog(null, "Tiene obesidad tipo III");
        }
    }

    } catch(Exception ex){
        JOptionPane.showMessageDialog(null, "Error: " + ex);
    }

}

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

    /* Create and display the form */
    java.awt.EventQueue.invokeLater(new Runnable() {
        public void run() {
            new IMCJFrame().setVisible(true);
        }
    });
}

// Variables declaration - do not modify
private javax.swing.JLabel jLabel1;
private javax.swing.JLabel jLabel2;
private javax.swing.JLabel jLabel3;
private javax.swing.JButton jbntCalcular;

```

```
private javax.swing.JTextField jtxtfEstatura;  
private javax.swing.JTextField jtxtfPeso;  
// End of variables declaration  
}
```