

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))

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.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){

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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;
```