**Capitulo 3+**

**Ejercicio 18**

Codigo del JFrame

**private** **void** **btnCalcular1ActionPerformed**(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

String workerCode = txtWCode.getText();

String workerName = txtWNames.getText();

**double** nhoras = Double.parseDouble(txtHoras.getText());

**double** vhora = Double.parseDouble(txtVHora.getText());

**double** pRetencion = Double.parseDouble(txtPRetencion.getText());

//Ejecicucion de metodos para iniciar atributos de clase Logic18

Logic18.calcSalarioBruto(vhora, nhoras);

Logic18.calcSalarioNeto(Logic18.salarioBruto, pRetencion);

String info = "El codigo del trabajador es: %s\n"

+ "El nombre del trabajador es: %s\n"

+ "El salario bruto del trabajador es: %s\n"

+ "El salario neto del trabajdor es: %s\n";

String ans = String.format(info, workerCode, workerName, Logic18.salarioBruto, Logic18.salarioNeto);

JOptionPane.showMessageDialog(**null**, ans);

} **private** **void** btnCalcular1ActionPerformed(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

String workerCode = txtWCode.getText();

String workerName = txtWNames.getText();

**double** nhoras = Double.parseDouble(txtHoras.getText());

**double** vhora = Double.parseDouble(txtVHora.getText());

**double** pRetencion = Double.parseDouble(txtPRetencion.getText());

//Ejecicucion de metodos para iniciar atributos de clase Logic18

Logic18.calcSalarioBruto(vhora, nhoras);

Logic18.calcSalarioNeto(Logic18.salarioBruto, pRetencion);

String info = "El codigo del trabajador es: %s\n"

+ "El nombre del trabajador es: %s\n"

+ "El salario bruto del trabajador es: %s\n"

+ "El salario neto del trabajdor es: %s\n";

String ans = String.format(info, workerCode, workerName, Logic18.salarioBruto, Logic18.salarioNeto);

JOptionPane.showMessageDialog(**null**, ans);

}

Codigo Clase

**package** part1;

**public** **class** **Logic18** {

**static** **double** salarioBruto;

**static** **double** salarioNeto;

**public** **static** **double** **calcSalarioBruto**(**double** vhora, **double** nhoras){

salarioBruto = vhora\*nhoras;

**return** salarioBruto;

}

**public** **static** **double** **calcSalarioNeto**(**double** salarioBruto, **double** pRetencion){

**double** dinRetenido = (salarioBruto\*pRetencion)/**100**;

salarioNeto = salarioBruto-dinRetenido;

**return** salarioNeto;

}

}

**Ejercicio 19**

Codigo del JFrame

**private** **void** **btnCalcularActionPerformed**(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

**double** l = Double.parseDouble(txtLado.getText());

Logic19.calcPerimetro(l);

Logic19.caclAltura(l);

Logic19.calcArea(l);

lblPerimetro.setText(String.valueOf(Logic19.perimetro));

lblAltura.setText(String.valueOf(Logic19.altura));

lblArea.setText(String.valueOf(Logic19.area));

}

Codigo Clase

**package** part1;

**public** **class** **Logic19** {

**static** **double** perimetro;

**static** **double** area;

**static** **double** altura;

**public** **static** **double** **calcPerimetro**( **double** l){

perimetro = l\***3**;

**return** perimetro;

}

**public** **static** **double** **caclAltura**(**double** l){

altura = (l\*Math.sqrt(**3**))/**2**;

**return** altura;

}

**public** **static** **double** **calcArea**(**double** l){

area = (Math.pow(l,**2**) \* Math.sqrt(**4**))/**4**;

**return** area;

}

}

**Ejercicio 7**

Codigo del JFrame

Codigo Clase

**Capitulo 4**

**Ejercicio 7**

Codigo del JFrame

**rivate** **void** **btnMayorActionPerformed**(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

**double** numA = Double.parseDouble(txtA.getText());

**double** numB = Double.parseDouble(txtB.getText());

lblResultado.setText(Logic7.resultado(numA,numB));

}

Codigo Clase

**package** part1;

**public** **class** **Logic7** {

**public** **static** String **resultado**(**double** a, **double** b){

**if**(a>b){

**return** a + " es mayor que " + b;

}

**else** **if**(b>a){

**return** b + " es mayor que " + a;

}

**else**{

**return** a + " y " + b + " son iguales.";

}

}

}

**Ejercicio 10**

Codigo del JFrame

**private** **void** **btnCalcularActionPerformed**(java.awt.event.ActionEvent evt) {

// TODO add your handling code here:

String ni = txtNi.getText();

String name = txtName.getText();

**int** pat = Integer.parseInt(txtPat.getText());

**int** est = Integer.parseInt(txtEst.getText());

String matricula = Logic10.info\_est(pat, est);

String info = "El estudiante con numero de inscripcion %s y nombre %s debe pagar: $%s";

String ans = String.format(info, ni, name, matricula);

JOptionPane.showMessageDialog(**null**, ans);

}

Codigo Clase

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16 | **package** part1;  **public** **class** **Logic10** {      **static** **double** pagmat = **50000**;    **public** **static** String **info\_est**(**int** pat, **int** est){    **if**(pat>**2000000** && est>**3**){  pagmat = pagmat + (pat\***0.003**);  }    **return** String.valueOf(pagmat);  }  } |

**Ejercicio 22**

Codigo del JFrame

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10 | **private** **void** **btnCalcularActionPerformed**(java.awt.event.ActionEvent evt) {  // TODO add your handling code here:    String name = txtName.getText();  **double** shoras = Double.parseDouble(txtShora.getText());  **int** horae = Integer.parseInt(txtNhora.getText());    JOptionPane.showMessageDialog(**null**, Logic22.filtro(name, shoras, horae));    } |

Codigo Clase

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15 | **package** part1;  **public** **class** **Logic22** {    **static** **double** salario;    **public** **static** String **filtro**(String name, **double** shora, **int** horaef){  salario = shora\*horaef;  **if**(salario>**450000**){  **return** name + " devenga un salario de " + salario;  }**else**{  **return** name;  }  }  } |

**Ejercicio 23**

Codigo del JFrame

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10 | **private** **void** **btnCalcularActionPerformed**(java.awt.event.ActionEvent evt) {  // TODO add your handling code here:    **double** a = Double.parseDouble(txtA.getText());  **double** b = Double.parseDouble(txtB.getText());  **double** c = Double.parseDouble(txtC.getText());    JOptionPane.showMessageDialog(**null**, Logic23.solver(a, b, c));    } |

Codigo Clase

**package** part1;

**public** **class** **Logic23** {

**public** **static** String **solver**(**double** a, **double** b, **double** c){

**double** sol[];

**double** disc = (Math.pow(b, **2**) - (**4** \* a \* c));

**if** (disc >= **0**) {

// Una solucion

**if**(disc == **0**){

**double** s = ((-b) - (**4** \* a \* c)) / (**2** \* a);

**return** "La solucion es: " + s;

// Dos soluciones

}**else**{

**double** s1 = ((-b) + Math.sqrt(Math.pow(b, **2**) - (**4** \* a \* c))) / (**2** \* a);

**double** s2 = ((-b) - Math.sqrt(Math.pow(b, **2**) - (**4** \* a \* c))) / (**2** \* a);

**return** "Las soluciones son: " + s1 + " y " + s2;

}

} **else** {

// Sin solucion

**return** "No tiene solucion";

}

}

}

**Ejercicio 40**

Codigo del JFrame

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14 | **private** **void** **btnCalcularActionPerformed**(java.awt.event.ActionEvent evt) {  // TODO add your handling code here:    **int**[] arr = Arrays.stream(txtData.getText().split(","))  .map(**String:**:trim).mapToInt(**Integer:**:parseInt).toArray();    **for**(**int** **i:**arr){    txtAns.append("Numero: " + i + "\n");  txtAns.append("Su raiz cuadrada es: " + Logic40.square(i)+ "\n");  txtAns.append("Su cubo es: " + Logic40.cubo(i)+ "\n");  txtAns.append("\n");  }  } |

Codigo Clase

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17 | **package** part1;  **public** **class** **Logic40** {    **public** **static** **double** **square** (**int** n){    **return** Math.sqrt(n);    }    **public** **static** **double** **cubo** (**int** n){    **return** Math.pow(n, **3**);    }    } |

**Ejercicio 41**

Codigo del JFrame

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8 | **private** **void** **btnCalcularActionPerformed**(java.awt.event.ActionEvent evt) {  // TODO add your handling code here:  **double**[] arr = Arrays.stream(txtData.getText().split(","))  .map(**String:**:trim).mapToDouble(**Double:**:parseDouble).toArray();    lblAns.setText(Logic41.calcMayor(arr));  } |

Codigo Clase

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17 | **package** part1;  **public** **class** **Logic41** {    **private** **static** **double** mayor = **0**;    **public** **static** String **calcMayor**(**double**[] a){    **for**(**double** **i:**a){  **if**(i > mayor){  mayor = i;  }  }    **return** String.valueOf(mayor);  }  } |

**Parte 2**

**Codigo de clase principal**

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11 | **package** part2;  **public** **class** **part2** {    **public** **static** **void** **main**(String[] args) {    Window win = **new** Window();  win.setVisible(**true**);    }  } |

**Codigo Clase Circulo**

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17 | **package** part2;  **public** **class** **Circle** {  **static** **int** radio;  Circle(**int** radio){  **this**.radio = radio;  }  **public** **static** String **calcularArea**() {  **return** String.valueOf(Math.PI\*Math.pow(radio,**2**));  }  **public** **static** String **calcularPerimetro**() {  **return** String.valueOf(**2**\*Math.PI\*radio);  }  } |

**Codigo de Clase Rectangulo**

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19 | **package** part2;  **public** **class** **Rectangle** {  **static** **int** base;  **static** **int** altura;  Rectangle(**int** base, **int** altura) {  **this**.base = base;  **this**.altura = altura;  }  **public** **static** String **calcularArea**() {  **return** String.valueOf(base \* altura);  }  **public** **static** String **calcularPerimetro**() {  **return** String.valueOf((**2** \* base) + (**2** \* altura));  }  } |

**Codigo Clase Triangulo**

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28  29  30  31  32  33 | **package** part2;  **public** **class** **Triangle** {  **static** **int** base;  **static** **int** altura;  **public** **Triangle**(**int** base, **int** altura) {  **this**.base = base;  **this**.altura = altura;  }  **public** **static** String **calcularArea**() {  **return** String.valueOf(base \* altura / **2**);  }  **public** **static** String **calcularPerimetro**() {  **return** String.valueOf(base + altura + calcularHipotenusa());  }    **public** **static** **double** **calcularHipotenusa**() {  **return** Math.pow(base\*base + altura\*altura, **0.5**);  }  **public** **static** String **determinarTipoTriangulo**() {  **if** ((base == altura) && (base == calcularHipotenusa()) && (altura == calcularHipotenusa()))  **return** "equilátero";  **else** **if** ((base != altura) && (base != calcularHipotenusa()) && (altura != calcularHipotenusa()))  **return** "escaleno";  **else**  **return** "isósceles";  } |

**Codigo Clase Cuadrado**

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17 | **package** part2;  **public** **class** **Square** {  **static** **int** lado;  Square(**int** lado) {  **this**.lado = lado;  }    **public** **static** String **calcularArea**() {  **return** String.valueOf(lado\*lado);  }    **public** **static** String **calcularPerimetro**() {  **return** String.valueOf(**4**\*lado);  }  } |

**Codigo Botones JFrame**

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24  25  26  27  28  29  30  31  32  33  34  35  36  37  38  39  40  41  42  43  44  45  46  47  48  49  50  51  52  53  54  55  56  57  58  59  60  61  62  63  64  65  66  67  68  69  70  71  72 | **private** **void** **btnCalcularActionPerformed**(java.awt.event.ActionEvent evt) {  // TODO add your handling code here:    **try**{  **int** r = Integer.parseInt(txtRatio.getText());    **new** **Circle**(r);    lblArea.setText(Circle.calcularArea());  lblPerimetro.setText(Circle.calcularPerimetro());  }  **catch**(Exception e){    JOptionPane.showMessageDialog(**null**, "Se ha producido un error, por favor validar los datos");  }    }  **private** **void** **btnCalcular4ActionPerformed**(java.awt.event.ActionEvent evt) {  // TODO add your handling code here:  **try**{  **int** b = Integer.parseInt(txtBase.getText());  **int** h = Integer.parseInt(txtAltura.getText());    **new** **Triangle**(b,h);    lblArea4.setText(Triangle.calcularArea());  lblPerimetro4.setText(Triangle.calcularPerimetro());  lblHip.setText(String.valueOf(Triangle.calcularHipotenusa()));  lblTipo.setText(Triangle.determinarTipoTriangulo());  }  **catch**(Exception e){    JOptionPane.showMessageDialog(**null**, "Se ha producido un error, por favor validar los datos");  }  }  **private** **void** **btnCalcular3ActionPerformed**(java.awt.event.ActionEvent evt) {  // TODO add your handling code here:  **try**{  **int** l = Integer.parseInt(txtLado.getText());    **new** **Square**(l);    lblArea3.setText(Square.calcularArea());  lblPerimetro3.setText(Square.calcularPerimetro());    }  **catch**(Exception e){    JOptionPane.showMessageDialog(**null**, "Se ha producido un error, por favor validar los datos");  }    }  **private** **void** **btnCalcular2ActionPerformed**(java.awt.event.ActionEvent evt) {  // TODO add your handling code here:  **try**{  **int** b = Integer.parseInt(txtBase1.getText());  **int** h = Integer.parseInt(txtAltura1.getText());    **new** **Rectangle**(b,h);    lblArea2.setText(Rectangle.calcularArea());  lblPerimetro2.setText(Rectangle.calcularPerimetro());    }  **catch**(Exception e){    JOptionPane.showMessageDialog(**null**, "Se ha producido un error, por favor validar los datos");  }  } |

Diagrama, Dibujo de ingeniería

Descripción generada automáticamente

**Link GitHub:** [**https://github.com/MarioCa20/Seguimiento3**](https://github.com/MarioCa20/Seguimiento3)