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

Ejercicio 22

Codigo del JFrame

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

Codigo Clase

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

Ejercicio 23

Codigo del JFrame

```
1  private void btnCalcularActionPerformed(java.awt.event.ActionEvent evt) {
2          // TODO add your handling code here:
```

```
3
4           double a = Double.parseDouble(txtA.getText());
5           double b = Double.parseDouble(txtB.getText());
6           double c = Double.parseDouble(txtC.getText());
7
8           JOptionPane.showMessageDialog(null, Logic23.solver(a, b, c));
9
10      }
```

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

```
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

```
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

```
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

```
package part1;

public class Logic41 {

    private static double mayor = 0;

```

```
 7     public static String calcMayor(double[] a){
 8 
 9         for(double i:a){
10             if(i > mayor){
11                 mayor = i;
12             }
13         }
14 
15         return String.valueOf(mayor);
16     }
17 }
```

Parte 2

Codigo de clase principal

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

Codigo Clase Circulo

```
1 package part2;
```

```java

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

```java
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);
```

```
14      }
15
16      public static String calcularPerimetro() {
17          return String.valueOf((2 * base) + (2 * altura));
18      }
19  }
```

Codigo Clase Triangulo

```
1  package part2;
2
3  public class Triangle {
4      static int base;
5      static int altura;
6
7
8      public Triangle(int base, int altura) {
9          this.base = base;
10         this.altura = altura;
11     }
12
13     public static String calcularArea() {
14         return String.valueOf(base * altura / 2);
15     }
16
17     public static String calcularPerimetro() {
18         return String.valueOf(base + altura +  calcularHipotenusa());
19     }
20
21     public static double calcularHipotenusa() {
22         return Math.pow(base*base + altura*altura, 0.5);
23     }
24
25     public static String determinarTipoTriangulo() {
```

```
26          if ((base == altura) && (base == calcularHipotenusa()) && (altura == calcularHipotenusa()))
27              return "equilátero";
28      else if ((base != altura) && (base != calcularHipotenusa()) && (altura != calcularHipotenusa()))
29          return "escaleno";
30      else
31          return "isósceles";
32      }
33
```

Codigo Clase Cuadrado

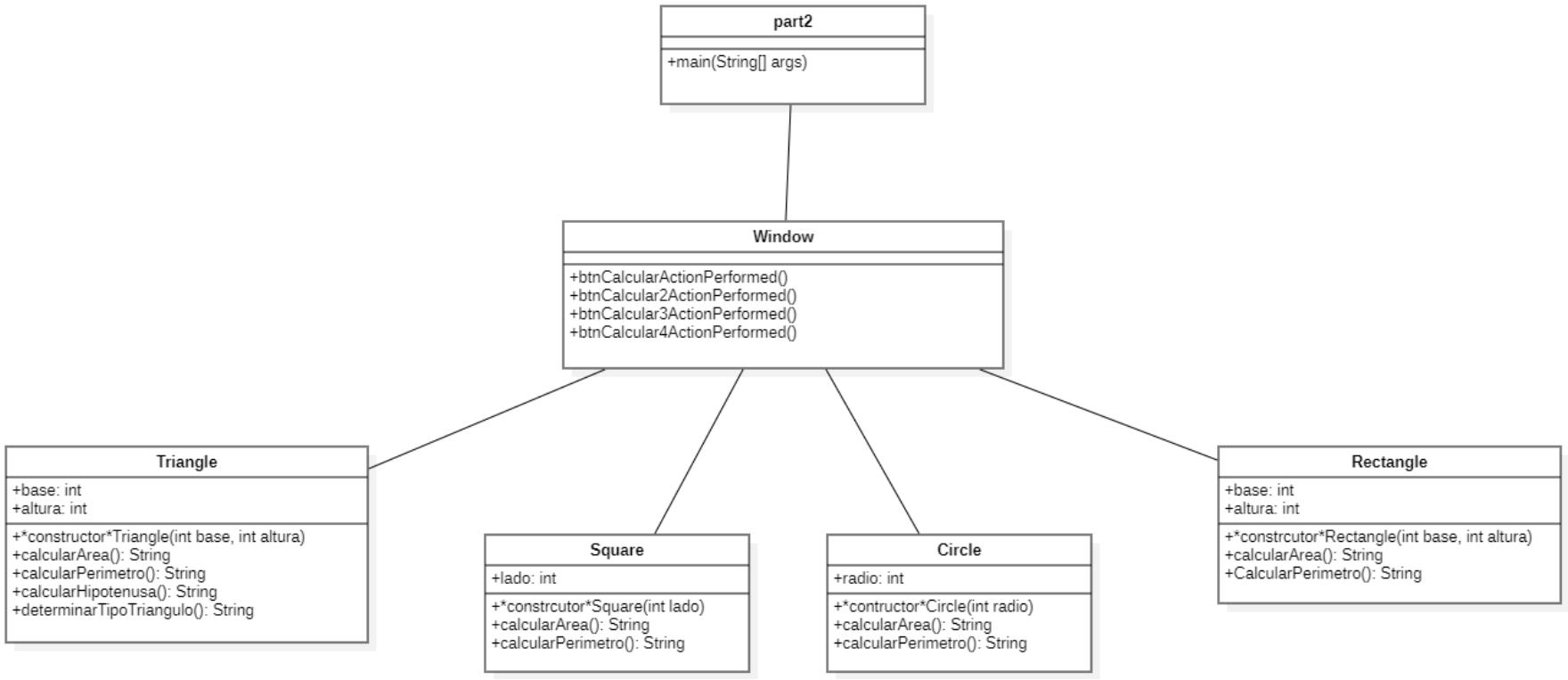
```
1  package part2;
2
3  public class Square {
4      static int lado;
5
6      Square(int lado) {
7          this.lado = lado;
8      }
9
10     public static String  calcularArea() {
11         return String.valueOf(lado*lado);
12     }
13
14     public static String  calcularPerimetro() {
15   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

Codigo Botones JFrame

```
1  private void btnCalcularActionPerformed(java.awt.event.ActionEvent evt) {
2          // TODO add your handling code here:
```

```
3
4           try{
5               int r = Integer.parseInt(txtRatio.getText());
6
7               new Circle(r);
8
9               lblArea.setText(Circle.calcularArea());
10              lblPerimetro.setText(Circle.calcularPerimetro());
11          }
12          catch(Exception e){
13
14              JOptionPane.showMessageDialog(null, "Se ha producido un error, por favor validar los datos");
15          }
16
17      }
18
19      private void btnCalcular4ActionPerformed(java.awt.event.ActionEvent evt) {
20          // TODO add your handling code here:
21          try{
22              int b = Integer.parseInt(txtBase.getText());
23              int h = Integer.parseInt(txtAltura.getText());
24
25              new Triangle(b,h);
26
27              lblArea4.setText(Triangle.calcularArea());
28              lblPerimetro4.setText(Triangle.calcularPerimetro());
29              lblHip.setText(String.valueOf(Triangle.calcularHipotenusa()));
30              lblTipo.setText(Triangle.determinarTipoTriangulo());
31          }
32          catch(Exception e){
33
34              JOptionPane.showMessageDialog(null, "Se ha producido un error, por favor validar los datos");
35          }
36      }
37
```

```
38      private void btnCalcular3ActionPerformed(java.awt.event.ActionEvent evt) {
39          // TODO add your handling code here:
40          try{
41              int l = Integer.parseInt(txtLado.getText());
42
43              new Square(l);
44
45              lblArea3.setText(Square.calcularArea());
46              lblPerimetro3.setText(Square.calcularPerimetro());
47
48          }
49          catch(Exception e){
50
51              JOptionPane.showMessageDialog(null, "Se ha producido un error, por favor validar los datos");
52          }
53
54      }
55
56      private void btnCalcular2ActionPerformed(java.awt.event.ActionEvent evt) {
57          // TODO add your handling code here:
58          try{
59              int b = Integer.parseInt(txtBase1.getText());
60              int h = Integer.parseInt(txtAltura1.getText());
61
62              new Rectangle(b,h);
63
64              lblArea2.setText(Rectangle.calcularArea());
65              lblPerimetro2.setText(Rectangle.calcularPerimetro());
66
67          }
68          catch(Exception e){
69
70              JOptionPane.showMessageDialog(null, "Se ha producido un error, por favor validar los datos");
71          }
72      }
```



Link GitHub: https://github.com/MarioCa20/Seguimiento3