

## Seguimiento 3 – Parte 1

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Programación orientada a objetos

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1) Ejercicios capítulo 3: Estructura secuencial.

- **Ejercicio propuesto #18: ClasePOOER7**

```
public class POOER18 {  
  
    public static void main(String[] args) {  
  
        Formulario form = new Formulario();  
  
        form.setVisible(true);  
  
    } }  

```

**Formulario:**

```
private void btnCalcularActionPerformed(java.awt.event.ActionEvent evt) {  
  
    double salariobruto, salarioneto, valorretencion, retencion;  
  
    int codigoempleado;  
  
    String nombres;  
  
    double horastrabajadasmes;  
  
    double valorhora;  
  
    double porcentajeretencion;  
  
    horastrabajadasmes = Double.parseDouble(txtHorasTrabajadasMes.getText());  
  
    valorhora = Double.parseDouble(txtValorHora.getText());  
  
    retencion = Double.parseDouble(txtRetencion.getText());  
  
    porcentajeretencion = retencion/100;  
  
    salariobruto = horastrabajadasmes * valorhora;  
  
    valorretencion = salariobruto * porcentajeretencion;  
  
    salarioneto = salariobruto - valorretencion;  
  
    txtSalarioBruto.setText(String.valueOf(salariobruto));  
  
    txtSalarioNeto.setText(String.valueOf(salarioneto));  
  
}  
  
private void btnBorrarActionPerformed(java.awt.event.ActionEvent evt) {  
  
    txtCodigo.setText("");  
  
    txtNombres.setText("");  
  
    txtHorasTrabajadasMes.setText("");  
  
    txtValorHora.setText("");  
  
}
```

```

txtRetencion.setText("");

    txtSalarioBruto.setText("");

    txtSalarioNeto.setText("");

}

private void btnSalirActionPerformed(java.awt.event.ActionEvent evt) {

    System.exit(0);

}

```

Diagrama de clases:

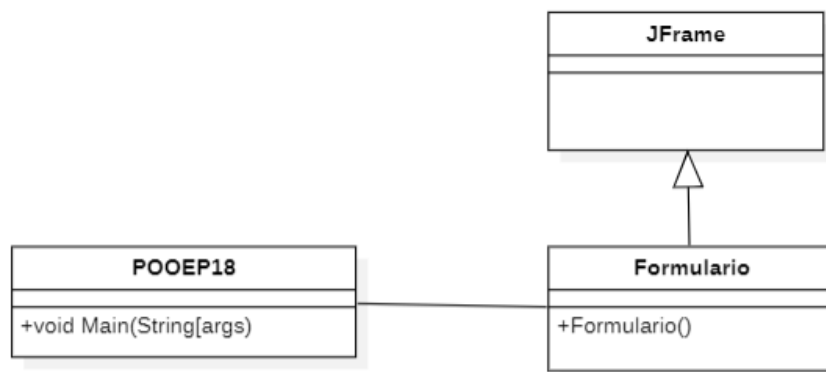


Foto del Formulario:

The screenshot shows a Java Swing window titled "Formulario" with standard window controls (minimize, maximize, close). The window contains a form with the following fields and values:

Label	Value
Codigo empleado	0004
Nombres	Juan Perez
Numero de horas trabajadas	48
Valor hora trabajada	5000
Porcentaje retencion en la fuente	12.5
Salario bruto	240000.0
Salario neto	210000.0

At the bottom of the window, there are three buttons: **Calcular**, **Borrar**, and **Salir**.

Link del proyecto en Github:

<https://github.com/Mrnicolas1999/POOEjercicios/tree/main/Seguimiento%203/Parte1/POOEP18/src/main/java/com/mycompany/pooep18>

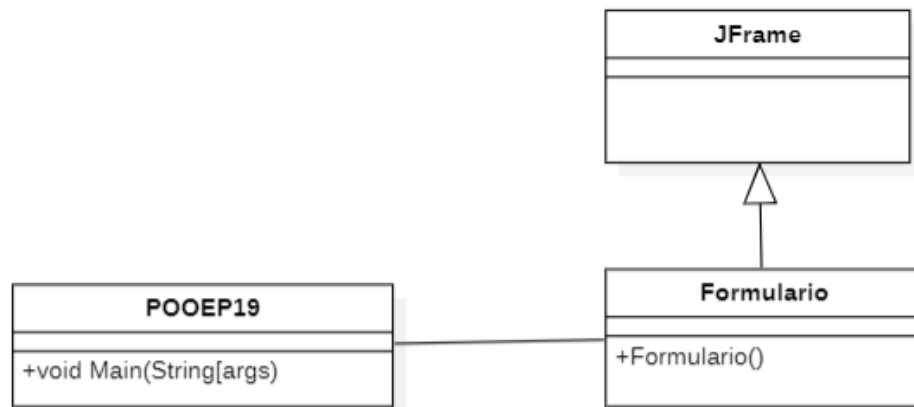
- **Ejercicio propuesto #19: CLASE POOEP19**

```
public class POOER18 {  
  
    public static void main(String[] args) {  
  
        Formulario form = new Formulario();  
  
        form.setVisible(true);  
  
    }  
}
```

**Formulario:**

```
private void btnCalcularActionPerformed(java.awt.event.ActionEvent evt) {  
  
    double lado, altura, area, perimetro;  
  
    lado = Double.parseDouble(txtLado.getText());  
  
    altura = (lado*Math.sqrt(3))/2;  
  
    area = (Math.pow(lado,2)*Math.sqrt(3))/4;  
  
    perimetro = 3*lado;  
  
  
    txtAltura.setText(String.valueOf(altura));  
  
    txtPerimetro.setText(String.valueOf(perimetro));  
  
    txtArea.setText(String.valueOf(area));  
  
  
}
```

Diagrama de clases:



Link del proyecto en Github:

<https://github.com/Mrnicolas1999/POOEjercicios/tree/main/Seguimiento%203/Parte1/POOEP19/src/main/java/com/mycompany/pooep19>

Foto del formulario:

The screenshot shows a Java Swing window titled "Formulario". The window contains four text input fields for numerical data, each preceded by a label: "Lado" (value: 4), "Perimetro" (value: 12.0), "Altura" (value: 3.4641016151377544), and "Area" (value: 6.928203230275509). At the bottom of the window, there are three buttons: "Calcular", "Borrar", and "Salir". The window has standard Windows-style title bar controls (minimize, maximize, close) in the top right corner.

## CAPITULO 4: ESTRUCTURA DECISIÓN LOGICA

### Ejercicios resueltos:

- **Ejercicio resuelto #7: Clase POOER7**

```
public class POOER7 {  
  
    public static void main(String[] args) {  
  
        Formulario form = new Formulario();  
  
        form.setVisible(true);  
  
    }  
}
```

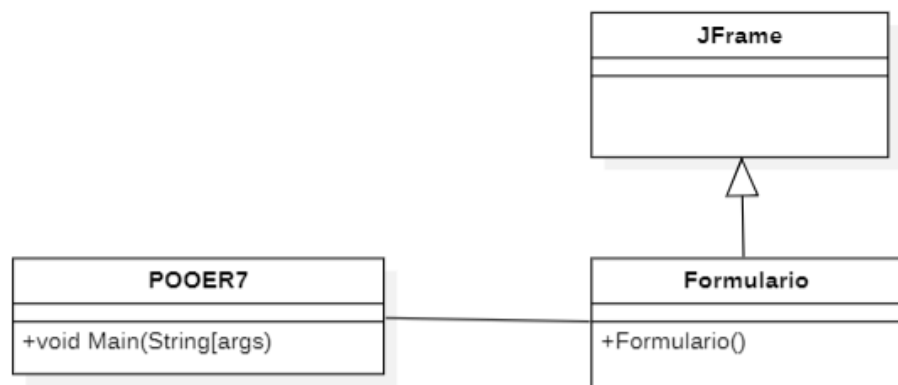
### Formulario:

```
private void btnCalcularActionPerformed(java.awt.event.ActionEvent evt) {  
  
    // TODO add your handling code here:  
  
    double a, b;  
  
    a = Double.parseDouble(txtA.getText());  
    b = Double.parseDouble(txtB.getText());  
  
    if (a>b) {  
        txtResultado.setText("A es mayor que B");  
    }else if (a==b){  
        txtResultado.setText("A es igual a B");  
    }else{  
        txtResultado.setText("A es menor que B");  
    }  
  
}
```

### Link del proyecto en Github:

<https://github.com/Mrnicolas1999/POOEjercicios/tree/main/Seguimiento%203/Parte1/POOER7/src/main/java/com/mycompany/poer7>

**Diagrama de clases:**



**Foto del formulario:**

The screenshot shows a Java Swing window titled "Formulario". The window has a standard title bar with a minimize button, a maximize button, and a close button. The main content area is light gray and contains three input fields with labels to their left. The first input field is labeled "Ingrese A" and contains the number "5". The second input field is labeled "Ingrese B" and contains the number "2". The third input field is labeled "Resultado" and contains the text "A es mayor que B". Below the input fields, there are three buttons: "Calcular", "Borrar", and "Salir". The "Calcular" button is highlighted with a blue border and a shadow effect.

- **Ejercicio Resuelto #10: Clase POOER10**

```
public class POOER10 {  
  
    public static void main(String[] args) {  
  
        Formulario form = new Formulario();  
  
        form.setVisible(true);  
  
    }  
}
```

**Formulario:**

```
private void btnCalcularActionPerformed(java.awt.event.ActionEvent evt) {  
  
    int EST;  
  
    String NOM,NI;  
  
    double PAT, PAGMAT;  
  
  
    NI = txtNumeroInscripcion.getText();  
    NOM = txtNombres.getText();  
    PAT = Double.parseDouble(txtPatrimonio.getText());  
    EST = Integer.parseInt(txtEstratoSocial.getText());  
  
  
    PAGMAT = 50000;  
    if (PAT > 2000000 && EST > 3){  
        PAGMAT = PAGMAT + 0.03*PAT;  
        txtResultado.setText("El estudiante con número de inscripción: "+NI+" "  
            + "y nombre "+NOM+" , debe pagar: $" +PAGMAT);  
    }else{  
        txtResultado.setText("El estudiante con número de inscripción: "+NI+" "  
            + "y nombre "+NOM+" , debe pagar: $" +PAGMAT);  
    }  
}
```



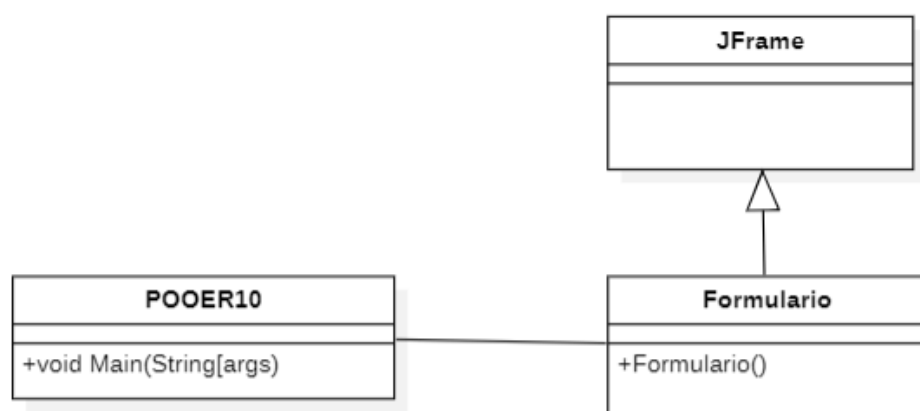
Link del proyecto en Github:

<https://github.com/Mrnicolas1999/POOEjercicios/tree/main/Seguimiento%203/Parte1/POOER10/src/main/java/com/mycompany/pooer10>

The screenshot shows a Java Swing window titled "POOER10". Inside the window, there is a form with the following elements:

- Numero inscripcion:** A text input field containing the value "0001".
- Nombres:** A text input field containing the value "Juan Pablo".
- Patrimonio:** A text input field containing the value "1500000".
- Estrato social:** A text input field containing the value "4".
- Resultado:** A large text area containing the text "y nombre Juan Pablo, debe pagar: \$50000.0".
- Buttons:** Three buttons are located at the bottom of the form: "Calcular", "Borrar", and "Salir".

Diagrama de clases:



- **Ejercicio Propuesto #22: Clase POOER22**

```
public class POOEP22 {  
  
    public static void main(String[] args) {  
  
        Formulario form = new Formulario();  
  
        form.setVisible(true);  
  
    }  
}
```

**Formulario:**

```
private void btnCalcularActionPerformed(java.awt.event.ActionEvent evt) {  
  
    String nom;  
    int salario, horas;  
    double salario_mensual;  
  
    nom = txtNombre.getText();  
    salario = Integer.parseInt(txtSalario.getText());  
    horas = Integer.parseInt(txtHoras.getText());  
  
    salario_mensual = 0;  
    salario_mensual = horas*salario;  
  
    if(salario_mensual > 450000){  
  
        txtResultado.setText(nom+": "+salario_mensual);  
    }else{  
        txtResultado.setText(nom);  
    }  
}
```

Diagrama de clases:

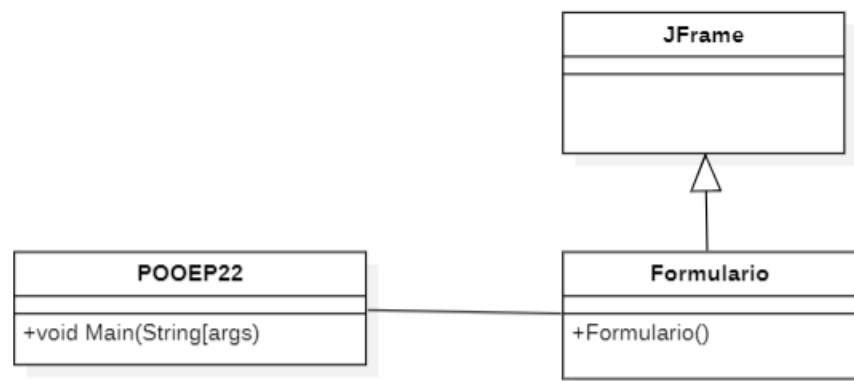


Foto formulario:

The screenshot shows a Java Swing window titled "Formulario". The window contains three text input fields for "Nombre", "Salario por hora", and "Horas trabajadas". The "Nombre" field contains "Nicolas Perez", "Salario por hora" contains "5000", and "Horas trabajadas" contains "244". Below these fields is a large text area labeled "Resultado" which displays "Nicolas Perez: 1220000.0". At the bottom of the window are three buttons: "Calcular", "Borrar", and "Salir". The window has standard Mac OS X window controls (red, yellow, and green buttons) in the top-left corner.

Link de Github:

<https://github.com/Mrnicolas1999/POOEjercicios/tree/main/Seguimiento%203/Parte1/POOEP22/src/main/java/com/mycompany/pooep22>

- **Ejercicio Propuesto #23: Clase POOER23**

```
public class POOEP22 {  
  
    public static void main(String[] args) {  
  
        Formulario form = new Formulario();  
  
        form.setVisible(true);  
  
    }  
}
```

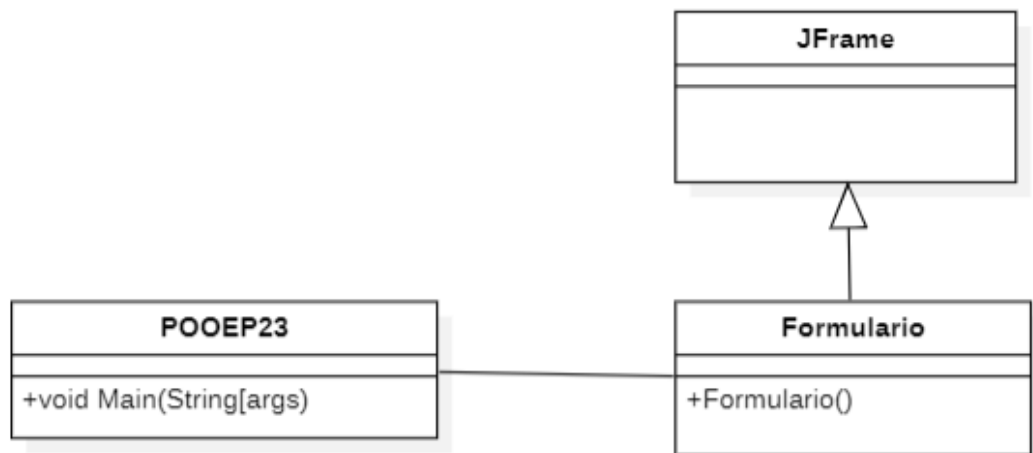
**Formulario:**

```
private void btnCalcularActionPerformed(java.awt.event.ActionEvent evt) {  
  
    double A, B, C;  
  
    A = Double.parseDouble(txtA.getText());  
  
    B = Double.parseDouble(txtB.getText());  
  
    C = Double.parseDouble(txtC.getText());  
  
    double raiz = Math.pow(B, 2) - 4 * A * C;  
  
    double Solucion = 0;  
  
    if (raiz < 0) {  
  
        txtResultado.setText("No hay soluciones reales"); // porque la raiz no puede ser cero  
  
    } else if (raiz == 0) {  
  
        Solucion = -B / (2 * A);  
  
        txtResultado.setText("La solución es: " + Solucion);  
  
    } else {  
  
        double Solucion1 = (-B + Math.sqrt(raiz)) / (2 * A);  
  
        double Solucion2 = (-B - Math.sqrt(raiz)) / (2 * A);  
  
        txtResultado.setText("Las posibles soluciones son: " + Solucion1 + " y " + Solucion2);  
  
    }  
}
```

**Link de Github:**

<https://github.com/Mrnicolas1999/POOEjercicios/tree/main/Seguimiento%203/Parte1/POOEP23/src/main/java/com/mycompany/pooep23>

### Diagrama de clases:



### Foto del Formulario:

The screenshot shows a Java Swing window titled "Formulario". The window has a standard title bar with a maximize button, a close button, and a standard icon. The main content area is light gray and contains the following elements:

- Three input fields labeled A, B, and C. Field A contains the value "1", field B contains "-5", and field C contains "6".
- A label "Resultado" followed by a text area displaying the text "Las posibles soluciones son: 3.0 y 2.0".
- Three buttons at the bottom: "Calcular", "Borrar", and "Salir".