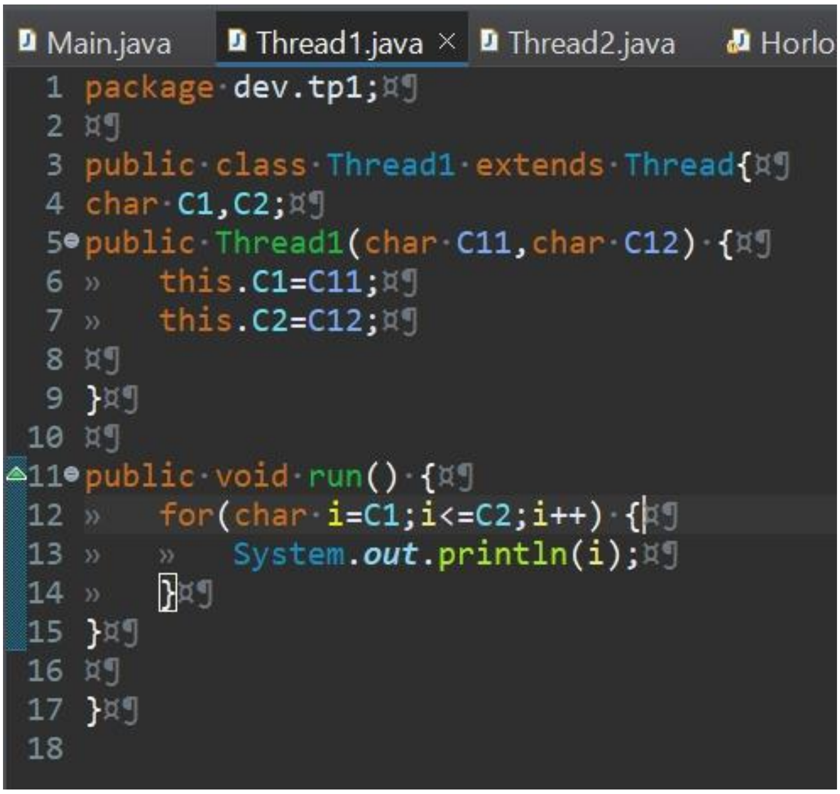
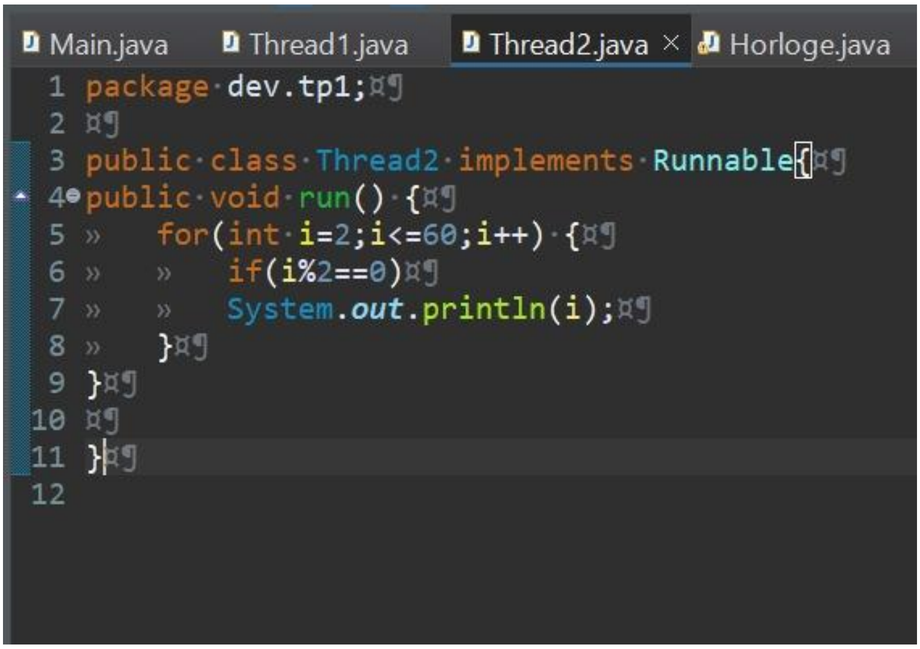
Compte rendu de l’exercice 1 et 2 en Programmation Objet Avancée

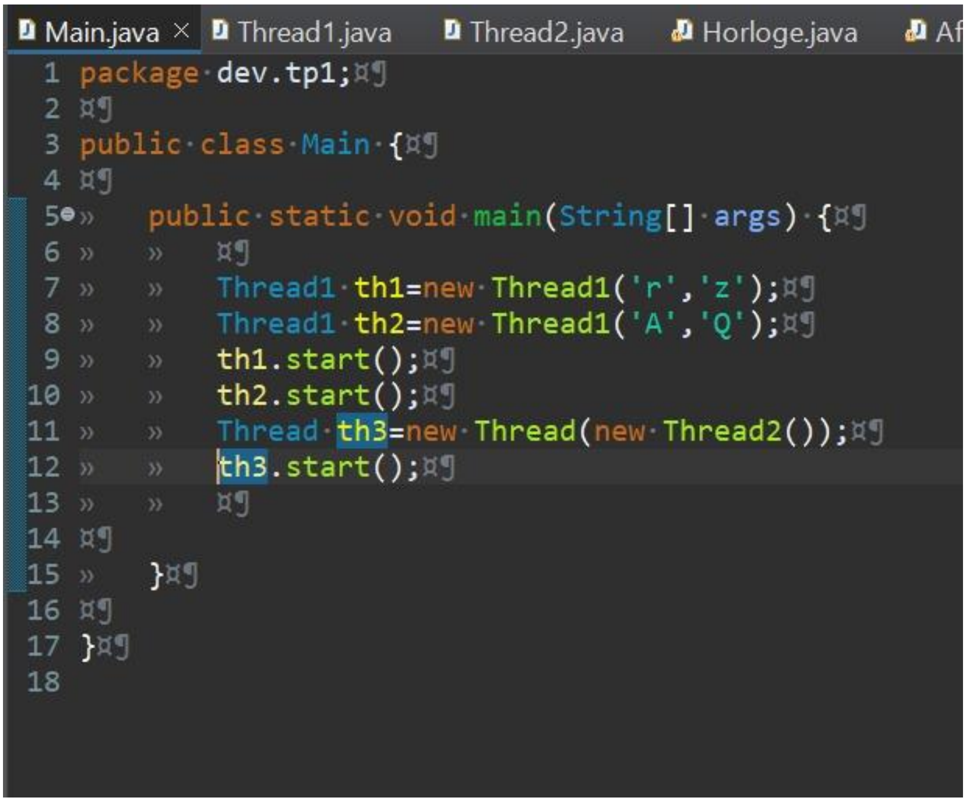
1 / code :



```java
package dev.tp1;

public class Thread1 extends Thread{
char C1,C2;
public Thread1(char C11,char C12) {
	this.C1=C11;
	this.C2=C12;

}

public void run() {
	for(char i=C1;i<=C2;i++) {
		System.out.println(i);
	}
}

}
```

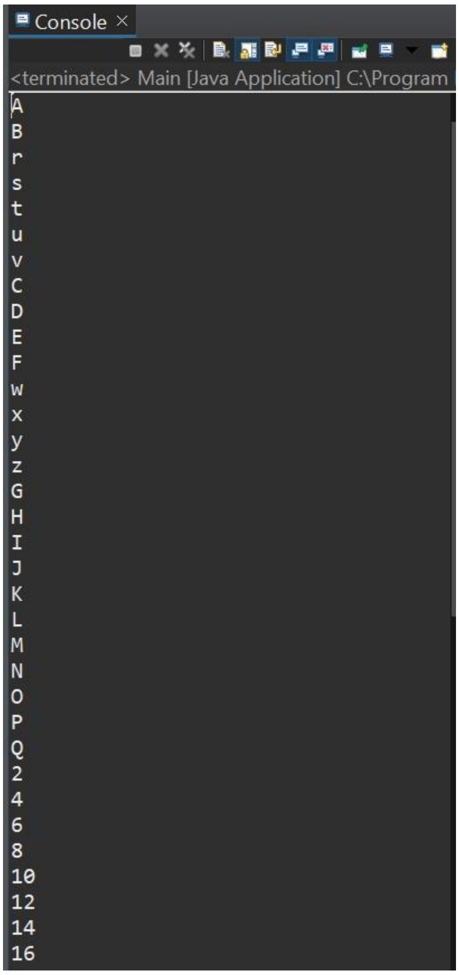


```java
package dev.tp1;

public class Thread2 implements Runnable{
public void run() {
	for(int i=2;i<=60;i++) {
		if(i%2==0)
		System.out.println(i);
	}
}

}
```

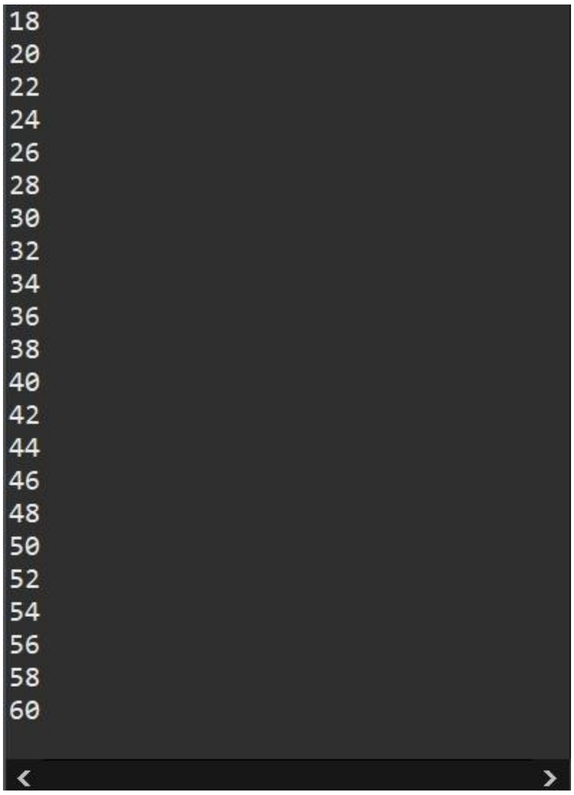


```java
package dev.tp1;

public class Main {

	public static void main(String[] args) {
		
		Thread1 th1=new Thread1('r','z');
		Thread1 th2=new Thread1('A','Q');
		th1.start();
		th2.start();
		Thread th3=new Thread(new Thread2());
		th3.start();
		

	}

}
```

Exécution :



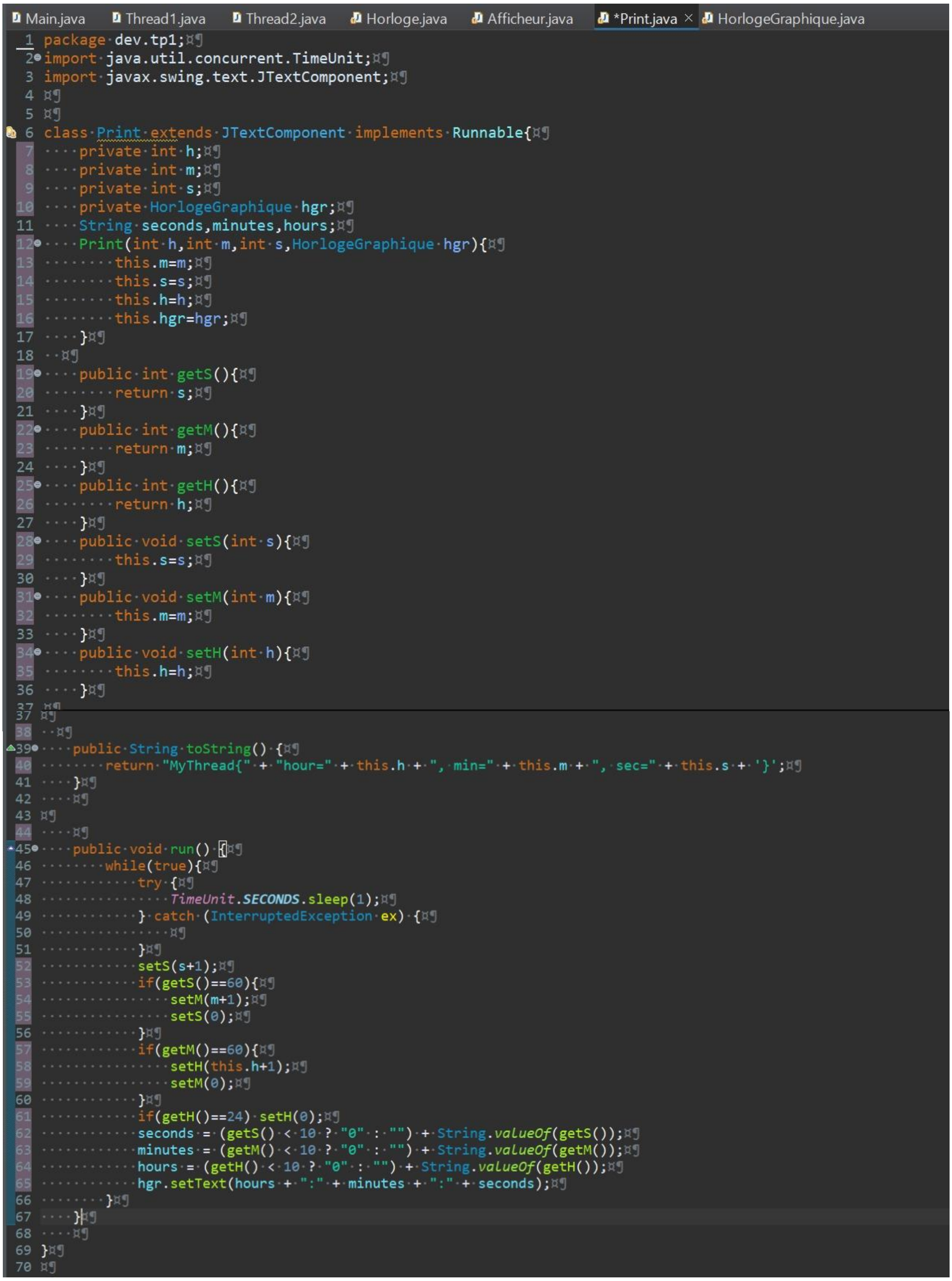
```
<terminated> Main [Java Application] C:\Program
A
B
r
s
t
u
v
C
D
E
F
w
x
y
z
G
H
I
J
K
L
M
N
O
P
Q
2
4
6
8
10
12
14
16
```



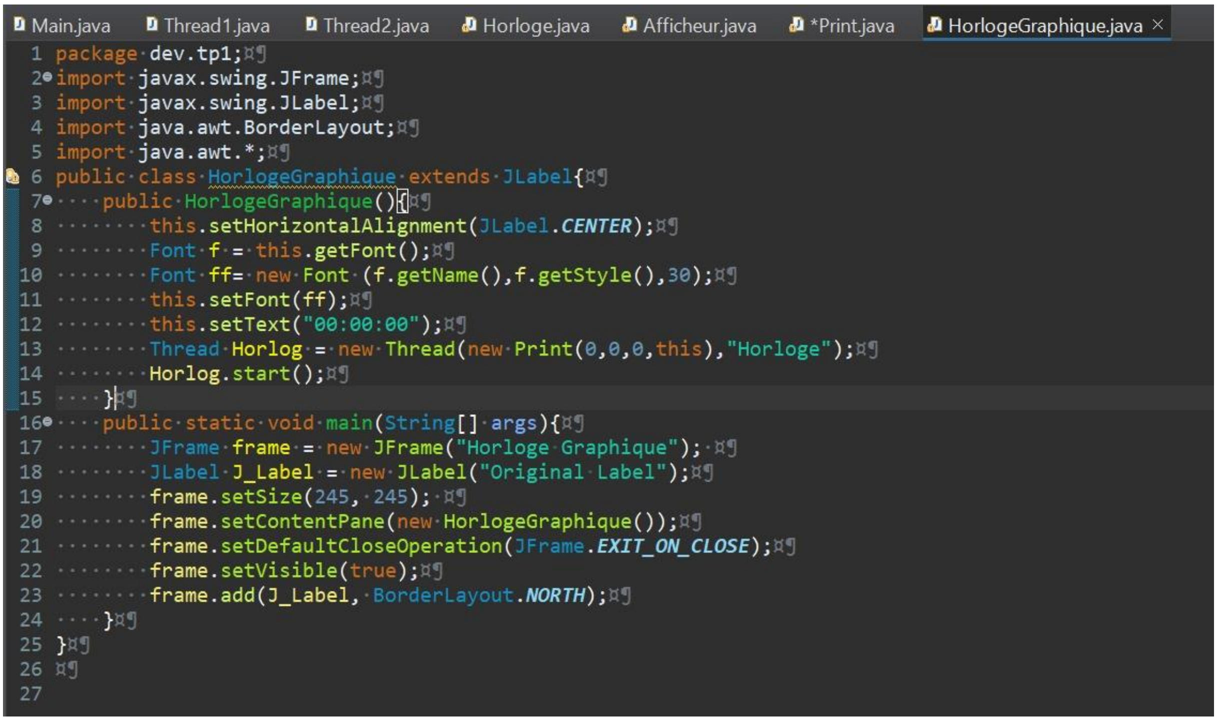
```
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
50
52
54
56
58
60
```

On remarque que les résultats des 3 threads ont été affiché aléatoirement.

2/ code :

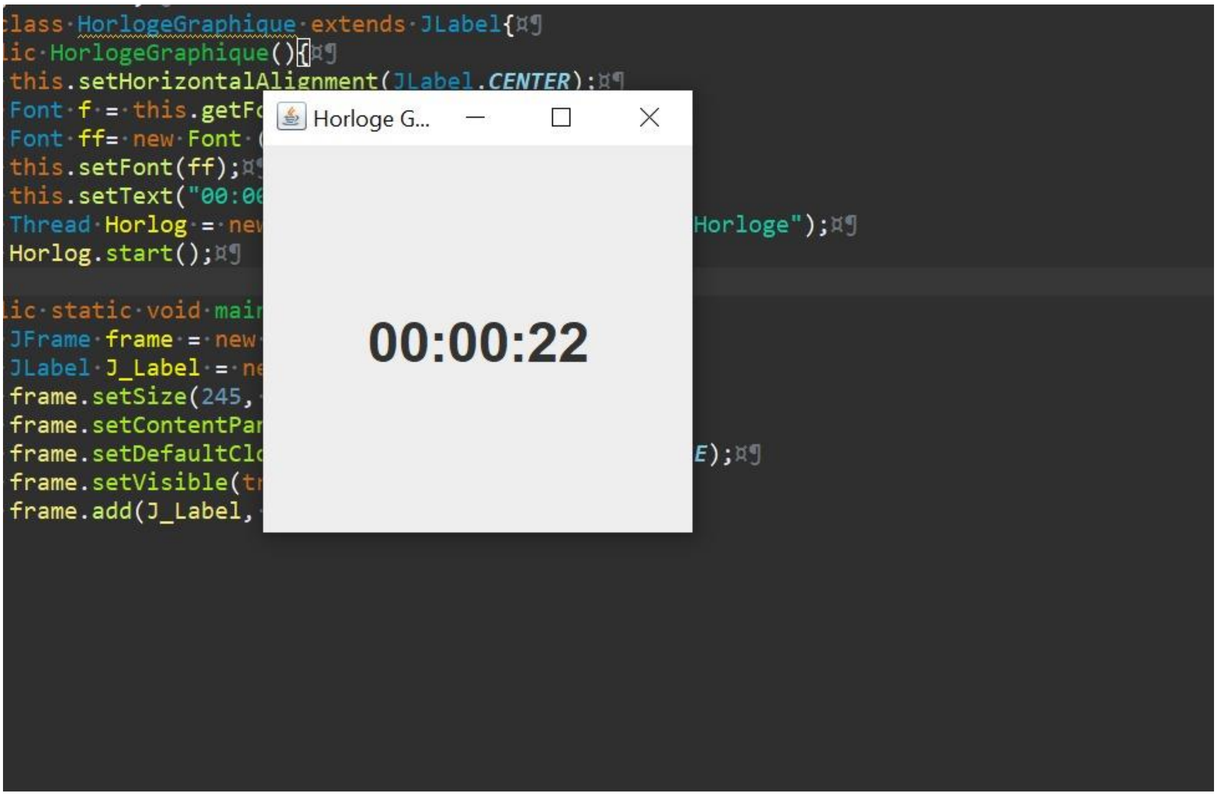


```java
package dev.tp1;
import java.util.concurrent.TimeUnit;
import javax.swing.text.JTextComponent;


class Print extends JTextComponent implements Runnable{
    private int h;
    private int m;
    private int s;
    private HorlogeGraphique hgr;
    String seconds,minutes,hours;
    Print(int h,int m,int s,HorlogeGraphique hgr){
        this.m=m;
        this.s=s;
        this.h=h;
        this.hgr=hgr;
    }
  
    public int getS(){
        return s;
    }
    public int getM(){
        return m;
    }
    public int getH(){
        return h;
    }
    public void setS(int s){
        this.s=s;
    }
    public void setM(int m){
        this.m=m;
    }
    public void setH(int h){
        this.h=h;
    }

  
    public String toString() {
        return "MyThread{" + "hour=" + this.h + ", min=" + this.m + ", sec=" + this.s + '}';
    }
    

    
    public void run() {
        while(true){
            try {
                TimeUnit.SECONDS.sleep(1);
            } catch (InterruptedException ex) {
                
            }
            setS(s+1);
            if(getS()==60){
                setM(m+1);
                setS(0);
            }
            if(getM()==60){
                setH(this.h+1);
                setM(0);
            }
            if(getH()==24) setH(0);
            seconds = (getS() < 10 ? "0" : "") + String.valueOf(getS());
            minutes = (getM() < 10 ? "0" : "") + String.valueOf(getM());
            hours = (getH() < 10 ? "0" : "") + String.valueOf(getH());
            hgr.setText(hours + ":" + minutes + ":" + seconds);
        }
    }
    
}
```



```java
package dev.tp1;
import javax.swing.JFrame;
import javax.swing.JLabel;
import java.awt.BorderLayout;
import java.awt.*;
public class HorlogeGraphique extends JLabel{
    public HorlogeGraphique(){
        this.setHorizontalAlignment(JLabel.CENTER);
        Font f = this.getFont();
        Font ff= new Font (f.getName(),f.getStyle(),30);
        this.setFont(ff);
        this.setText("00:00:00");
        Thread Horlog = new Thread(new Print(0,0,0,this),"Horloge");
        Horlog.start();
    }
    public static void main(String[] args){
        JFrame frame = new JFrame("Horloge Graphique"); 
        JLabel J_Label = new JLabel("Original Label");
        frame.setSize(245, 245); 
        frame.setContentPane(new HorlogeGraphique());
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.setVisible(true);
        frame.add(J_Label, BorderLayout.NORTH);
    }
}
```

Exécution :



```
00:00:22
```