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# OOPM
# MINI PROJECT

## DIGITAL CLOCK USING JAVA


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# INTRODUCTION

## --WHAT IS DIGITAL CLOCK?

-A digital clock is a type of clock that displays time digitally.

-To make the project more interesting, we will be implementing some GUI to give users a good interface to work with.

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# OBJECTIVES

**At the end of this project, readers should be able to:**

**-Know how to create a function**

**-Know how to invoke or call a function**

**The program can essentially be divided into objectives that we want to achieve. The first one is to create a user interface involving some graphics and the second objective is to implement the digital clock such that it shows the correct time always.**

# code:

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```java
import javax.swing.*;
import java.awt.*;
import java.util.*;
import java.awt.Color;

public class DigitalClock extends JFrame implements Runnable
{
    Thread runner;
    Font clockFont;
    public DigitalClock()
    {
        setVisible(b: true);
        setSize(width: 500,height: 200);
        setLocation(x: 550,y: 300);
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        setResizable(resizable: false);
        clockFont=new Font(name: "Serif",Font.BOLD,size: 48);
        Container c=getContentPane();
        ClockContent clk=new ClockContent();
        c.add(clk);
        setContentPane(c);
        start();
    }
    class ClockContent extends JPanel
{
    public void paintComponent(Graphics g)
    {
        Image img=Toolkit.getDefaultToolkit().getImage(filename: "bg.png");
        if(img!=null)
        {
```

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```java
            if(img!=null)
            {
                g.drawImage(img,x: 25,y: 10,this);
                g.setFont(clockFont);
                g.setColor(Color.black);
                g.drawString(currentTime(),x: 150,y: 100);
            }

        }
        public String currentTime()
        {
            Calendar cal=Calendar.getInstance();
            int hours=cal.get(Calendar.HOUR_OF_DAY);
            int min=cal.get(Calendar.MINUTE);
            int sec=cal.get(Calendar.SECOND);
            return ""+hours+":"+min+":"+sec+"";
        }


}

        public void start()
        {
            if(runner==null)
            {
                runner=new Thread(this);
                runner.start();
            }
        }

```

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```
55              runner.start();
56          }
57      }
58
59      public void run()
60      {
61          while(runner==Thread.currentThread())
62          {
63          repaint();
64          }
65          try
66          {
67              Thread.sleep(millis: 1000);
68          }
69          catch(InterruptedException ie)
70          {
71              ie.printStackTrace();
72          }
73      }
        Run | Debug
74      public static void main(String args[])
75      {
76          new DigitalClock();
77      }
78  }
```

# output:

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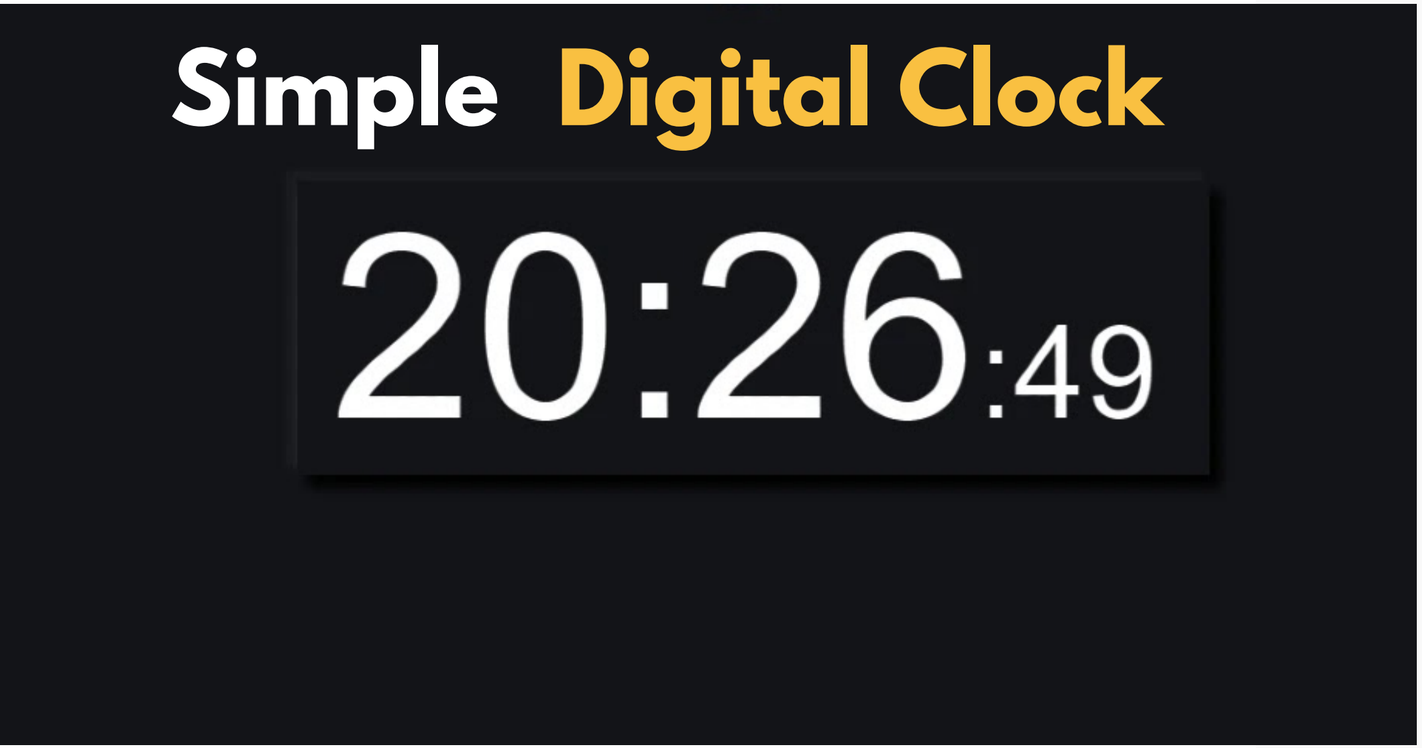
# ADVANTAGES

There are some advantages of digital clock




## Better Readability

If your top priority is to quickly and easily read the clock,Digital clock is best

## Functional In Low Light

If you're getting clocks for a room that is often dark, such as an auditorium or lecture hall where the lights are regularly dimmed, it makes more sense to install digital clocks.

## Quicker and More Accurate

gives correct and or more acccurate time than analog clock.

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# FUTURE SCOPE

--The future scope of our project aims to build a programmable to **wake up alarm** and a **stopwatch system** which would to display the present date to the user with the help of Java and Swing.

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# THANK YOU!!!