

Frame

Attributes:

JFrame frame;

Constructor

public Frame : new JFrame(Panel panel)
initialize all necessary JFrame method calls to construct a visible window on start-up from within the constructor.
Must include frame.add(panel)

Imports:

javax.swing.JFrame;

Panel extends JPanel

Attributes:

JLabel clockFace;

TimeData timeData;

String timeText;

Font font = new Font() – *construct your chosen font for the clock face.*

Constructor

public Panel()

initialize a new JLabel and a new TimeData object within the constructor.

You will need to add the clockFace object to the panel, and you will need to construct an action event inside the TimeData object. Then, call timeData.start()

Imports:

javax.swing.JPanel;
javax.swing.JLabel;
java.awt.Color ;
java.awt.Font ;
java.awt.event.ActionEvent;
java.awt.event.ActionListener;
javax.swing.SwingConstants;

TimeData extends Timer

Constructor

public TimeData(int delay, ActionListener listener)

public String startTime(String timeStorage) : *set the timeStorage parameter to a new Date().toString() method call, and then return timeStorage.*

TimeData constructor details :

```
timeData = new TimeData(1000, new  
ActionListener() {  
    @Override  
    public void actionPerformed(ActionEvent e)  
    {clockFace.setText(timeData.startTime(timeText));  
    }  
});
```

Imports:

javax.swing.Timer;
java.awt.event.ActionListener;
java.util.Date;