Swapnanil Dutta Roll: 12

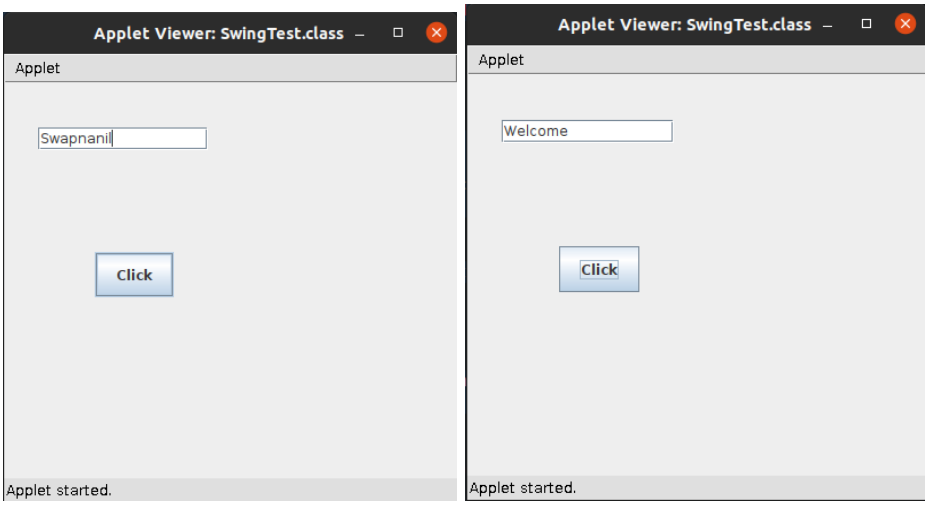
1.

Code:

```
import javax.swing.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
/* <applet code="SwingTest.class" width="400" height="350"></applet>  */
public class SwingTest extends JApplet implements ActionListener {
   JButton b;
   JTextField tf;

   @Override
   public void init() {
       tf = new JTextField();
       tf.setBounds(30, 40, 150, 20);
       b = new JButton("Click");
       b.setBounds(80, 150, 70, 40);
       add(b);
       add(tf);
       b.addActionListener(this);
       setLayout(null);
   }
   @Override
   public void actionPerformed(ActionEvent e) {
       tf.setText("Welcome");
   }
}
```

Output:



2.
Code:

```
import java.awt.Color;
import java.awt.Graphics;
import java.util.Calendar;
import java.util.Date;
import java.util.GregorianCalendar;
import javax.swing.*;

/* <applet code="DigitalClock.class" width="400" height="350"></applet>
*/

public class DigitalClock extends JApplet implements Runnable {
   String str = "";
   Thread t;
   boolean stopFlag = false;

   public void run() {
       for (;;) {
           try {
               repaint();
               Thread.sleep(150);
               if (stopFlag)
                   break;
           } catch (InterruptedException e) {
               System.out.println(e);
           }
       }
   }

   public void init() {
       setBackground(Color.gray);
       setForeground(Color.green);
   }

   public void start() {
       t = new Thread(this);
       t.start();
   }
```

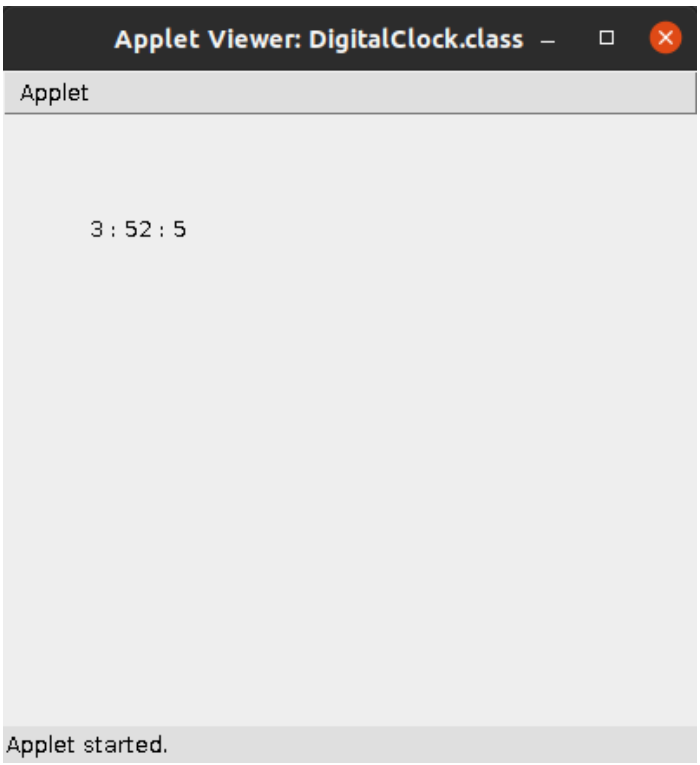
```
    public void stop() {
        stopFlag = true;
        t = null;
    }

    public void destroy() {

    }

    public void paint(Graphics g) {
        super.paint(g);
        Calendar cal = new GregorianCalendar();
        String hh = String.valueOf(cal.get(Calendar.HOUR));
        String mm = String.valueOf(cal.get(Calendar.MINUTE));
        String ss = String.valueOf(cal.get(Calendar.SECOND));
        str = hh + " : " + mm + " : " + ss;
        g.drawString(str, 50, 70);
    }
}
```

Output:



3.
Code:

```
import java.applet.Applet;
import java.awt.Color;
import java.awt.Font;
import java.awt.Graphics;

import javax.swing.*;

/* <applet code="SimpleBanner.class" width="400" height="350"></applet>
*/

public class SimpleBanner extends JApplet implements Runnable {
   String m = "A simple moving Banner ";
   Thread t;
   boolean stopFlag = false;

   public void init() {
       setBackground(Color.gray);
       setForeground(Color.red);
   }

   public void start() {
       t = new Thread(this);
       t.start();
   }

   public void stop() {
       stopFlag = true;
       t = null;
   }

   public void paint(Graphics g) {
       super.paint(g);
       Font f = new Font("Calibri", Font.BOLD, 25);
       g.setFont(f);
       char ch = m.charAt(0);
       m = m.substring(1, m.length());
       m += ch;
       g.drawString(m, 50, 30);
```

```
    }

    public void run() {
        for (;;) {
            try {
                repaint();
                Thread.sleep(150);
                if (stopFlag)
                    break;
            } catch (InterruptedException e) {
                System.out.println(e);
            }
        }
    }
}
```

Output:

4.

Code:

```
import javax.swing.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;

public class SwingFrame extends JFrame implements ActionListener{
   JFrame f;
   JButton b;
   JTextField t;
   public void create()
   {
       f=new JFrame();
       b=new JButton("Click Me");
       b.setBounds(80, 150, 70, 40);
       t=new JTextField();
       t.setBounds(30, 40, 150, 20);
       b.addActionListener(this);
       f.setSize(500, 600);
       f.setLayout(null);
       f.add(b);
       f.add(t);
       f.setVisible(true);
   }
   public void actionPerformed(ActionEvent e) {
       t.setText("Welcome");
   }
   public static void main(String[] args)
   {
       SwingFrame ob=new SwingFrame();
       ob.create();
   }
}
```

Output: