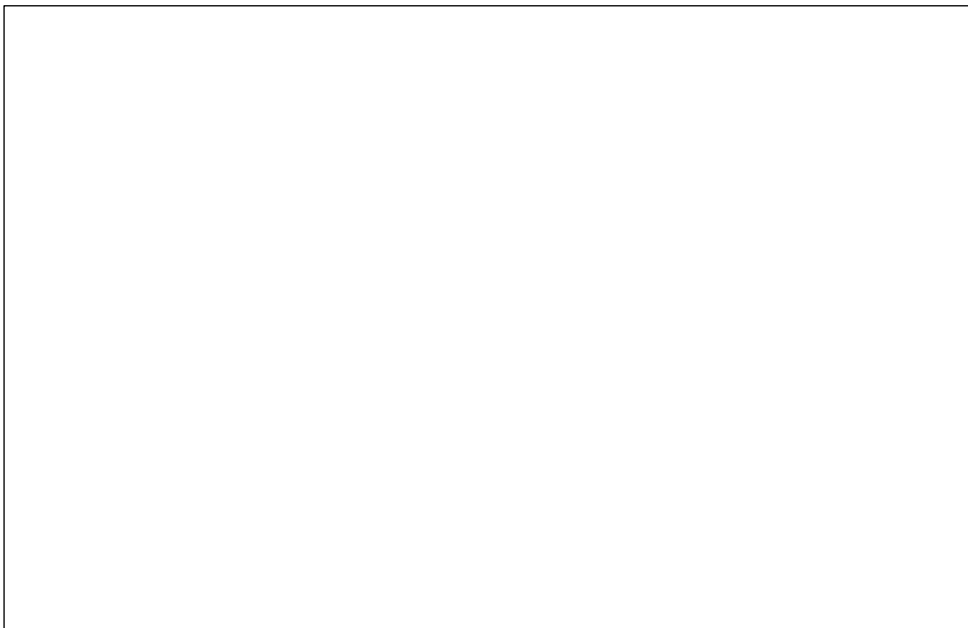




COMPSCI 230 Tutorial
Anon/Named Inner Classes and AWT/Swing
Week5

Q1: Add another inner class to class Test01. The new class should implement Printable and should have a method to print out the String "Triangle".

```
public class Test01{  
public interface Printable{  
    public void print();  
}  
    public class PrintRectangle implements Printable{  
        public void print(){  
            System.out.println("Rectangle");  
        }  
    }  
}
```



Q2: Read the following code and answer the questions below.

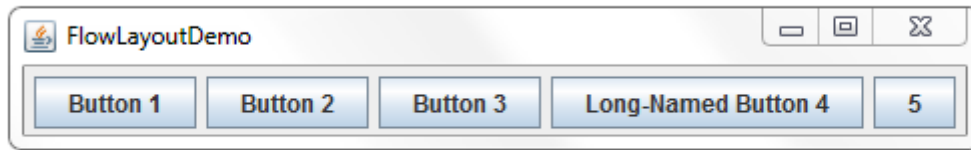
```
public class AnonymousInnerClassExercise{  
    public AnonymousInnerClassExercise() {  
        Frame frame = new Frame();  
        frame.addWindowListener(new WindowAdapter() {  
            public void windowClosing(WindowEvent e) {  
                System.exit(0);  
            }  
        });  
    }  
}
```

A) Identify the superclass of the anonymous inner class given in the code above.

B) Rewrite the code using a named inner class.

C) Rewrite the code using another top-level class

Q3: To generate the FlowLayoutDemo, you have to use JButton, JFrame in your code, what have been missed at import ?



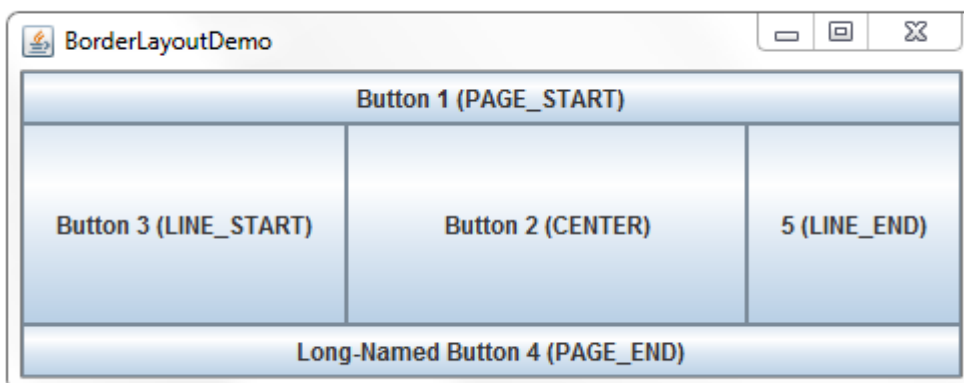
```
import java.awt.Container;  
import java.awt.FlowLayout;
```

Complete the Import

Q4: we have to add the five buttons into our layout, please complete the following method

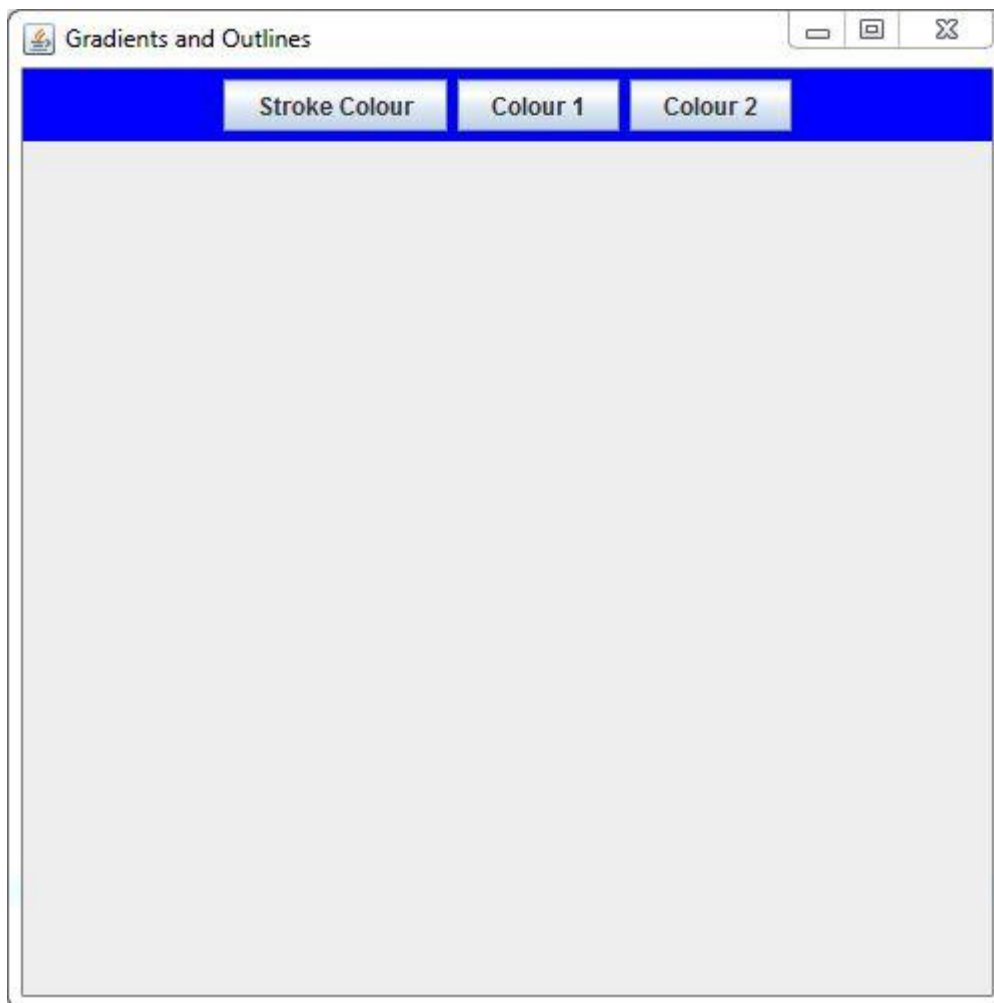
```
public static void addComponentsToPane(Container pane) {  
    pane.setLayout(new FlowLayout());  
    //complete the code in here  
}
```

Q5: Look at the BorderLayoutDemo.java , please complete addComponentsToPane method, and let the button be allocated at different position.



```
public static void addComponentsToPane(Container pane) {  
    JButton button = new JButton("Button 1 (PAGE START)");  
    pane.add(button, BorderLayout.PAGE_START);  
    // complete me in here  
  
}
```

Open the GradientsOutlines.java source file. You should see the following window if you start it:



Currently, if you click inside the large grey area, a red circle with a black outline will appear. The buttons at the top do nothing at the present stage.

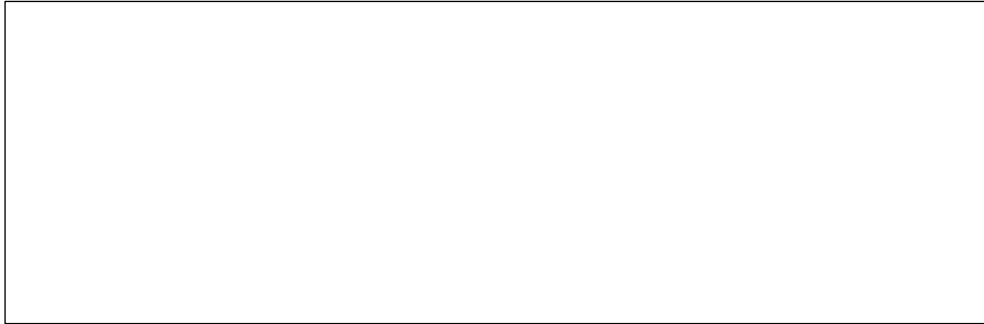
Q6: Add an ActionListener to each of the buttons: strokeButton, c1Button, and c2Button.

Q7: For all 3 buttons we must implement JColorChooser in order to set the 3 Color variables. How do we show a JColorChooser dialog window when a button is pressed?

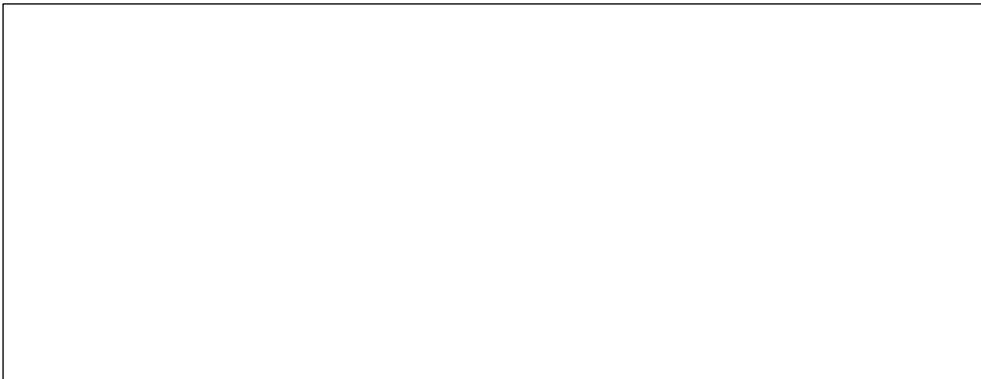
Q8: What is the return type from JColorChooser?

Q9: What is returned by JColorChooser if we press the 'Cancel' button inside the popup window?
Can we fix it?

Q10: How does the current paint() draw and outline the circle? HINT:
<http://docs.oracle.com/javase/tutorial/2d/geometry/strokeandfill.html>



Q11: We want to be able to fill the circle so that it uses both Color variables (c1 and c2) and creates a gradient. What is the class we need to create a gradient and how can we create one for circleShape? Make sure to change the paint used by g2 to fill the circleShape!



Q12: How can we set the stroke type of the outline?



Q13: Try to create a new style of stroke inside the setUpStrokes() method. Change strokes[2] in the array to be your new style. Don't forget to change the setStroke() call inside paint() to use stroke[2]!

JDOCS: <http://docs.oracle.com/javase/8/docs/api/java/awt/BasicStroke.html>

