1. Write a simple Java Swing based application for Counter. The UI contains a Label (“Counter”), a non-editable TextField and 2 Buttons (“Count” and “Reset”). TextField will show the value of the counter. Clicking the “Count” Button will increase the value of the counter by 1and displays the value in the TextField. Clicking the “Reset” button will reset the TextFeld value back to 0.

2. Make the TextField of problem#1 editable and add the following

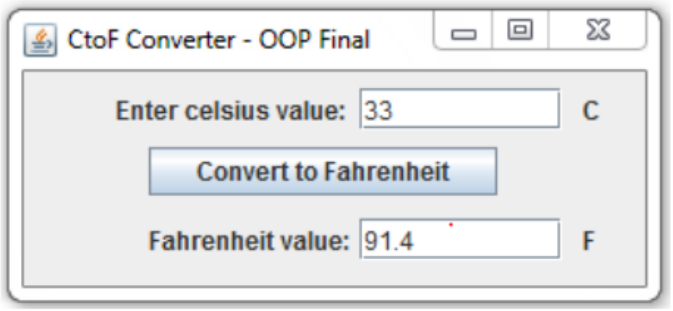
a. If user enters a number to the TextField, clicking the Button will increase the number by 1 and show the value.

3. Create a GUI application where clicking a button will check/uncheck a CheckBox and also change the text of the button. Clicking the button will

b. Check/Select the checkbox if it is not checked/selected. Also set the text of the Button to “UnCheck”.

c. Uncheck/Unselect the checkbox if it is checked/selected. Also set the text of the Button to “Check”.

4. You are required to complete a Java GUI application that has the functionality of converting temperature from Celsius value to Fahrenheit value. The application takes Celsius value from one JTextField (namely textFieldCelsius), converts this value into Fahrenheit value on click of a JButton (namely btnConvert) and displays the Fahrenheit value into another JTextField(namely textFieldFahrenheit). Suppose necessary code for GUI creation is already provided. Formula for converting C to F: F= (Cx(9/5)) + 32 .



5. Write necessary code to design a GUI like fig.1 and after clicking the button show a message like fig.2.

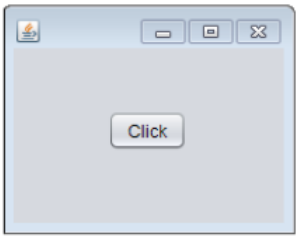


fig. 1

fig. 2

6. Write a JAVA program that contains two buttons, Button 1 and Button 2.

i) Initially Button 1 has Red background and Button 2 has Blue background. On clicking Button 1, if Button 1's background is Red, it changes to Green. If Button 1's background is Green, it changes to Red.

ii) On clicking Button 2, if Button 2's background is Blue, it changes to Cyan. If Button 2's background is Cyan, it changes to Blue.

7. Consider the following code:

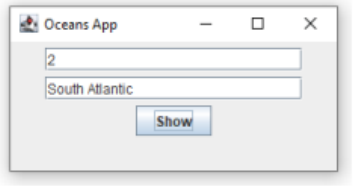
```
class GUITest{
    public static void main(String[] args) {
        JFrame f = new JFrame("Oceans App");
        f.setSize(300, 150);
        f.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        f.setLayout(new FlowLayout());

        String [] oceans = {"Arctic", "North Atlantic", "South Atlantic",
                "Indian", "North Pacific", "South Pacific", "Antarctic"};

        JTextField tf1 = new JTextField(20);
        JTextField tf2 = new JTextField(20);

        // Your code here

        f.setVisible(true);
    }
}
```



The code contains a String array named **oceans**. You should complete the code so that a GUI is generated as shown in the image. The GUI contains 2 JTextFields, **tf1** and **tf2** and a JButton **Show**. The user inputs an **index** in the range 0-6 in **tf1** and clicks the **Show** button. Then the ocean name in the given **index** of the **oceans** array is shown in tf2. Implement the mechanism of the **Show** button also. Now complete the code.