TEMPERATURE CONVERTER

JAVA MINI PROJECT

INTRODUCTION :

Here we discuss the various methods to convert the Fahrenheit temperature measurement to Celsius temperature measurement and vice versa. The various methods include Static Method, Switch Case and the method. We have added the compiler to each case with sample outputs citing specific examples.

The following program has been written in 4 Possible Ways:

- Static Method
- Using Method
- Fahrenheit to Celsius and Vice Versa Using Switch Case
- Celsius To Fahrenheit

Celsius Temperature Scale: Earlier known as the Centigrade Scale, the Celsius Scale is a widely used one, also an SI derived unit for temperature. The normal scale of a Celsius thermometer measures from 0°C (Water's freezing point at Standard Atmospheric Pressure) to 100°C (Water's boiling point at Standard Atmospheric Pressure)

Fahrenheit Temperature Scale: The Fahrenheit Scale is specifically used in the U.S.A and few other places. The normal scale of a Fahrenheit thermometer ranges from 32°F (Water's freezing point at Std Atm Pressure) and 212°F (Water's boiling point at Std Atm Pressure)

Fahrenheit into Celsius:

$$C = (F - 32) \cdot \frac{5}{9}$$

Celsius to Fahrenheit:

$$F = C \cdot \frac{9}{5} + 32$$

PROGRAM :

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



class TemperatureConverter
{
   // Declare the GUI Elements
   public static JFrame frmMain;
   public static JLabel lblCelsius;
   public static JTextField textCelsius;
   public static JLabel lblFahrenheit;
   public static JTextField textFahrenheit;
   public static JButton btnCalculateCtoF;
   public static JButton btnCalculateFtoC;
```

```
public static void main(String[] args)
   {
        // Set up the frame
        frmMain = new JFrame("Temperature Converter by @TokyoEdtech");
        frmMain.setSize(150, 200);
        frmMain.setLayout(new FlowLayout());

        // Create GUI Elements
        lblCelsius = new JLabel("Celsius:");
        textCelsius = new JTextField(10);
        lblFahrenheit = new JLabel("Fahrenheit:");
        textFahrenheit = new JTextField(10);
        btnCalculateCtoF = new JButton("Convert C to F");
```

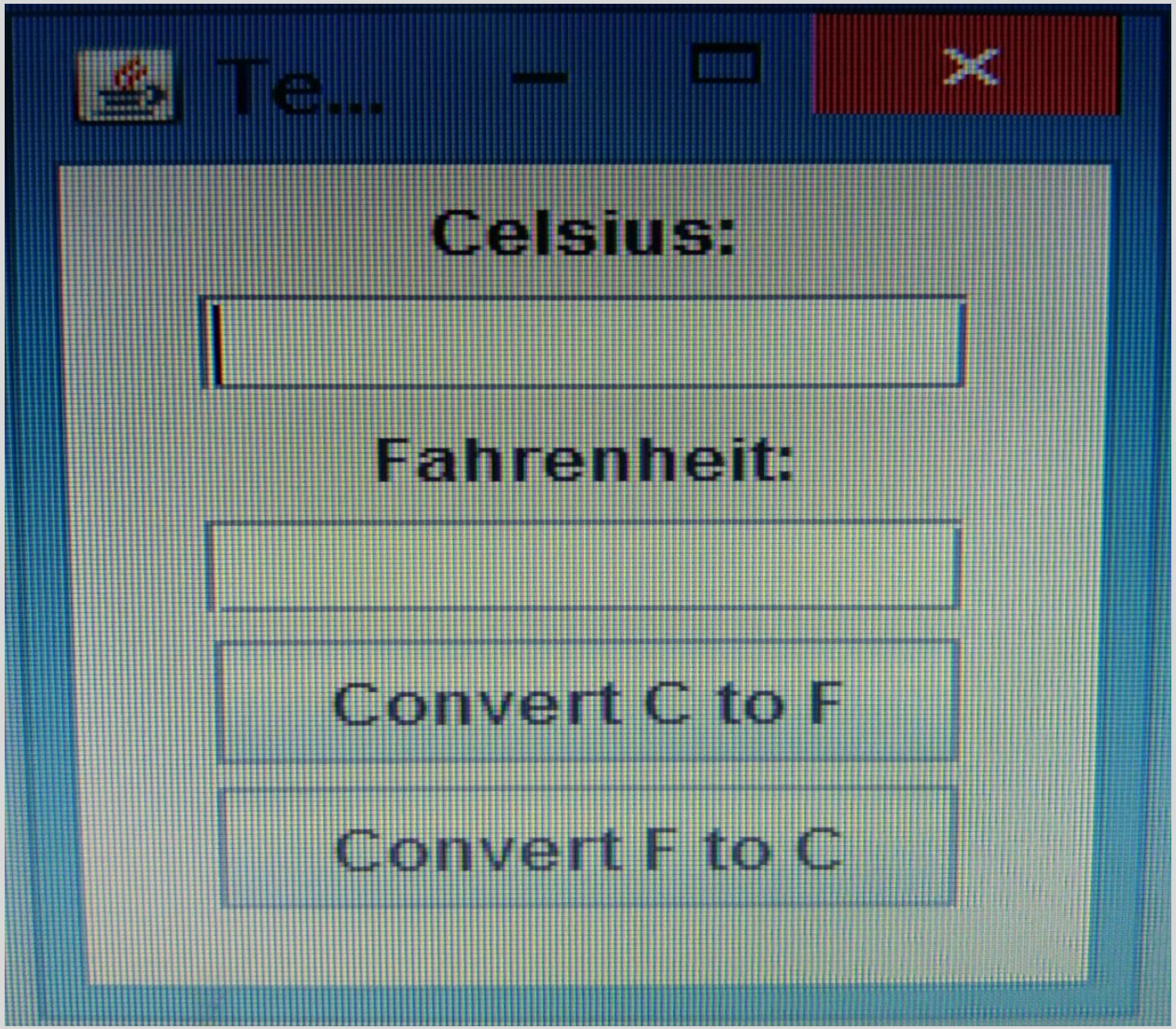
```
// Add ActionListener
        btnCalculateCtoF.addActionListener
        (
            new ActionListener()
            {
                public void actionPerformed(ActionEvent e)
                {
                    // Convert C to F
                    String cText = textCelsius.getText();
                    double c = Double.parseDouble(cText);
                    double f = (c * 9 / 5) + 32;
                    textFahrenheit.setText(String.valueOf(f));
                }
            }
        );
```

```
btnCalculateFtoC = new JButton("Convert F to C");
        // Add ActionListener
        btnCalculateFtoC.addActionListener
        (
            new ActionListener()
            {
                public void actionPerformed(ActionEvent e)
                {
                    // Convert F to C
                    String fText = textFahrenheit.getText();
                    double f = Double.parseDouble(fText);
                    double c = (f - 32) * 5 / 9;
                    textCelsius.setText(String.valueOf(c));
                }
            }
        );
```

```
// Add the GUI Elements to the frame
        frmMain.add(lblCelsius);
        frmMain.add(textCelsius);
        frmMain.add(lblFahrenheit);
        frmMain.add(textFahrenheit);
        frmMain.add(btnCalculateCtoF);
        frmMain.add(btnCalculateFtoC);

        // Make the frame visible
        frmMain.setVisible(true);
    }
}
```

OUTPUT :



TEAM MEMBERS :

THARSHIKA.R
SADHANA DEVI.S
DIVYA.P
ANAGHA.P