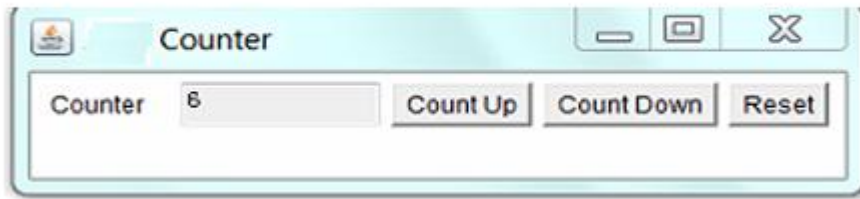# 1. Implement the following GUI without any IDE.

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

public class CounterApp extends JFrame {
    private int count = 0;
    private JTextField counterField;
    private JButton countUpButton, countDownButton, resetButton;

    public CounterApp() {
        setTitle("Counter Application");
        setSize(300, 120);
        setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        setLayout(new FlowLayout());

        // Counter display
        counterField = new JTextField(String.valueOf(count), 10);
        counterField.setEditable(false);
        counterField.setHorizontalAlignment(JTextField.CENTER);

        // Buttons
        countUpButton = new JButton("Count Up");
        countDownButton = new JButton("Count Down");
        resetButton = new JButton("Reset");

        // Button actions
        countUpButton.addActionListener(e -> {
            count++;
            counterField.setText(String.valueOf(count));
        });

        countDownButton.addActionListener(e -> {
            count--;
            counterField.setText(String.valueOf(count));
        });

        resetButton.addActionListener(e -> {
            count = 0;
            counterField.setText(String.valueOf(count));
        });

        // Add components to frame
        add(new JLabel("Counter:"));
        add(counterField);
        add(countUpButton);
        add(countDownButton);
        add(resetButton);
    }

    public static void main(String[] args) {
        SwingUtilities.invokeLater(() -> {
            CounterApp app = new CounterApp();
            app.setVisible(true);
        });
    }
}
```

2. Write a GUI program to find the reverse of a given number using Swing (with IDE).

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

public class ReverseNumberGUI extends JFrame {
    private JTextField inputField;
    private JTextField outputField;
    private JButton reverseButton;

    public ReverseNumberGUI() {
        setTitle("Reverse Number Finder");
        setSize(350, 150);
        setDefaultCloseOperation(EXIT_ON_CLOSE);
        setLayout(new FlowLayout());

        // Label and input field
        add(new JLabel("Enter a Number:"));
        inputField = new JTextField(15);
        add(inputField);

        // Reverse Button
        reverseButton = new JButton("Find Reverse");
        add(reverseButton);

        // Output field
        add(new JLabel("Reversed Number:"));
        outputField = new JTextField(15);
        outputField.setEditable(false);
        add(outputField);

        // Action Listener for button
        reverseButton.addActionListener(new ActionListener() {
            @Override
            public void actionPerformed(ActionEvent e) {
                String input = inputField.getText();
                try {
                    int number = Integer.parseInt(input);
                    int reversed = reverseNumber(number);
                    outputField.setText(String.valueOf(reversed));
                } catch (NumberFormatException ex) {
                    JOptionPane.showMessageDialog(null, "Please enter a valid integer!");
                }
            }
        });
    }

    // Method to reverse the number
    private int reverseNumber(int num) {
        int reversed = 0;
        while (num != 0) {
            reversed = reversed * 10 + num % 10;
            num /= 10;
        }
        return reversed;
    }

    public static void main(String[] args) {
        SwingUtilities.invokeLater(() -> {
            ReverseNumberGUI gui = new ReverseNumberGUI();
            gui.setVisible(true);
        });
    }
}
```

3. Write a GUI program to demonstrate the use of radio buttons (e.g., gender selection).

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

public class GenderSelectionGUI {
    public static void main(String[] args) {
        // Create a frame
        JFrame frame = new JFrame("Gender Selection");
        frame.setSize(300, 200);
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.setLayout(new FlowLayout());

        // Create a label
        JLabel label = new JLabel("Select your gender:");

        // Create radio buttons
        JRadioButton maleButton = new JRadioButton("Male");
        JRadioButton femaleButton = new JRadioButton("Female");
        JRadioButton otherButton = new JRadioButton("Other");

        // Group the radio buttons so only one can be selected
        ButtonGroup group = new ButtonGroup();
        group.add(maleButton);
        group.add(femaleButton);
        group.add(otherButton);

        // Create a submit button
        JButton submitButton = new JButton("Submit");

        // Label to show result
        JLabel resultLabel = new JLabel("");

        // Add ActionListener to the button
        submitButton.addActionListener(new ActionListener() {
            public void actionPerformed(ActionEvent e) {
                String gender = "";
                if (maleButton.isSelected()) {
                    gender = "Male";
                } else if (femaleButton.isSelected()) {
                    gender = "Female";
                } else if (otherButton.isSelected()) {
                    gender
```