Assignment No : 8

1.Implement the following GUI without any IDE.


```
import javax.swing.*;

import java.awt.*;

import java.awt.event.*;

public class Counter extends JFrame
implements ActionListener {

   int count = 0;

   JLabel label;

   JTextField textField;

   JButton b1, b2, b3;

public Counter() {

      setLayout(new FlowLayout());

      label = new JLabel("Counter");

      add(label);

      textField = new JTextField("0", 5);

      textField.setEditable(false);

      textField.setHorizontalAlignment(JTextFiel
d.CENTER);

      add(textField);

      b1 = new JButton("Count Up");

      b2 = new JButton("Count Down");

      b3 = new JButton("Reset");

      add(b1);

      add(b2);

      add(b3);

      b1.addActionListener(this);

      b2.addActionListener(this);

      b3.addActionListener(this);

      setTitle("Counter");

      setSize(400, 120);

      setDefaultCloseOperation(JFrame.EXIT_O
N_CLOSE);

      setVisible(true);

   }


   public void actionPerformed(ActionEvent e)
{

      if (e.getSource() == b1) {

         count++;

      } else if (e.getSource() == b2) {

         count--;

      } else if (e.getSource() == b3) {

         count = 0;

      }

      textField.setText(String.valueOf(count));

   }


   public static void main(String[] args) {

      new Counter();

   }

}
```

Output:

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

```
import javax.swing.*;

import java.awt.*;

import java.awt.event.*;

public class ReverseNumber extends JFrame implements ActionListener {

   JTextField t1, t2;

   JButton reverseButton;


   public ReverseNumber() {

      setLayout(new FlowLayout());

JLabel inputLabel = new JLabel("Enter Number:");

      add(inputLabel);

t1 = new JTextField(10);

      add(t1);

reverseButton = new JButton("Find Reverse");

      add(reverseButton);

 JLabel resultLabel = new JLabel("Reversed Number:");

      add(resultLabel);


      t2 = new JTextField(10);

     add(t2);

 reverseButton.addActionListener(this);

setTitle("Reverse Number Finder");

      setSize(300, 150);


setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);

      setVisible(true);

   }

public void actionPerformed(ActionEvent e) {

      try {

      String input = t1.getText();

      String reversed = new StringBuilder(input).reverse().toString();

       t2.setText(reversed);

      } catch (Exception ex) {

         t2.setText("Invalid Input");

      }

   }

public static void main(String[] args) {

      new ReverseNumber();

   }

}
```

Output:

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

```
import javax.swing.*;

import java.awt.*;

import java.awt.event.*;

public class GenderSelection extends JFrame implements ActionListener {

   JRadioButton maleButton, femaleButton;

   JButton b1, b2;

   JLabel resultLabel;

public GenderSelection() {

 setLayout(new FlowLayout());

      maleButton = new JRadioButton("Male");
```

```
        femaleButton = new
JRadioButton("Female");
ButtonGroup genderGroup = new
ButtonGroup();
        genderGroup.add(maleButton);
        genderGroup.add(femaleButton);
       add(maleButton);
        add(femaleButton);
  b1 = new JButton("Submit");
        add(b1);
 b2 = new JButton("Reset");
        add(b2);
resultLabel = new JLabel("Selected Gender:
None");
        add(resultLabel);


        b1.addActionListener(this);
        b2.addActionListener(this);
        setTitle("Gender Selection");
        setSize(300, 150);

setDefaultCloseOperation(JFrame.EXIT_ON_CL
OSE);
        setVisible(true);
    }
 public void actionPerformed(ActionEvent e) {
        if (e.getSource() == b1) {
            if (maleButton.isSelected()) {
                resultLabel.setText("Selected Gender:
Male");
            } else if (femaleButton.isSelected()) {
                resultLabel.setText("Selected Gender:
Female");
            } else {
                resultLabel.setText("Selected Gender:
None");
            }
        } else if (e.getSource() == b2) {
            maleButton.setSelected(false);
            femaleButton.setSelected(false);
            resultLabel.setText("Selected Gender:
None");
        }
    } public static void main(String[] args) {
        new GenderSelection();
    }
}
```

Output: