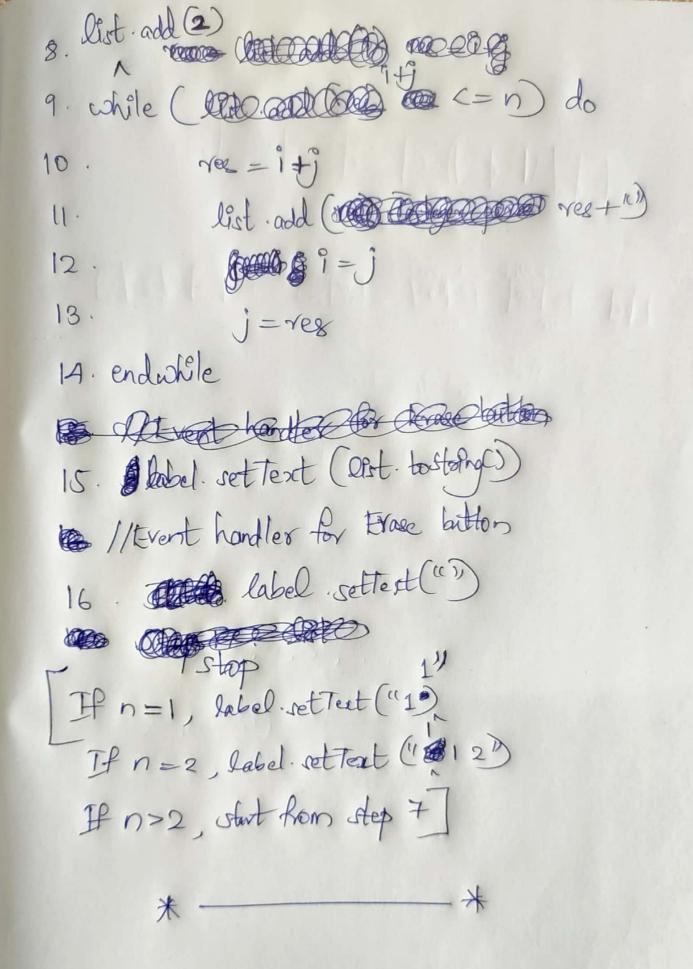
Monday os	R3 11 TKM19CSOII
1. Write a Java Buring program to display nu	mbers in a
lest [vse collections framework] apto limit text field. The event handling as well as de for cleaning the components must be	entored using
Ars. Algorithm:	
1. Import the swing packages [java aut. java aut. event] mar 2. Initialize a Trame and set Its layout	t and bounds.
3 Inffiallier Textifield and and The frame.	or, Journal of
4. Make frame visible. 1/Event handlex for Calculate buttor 5. Total Caron n = Parad text Into Integer 2)
6. Compared in $j=1$, $j=1$, res = 0	, Amay List list



PROGRAM CODE

```
import java.awt.*;
import java.awt.event.*;
import javax.swing.*;
import java.util.*;
class Fibonacci
       Fibonacci()
              JFrame frame = new JFrame("Fibonacci");
              TextField text = new TextField("Enter limit");
              JButton calc = new JButton("Display");
              JButton clear = new JButton("Clear");
              JLabel label = new JLabel();
              frame.setLayout(new FlowLayout());
              frame.setBounds(0,0,500,100);
              frame.setVisible(true);
              frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
              frame.add(text);
              frame.add(calc);
              frame.add(clear);
              frame.add(label);
              calc.addActionListener(new ActionListener(){
                      public void actionPerformed(ActionEvent ae){
                             try {
                                    int n = Integer.parseInt(text.getText());
                                    if(n == 1)
                                           label.setText("[1,1]");
                                    else if(n == 2)
                                           label.setText("[1,1,2]");
                                    else if(n < 1)
                                           label.setText("Enter a natural number");
                                    else {
                                            ArrayList<String> list = new ArrayList<>();
                                           list.add("1");
                                           list.add("1");
                                           list.add("2");
```

```
int i = 1, j = 2, res = 0;
                                      while(i+j \le n)
                                              res = i+j;
                                             list.add(res+"");
                                             i = j;
                                             j = res;
                                      }
                                      label.setText(list.toString());
                              }
                       } catch (Exception e) {
                              label.setText("Enter a natural number");
                       }
               }
       });
       clear.addActionListener(new ActionListener(){
               public void actionPerformed(ActionEvent ae){
                       text.setText("");
                      label.setText("");
               }
       });
}
public static void main(String args[])
       new Fibonacci();
```

}

OUTPUT

