

Báo cáo thực hành lập trình hướng đối tượng

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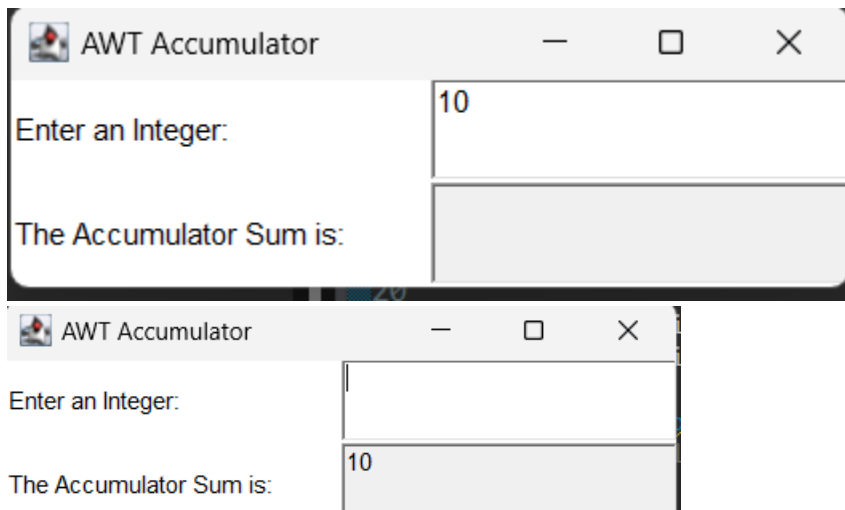
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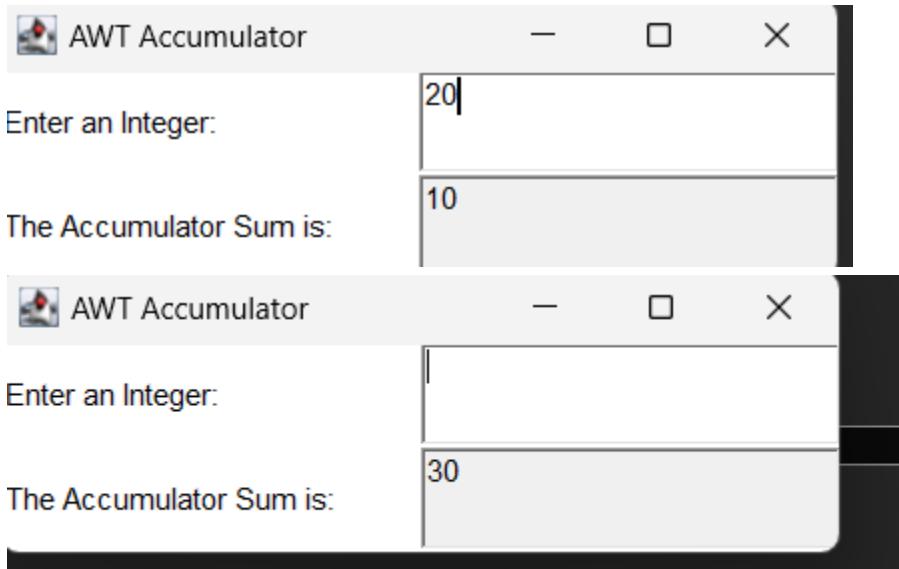
1.1 AWT tích lũy

```
1 package hust.doict.hedspi.swing;
2
3
4 import java.awt.Frame;
5 import java.awt.GridLayout;
6 import java.awt.Label;
7 import java.awt.TextField;
8 import java.awt.event.ActionEvent;
9 import java.awt.event.ActionListener;
10
11 public class AWTAccumulator extends Frame {
12     //private static final long serialVersionUID = 1L;
13
14     private TextField tfInput;
15     private TextField tfOutput;
16     private int sum = 0;
17
18     public AWTAccumulator() {
19         setLayout(new GridLayout(2, 2));
20
21         add(new Label("Enter an Integer: "));
22
23         tfInput = new TextField(10);
24         add(tfInput);
25         tfInput.addActionListener(new TFInputListener());
26
27         add(new Label("The Accumulator Sum is: "));
28
29         tfOutput = new TextField(10);
30         tfOutput.setEditable(false);
```

1.2

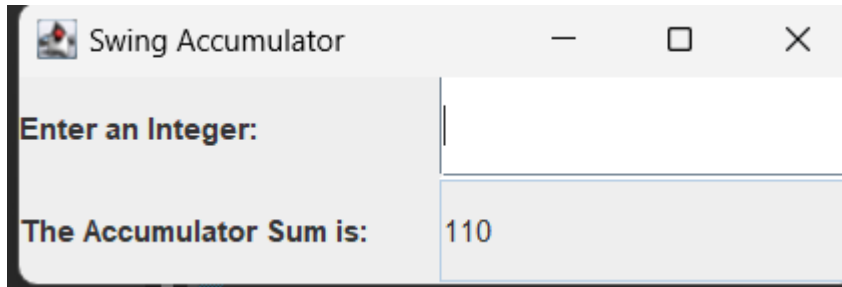
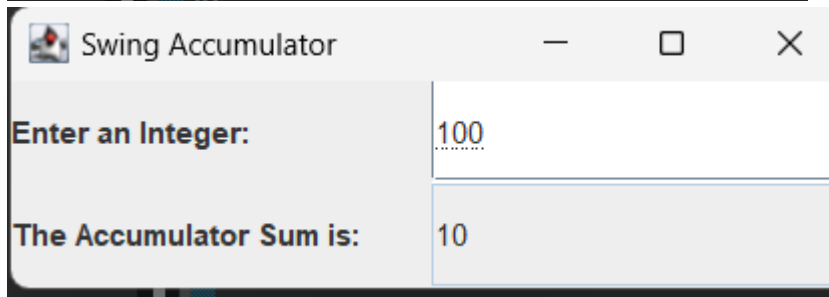
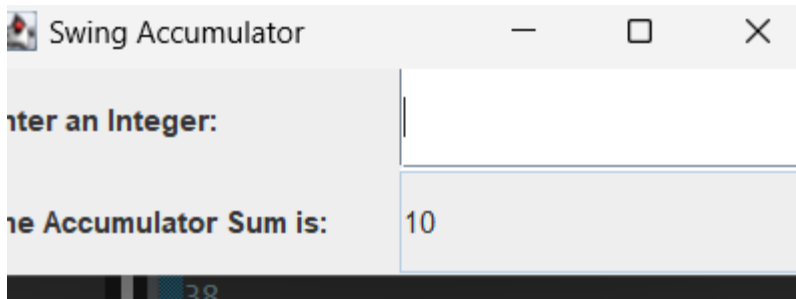
-Kết quả khi chạy:





1.2 Bộ tích lũy xoay

```
1 package hust.doict.hedspi.swing;
2
3
4 import java.awt.Container;
5 import java.awt.GridLayout;
6 import java.awt.event.ActionEvent;
7 import java.awt.event.ActionListener;
8
9 import javax.swing.JFrame;
10 import javax.swing.JLabel;
11 import javax.swing.JTextField;
12
13 public class SwingAccumulator extends JFrame {
14     private JTextField tfInput;
15     private JTextField tfOutput;
16     private int sum = 0;
17
18     public SwingAccumulator() {
19         Container cp = getContentPane();
20         cp.setLayout(new GridLayout(2, 2));
21
22         cp.add(new JLabel("Enter an Integer: "));
23
24         tfInput = new JTextField(10);
25         cp.add(tfInput);
26         tfInput.addActionListener(new TFInputListener());
27
28         cp.add(new JLabel("The Accumulator Sum is: "));
29
30         tfOutput = new JTextField(10);
```

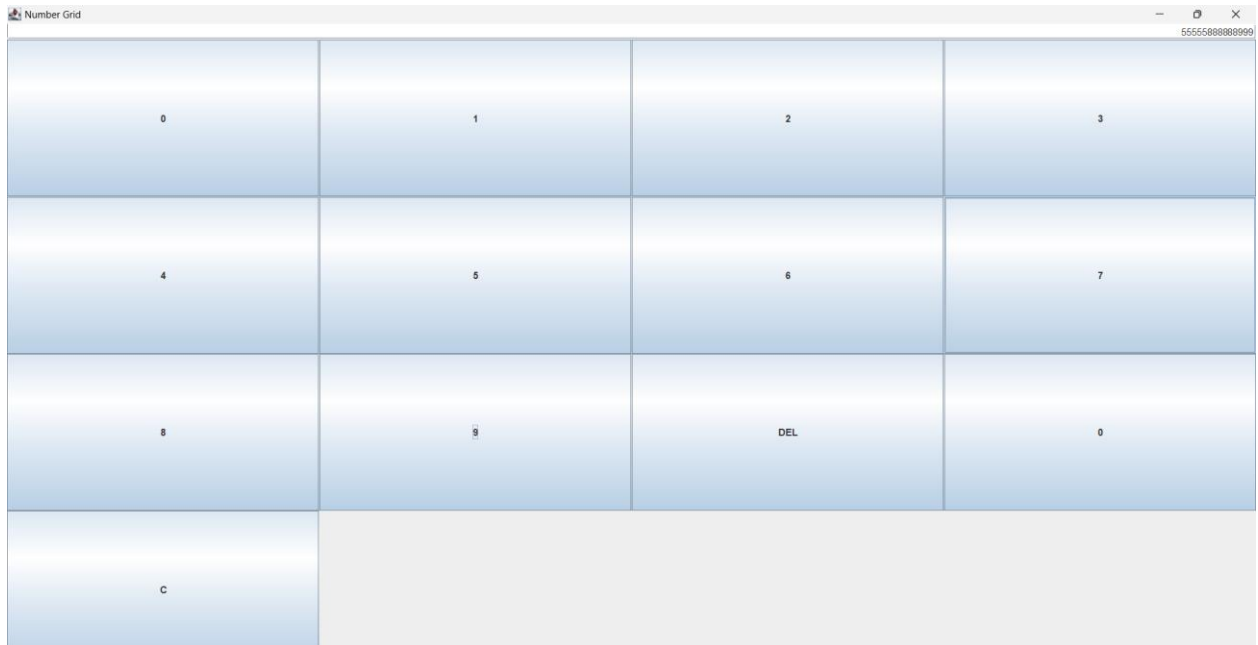


2.2.1 Tạo lớp NumberGrid:

```

13 import javax.swing.JTextField;
14
15 public class NumberGrid extends JFrame {
16     private JButton[] btnNumbers = new JButton[10];
17     private JButton btnDelete, btnReset;
18     private JTextField tfDisplay;
19
20     public NumberGrid() {
21
22         tfDisplay = new JTextField();
23         tfDisplay.setComponentOrientation(ComponentOrientation.RIGHT_TO_LEFT);
24
25         JPanel panelButtons = new JPanel(new GridLayout(4,3));
26         addButtons(panelButtons);
27
28         Container cp = getContentPane();
29         cp.setLayout(new BorderLayout());
30         cp.add(tfDisplay, BorderLayout.NORTH);
31         cp.add(panelButtons, BorderLayout.CENTER);
32
33         setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
34         setTitle("Number Grid");
35         setSize(200, 200);
36         setVisible(true);
37     }
38
39     public static void main(String[] args) {

```



3.1 Xem màn hình cửa hàng

