7/3/22



# EXPERIMENT NO: 11
## TRAFFIC LIGHT

### Aim

Write a java program that stimulates traffic light - the program lets user select one of three lights red yellow or green. When radio button is selected, the light is turned on and only one light can be on at a time.

### Input & Output

Stimulation of traffic light using Java Gui and Event Handling

### Algorithm

Start -

1 Import java.awt, java.awt.event and java.swing classes
2 Jframe = new Jframe ("Traffic Light")
3 JRadioButton [] b = new JradioButton [3]
4 ButtonGroup bg = new ButtonGroup()
5 for i=0 till 3
6 b[i] = new JRadioButton (" ")
7 b[i].setBackground (Color.GRAY)
8 bg.add (b[i])
9 frame.add(b[i])
10 end for
11 frame.setSize (300, 130)

7/3/22



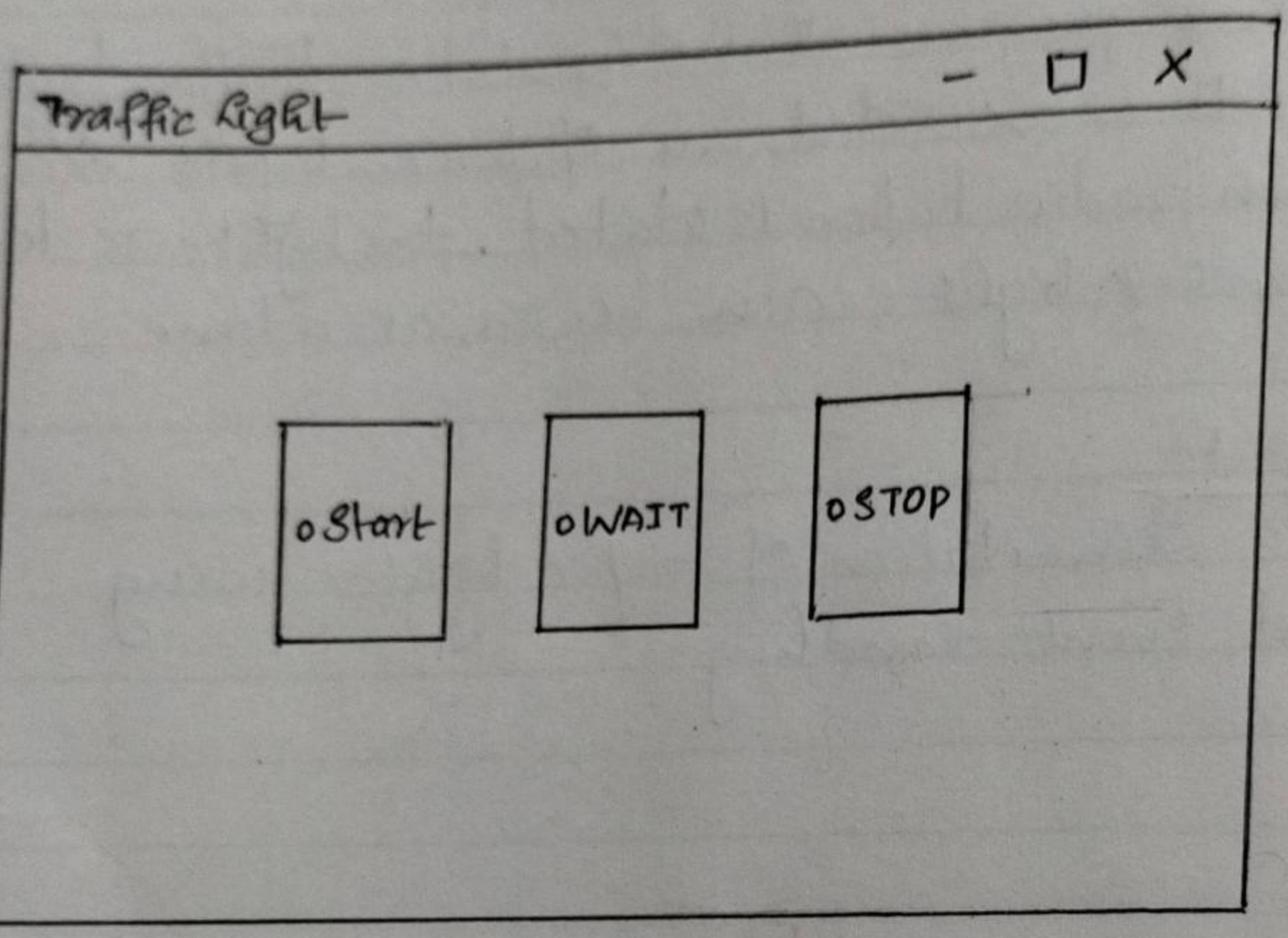
```
frame.setLayout (new, GridLayout (1,3))
frame.setVisible (true)
frame.setDefaultCloseOperation (JFrame.EXIT_ON_CLOSE)
// Event handler code for RED button
b[0].setBackground (Colour.RED)
b[1].setBackground (Color.GRAY)
b[2].setBackground (Color.GRAY)
b[0].setText ("STOP")
b[1].setText ("")
b[2].setText ("")
Follow similar process for YELLOW & GREEN buttons
STOP
```

Result

Output is obtained.

7/3/22

Output



//327

```
//Devika B
//Section E : Qn 2
//Traffic Light

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

public class traffic {
  traffic() {
    JFrame T = new JFrame("Traffic light");
    JPanel p1 = new JPanel();
    JPanel p2 = new JPanel();
    JPanel p3 = new JPanel();
    JPanel p4 = new JPanel();
    JPanel p5 = new JPanel();
    JPanel p6 = new JPanel();
    JPanel p7 = new JPanel();
    JRadioButton b[] = new JRadioButton[3];
    ButtonGroup bg = new ButtonGroup();
    b[0] = new JRadioButton("Start");
    b[0].setBackground(Color.WHITE);
    b[1] = new JRadioButton("WAIT");
    b[1].setBackground(Color.WHITE);
    b[2] = new JRadioButton("STOP");
    b[2].setBackground(Color.WHITE);
    bg.add(b[0]);
    bg.add(b[1]);
    bg.add(b[2]);
    p1.setBackground(Color.BLACK);
    p2.setBackground(Color.BLACK);
    p3.setBackground(Color.BLACK);
    p4.setBackground(Color.BLACK);
    p5.setBackground(Color.BLACK);
    p6.setBackground(Color.BLACK);
    p7.setBackground(Color.BLACK);
    p2.add(p4);
    p2.add(b[0]);
    p2.add(p5);
    p2.add(b[1]);
    p2.add(p6);
    p2.add(b[2]);
    p2.add(p7);
    p2.setLayout(new GridLayout(1, 7));
    T.add(p1);
    T.add(p2);
    T.add(p3);
    T.setSize(450, 300);
    T.setLayout(new GridLayout(3, 1));
    T.setVisible(true);
    T.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    b[0].addActionListener(new ActionListener() {
      public void actionPerformed(ActionEvent e) {
        b[0].setBackground(Color.GREEN);
        b[1].setBackground(Color.WHITE);
        b[2].setBackground(Color.WHITE);
      }
    });
    b[1].addActionListener(new ActionListener() {
      public void actionPerformed(ActionEvent e) {
        b[0].setBackground(Color.
```

```
        b[1].setBackground(Color.YELLOW);
        b[2].setBackground(Color.WHITE);
      }
    });
    b[2].addActionListener(new ActionListener() {
      public void actionPerformed(ActionEvent e) {
        b[0].setBackground(Color.WHITE);
        b[1].setBackground(Color.WHITE);
        b[2].setBackground(Color.RED);
      }
    });
  }

  public static void main(String[] args) {
    new traffic();
  }
}
```