

```
1 package semaforo.trafficLight.control;
2
3 import java.util.Timer;
4
5
6
7
8
9 public class SimpleTrafficLightControl implements TrafficLightControl {
10
11     private final TrafficLight trafficLight;
12     private final TurnOnOff green, yellow, red;
13
14     private State state = State.OFF;
15     private Timer timer;
16
17     public SimpleTrafficLightControl (TrafficLight trafficLight) {
18
19         this.trafficLight = trafficLight;
20
21         this.green = trafficLight.spotGreen();
22         this.yellow = trafficLight.spotYellow();
23         this.red = trafficLight.spotRed();
24     }
25
26     public void reset() {
27
28         if state == State.ALERT)
29             stopAlert();
30
31         yellow.turnOff();
32         green.turnOff();
33         red.turnOff();
34
35         state = State.OFF;
36     }
37
38     private void configureAlert() {
39         TimerTask task = new TimerTask() {
40
41             @Override
42             public void run() {
43                 if (trafficLight.spotYellow().isOn()) {
44                     trafficLight.spotYellow().turnOff();
45                 } else {
46                     trafficLight.spotYellow().turnOn();
47                 }
48             }
49         };
50
51         Timer timer = new Timer();
52         timer.scheduleAtFixedRate(task, 0, 1000);
53     }
54
55     private void stopAlert() {
56
57         if (timer != null) {
58             timer.cancel();
59             timer.purge();
60         }
61         if (trafficLight.spotYellow().isOn()) {
62             trafficLight.spotYellow().turnOff();
63         }
64     }
65
66     @Override
```

```
67     public void turnAlert() {
68
69         if state == State.ALERT)
70             return;
71
72         this.reset();
73         this.configureAlert();
74
75         state = State.ALERT;
76     }
77
78     @Override
79     public void turnGreen() {
80
81         this.reset();
82         trafficLight.spotGreen().turnOn();
83         state = State.GREEN;
84
85     }
86
87     @Override
88     public void turnYellow() {
89
90         this.reset();
91         trafficLight.spotYellow().turnOn();
92         state = State.YELLOW;
93
94     }
95
96     @Override
97     public void turnRed() {
98
99         this.reset();
100        trafficLight.spotRed().turnOn();
101        state = State.RED;
102
103    }
104
105    @Override
106    public void turnOff() {
107        this.reset();
108    }
109
110
111 }
112
```