

## Lab 11 โปรแกรมแบบเซร็ด

```
MyClock.java  MyFrame.java  MyClock1.java  MyFrame1.java
1 import java.util.Calendar;
4
5 public class MyClock extends JLabel implements Runnable {
6
7     public static void main(String[] args) {
8
9
10    }
11
12    @Override
13    public void run() {
14        while (true) {
15            Calendar d = Calendar.getInstance();
16            int sec = d.get(Calendar.SECOND);
17            int min = d.get(Calendar.MINUTE);
18            int hour = d.get(Calendar.HOUR_OF_DAY);
19            setText(hour+":"+min+":"+sec);
20            try {
21                Thread.sleep(1000);
22            } catch (InterruptedException e) {
23                e.printStackTrace();
24            }
25        }
26    }
27
28 }
```

```
MyClock.java  MyFrame.java  MyClock1.java  MyFrame1.java
1 import java.awt.BorderLayout;
4
5 public class MyFrame {
6     public static void main(String[] args) {
7         JFrame tf = new JFrame();
8         MyClock clock = new MyClock();
9         Thread t = new Thread(clock);
10        t.start();
11        tf.add(clock, BorderLayout.CENTER);
12        tf.setSize(500, 150);
13        tf.setVisible(true);
14    }
15 }
```

```
MyClock.java  MyFrame.java  MyClock1.java  MyFrame1.java
1 import java.util.Calendar;
4
5 public class MyClock1 extends JLabel implements Runnable {
6
7     public static void main(String[] args) {
8
9
10    }
11
12    @Override
13    public void run() {
14        int hour = 2;
15        int min = 0;
16        int sec = 0;
17        while (true) {
18            if (sec == 0) {
19                sec = 59;
20                if (min == 0) {
21                    min = 59;
22                    if (hour == 0) break;
23                } else {
24                    hour--;
25                }
26            } else {
27                min--;
28            }
29
30            } else {
31                sec--;
32            }
33            setText(hour+":"+min+":"+sec);
34            try {
35                Thread.sleep(1000);
36            } catch (InterruptedException e) {
37                e.printStackTrace();
38            }
39        }
40    }
41
42 }
```