src\test\Bank.java

```java
1   package test;
2
3   import javax.swing.*;
4
5   import java.awt.*;
6   import java.awt.event.ActionEvent;
7   import java.awt.event.ActionListener;
8
9   public class Bank {
10      public JFrame frame = new JFrame("银行系统");
11      public JTextArea textArea = new JTextArea(10, 20);
12      public JButton startButton, stopButton, resetButton;
13      public JPanel buttonJPanel=new JPanel();
14      public Acount acount = new Acount(2500);
15      public boolean stopRunning = false;
16
17      public Bank() {
18          // TODO Auto-generated constructor stub
19          frame.setSize(400, 300);
20          frame.setLayout(new BorderLayout());
21
22          startButton = new JButton("激活按钮");
23          stopButton = new JButton("冻结停止按钮");
24          resetButton = new JButton("重置账户按钮");
25
26          buttonJPanel.add(startButton);
27          buttonJPanel.add(stopButton);
28          buttonJPanel.add(resetButton);
29
30          JScrollPane scrollPane = new JScrollPane(textArea);
31
32          frame.add(scrollPane, BorderLayout.NORTH);
33          frame.add(buttonJPanel, BorderLayout.SOUTH);
34
35          frame.setVisible(true);
36          frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
37
38          startButton.addActionListener(new ActionListener() {
39
40              @Override
41              public void actionPerformed(ActionEvent e) {
42                  // TODO Auto-generated method stub
43                  startLine();
44              }
45          });
46          stopButton.addActionListener(new ActionListener() {
47
48              @Override
49              public void actionPerformed(ActionEvent e) {
50                  // TODO Auto-generated method stub
51                  stopLine();
```

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52                }
53            });
54            resetButton.addActionListener(new ActionListener() {
55
56                @Override
57                public void actionPerformed(ActionEvent e) {
58                    // TODO Auto-generated method stub
59                    reserLIne();
60                }
61            });
62
63        }
64
65        public void startLine() {
66            stopRunning=false;
67            SaveMan saveMan=new SaveMan(acount);
68            UseMan useMan=new UseMan(acount);
69            Thread useThread=new Thread(useMan,"取钱人取200元");
70            Thread saveThread=new Thread(saveMan,"存钱人存100元");
71            saveThread.start();
72            useThread.start();
73
74        }
75
76        public void stopLine() {
77            stopRunning=true;
78            textArea.append("账户背冻结，不能存取钱\n"+"当前余额： "+acount.money);
79        }
80
81        public void reserLIne() {
82            stopRunning=false;
83            acount.setMoney(1000);
84            textArea.setText("");
85            textArea.append("账户被重置，不能存取钱\n"+"当前余额： "+acount.money);
86        }
87
88        public static void main(String[] args) {
89            new Bank();
90        }
91
92        class Acount {
93            int money;
94
95            public Acount(int money) {
96                // TODO Auto-generated constructor stub
97                this.money = money;
98            }
99
100           public synchronized void setMoney(int money) {
101               this.money = money;
102           }
103
104           public synchronized void saveMoney() {
105               while (money > 4000) {
```

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106                    try {
107                        this.wait();
108                    } catch (InterruptedException e) {
109                        // TODO Auto-generated catch block
110                        e.printStackTrace();
111                    }
112                    try {
113                        Thread.sleep(500);
114                    } catch (InterruptedException e) {
115                        // TODO Auto-generated catch block
116                        e.printStackTrace();
117                    }
118
119                }money += 100;
120                this.notify();
121            }
122
123        public synchronized void useMoney() {
124            while (money <= 3500) {
125                    try {
126                        this.wait();
127                    } catch (InterruptedException e) {
128                        // TODO Auto-generated catch block
129                        e.printStackTrace();
130                    }
131                    try {
132                        Thread.sleep(500);
133                    } catch (InterruptedException e) {
134                        // TODO Auto-generated catch block
135                        e.printStackTrace();
136                    }
137
138                }money -= 200;
139                this.notify();
140            }
141        }
142
143    class SaveMan implements Runnable {
144        Acount acount;
145
146        public SaveMan(Acount acount) {
147            // TODO Auto-generated constructor stub
148            this.acount = acount;
149        }
150
151        public void run() {
152            // TODO Auto-generated method stub
153            synchronized (this) {
154                while (!stopRunning) {
155                    acount.saveMoney();
156                    textArea.append(Thread.currentThread().getName()+"当前账户余
    额: "+acount.money+"\n");
157                }
158
```

```java
159                    }
160                }
161            }
162
163        class UseMan implements Runnable {
164            Acount acount;
165
166            public UseMan(Acount acount) {
167                // TODO Auto-generated constructor stub
168                this.acount = acount;
169            }
170
171            public void run() {
172                // TODO Auto-generated method stub
173                synchronized (this) {
174                    while (!stopRunning) {
175                        acount.useMoney();
176                        textArea.append(Thread.currentThread().getName()+"当前账户余
额："+acount.money+"\n");
177
178                    }
179
180                }
181
182            }
183        }
184
185 }
186
```