新增功能

- 本程序是在I/O基础上完成的,一开始是想全部改成数据库的方式实现信息的存储,但是要改动老师的源码,所以就放弃了,新增功能还是将信息存储在本地的文档中,所以在data目录下新增了一个cards.txt文档
- 这个选课系统感觉不是单纯的选课系统,还能查询成绩,我索性将它弄成和教务系统差不多的东西,所以添加了和饭卡的相关的功能
- 此饭卡相关的功能针对学生,学生可以查询饭卡的余额和充值饭卡,管理员负责给未给饭卡开户的学生开户

1.首先是管理人员可以给学生饭卡开户

```
1
    package controller;
2
 3
   import javax.swing.*;
4
    import java.awt.*;
 5
    import java.awt.event.ActionEvent;
   import java.awt.event.ActionListener;
6
    import java.awt.event.WindowEvent;
8
    import java.io.*;
9
    import java.util.ArrayList;
10
11
    public class AddAccount extends JFrame implements ActionListener {
12
        JPanel contain:
        JLabel id,name,balance;
13
        JTextField idt,namet,balancet;
14
15
        JButton submit:
16
        public AddAccount(){
17
            super("add account");
18
            setSize(300,350);
19
            setLocation(600,400);
            contain = new JPanel();
20
21
            contain.setLayout(null);
22
            id = new JLabel("id");
23
            name = new JLabel("name");
24
            balance = new JLabel("balance");
25
            submit = new JButton("submit");
26
            idt = new JTextField();
27
            namet = new JTextField();
28
            balancet = new JTextField();
29
            id.setBounds(42, 20, 75, 35);
30
            idt.setBounds(80, 20, 150, 35);
31
            name.setBounds(42, 60, 75, 35);
32
            namet.setBounds(80, 60, 150, 35);
33
            balance.setBounds(42,100,150,35);
34
            balancet.setBounds(85,100,150,35);
35
            submit.setBounds(102, 260, 100, 30);
36
            contain.add(id);
37
            contain.add(idt);
38
            contain.add(name);
            contain.add(namet);
39
            contain.add(balance);
40
```

```
41
            contain.add(balancet);
42
            contain.add(submit);
43
            submit.addActionListener(this);
44
            add(contain);
            setVisible(true);
45
46
            enableEvents(AWTEvent.WINDOW_EVENT_MASK);
47
        public void actionPerformed(ActionEvent e) {
48
            if (e.getSource() == submit) {
49
50
                if ((idt.getText().equals("")) || (namet.getText().equals(""))
    || (balancet.getText().equals(""))) {
51
                    JOptionPane.showMessageDialog(null, "The message can not be
    empty! ", "tip", JOptionPane.INFORMATION_MESSAGE);
52
                } else {
53
                    String file =
    System.getProperty("user.dir")+"/data/cards.txt";
                    //首先判断是否该卡账户已经被创建,顺便将原有信息存储起来
54
55
                    ArrayList<String> modifiedContent = new ArrayList<String>
    ();
56
                    try{
57
                        BufferedReader br = new BufferedReader(new
    FileReader(file));
58
                        String s =null;
59
                        while((s=br.readLine())!=null){
                             String[] result = s.split(" ");
60
61
                             if(result[0].equals(idt.getText()) &&
    result[1].equals(namet.getText())){
62
                                 JOptionPane.showMessageDialog(null, "This
    account is exist", "tip", JOptionPane.INFORMATION_MESSAGE);
63
                                 return;
64
                             }
                             String s1 = "";
65
                             for (int i = 0; i < result.length - 1; i++) {
66
                                 s1 = s1 + result[i];
67
                                 s1 = s1 + " ";
68
                             }
69
                             s1 = s1 + result[result.length - 1];
70
71
                             modifiedContent.add(s1);
72
                         }
73
                        br.close();
                    } catch (IOException ex) {
74
75
                         ex.printStackTrace();
76
77
                    String account = idt.getText() + " " + namet.getText() + "
    " + balancet.getText();
78
                    modifiedContent.add(account);
79
                    try {
80
                         FileWriter fw = new FileWriter(file);
81
                         BufferedWriter bw = new BufferedWriter(fw);
82
83
                         for (int i = 0; i < modifiedContent.size(); i++) {</pre>
84
                             bw.write(modifiedContent.get(i));
85
                             bw.newLine();
86
                         }
                         bw.close();
87
```

```
88
                          fw.close();
 89
                     } catch (IOException e1) {
 90
                          e1.printStackTrace();
                     }
 91
 92
                     JOptionPane.showMessageDialog(null, "Create an account
     successfully", "tip", JOptionPane.INFORMATION_MESSAGE);
 93
                 }
             }
 94
 95
         }
 96
         public void processWindowEvent(WindowEvent e) {
 97
             if (e.getID() == WindowEvent.WINDOW_CLOSING) {
                 this.dispose();
 98
99
                 setVisible(false);
100
             }
101
         }
102
    }
```

下面演示它的功能:

我初始化card.txt文档时,已经写入了jack和jack1的饭卡,但是jack2还未开户,所以就给jack2开户

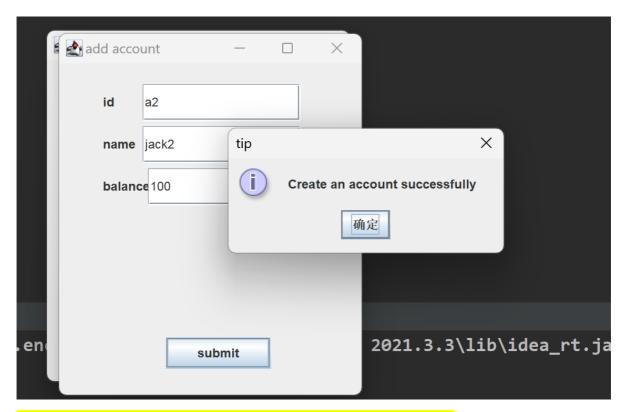
(1)进入到管理员界面,选择饭卡开户



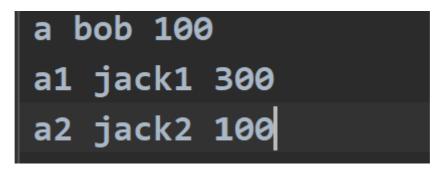
1 a bob 100 2 a1 jack1 300 3

此时的cards.txt里还没有jack2的饭卡信息

(2)给jack2开户

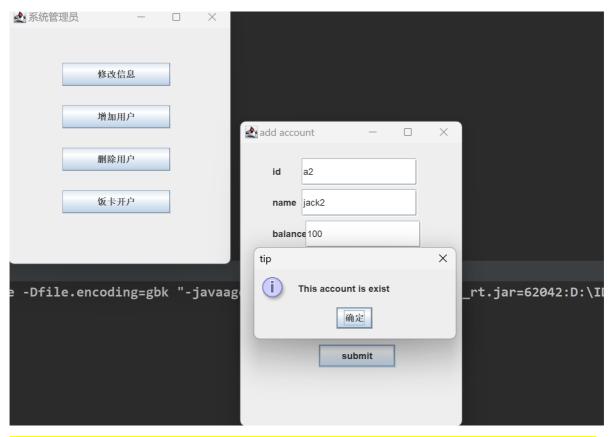


管理端显示开户成功,我们来看一下cards.txt里是否成功添加jack2的饭卡信息



成功添加!

(3)如果已经开户的学生还能开户吗?我们再拿jack2试一试



这时就会提示我们这个账户已经存在了(判断条件为id和name都一样才认为是同一个人,毕竟还是有重名的)

2.学生可以查询自己的饭卡余额

```
package controller;
 2
 3
    import javax.swing.*;
    import java.awt.*;
 4
 5
    import java.awt.event.WindowEvent;
 6
    import java.io.BufferedReader;
    import java.io.FileNotFoundException;
 7
8
    import java.io.FileReader;
    import java.io.IOException;
9
10
    public class CardInfo extends JFrame {
11
        private static final long serialVersionUID = 1L;
12
        JLabel idLabel,nameLabel,balanceLabel;
13
14
        String id,name,balance;
        JPanel cardInfoJPanel;
15
        public CardInfo(String id){
16
            super("information");
17
18
            this.id = id;
19
            setSize(300,340);
            setLocation(600,400);
            cardInfoJPanel = new JPanel();
21
22
            cardInfoJPanel.setLayout(new GridLayout(5,1));
            add(cardInfoJPanel);
23
            String file = "";
24
            file = System.getProperty("user.dir")+"/data/cards.txt";
25
26
            try {
```

```
BufferedReader bufferedReader = new BufferedReader(new
27
    FileReader(file));
28
                 String s =null;
29
                 while((s = bufferedReader.readLine())!=null) {
30
                     String[] result = s.split(" ");
31
                     if (result[0].equals(id)) {
32
                         id = result[0];
33
                         name = result[1];
                         balance = result[2];
34
35
                         idLabel = new JLabel("id:" + id);
36
                         nameLabel = new JLabel("name:" + name);
                         balanceLabel = new JLabel("balance:" + balance);
37
                     }
38
39
                 }
40
                 bufferedReader.close();
                 } catch (FileNotFoundException e) {
41
                     e.printStackTrace();
42
                 } catch (IOException e) {
43
44
                     e.printStackTrace();
                 }
45
            cardInfoJPanel.add(idLabel);
46
47
            cardInfoJPanel.add(nameLabel);
48
            cardInfoJPanel.add(balanceLabel);
49
            enableEvents(AWTEvent.WINDOW_EVENT_MASK);
            setVisible(true);
50
51
        }
52
53
        public void processWindowEvent(WindowEvent e){
            if(e.getID()==WindowEvent.WINDOW_CLOSING){
54
                 this.dispose();
55
                 setVisible(false);
56
57
            }
        }
58
59
    }
```

下面演示它的功能:

(1)进入到学生端界面,选择查询饭卡余额(用id为a的学生为例)



3.学生可以充值饭卡

```
package controller;
 2
 3
    import javax.swing.*;
    import java.awt.*;
 4
    import java.awt.event.ActionEvent;
 5
    import java.awt.event.ActionListener;
 7
    import java.awt.event.WindowEvent;
 8
    import java.io.*;
9
    import java.util.ArrayList;
10
11
    public class Recharge extends JFrame implements ActionListener {
12
        String id;
13
        JButton submit;
14
        JPanel contain;
15
        JLabel money1, money2;
16
        JTextField money1t, money2t;
17
18
        public Recharge(String id) {
19
            super("Recharge card");
20
            setSize(300, 420);
21
            setLocation(600, 400);
22
            this.id = id;
23
            contain = new JPanel();
24
            contain.setLayout(null);
25
            money1 = new JLabel("money1");
26
            money2 = new JLabel("money2");
27
            submit = new JButton("submit");
            money1t = new JTextField();
28
29
            money2t = new JTextField();
            money1.setBounds(36, 100, 75, 35);
30
31
            money1t.setBounds(90, 100, 150, 35);
32
            money2.setBounds(36, 180, 75, 35);
            money2t.setBounds(90, 180, 150, 35);
33
            submit.setBounds(102, 300, 100, 30);
34
35
            contain.add(money1);
36
            contain.add(money1t);
37
            contain.add(money2);
38
            contain.add(money2t);
39
            contain.add(submit);
40
             submit.addActionListener(this);
41
            add(contain);
42
            setVisible(true);
43
            enableEvents(AWTEvent.WINDOW_EVENT_MASK);
        }
44
45
46
        public void actionPerformed(ActionEvent e) {
            if (e.getSource() == submit) {
47
48
                 if ((money1t.getText().equals("")) ||
    (money2t.getText().equals(""))) {
49
                     JOptionPane.showMessageDialog(null, "The input amount can
    not be empty", "tip",
50
                             JOptionPane.INFORMATION_MESSAGE);
51
                } else {
```

```
if (!(money1t.getText().equals(money2t.getText()))) {
 52
 53
                          JOptionPane.showMessageDialog(null, "The two inputs are
     different!", "tip",
 54
                                  JOptionPane.INFORMATION_MESSAGE);
 55
                      }else {
 56
                          ArrayList<String> modifiedContent = new
     ArrayList<String>();
 57
                          String file = System.getProperty("user.dir")
                                  + "/data/cards.txt";
 58
 59
                          try{
                              BufferedReader br = new BufferedReader(new
 60
     FileReader(file));
                              String s =null;
 61
 62
                              while((s= br.readLine())!=null){
 63
                                  String[] result = s.split(" ");
 64
                                  if (result[0].equals(id)){
                                       result[0] = result[0];
 65
 66
                                       result[1] = result[1];
 67
                                       result[2] =
     result[2].replace(result[2],Integer.parseInt(result[2])+Integer.parseInt(mo
     ney2t.getText())+"");
 68
                                  }
 69
                                  String s1 = "";
 70
                                  for (int i = 0; i < result.length-1; i++) {
                                       s1 = s1 + result[i];
 71
                                       s1 = s1 + " ";
 72
 73
                                  }
 74
                                  s1 = s1 + result[2];
 75
                                  modifiedContent.add(s1);
 76
                              }
                              br.close();
 77
 78
                          } catch (IOException ex) {
 79
                              ex.printStackTrace();
                          }
 80
 81
 82
                          try {
                              FileWriter fw = new FileWriter(file);
 83
 84
                              BufferedWriter bw = new BufferedWriter(fw);
 85
                              for (int i = 0; i < modifiedContent.size(); i++) {</pre>
 86
                                  bw.write(modifiedContent.get(i));
 87
                                  bw.newLine();
 88
 89
                              }
 90
 91
                              bw.close();
 92
                              fw.close();
                          } catch (IOException e1) {
 93
 94
                              e1.printStackTrace();
 95
                          }
 96
                      }
 97
                      JOptionPane.showMessageDialog(null, "recharge
     successfully", "message",
 98
                              JOptionPane.INFORMATION_MESSAGE);
 99
                 }
100
             }
```

```
101
102
103
         public void processWindowEvent(WindowEvent e) {
             if (e.getID() == WindowEvent.WINDOW_CLOSING) {
104
105
                  this.dispose();
                 setVisible(false);
106
107
             }
         }
108
109
     }
```

下面演示它的功能

(1)进入学生端界面,选择充值饭卡,(依然选择jack2作为演示对象)



首先查询一下饭卡余额为100元

(2)选择充值饭卡,充值300元



可以看到提示充值成功

(3)再次查询饭卡余额



可以看到余额变成了400

4.管理员饭卡销户

```
1
    package controller;
 2
 3
    import javax.swing.*;
    import java.awt.*;
 4
 5
    import java.awt.event.ActionEvent;
    import java.awt.event.ActionListener;
 6
 7
    import java.io.*;
    import java.util.ArrayList;
 8
 9
10
    public class DeleteAccount extends JFrame implements ActionListener {
        private static final long serialVersionUID = 1L;
11
12
        JPanel contain;
13
        JLabel id, name;
        JTextField idt, namet;
14
15
        JButton submit;
16
17
        public DeleteAccount() {
             super("delete account");
18
19
             setSize(300, 340);
20
             setLocation(600, 400);
21
             contain = new JPanel();
22
             contain.setLayout(null);
23
             id = new JLabel("id");
             name = new JLabel("name");
24
25
             submit = new JButton("submit");
             idt = new JTextField();
26
27
             namet = new JTextField();
             id.setBounds(42, 20, 75, 35);
28
29
             idt.setBounds(80, 20, 150, 35);
             name.setBounds(42, 60, 75, 35);
30
             namet.setBounds(80, 60, 150, 35);
31
32
             submit.setBounds(102, 150, 100, 30);
33
             contain.add(id);
34
             contain.add(idt);
35
             contain.add(name);
36
             contain.add(namet);
37
             contain.add(submit);
38
             submit.addActionListener(this);
```

```
39
            add(contain);
40
            setVisible(true);
41
            enableEvents(AWTEvent.WINDOW_EVENT_MASK);
        }
42
43
44
        public void actionPerformed(ActionEvent e) {
45
            if (e.getSource() == submit) {
                if ((idt.getText().equals("")) || (namet.getText().equals("")))
46
47
                     JOptionPane.showMessageDialog(null, "The message can not be
    empty! ", "tip", JOptionPane.INFORMATION_MESSAGE);
48
                } else {
                    String file =
49
    System.getProperty("user.dir")+"/data/cards.txt";
                    ArrayList<String> modifiedContent = new ArrayList<String>
50
    ();
51
                    int count=0;
52
                    try{
53
                         BufferedReader br = new BufferedReader(new
    FileReader(file));
54
                         String s =null;
55
56
                         while((s=br.readLine())!=null){
57
                             String[] result1 = s.split(" ");
                             if(result1[0].equals(idt.getText()) &&
58
    result1[1].equals(namet.getText())){
59
                                 count=1;
60
                                 break;
61
                             }else {
62
                                 count=-1;
63
                             }
64
                         }
65
                    } catch (IOException ex) {
66
67
                         ex.printStackTrace();
68
                    }
69
                    if(count==-1){
70
                         JOptionPane.showMessageDialog(null, "This account is
    not exist!", "tip", JOptionPane.INFORMATION_MESSAGE);
71
                    }else {
72
                         try {
73
                         String n = null;
74
                         BufferedReader br = new BufferedReader(new
    FileReader(file));
75
                         while((n=br.readLine())!=null){
76
                             String[] result = n.split(" ");
                             if(!(result[0].equals(idt.getText()) &&
77
    result[1].equals(namet.getText()))){
                                 String s1 = "";
78
79
                                 for (int i = 0; i < result.length - 1; i++) {
80
                                     s1 = s1 + result[i];
                                     s1 = s1 + " ";
81
82
                                 }
83
                                 s1 = s1 + result[result.length - 1];
84
                                 modifiedContent.add(s1);
```

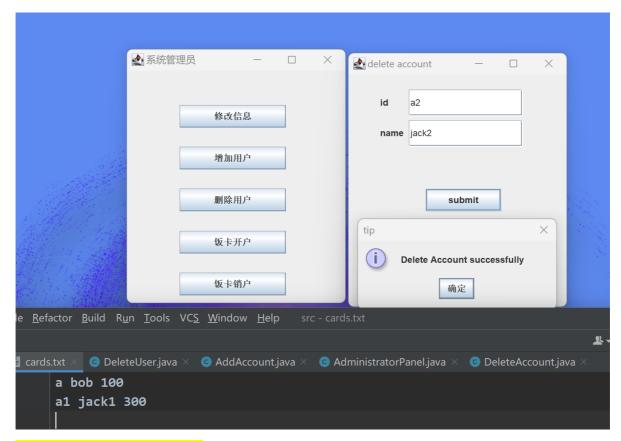
```
85
 86
                          }
                          br.close();
 87
 88
                          FileWriter fw = new FileWriter(file);
 89
                          BufferedWriter bw = new BufferedWriter(fw);
 90
 91
 92
                          for (int i = 0; i < modifiedContent.size(); i++) {</pre>
                              bw.write(modifiedContent.get(i));
 93
 94
                              bw.newLine();
 95
                          }
 96
 97
                          bw.close();
 98
                          fw.close();
99
                          } catch (IOException e1) {
100
                              e1.printStackTrace();
101
                          }
102
103
                          JOptionPane.showMessageDialog(null, "Delete Account
104
     successfully", "tip", JOptionPane.INFORMATION_MESSAGE);
105
106
                  }
107
             }
         }
108
109
     }
```

下面进行功能演示:

(1)进入管理端选择饭卡销户功能(以再cards.txt文档中存在的jack2为例)



(2)输入对应的id和name进行销户



可以看到jack2的账户被删除掉了

总结

- 首先是饭卡功能还可以扩展很多,可以和支付相联系,但是这样必然会大改代码
- 其次这个功能相对简单,由我一个人完成
- 有很多想法还未实现,奈何技术没到位