

CD出租销售店

1 begin函数结构

- begin
 - userManage
 - addUser
 - removeUser
 - findUser
 - showUserList
 - diskManage
 - addDisk
 - removeDisk
 - findDisk
 - showDiskList
 - userReturn
 - userBorrow
 - userBuy
 - seeMoney
 - seeLog

2 程序结果

2.1 进货

首先进货，为了方便查看，我在Boss中写了一个log，可以记录进货和交易。

像这样就可以进货一种cd。

输入

```

-----
1:User Manage
2:Disk Manage
3:return
4:borrow
5:buy
6:see my money
7:see my log
8:quit
2
-----
1:add disk
2:remove disk
3:find disk
4:show disk list
6:quit
1
please tell me disk's name
叶惠美
please tell me disk's id
3
please tell me disk's price
20
please tell me disk's num
23
-----

```

log

```

7:see my log
8:quit
7
add diskDisk [id=3, name=叶惠美, price=20, num=23]
add diskDisk [id=2, name=依然范特西, price=34, num=12]
add diskDisk [id=4, name=十二新作, price=56, num=28]
add diskDisk [id=6, name=王菲, price=12, num=34]
add diskDisk [id=2, name=为你而来, price=23, num=16]
add diskDisk [id=23, name=菲靡靡之音, price=116, num=23]

```

disk list

```

-----
1:add disk
2:remove disk
3:find disk
4:show disk list
6:quit
4
Disk [id=2, name=依然范特西, price=34, num=28]
Disk [id=3, name=叶惠美, price=20, num=23]
Disk [id=4, name=十二新作, price=56, num=28]
Disk [id=6, name=王菲, price=12, num=34]
Disk [id=23, name=菲靡靡之音, price=116, num=23]

```

2.2 添加用户

log

```
7:see my log
8:quit
7
add disk Disk [id=3, name=叶惠美, price=20, num=23]
add disk Disk [id=2, name=依然范特西, price=34, num=12]
add disk Disk [id=4, name=十二新作, price=56, num=28]
add disk Disk [id=6, name=王菲, price=12, num=34]
add disk Disk [id=2, name=为你而来, price=23, num=16]
add disk Disk [id=23, name=菲靡靡之音, price=116, num=236]
add user User [id=0, name=李明, money=123, note=]
add user User [id=1, name=周一, money=345, note=]
add user User [id=5, name=王二, money=224, note=]
add user User [id=6, name=张三, money=444, note=]
```

user list

```
1:add user
2:remove user
3:find user
4:show user list
6:quit
4
User [id=0, name=李明, money=123, note=]
User [id=1, name=周一, money=345, note=]
User [id=5, name=王二, money=224, note=]
User [id=6, name=张三, money=444, note=]
```

2.3 借书

没有这么多CD

```
1:User Manage
2:Disk Manage
3:return
4:borrow
5:buy
6:see my money
7:see my log
8:quit
4
please tell me user's id
6
User [id=6, name=张三, money=444, note=]
please tell me disk's id
3
please tell me disk's num
100
we don't have so many disks
```

正常

输入

```

1:User Manage
2:Disk Manage
3:return
4:borrow
5:buy
6:see my money
7:see my log
8:quit
4
please tell me user's id
6
User [id=6, name=张三, money=444, note=]
please tell me disk's id
3
please tell me disk's num
1
ok

```

log

```

add disk Disk [id=3, name=叶惠美, price=20, num=23]
add disk Disk [id=2, name=依然范特西, price=34, num=12]
add disk Disk [id=4, name=十二新作, price=56, num=28]
add disk Disk [id=6, name=王菲, price=12, num=34]
add disk Disk [id=2, name=为你而来, price=23, num=16]
add disk Disk [id=23, name=菲靡靡之音, price=116, num=23]
add user User [id=0, name=李明, money=123,
note=
]
add user User [id=1, name=周一, money=345,
note=
]
add user User [id=5, name=王二, money=224,
note=
]
add user User [id=6, name=张三, money=444,
note=
]
张三 borrow 1 叶惠美; got money ¥10
周一 borrow 4 十二新作; got money ¥112
李明 borrow 2 王菲; got money ¥12
李明 borrow 2 菲靡靡之音; got money ¥116

```

disk list

之前:

```

-----
1:add disk
2:remove disk
3:find disk
4:show disk list
6:quit
4
Disk [id=2, name=依然范特西, price=34, num=28]
Disk [id=3, name=叶惠美, price=20, num=23]
Disk [id=4, name=十二新作, price=56, num=28]
Disk [id=6, name=王菲, price=12, num=34]
Disk [id=23, name=菲靡靡之音, price=116, num=23]

```

现在:

```

Disk [id=2, name=依然范特西, price=34, num=28]
Disk [id=3, name=叶惠美, price=20, num=22]
Disk [id=4, name=十二新作, price=56, num=24]
Disk [id=6, name=王菲, price=12, num=34]
Disk [id=23, name=菲靡靡之音, price=116, num=21]

```

几次操作后的log和user&disk界面

log

```
7:see my log
8:quit
7
add disk Disk [id=3, name=叶惠美, price=20, num=23]
add disk Disk [id=2, name=依然范特西, price=34, num=12]
add disk Disk [id=4, name=十二新作, price=56, num=28]
add disk Disk [id=6, name=王菲, price=12, num=34]
add disk Disk [id=2, name=为你而来, price=23, num=16]
add disk Disk [id=23, name=菲靡靡之音, price=116, num=23]
add user User [id=0, name=李明, money=123, note=]
add user User [id=1, name=周一, money=345, note=]
add user User [id=5, name=王二, money=224, note=]
add user User [id=6, name=张三, money=444, note=]
张三 borrow 1 叶惠美; got money ¥10
周一 borrow 4 十二新作; got money ¥28
李明 borrow 2 王菲; got money ¥6
李明 borrow 2 菲靡靡之音; got money ¥58
```

user list

```
4
User [id=0, name=李明, money=59,
note=
Disk [id=6, name=王菲, price=12, num=2]
Disk [id=23, name=菲靡靡之音, price=116, num=2]
]

User [id=1, name=周一, money=317,
note=
Disk [id=4, name=十二新作, price=56, num=4]
]

User [id=5, name=王二, money=224,
note=
]

User [id=6, name=张三, money=434,
note=
Disk [id=3, name=叶惠美, price=20, num=1]
]
```

disk list

以前:

```
-----
1:add disk
2:remove disk
3:find disk
4:show disk list
6:quit
4
Disk [id=2, name=依然范特西, price=34, num=28]
Disk [id=3, name=叶惠美, price=20, num=23]
Disk [id=4, name=十二新作, price=56, num=28]
Disk [id=6, name=王菲, price=12, num=34]
Disk [id=23, name=菲靡靡之音, price=116, num=23]
```

之后:

```
Disk [id=2, name=依然范特西, price=34, num=28]
Disk [id=3, name=叶惠美, price=20, num=22]
Disk [id=4, name=十二新作, price=56, num=24]
Disk [id=6, name=王菲, price=12, num=32]
Disk [id=23, name=菲靡靡之音, price=116, num=21]
```

2.4 还书

输入

```
please tell me user's id
0
User [id=0, name=李明, money=-5,
note=
Disk [id=6, name=王菲, price=12, num=2]
Disk [id=23, name=菲靡靡之音, price=116, num=2]
]
please tell me disk's id
6
```

log

```
-
张三 borrow 1 叶惠美; got money ¥10
周一 borrow 4 十二新作; got money ¥112
李明 borrow 2 王菲; got money ¥12
李明 borrow 2 菲靡靡之音; got money ¥116
李明 return 2 王菲
```

user list

李明还剩两张

```
User [id=0, name=李明, money=-5,
note=
Disk [id=6, name=王菲, price=12, num=2]
Disk [id=23, name=菲靡靡之音, price=116, num=2]
]
```

disk list

还书前：

```
Disk [id=2, name=依然范特西, price=34, num=28]
Disk [id=3, name=叶惠美, price=20, num=22]
Disk [id=4, name=十二新作, price=56, num=24]
Disk [id=6, name=王菲, price=12, num=32]
Disk [id=23, name=菲靡靡之音, price=116, num=21]
```

还书后：

```
Disk [id=2, name=依然范特西, price=34, num=28]
Disk [id=3, name=叶惠美, price=20, num=22]
Disk [id=4, name=十二新作, price=56, num=24]
Disk [id=6, name=王菲, price=12, num=34]
Disk [id=23, name=菲靡靡之音, price=116, num=21]
```

2.5 买书

输入

```
please tell me user's id
5
User [id=5, name=王二, money=224,
note=
]
please tell me disk's id
4
please tell me disk's num
1
ok
```

log

```
张三 borrow 1 叶惠美; got money ¥10
周一 borrow 4 十二新作; got money ¥112
李明 borrow 2 王菲; got money ¥12
李明 borrow 2 菲靡靡之音; got money ¥116
李明 return 2 王菲
王二 buy 1 十二新作; got money ¥56
```

disk list

买书后在老板的系统里的userBook中看不到，所以不展示user list，因为老板的系统是记录借书信息的。

买书前：

```
Disk [id=2, name=依然范特西, price=34, num=28]
Disk [id=3, name=叶惠美, price=20, num=22]
Disk [id=4, name=十二新作, price=56, num=24]
Disk [id=6, name=王菲, price=12, num=34]
Disk [id=23, name=菲靡靡之音, price=116, num=21]
```

买书后：

```
Disk [id=2, name=依然范特西, price=34, num=28]
Disk [id=3, name=叶惠美, price=20, num=22]
Disk [id=4, name=十二新作, price=56, num=23]
Disk [id=6, name=王菲, price=12, num=34]
Disk [id=23, name=菲靡靡之音, price=116, num=21]
```

2.6 查看自己的钱

输入：

```
1:User Manage
2:Disk Manage
3:return
4:borrow
5:buy
6:see my money
7:see my log
8:quit
6
your money306
```

查看log

```
张三 borrow 1 叶惠美; got money ¥10
周一 borrow 4 十二新作; got money ¥112
李明 borrow 2 王菲; got money ¥12
李明 borrow 2 菲靡靡之音; got money ¥116
李明 return 2 王菲
王二 buy 1 十二新作; got money ¥56
```

经过计算相符，没出错。

3 代码

Disk.java

```
1  public class Disk {
2      // id of this disk
3      private int id;
4      // name of this disk
5      private String name;
6      // price of this disk
7      private int price;
8      // number of this kind of disk
9      private int num;
10
11     public Disk(int id, String name, int price, int num) {
12         super();
13         this.id = id;
14         this.name = name;
15         this.price = price;
16         this.num = num;
17     }
18
19     public int getId() {
20         return id;
21     }
22     public void setId(int id) {
23         this.id = id;
24     }
25     public String getName() {
26         return name;
27     }
28     public void setName(String name) {
29         this.name = name;
30     }
31     public int getPrice() {
32         return price;
33     }
```



```

34     public void setPrice(int price) {
35         this.price = price;
36     }
37     public int getNum() {
38         return num;
39     }
40     public void setNum(int num) {
41         this.num = num;
42     }
43
44     @Override
45     public String toString() {
46         return "Disk [id=" + id + ", name=" + name + ", price=" +
price + ", num=" + num + "]";
47     }
48     @Override
49     public int hashCode() {
50         final int prime = 31;
51         int result = 1;
52         result = prime * result + id;
53         result = prime * result + ((name == null) ? 0 :
name.hashCode());
54         result = prime * result + num;
55         result = prime * result + price;
56         return result;
57     }
58     @Override
59     public boolean equals(Object obj) {
60         if (this == obj)
61             return true;
62         if (obj == null)
63             return false;
64         if (getClass() != obj.getClass())
65             return false;
66         Disk other = (Disk) obj;
67         if (id != other.id)
68             return false;
69         if (name == null) {
70             if (other.name != null)
71                 return false;
72         } else if (!name.equals(other.name))
73             return false;
74         if (num != other.num)
75             return false;
76         if (price != other.price)
77             return false;
78         return true;
79     }
80

```

```
81
82 }
```

DiskBook.java

```
1  import java.util.Arrays;
2  import java.util.LinkedList;
3
4  public class DiskBook {
5      // list of disk
6      private Disk[] data = new Disk[1000];
7
8      public void addDisk(Disk d) {
9          int id = d.getId();
10         Disk disk = findDisk(id);
11         if(disk==null) {
12             // first disk of this kind
13             data[id]=d;
14         }else {
15             // if exist, this kind disk_num++
16             int num = disk.getNum();
17             num = num+d.getNum();
18             disk.setNum(num);
19         }
20
21     }
22     public void print() {
23         for (Disk disk : data) {
24             System.out.println(disk);
25         }
26     }
27     public boolean removeDisk(int id) {
28         Disk disk = findDisk(id);
29         // did not find this id
30         if(disk==null) {
31             return false;
32         }else {
33             disk=null;
34             return true;
35         }
36     }
37     public Disk findDisk(int id) {
38         return data[id];
39     }
40     @Override
41     public String toString() {
42         String result = "";
```

```

43         for (Disk disk : data) {
44             if(disk!=null) {
45                 result += disk+"\n";
46             }
47         }
48         return result;
49     // return "DiskBook [data=" + Arrays.toString(data) + "];
50     }
51
52     }

```

User.java

```

1
2 public class User {
3     int id;
4     String name;
5     int money;
6     DiskBook note=new DiskBook();
7     public User(int id, String name, int money) {
8         super();
9         this.id = id;
10        this.name = name;
11        this.money = money;
12    }
13    @Override
14    public int hashCode() {
15        final int prime = 31;
16        int result = 1;
17        result = prime * result + id;
18        result = prime * result + money;
19        result = prime * result + ((name == null) ? 0 :
name.hashCode());
20        return result;
21    }
22    @Override
23    public boolean equals(Object obj) {
24        if (this == obj)
25            return true;
26        if (obj == null)
27            return false;
28        if (getClass() != obj.getClass())
29            return false;
30        User other = (User) obj;
31        if (id != other.id)
32            return false;
33        if (money != other.money)

```

```

34         return false;
35     if (name == null) {
36         if (other.name != null)
37             return false;
38     } else if (!name.equals(other.name))
39         return false;
40     return true;
41 }
42 @Override
43 public String toString() {
44     return "User [id=" + id + ", name=" + name + ", money=" +
money + ", \nnote=\n" + note + "];"
45 }
46 public int getId() {
47     return id;
48 }
49 public void setId(int id) {
50     this.id = id;
51 }
52 public String getName() {
53     return name;
54 }
55 public void setName(String name) {
56     this.name = name;
57 }
58 public int getMoney() {
59     return money;
60 }
61 public void setMoney(int money) {
62     this.money = money;
63 }
64 public DiskBook getNote() {
65     return note;
66 }
67 public void setNote(DiskBook note) {
68     this.note = note;
69 }
70
71 }

```

UserBook.java

```

1
2 public class UserBook {
3     private User[] data = new User[10000];
4
5     public void addUser(User u) {

```

```

6         if(data[u.id]≠null)
7             System.out.println("This id has been occupied.");
8         data[u.id] = u;
9     }
10    public User findUser(int id) {
11        return data[id];
12    }
13    public boolean removeUser(int id) {
14        if(data[id]≠null) {
15            data[id]=null;
16            return true;
17        }
18        else {
19            System.out.println("This id does not exist.");
20            return false;
21        }
22    }
23    public void print() {
24        for (User user : data) {
25            System.out.println(user);
26        }
27    }
28    @Override
29    public String toString() {
30        String result = "";
31        for (User user : data) {
32            if(user≠null) {
33                result += user+"\n\n";
34            }
35        }
36        return result;
37    }
38
39 }

```

Boss.java

```

1  import java.io.BufferedReader;
2  import java.io.IOException;
3  import java.io.InputStreamReader;
4  import java.util.ArrayList;
5
6  public class Boss {
7      private UserBook ub = new UserBook();
8      private DiskBook db = new DiskBook();
9      BufferedReader in = new BufferedReader(new
InputStreamReader(System.in));

```

```
10      //老板的钱，这里指的是真正的收入，而不是用户充值的钱。设定某碟片的租借价
      格为出售价格的1/2
11      private int money=0;
12      private ArrayList<String> log=new ArrayList<String>();
13
14      public static void main(String[] args) {
15          Boss boss = new Boss();
16          boss.begin();
17      }
18      public void begin() {
19          while(true) {
20              printMainMenu();
21              int choice = readUserInput();
22              switch (choice) {
23                  case 1:userManage();break;
24                  case 2:diskManage();break;
25                  case 3:userReturn();break;
26                  case 4:userBorrow();break;
27                  case 5:userBuy();break;
28                  case 6:seeMoney();break;
29                  case 7:seeLog();break;
30                  case 8:return;
31              }
32          }
33      }
34      private void userManage() {
35          while(true) {
36              printUserMenu();
37              int choice = readUserInput();
38              switch(choice) {
39                  case 1: addUser();          break;
40                  case 2: removeUser();       break;
41                  case 3: findUser();         break;
42                  case 4: showUserList();     break;
43                  case 6: return;
44              }
45          }
46      }
47      private void diskManage() {
48          // TODO Auto-generated method stub
49          while(true) {
50              printDiskMenu();
51              int choice = readUserInput();
52              switch(choice) {
53                  case 1: addDisk();          break;
54                  case 2: removeDisk();       break;
55                  case 3: findDisk();         break;
56                  case 4: showDiskList();     break;
57                  case 6: return;
```

```

58         }
59     }
60
61 }
62
63
64 private void showDiskList() {
65     System.out.println(db);
66
67 }
68 private void findDisk() {
69     try {
70         System.out.println("please tell me disk's id");
71         int id = Integer.parseInt(in.readLine());
72         Disk disk = db.findDisk(id);
73         System.out.println(disk);
74     } catch (NumberFormatException e) {
75         // TODO Auto-generated catch block
76         e.printStackTrace();
77     } catch (IOException e) {
78         // TODO Auto-generated catch block
79         e.printStackTrace();
80     }
81 }
82 private void removeDisk() {
83     try {
84         System.out.println("please tell me disk's id");
85         int id = Integer.parseInt(in.readLine());
86         if(db.findDisk(id)≠null) {
87             db.removeDisk(id);
88             log.add(" remove disk "+db.findDisk(id));
89         }else {
90             return;
91         }
92     } catch (IOException e) {
93         // TODO Auto-generated catch block
94         e.printStackTrace();
95     }
96
97 }
98 private void addDisk() {
99     try {
100         System.out.println("please tell me disk's name");
101         String name = in.readLine();
102         System.out.println("please tell me disk's id");
103         int id = Integer.parseInt(in.readLine());
104         System.out.println("please tell me disk's price");
105         int money = Integer.parseInt(in.readLine());
106         System.out.println("please tell me disk's num");

```

```

107         int num = Integer.parseInt(in.readLine());
108         Disk disk = new Disk(id, name, money, num);
109         db.addDisk(disk);
110
111         log.add("add disk "+disk);
112     } catch (IOException e) {
113         // TODO Auto-generated catch block
114         e.printStackTrace();
115     }
116 }
117
118
119
120 private void userReturn() {
121     // TODO Auto-generated method stub
122     try {
123         System.out.println("please tell me user's id");
124         int id = Integer.parseInt(in.readLine());
125         User user = ub.findUser(id);
126         if(user==null) {
127             System.out.println("This User does not exist.");
128             return;
129         }
130         System.out.println(user);
131
132         //肯定是一起还同一个专辑
133         System.out.println("please tell me disk's id");
134         int id2 = Integer.parseInt(in.readLine());
135         if(db.findDisk(id2)!=null) {
136             int
137             num=ub.findUser(id).getNote().findDisk(id2).getNum();
138             int price=db.findDisk(id2).getPrice();
139             Disk disk = new Disk(id2,
140             db.findDisk(id2).getName(), price, num);
141             db.addDisk(disk);
142             DiskBook userDisk=user.getNote();
143             userDisk.removeDisk(id2);
144
145             log.add(user.getName()+" return "+num+"
146             "+disk.getName());
147         }
148         else {
149             System.out.println("This Disk does not exist.");
150         }
151
152         //加在交易记录里
153     } catch (IOException e) {

```



```

153         // TODO Auto-generated catch block
154         e.printStackTrace();
155     }
156
157
158 }
159 private void userBorrow() {
160     // TODO Auto-generated method stub
161     try {
162         System.out.println("please tell me user's id");
163         int id = Integer.parseInt(in.readLine());
164         User user = ub.findUser(id);
165         if(user==null) {
166             System.out.println("This User does not exist.");
167             return;
168         }
169         System.out.println(user);
170
171         System.out.println("please tell me disk's id");
172         int id2 = Integer.parseInt(in.readLine());
173         Disk disk=db.findDisk(id2);
174         System.out.println("please tell me disk's num");
175         int num = Integer.parseInt(in.readLine());
176         if(num==0)
177             return;
178
179         if(disk==null) {
180             System.out.println("we don't have this kind of
181 disk");
182             return;
183         }
184         else if(disk.getNum()<num) {
185             System.out.println("we don't have so many disks");
186             return;
187         }
188         else {
189             int n=disk.getNum();
190             n-=num; // 借出去num个CD
191             disk.setNum(n);
192
193             //我收钱
194             money+=disk.getPrice()/2 * num;
195             int um=user.getMoney();
196             um-=disk.getPrice()/2 *num;
197             user.setMoney(um);
198
199             //用户的本子里加CD

```

```

200         Disk userBorrow=new
Disk(disk.getId(),disk.getName(),disk.getPrice(),num);
201         DiskBook userDisk=user.getNote();
202         userDisk.addDisk(userBorrow);
203
204         System.out.println("ok");
205         log.add(user.name+" borrow "+num+"
"+disk.getName()+" got money ¥"+disk.getPrice()/2*num);
206
207     }
208
209
210     } catch (IOException e) {
211         // TODO Auto-generated catch block
212         e.printStackTrace();
213     }
214 }
215 private void userBuy() {
216     //用户购买不写进去
217     // TODO Auto-generated method stub
218     try {
219         System.out.println("please tell me user's id");
220         int id = Integer.parseInt(in.readLine());
221         User user = ub.findUser(id);
222         if(user==null) {
223             System.out.println("This User does not exist.");
224             return;
225         }
226         System.out.println(user);
227
228         System.out.println("please tell me disk's id");
229         int id2 = Integer.parseInt(in.readLine());
230         Disk disk=db.findDisk(id2);
231         System.out.println("please tell me disk's num");
232         int num = Integer.parseInt(in.readLine());
233         if(num==0)
234             return;
235
236         if(disk==null) {
237             System.out.println("we don't have this kind of
disk");
238             return;
239         }
240         else if(disk.getNum()<num) {
241             System.out.println("we don't have so many disks");
242             return;
243         }
244         else {
245             int n=disk.getNum();

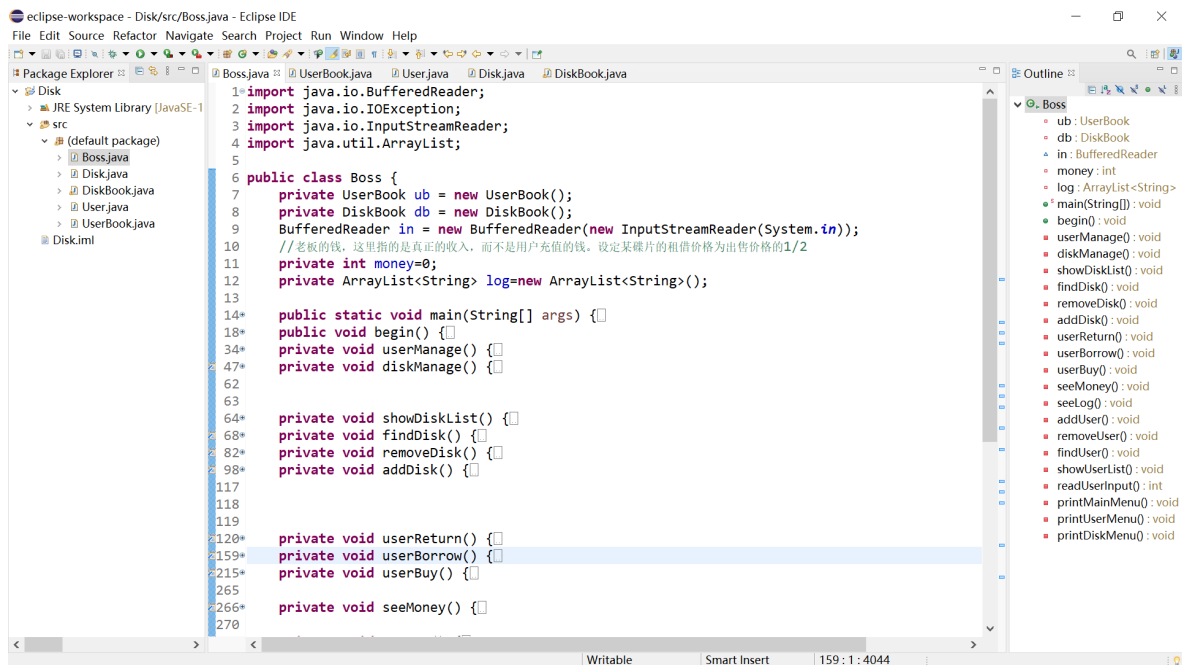
```

```
246         n=n-num; // 卖出去
247         disk.setNum(n);
248
249         money+=disk.getPrice()*num;
250         int um=user.getMoney();
251         um-=disk.getPrice()*num;
252         user.setMoney(um);
253
254         System.out.println("ok");
255         log.add(user.getName()+" buy "+num+"
256         "+disk.getName()+" got money ¥"+disk.getPrice()*num);
257     }
258
259
260     } catch (IOException e) {
261         // TODO Auto-generated catch block
262         e.printStackTrace();
263     }
264 }
265
266 private void seeMoney() {
267     // TODO Auto-generated method stub
268     System.out.println("your money"+money);
269 }
270
271 private void seeLog() {
272     // TODO Auto-generated method stub
273     for(String a:log) {
274         System.out.println(a);
275     }
276 }
277
278
279 private void addUser() {
280     try {
281         System.out.println("please tell me user's name");
282         String name = in.readLine();
283         System.out.println("please tell me user's id");
284         int id = Integer.parseInt(in.readLine());
285         System.out.println("please tell me user's money");
286         int money = Integer.parseInt(in.readLine());
287         User user = new User(id, name, money);
288         ub.addUser(user);
289
290         log.add("add user "+user);
291     } catch (IOException e) {
292         // TODO Auto-generated catch block
293         e.printStackTrace();
```

```
294     }
295 }
296 private void removeUser() {
297     // TODO Auto-generated method stub
298     try {
299         System.out.println("please tell me user's id");
300         int id = Integer.parseInt(in.readLine());
301
302         if(ub.findUser(id)≠null) {
303             ub.removeUser(id);
304             log.add("remove user "+ub.findUser(id));
305         }
306     } catch (IOException e) {
307         // TODO Auto-generated catch block
308         e.printStackTrace();
309     }
310
311 }
312 private void findUser() {
313     try {
314         System.out.println("please tell me user's id");
315         int id = Integer.parseInt(in.readLine());
316         User user = ub.findUser(id);
317         System.out.println(user);
318     } catch (NumberFormatException e) {
319         // TODO Auto-generated catch block
320         e.printStackTrace();
321     } catch (IOException e) {
322         // TODO Auto-generated catch block
323         e.printStackTrace();
324     }
325
326 }
327 private void showUserList() {
328     System.out.println(ub);
329 }
330
331
332 private int readUserInput() {
333     try {
334         String line;
335         line = in.readLine();
336         return Integer.parseInt(line);
337     } catch (IOException e) {
338         // TODO Auto-generated catch block
339         e.printStackTrace();
340     }
341     return 0;
342 }
```

```
343
344
345     private void printMainMenu() {
346         // TODO Auto-generated method stub
347         System.out.println("-----");
348         System.out.println("1:User Manage");
349         System.out.println("2:Disk Manage");
350         System.out.println("3:return"); //用户来还
351         System.out.println("4:borrow"); //用户来借
352         System.out.println("5:buy"); //用户来买
353         System.out.println("6:see my money");
354         System.out.println("7:see my log");
355         System.out.println("8:quit");
356
357     }
358     private void printUserMenu() {
359
360         System.out.println("-----");
361         System.out.println("1:add user");
362         System.out.println("2:remove user");
363         System.out.println("3:find user");
364         System.out.println("4:show user list");
365
366         System.out.println("6:quit");
367     }
368     private void printDiskMenu() {
369         System.out.println("-----");
370         System.out.println("1:add disk");
371         System.out.println("2:remove disk");
372         System.out.println("3:find disk"); //用户来还
373         System.out.println("4:show disk list"); //用户来借
374         System.out.println("6:quit");
375
376     }
377 }
```

4 代码截图



附录：测试数据

可以初始化数据

```

1 2
2 1
3 叶惠美
4 3
5 20
6 23
7 1
8 依然范特西
9 2
10 34
11 12
12 1
13 十二新作
14 4
15 56
16 28
17 1
18 王菲
19 6
20 12
21 34
22 1
23 为你而来
24 2
25 23
26 16
27 1

```

28 菲靡靡之音

29 23

30 116

31 23

32 6

33 1

34 1

35 李明

36 0

37 123

38 1

39 周一

40 1

41 345

42 1

43 王二

44 5

45 224

46 1

47 张三

48 6

49 444

50