

```

package com.sxt.syn;

import java.util.ArrayList;

import java.util.List;

/**
 * 快乐影院
 * @author 江
 *
 */

public class HappyCinema9 {
    public static void main(String[] args) {
        //可用位置
        List<Integer> available=new ArrayList<>();
        available.add(1);
        available.add(2);
        available.add(3);
        available.add(6);
        available.add(7);

        List<Integer> seats1=new ArrayList<>();
        seats1.add(1);
        seats1.add(2);
        List<Integer> seats2=new ArrayList<>();
        seats2.add(1);
        seats2.add(2);
        seats2.add(6);
        SxtCinema c=new SxtCinema(available,"happy sxt");
        new Thread(new HappyCustomer(c,seats1),"老高").start();
        new Thread(new HappyCustomer(c,seats2),"老裴").start();

    }
}

```

//顾客

```
class HappyCustomer implements Runnable{
    SxtCinema cinema;
    List<Integer> seats;

    public HappyCustomer(SxtCinema cinema, List<Integer> seats) {
        this.cinema = cinema;
        this.seats = seats;
    }

    @Override
    public void run() {
        synchronized(cinema) {
            boolean flag=cinema.bookTickets(seats);
            if(flag) {
                System.err.println("出票成功"+Thread.currentThread().getName()+"-<位置为"+seats);
            }else {
                System.err.println("出票失败"+Thread.currentThread().getName()+"-<位置不够");
            }
        }
    }
}
```

//影院

```
class SxtCinema{
    List<Integer> available;//可用的位置
    String name;
```

```

    public SxtCinema(List<Integer> available,String name) {
this.available=available;
this.name=name;
    }

    //购票
    public boolean bookTickets(List<Integer> seats) {
        System.err.println("欢迎光临"+this.name+", 当前可用位置
为:"+available);
        List<Integer> copy=new ArrayList<Integer>();
        copy.addAll(available);

        //相减
        copy.removeAll(seats);
        //判断大小
        if(available.size()-copy.size()!=seats.size()) {
            return false;
        }
        //成功
        available=copy;
        return true;
    }
}

```