Find MemberShip Category Count

Member.java

```
1
2 public class Member {
3
4         private String memberId;
5         private String memberName;
6         private String category;
7
8         public String getMemberId() {
9                 return memberId;
10        }
11        public void setMemberId(String memberId) {
12                this.memberId = memberId;
13        }
14        public String getMemberName() {
15                return memberName;
16        }
17        public void setMemberName(String memberName) {
18                this.memberName = memberName;
19        }
20        public String getCategory() {
21                return category;
22        }
23        public void setCategory(String category) {
24                this.category = category;
25        }
26
27        public Member(String memberId, String memberName, String category) {
28                super();
29                this.memberId = memberId;
30                this.memberName = memberName;
31                this.category = category;
32        }
33
34
35 }
```

Main.java

```
1 import java.util.*;
2 public class Main {
3
4    public static void main(String args[]){
5        // Fill the code here
6        List<Member> memberList = new ArrayList<Member>();
7        Scanner scan = new Scanner(System.in);
8        System.out.println("Enter the no of Members");
9        int memberCount = scan.nextInt();
10        String tempIp;
11        while(memberCount>0){
12            System.out.println("Enter the member details");
13            tempIp = scan.next();
14            String tempArr[] = tempIp.split(":");
15            memberList.add(new Member(tempArr[0],tempArr[1],tempArr[2]));
16            memberCount--;
17        }
```

```
        System.out.println("Enter the number of times Membership category needs to be searched");
        int noOfTimes = scan.nextInt();
        String[] tempArr = new String[noOfTimes];
        for(int index=0;index<noOfTimes;index++){
            System.out.println("Enter the category");
            tempArr[index] = scan.next();
        }
        int countArr[] = new int [noOfTimes];
        for(int i=0; i<noOfTimes;i++){
            ZEEShop thread = new ZEEShop(tempArr[i],memberList);
            thread.run();
            /*try{
                thread.join();
            }catch(InterruptedException e){

            }*/
            countArr[i] = thread.getCount();
        }
        for(int i=0;i<noOfTimes;i++){
            System.out.println(tempArr[i]+ ":"+countArr[i]);
        }
        scan.close();
        /*List<ZEEShop> zList = new ArrayList<ZEEShop>()
        for(int i = 0;i<count;i++){
            ZEEShop zs = new ZEEShop(category , memList);
            zList.add(zs);
        }
        for(ZEEShop z: zeelist){
            z.start();
            try{
                z.join();
            }catch(Exception e){
                e.printStackTrace();
            }
        }*/
    }
}

```

ZEEShop.java

```
import java.util.*;
public class ZEEShop extends Thread {
    // Fill the code here
    private String memberCategory;
    private int count;
    private List<Member> memberList;
    public ZEEShop(String memberCategory, List memberList){
        super();
        this.memberCategory = memberCategory;
         this.memberList = memberList;
    }
    public int getCount(){
        return count;
    }
    public String getMemberCategory(){
        return memberCategory;
    }
    public List<Member> getMemberList(){
        return memberList;
    }
    public void setMemberCategory(String memberCategory){
        this.memberCategory = memberCategory;
```

```
23    }
24    public void setMemberList(List<Member> memberList){
25        this.memberList = memberList;
26    }
27    public void setCount(int count){
28        this.count = count;
29    }
30    public void run(){
31
32       synchronized(this)
33       {
34       for(Member m : memberList){
35           if(m.getCategory().equals(memberCategory))
36                count++;
37       }
38
39    }
40    }
41 }
42
```

Grade Calculation

Main.java

```
1  import java.util.Scanner;
2  import java.io.BufferedReader;
3  import java.io.InputStreamReader;
4  public class Main {
5          public static void main(String[] args)  throws Exception {
6              BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
7              System.out.println("Enter the number of Threads");
8              int th=Integer.parseInt(br.readLine());
9              GradeCalculator obj=null;
10             String str="";
11             String[] details=new String[th];
12             for(int i=0;i<th;i++)
13             {
14                 System.out.println("Enter the String");
15                 str=br.readLine();
16                 details[i]=str;
17             }
18             for(int i=0;i<th;i++)
19             {
20                 String sp[]=details[i].split(":");
21                 int k=0;
22                 int arr[]=new int[sp.length];
23                 for(int j=1;j<sp.length;j++)
24                     arr[k++]=Integer.parseInt(sp[j]);
25                 obj=new GradeCalculator(sp[0],arr);
26                 obj.start();
27                 try{
28                         Thread.sleep(1000);
29                     }
30                 catch(Exception e)
31                     {
32                         System.out.println(e);
```

```
                }
            }
            //Fill your code here

        }

}
```

GradeCalculator.java

```
public class GradeCalculator extends Thread{
 private String studName;
 private char result;
 private int[] marks;
 public String getStudName()
 {
    return studName;
 }
  public void setStudName()
  {
     this.studName=studName;
  }
  public char getResult()
  {
     return result;
  }
  public void setResult(char result)
  {
     this.result=result;
  }
  public int[] getMarks()
  {
     return marks;
  }
  public void setMarks(int[] marks)
  {
     this.marks=marks;
  }
  public GradeCalculator(String studName,int[] marks)
  {
     this.studName=studName;
     this.marks=marks;
  }
  public void run()
  {
     int sum=0;
     int[] score=getMarks();
     for(int i=0;i<score.length;i++)
     sum=sum+score[i];
     if((400<=sum)&&(sum<=500))
     System.out.println(getStudName()+":"+'A');
     if((300<=sum)&&(sum<=399))
     System.out.println(getStudName()+":"+'B');
     if((200<=sum)&&(sum<=299))
     System.out.println(getStudName()+":"+'C');
     if(sum<200)
     System.out.println(getStudName()+":"+'E');
  }
}
```