

OOJ LAB2 EXTRA PROGRAMS

DATE:7/10/2020

1.

```
1  import java.io.*;
2  import java.util.*;
3  class Player
4  {
5      private int[] id=new int[30];
6      private String[] name=new String[30];
7      private double[] scores=new double[30];
8      private double[] avg=new double[30];
9      private int[] no_matches_played=new int[30];
10     private int n,i;
11     private double sum;
12     Player()
13     {
14     }
15     void getdetails()
16     {
17
18         Scanner sc=new Scanner(System.in);
19         System.out.println("*****");
20         System.out.println("Please enter number of players:");
21         n=sc.nextInt();
22         for(int i=0;i<n;i++)
23         {
24             System.out.println("*****");
25             System.out.println("Please enter the ID of Player"+(i+1)+":");
26             id[i]=sc.nextInt();
27             System.out.println("Please enter the name of Player"+(i+1)+":");
28             name[i]=sc.next();
29             System.out.println("Please enter the no of matches played by Player"+(i+1)+":");
30             no_matches_played[i]=sc.nextInt();
31             for(int j=0;j<no_matches_played[i];j++)
32             {
33                 System.out.println("Please enter the scores of match " +(j+1)+":");
34                 scores[j]=sc.nextDouble();
35             }
36         }
37     }
38 }
```

```

37     }
38 }
39 double score_calc()
40 {sum=0.0f;
41 for(int i=0;i<n;i++)
42 {
43     for(int j=0;j<no_matches_played[i];j++)
44     {
45         sum=sum+scores[j];
46     }
47     avg[i]=(sum/(no_matches_played[i]-0.0));
48 }
49 return avg[i];
50 }
51 void display()
52 {
53     for(int i=0;i<n;i++)
54     {
55
56         System.out.println("ID of Player"+(i+1)+":"+id[i]);
57         System.out.println("name of Player"+(i+1)+":"+name[i]);
58         System.out.println("no of matches played by Player"+(i+1)+":"+no_matches_played[i]);
59         System.out.println("average of Player"+(i+1)+":"+avg[i]);
60     }
61 }
62 }
63 }
64 }
65 class Main{
66     public static void main(String[] args)
67     {
68         Player s1 = new Player();
69         Player s2 = new Player();
70
71         s1.getdetails();
72         s2.getdetails();
73         if(s1.score_calc()>s2.score_calc())
74         {
75             s1.display();
76         }
77         else
78         {
79             s2.display();
80         }
81     }
82 }
83 }
84 }
85 }

```

```
C:\Users\admin\Documents>java Main
*****
Please enter number of players:
1
*****
Please enter the ID of Player1:
1
Please enter the name of Player1:
Raj
Please enter the no of matches played by Player1:
2
Please enter the scores of match 1:
100
Please enter the scores of match 2:
30
*****
Please enter number of players:
1
*****
Please enter the ID of Player1:
2
Please enter the name of Player1:
jatin
Please enter the no of matches played by Player1:
2
Please enter the scores of match 1:
10
Please enter the scores of match 2:
2
```

```
ID of Player1:1
name of Player1:Raj
no of matches played by Player1:2
average of Player1:65.0
:
```

2.

```
1  import java.util.Scanner;
2  class Book
3  {
4      int n;
5      int cnt=0;
6      int idx1;
7      int idx=0;
8      private String[] bookid=new String[10];
9      private String[] booktitle=new String[10];
10     private String[] author=new String[10];
11     private String[] publisher=new String[10];
12     private int[] no_of_pages=new int[10];
13     private int[] year_of_pub=new int[10];
14     private double[] price=new double[10];
15
16     public void getdetails()
17     {
18         Scanner sc=new Scanner(System.in);
19         System.out.println("Please enter the number of books:");
20         n=sc.nextInt();
21         for(int i=0;i<n;i++)
22         {
23             System.out.println("*****");
24             System.out.println("Please enter the book ID of book"+(i+1)+":");
25             bookid[i]=sc.next();
26             System.out.println("Please enter the book title of book"+(i+1)+":");
27             booktitle[i]=sc.next();
28             System.out.println("Please enter the author of book"+(i+1)+":");
29             author[i]=sc.next();
30             System.out.println("Please enter the publisher of book"+(i+1)+":");
31             publisher[i]=sc.next();
32             System.out.println("Please enter the no of pages of book"+(i+1)+":");
33             no_of_pages[i]=sc.nextInt();
34             System.out.println("Please enter the year of publishing of book"+(i+1)+":");
35             year_of_pub[i]=sc.nextInt();
36             System.out.println("Please enter the book price of book"+(i+1)+":");
37             price[i]=sc.nextDouble();
38         }
```

```

40 public void display()
41 {
42     for(int i=0;i<n;i++)
43     {
44         System.out.println("      ");
45         System.out.println("Book ID:"+bookid[i]);
46         System.out.println("Book Title:"+booktitle[i]);
47         System.out.println("author:"+author[i]);
48         System.out.println("publisher:"+publisher[i]);
49         System.out.println("no of pages:"+no_of_pages[i]);
50         System.out.println("year_of_pub:"+year_of_pub[i]);
51         System.out.println("price:"+price[i]);
52     }
53 }
54 public void most_expensive()
55 {
56     double max=price[0];
57
58     for(int i=0;i<n;i++)
59     {
60         if(price[i]>max)
61         {
62             max=price[i];
63             idx=i;
64         }
65     }
66     System.out.println("The booktitle of the most expensive book is:"+booktitle[idx]);
67 }
68 public void dis_author()
69 {
70     Scanner sc=new Scanner(System.in);
71     System.out.println("Please enter the name of author whose book details you want:");
72     String au=sc.next();
73     for(int i=0;i<n;i++)
74     {
75         if(author[i].equals(au))
76         {
77             displayl(i);

```

```

79     }
80     }
81     void compare()
82     {
83         for(int i=0;i<n;i++)
84         {
85             if(year_of_pub[i]==2020)
86             {
87                 cnt++;
88             }
89         }
90         System.out.println("The count of books published in the year 2020:"+cnt);
91     }
92     void least_pages()
93     {
94
95         int min=no_of_pages[0];
96         for(int i=0;i<n;i++)
97         {
98             if(no_of_pages[i]<min)
99             {
100                 min=no_of_pages[i];
101                 idx1=i;
102             }
103         }
104         System.out.println("The details of book with least pages is:");
105         display1(idx1);
106     }
107     public void display1(int j)
108     {
109         System.out.println("Book ID:"+bookid[j]);
110         System.out.println("Book Title:"+booktitle[j]);
111         System.out.println("author:"+author[j]);
112         System.out.println("publisher:"+publisher[j]);
113         System.out.println("no of pages:"+no_of_pages[j]);
114         System.out.println("year_of_pub:"+year_of_pub[j]);
115         System.out.println("price:"+price[j]);

```

```

120     class Main
121     {
122         public static void main(String args[])
123         {
124             Book b1=new Book();
125             Book b2=new Book();
126             Book b3=new Book();
127             b1.getdetails();
128             System.out.println("*****");
129             b1.display();
130             System.out.println("*****");
131             b1.most_expensive();
132             System.out.println("*****");
133             b1.dis_author();
134             System.out.println("*****");
135             b1.least_pages();
136             System.out.println("*****");
137             b1.compare();
138         }
139     }
140 }

```

```
C:\Users\admin\Documents>java Main
Please enter the number of books:
2
*****
Please enter the book ID of book1:
12
Please enter the book title of book1:
physics
Please enter the author of book1:
ravi
Please enter the publisher of book1:
rai
Please enter the no of pages of book1:
12340
Please enter the year of publishing of book1:
2020
Please enter the book price of book1:
12000
*****
Please enter the book ID of book2:
13
Please enter the book title of book2:
Chemistry
Please enter the author of book2:
basavaraju
Please enter the publisher of book2:
dhanpat
Please enter the no of pages of book2:
300
Please enter the year of publishing of book2:
```

```
Please enter the no of pages of book2:
300
Please enter the year of publishing of book2:
2020
Please enter the book price of book2:
90000
*****
Book ID:12
Book Title:physics
author:ravi
publisher:rai
no of pages:12340
year_of_pub:2020
price:12000.0

Book ID:13
Book Title:Chemistry
author:basavaraju
publisher:dhanpat
no of pages:300
year_of_pub:2020
price:90000.0
*****
The booktitle of the most expensive book is:Chemistry
*****
Please enter the name of author whose book details you want:
basavaraju
Book ID:13
Book Title:Chemistry
```

```
author:basavaraju
publisher:dhanpat
no of pages:300
year_of_pub:2020
price:90000.0
*****
The details of book with least pages is:
Book ID:13
Book Title:Chemistry
author:basavaraju
publisher:dhanpat
no of pages:300
year_of_pub:2020
price:90000.0
*****
The count of books published in the year 2020:2
```