REG NO	:	19BCS0012
NAME	:	NITHISH G
COURSE CODE	:	CSC3001
COURSE	:	JAVA PROGRAMMING
DATE	:	10.04.2021

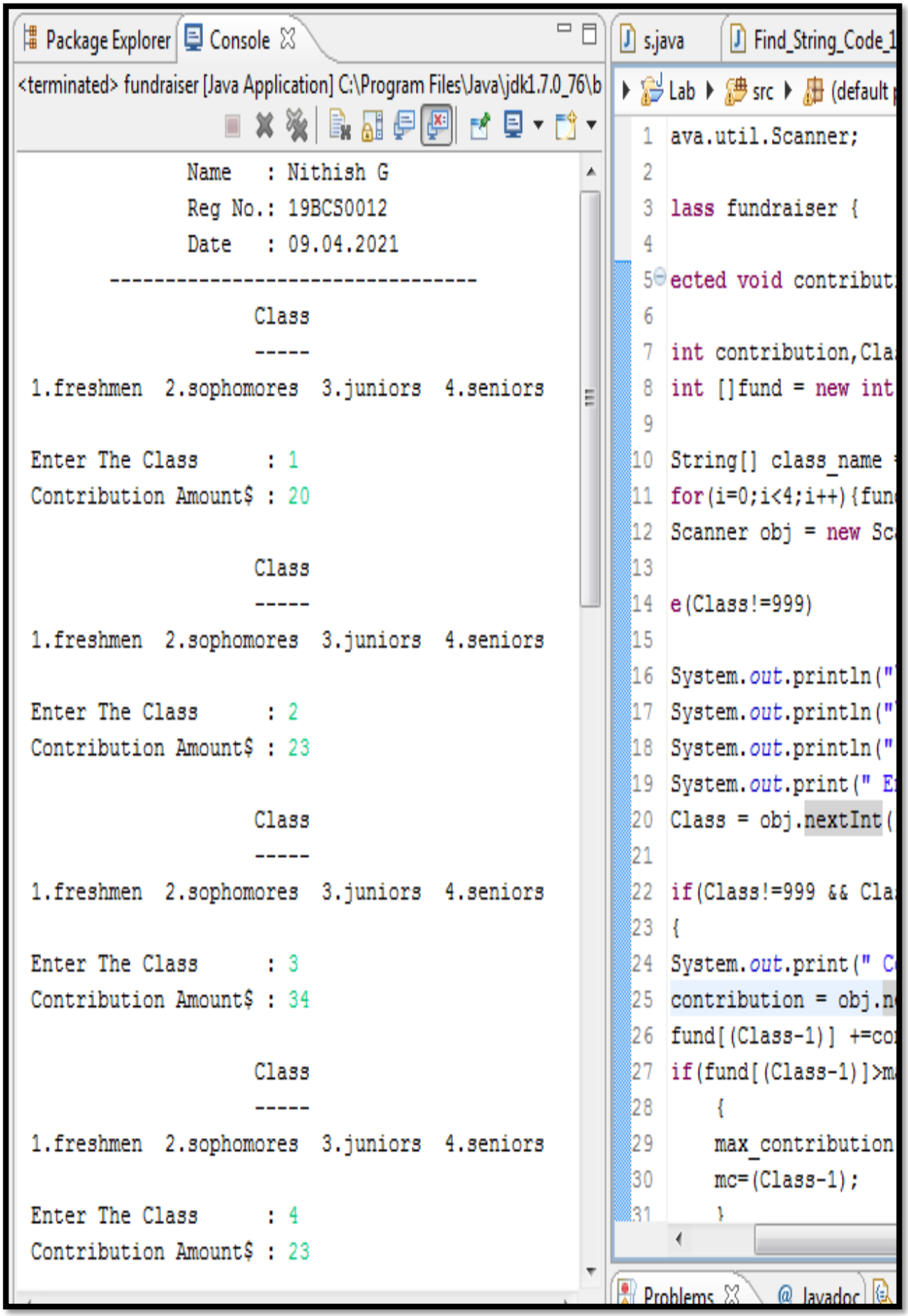
1. Addison High School is holding a fundraiser. The freshmen, sophomores, juniors, and seniors hold a competition to see which class contributes the most money. Write a program that allows you to enter two numbers for each contribution as it comes in—the class of the contributor (1, 2, 3, or 4), and the amount contributed in dollars. For example, perhaps a junior contributes $20. The user would enter a 3 and a 20. The program continues to accept data until the user types 999 for the contributor's class. At that point, data entry is completed, so display the four class totals as well as the number of the class (1, 2, 3, or 4) that contributed the most.

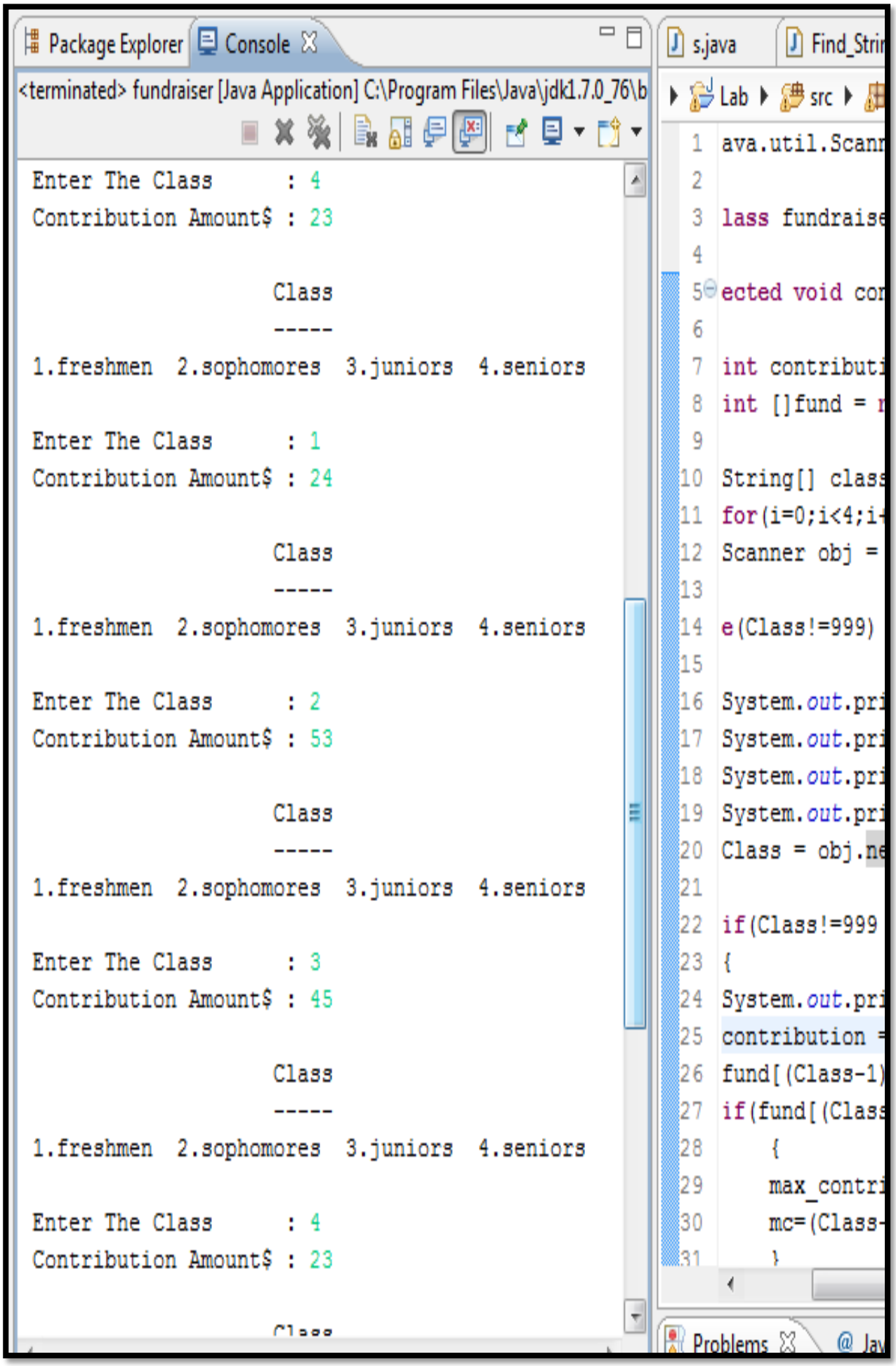
Source Code:

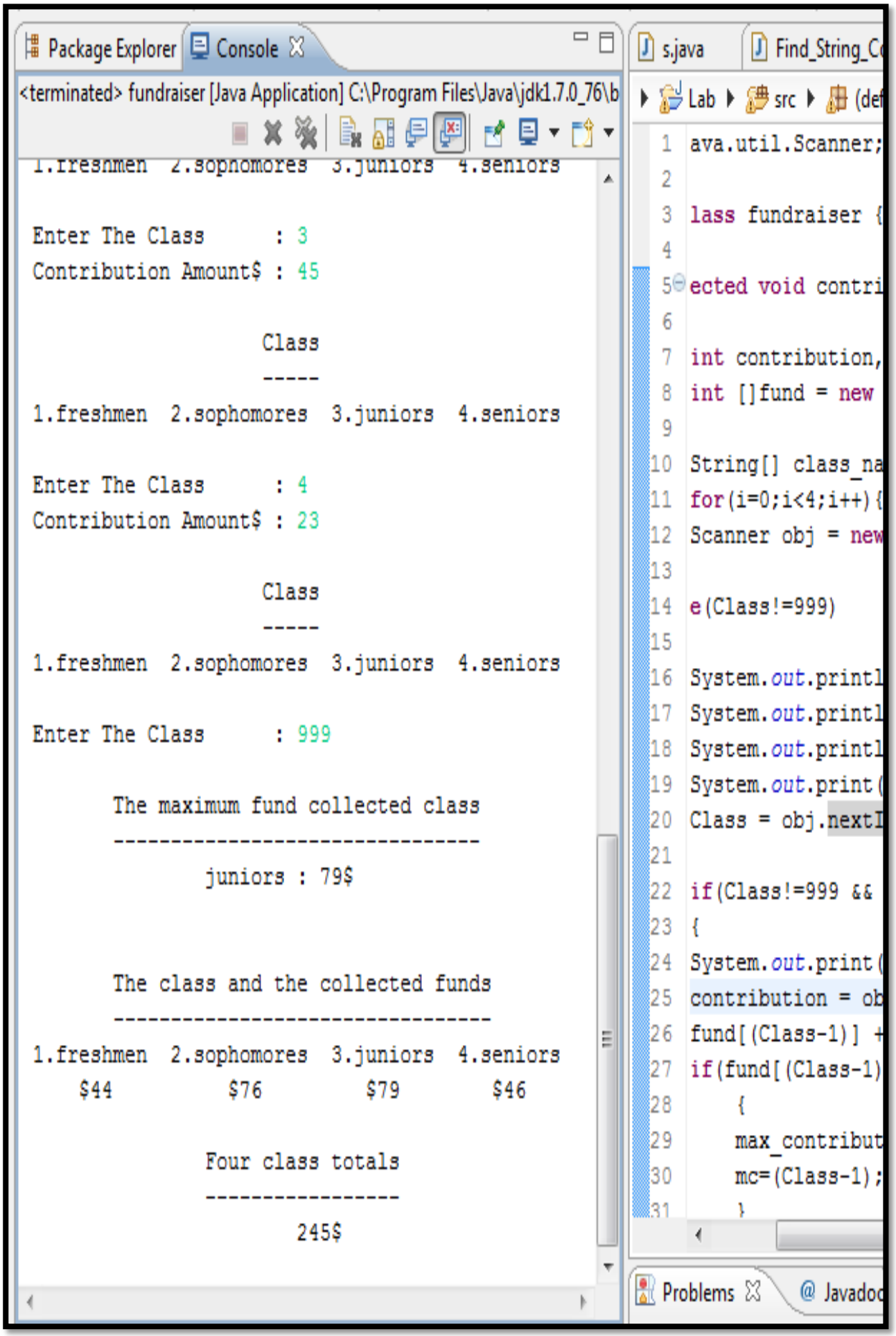
```
import java.util.Scanner;

public class fundraiser {

        protected void contribution()
        {
                int contribution,Class=0,max_contribution=0,mc=0,i;
                int []fund = new int[4];

                String[] class_name = {" Freshmen","Sophomores","juniors","seniors"};
                for(i=0;i<4;i++){fund[i]=0;}
                Scanner obj = new Scanner(System.in);

        while(Class!=999)
        {
                System.out.println("\n\t\t     Class");
                System.out.println("\t\t     -----");
                System.out.println(" 1.freshmen  2.sophomores  3.juniors  4.seniors\n");
                System.out.print(" Enter The Class      : ");
                Class = obj.nextInt();

                if(Class!=999 && Class<5 && Class >0)
                {
                System.out.print(" Contribution Amount$ : ");
                contribution = obj.nextInt();
                fund[(Class-1)] +=contribution;
```

```
                if(fund[(Class-1)]>max_contribution)
                        {
                        max_contribution = fund[(Class-1)];
                        mc=(Class-1);
                        }
                }

                else if (Class==999)
                {
                        System.out.println("\n\tThe maximum fund collected class");
                        System.out.println("\t-------------------------------");
                        System.out.println("\t\t"+class_name[mc]+" : "+fund[mc]+"$\n");
                        System.out.println("\n\tThe class and the collected funds");
                        System.out.print("\t---------------------------------");
                        System.out.println("\n 1.freshmen  2.sophomores  3.juniors  4.seniors");
                        System.out.print("     $"+fund[0]+"\t"+"  $"+fund[1]+"\t      $"+fund[2]+"\t
$"+fund[3]);
                        System.out.println("\n\n\t\tFour class totals");
                        System.out.println("\t\t-----------------");
                        System.out.println("\t\t\t"+(fund[0]+fund[1]+fund[2]+fund[3])+"$");

                }

                else {
                        System.out.println("Invalide Input");
                         }
        }
}

                public static void main(String[] NITHISH) {

                        System.out.print("\t      Name   : Nithish G \n");
                        System.out.print("\t      Reg No.: 19BCS0012\n");
                        System.out.print("\t      Date   : 09.04.2021\n");
                        System.out.print("\t---------------------------------");
                        fundraiser obj = new fundraiser();
                        obj.contribution();
        }
}
```

Output


Package Explorer
Console
<terminated> fundraiser [Java Application] C:\Program Files\Java\jdk1.7.0_76\b
Name : Nithish G
Reg No.: 19BCS0012
Date : 09.04.2021
Class
1.freshmen 2.sophomores 3.juniors 4.seniors
Enter The Class : 1
Contribution Amount$: 20
Enter The Class : 2
Contribution Amount$: 23
Enter The Class : 3
Contribution Amount$: 34
Enter The Class : 4
Contribution Amount$: 23
s.java
Find_String_Code_1
Lab
src
ava.util.Scanner;
lass fundraiser {
ected void contribut
int contribution,Cla
int []fund = new int
String[] class_name
for(i=0;i<4;i++){fun
Scanner obj = new Sc
e(Class!=999)
System.out.println("
System.out.println("
System.out.println("
System.out.print(" E
Class = obj.nextInt(
if(Class!=999 && Cla
{
System.out.print(" C
contribution = obj.n
fund[(Class-1)] +=co
if(fund[(Class-1)]>m
{
max_contribution
mc=(Class-1);
Problems
Javadoc


Package Explorer
Console
<terminated> fundraiser [Java Application] C:\Program Files\Java\jdk1.7.0_76\b
Enter The Class : 4
Contribution Amount$: 23
Class
1.freshmen 2.sophomores 3.juniors 4.seniors
Enter The Class : 1
Contribution Amount$: 24
Class
1.freshmen 2.sophomores 3.juniors 4.seniors
Enter The Class : 2
Contribution Amount$: 53
Class
1.freshmen 2.sophomores 3.juniors 4.seniors
Enter The Class : 3
Contribution Amount$: 45
Class
1.freshmen 2.sophomores 3.juniors 4.seniors
Enter The Class : 4
Contribution Amount$: 23
s.java
Lab
src
Problems


Package Explorer
Console
<terminated> fundraiser [Java Application] C:\Program Files\Java\jdk1.7.0_76\b
1.freshmen 2.sophomores 3.juniors 4.seniors
Enter The Class : 3
Contribution Amount$: 45
Class
1.freshmen 2.sophomores 3.juniors 4.seniors
Enter The Class : 4
Contribution Amount$: 23
Class
1.freshmen 2.sophomores 3.juniors 4.seniors
Enter The Class : 999
The maximum fund collected class
juniors : 79$
The class and the collected funds
1.freshmen 2.sophomores 3.juniors 4.seniors
$44 $76 $79 $46
Four class totals
245$
s.java
Find_String_C
Lab
src
1 ava.util.Scanner;
3 lass fundraiser {
5 ected void contri
7 int contribution,
8 int []fund = new
10 String[] class_na
11 for(i=0;i<4;i++){
12 Scanner obj = new
14 e(Class!=999)
16 System.out.printl
17 System.out.printl
18 System.out.printl
19 System.out.print(
20 Class = obj.nextI
22 if(Class!=999 &&
23 {
24 System.out.print(
25 contribution = ob
26 fund[(Class-1)] +
27 if(fund[(Class-1)
28 {
29 max_contribut
30 mc=(Class-1);
31 }
Problems
Javadoc

2. Write a function void split (int array[], int pivot) to partition the given array into two

parts: one with all elements whose values are <= pivot and the other one with all elements whose values are > pivot. The array should be partitioned in place. For example, if the array is

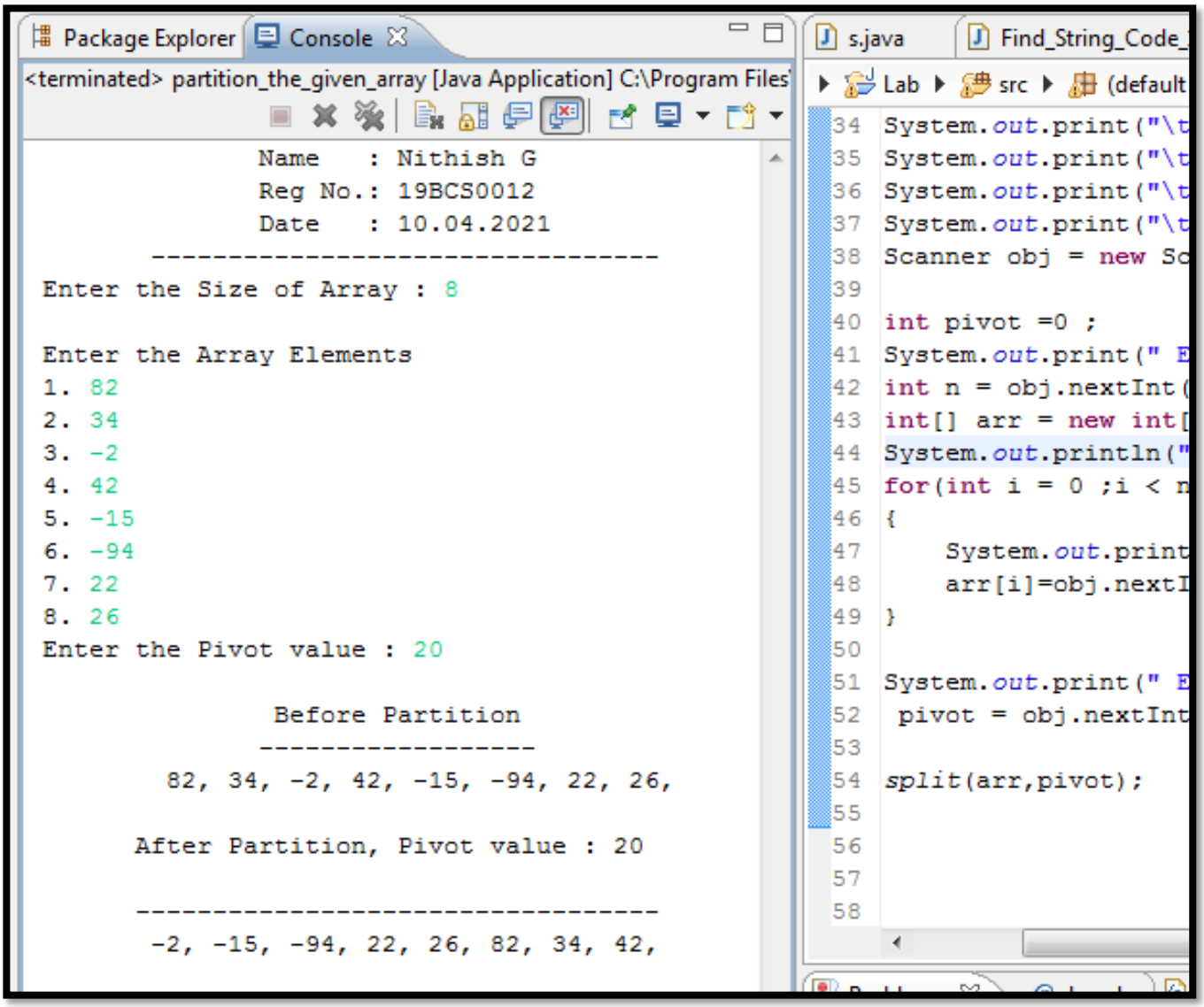
13 -42 8 35 -7 46 28 -19
and the pivot given is 10, then the function should turn the array above into
-19 -42 8 -7 35 46 28 13
Within which all elements before pivot are <= 10 and all elements after pivot are > 10.
Write a main function to test your function.

Source Code:

```
import java.util.Scanner;

public class partition_the_given_array {

    static void split (int array[], int pivot)
    {

        int n = array.length;
        int i,j = 0, temp = 0;
        System.out.println("\n            Before Partition");
        System.out.print("            ----------\n");
        System.out.print("\t ");
        for(i=0;i<n;i++)    {            System.out.print(array[i]+", ");        }
        for(i=0;i<n;i++)
        {
            for(j=0;j<n;j++)
            {
                if(array[j]>pivot && j!=(n-1))
                {
                    temp = array[j];
                    array[j]=array[j+1];
                    array[j+1]=temp;
                }
            }
```

```
            }
            System.out.println("\n\n       After Partition, Pivot value : "+pivot+"\n");
            System.out.print("       ---------------------------------\n");
            System.out.print("\t");
            for(i=0;i<n;i++)    {               System.out.print(array[i]+", ");          }


        }
        public static void main(String[] NITHISH) {

            System.out.print("\t       Name   : Nithish G \n");
            System.out.print("\t       Reg No.: 19BCS0012\n");
            System.out.print("\t       Date   : 10.04.2021\n");
            System.out.print("\t--------------------------------\n");
            Scanner obj = new Scanner (System.in);

            int pivot =0 ;
            System.out.print(" Enter the Size of Array : ");
            int n = obj.nextInt();
            int[] arr = new int[n];
            System.out.println(" Enter the Array Elements");
            for(int i = 0 ;i < n;i++)
            {
                System.out.print(" "+(i+1)+". ");
                arr[i]=obj.nextInt();
            }

            System.out.print(" Enter the Pivot value : ");
             pivot = obj.nextInt();

            split(arr,pivot);
        }

}
```

Output



----------THANK YOU! ----------