

Assessment-2

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Course Name: Java Programming

Course Code: CSE1007

Slot: L9+L10

31-8-2021:

Classes and Objects Programs:

1) Design a class named Rectangle to represent a rectangle. The class contains:
Two double data fields named width and height that specify the width and height of the rectangle. The default values are 1 for both width and height.

(i) A default constructor that creates a default rectangle.

(ii) A constructor that creates a rectangle with the specified width and height.

(iii) A method named getArea() that returns the area of this rectangle.

(iv) A method named getPerimeter() that returns the perimeter. Implement the class.

Write a test program that creates two Rectangle objects—one with width 5 and height 50 and the other with width 2.5 and height 45.7. Display the width, height, area, and perimeter of each rectangle in this order.

1) Program:

```
import java.util.*;
class Rectangle1
{
    double width;
    double height;

    Rectangle1()
    {
        width=1.0;
        height=1.0;
    }

    Rectangle1(double w, double h)
    {
        width=w;
        height=h;
    }

    public double getArea()
    {
        double area=width*height;
        return area;
    }

    public double getPerimeter()
    {
        double peri=2*(width+height);
    }
}
```

```

        return peri;
    }

    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        for(int i=0;i<2;++i)
        {
            System.out.println("Enter the width of the rectangle:");
            double w=sc.nextDouble();
            System.out.println("Enter the height of the rectangle:");
            double h=sc.nextDouble();
            Rectangle1 obj=new Rectangle1(w,h);
            System.out.println("The width of the rectangle is:
"+obj.width);
            System.out.println("The height of the rectangle is:
"+obj.height);
            System.out.println("The area of the rectangle is:
"+obj.getArea());
            System.out.println("The perimeter of the rectangle is:
"+obj.getPerimeter());
        }
    }
}

```

Output:

```

C:\Users\SanJoi\Java Programming Lab\4) 31-8-2021>javac Rectangle1.java

C:\Users\SanJoi\Java Programming Lab\4) 31-8-2021>java Rectangle1
Enter the width of the rectangle:
5
Enter the height of the rectangle:
50
The width of the rectangle is: 5.0
The height of the rectangle is: 50.0
The area of the rectangle is: 250.0
The perimeter of the rectangle is: 110.0
Enter the width of the rectangle:
2.5
Enter the height of the rectangle:
45.7
The width of the rectangle is: 2.5
The height of the rectangle is: 45.7
The area of the rectangle is: 114.25
The perimeter of the rectangle is: 96.4

```

2) Write a Java program to create a class called Student having data members Reg No, Name, Course being studied and current CGPA. Include constructor to initialize objects. Create array of objects with at least 10 students and find 9-pointers.

2) Program:

```

import java.util.*;
class Student2
{

```

```

String regno;
String name;
double cgpa;
String course;

Student2(String regno,String name, double cgpa, String course)
{
    this.regno=regno;
    this.name=name;
    this.cgpa=cgpa;
    this.course=course;
}

public void display()
{
    System.out.println("The registration no. of the student is:
"+regno);
    System.out.println("The name of the student is: "+name);
    System.out.println("The cgpa of the student is: "+cgpa);
    System.out.println("The program of the student is: "+course);
}

public static void main(String args[])
{
    Scanner sc=new Scanner(System.in);
    Student2 arr[]=new Student2[10];
    int count=0;

    //Filling the array of objects
    for(int i=0;i<10;++i)
    {
        System.out.println("Enter reg. no.:");
        String r=sc.nextLine();
        System.out.println("Enter name:");
        String n=sc.nextLine();
        System.out.println("Enter cgpa:");
        double cg=sc.nextDouble();
        sc.nextLine();
        System.out.println("Enter course:");
        String c=sc.nextLine();
        arr[i]=new Student2(r,n,cg,c);
        if(arr[i].cgpa>=9)
            ++count;
    }

    //Displaying the data
    for(int i=0;i<10;++i)
    {
        System.out.println("Details of Student 1 are as follows:");
        arr[i].display();
    }
    System.out.println("The no. of 9 pointers are: "+count);
}
}

```

Output:

```
C:\Users\SanJoi\Java Programming Lab\4) 31-8-2021>javac Student2.java
```

```
C:\Users\SanJoi\Java Programming Lab\4) 31-8-2021>java Student2
```

```
Enter reg. no.:
```

```
18BCE261
```

```
Enter name:
```

```
Sanjoi
```

```
Enter cgpa:
```

```
8.82
```

```
Enter course:
```

```
CSE
```

```
Enter reg. no.:
```

```
18BIT0934
```

```
Enter name:
```

```
Riya
```

```
Enter cgpa:
```

```
9.5
```

```
Enter course:
```

```
IT
```

```
Enter reg. no.:
```

```
18BCE2080
```

```
Enter name:
```

```
Ankit
```

```
Enter cgpa:
```

```
7.5
```

```
Enter course:
```

```
CSE
```

```
Enter reg. no.:
```

```
18BIT1098
```

```
Enter name:
```

```
Isha
```

```
Enter cgpa:
```

```
9.05
```

```
Enter course:
```

```
IT
```

```
Enter reg. no.:
```

```
18BME0209
```

```
Enter name:
```

```
Minakshi
```

```
Enter cgpa:
```

```
9.25
```

```
Enter course:
```

```
Mechanical
```

```
Enter reg. no.:
```

```
18BME3090
```

```
Enter name:
```

```
Kritik
```

```
Enter cgpa:
```

```
8.9
```

```
Enter course:
Mechanical
Enter reg. no.:
18BCE0910
Enter name:
Harjyot
Enter cgpa:
9.03
Enter course:
CSE
Enter reg. no.:
18BEC1050
Enter name:
Kabir
Enter cgpa:
9.7
Enter course:
Electrical
Enter reg. no.:
18BEE0730
Enter name:
Khushi
Enter cgpa:
7
Enter course:
Electronics
Enter reg. no.:
18BEC0298
Enter name:
Ananya
Enter cgpa:
9.56
Enter course:
Electrical
Details of Student 1 are as follows:
The registration no. of the student is: 18BCE261
The name of the student is: Sanjoi
The cgpa of the student is: 8.82
The program of the student is: CSE
Details of Student 1 are as follows:
The registration no. of the student is: 18BIT0934
The name of the student is: Riya
The cgpa of the student is: 9.5
The program of the student is: IT
Details of Student 2 are as follows:
The registration no. of the student is: 18BCE2080
The name of the student is: Ankit
The cgpa of the student is: 7.5
The program of the student is: CSE
```

```
Details of Student 3 are as follows:
The registration no. of the student is: 18BIT1098
The name of the student is: Isha
The cgpa of the student is: 9.05
The program of the student is: IT
Details of Student 4 are as follows:
The registration no. of the student is: 18BME0209
The name of the student is: Minakshi
The cgpa of the student is: 9.25
The program of the student is: Mechanical
Details of Student 5 are as follows:
The registration no. of the student is: 18BME3090
The name of the student is: Kritik
The cgpa of the student is: 8.9
The program of the student is: Mechanical
Details of Student 6 are as follows:
The registration no. of the student is: 18BCE0910
The name of the student is: Harjyot
The cgpa of the student is: 9.03
The program of the student is: CSE
Details of Student 7 are as follows:
The registration no. of the student is: 18BEC0150
The name of the student is: Kabir
The cgpa of the student is: 9.7
The program of the student is: Electrical
Details of Student 8 are as follows:
The registration no. of the student is: 18BEE0730
The name of the student is: Khushi
The cgpa of the student is: 7.0
The program of the student is: Electronics
Details of Student 9 are as follows:
The registration no. of the student is: 18BEC0298
The name of the student is: Ananya
The cgpa of the student is: 9.56
The program of the student is: Electrical
The no. of 9 pointers are: 6
```

3) Write a Java program that displays that displays the time in different formats in the form of HH,MM,SS using constructor Overloading.

1) Program:

```
import java.util.*;
import java.time.format.DateTimeFormatter;
import java.time.LocalDateTime;
class Datetime3
{
    LocalDateTime myDateObj = LocalDateTime.now();
    DateTimeFormatter timeObj1 = DateTimeFormatter.ofPattern("HH");
    DateTimeFormatter timeObj2 = DateTimeFormatter.ofPattern("mm");
    DateTimeFormatter timeObj3 = DateTimeFormatter.ofPattern("ss");
    String hours = myDateObj.format(timeObj1);
```

```

String minutes = myDateObj.format(timeObj2);
String seconds = myDateObj.format(timeObj3);

Datetime3()
{
    int Hours=Integer.parseInt(hours);
    int Minutes=Integer.parseInt(minutes);
    int Seconds=Integer.parseInt(seconds);
    if(Hours>12)
        Hours -= 12;
    System.out.println("HH:mm:ss = " +Hours+":"+Minutes+":"+Seconds);
}

Datetime3(int num)
{
    System.out.println("HH:mm:ss = " +hours+":"+minutes+":"+seconds);
}

public static void main(String[] args)
{
    System.out.print("Time in 12 hour format: ");
    Datetime3 completetime= new Datetime3();
    System.out.println(" ");
    System.out.print("Time in 24 hour format: ");
    Datetime3 hours= new Datetime3(1);
}
}

```

Output:

```

C:\Users\SanJoi\Java Programming Lab\4) 31-8-2021>javac Datetime3.java

C:\Users\SanJoi\Java Programming Lab\4) 31-8-2021>java Datetime3
Time in 12 hour format: HH:mm:ss = 10:3:19

Time in 24 hour format: HH:mm:ss = 22:03:19

```

07-9-2021:

String Programs:

1) Write a java Program to check whether given string is palindrome or not.

1) Program:

```

import java.util.*;
class Palindrome1
{
    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Sanjoi Sethi (18BCE2261)");
        System.out.println("Enter a string:");
        String s=sc.nextLine();
        int len=s.length();
        String t="";

        for(int i=0;i<len;++i)
        {

```

```

        char x=s.charAt(i);
        t=x+t;
    }

    if(s.equals(t))
        System.out.println("Given string is Palindrome");
    else
        System.out.println("Given string is not Palindrome");
    }
}

```

Output:

```

C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>javac Palindrome1.java

C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>java Palindrome1
Sanjoi Sethi (18BCE2261)
Enter a string:
LIRIL
Given string is Palindrome

C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>javac Palindrome1.java

C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>java Palindrome1
Sanjoi Sethi (18BCE2261)
Enter a string:
SANJOI
Given string is not Palindrome

```

2) Write a Java program to sort a string array in ascending order.

Input the string: hello world welcome to vit

Expected Output: cdeeehillllmooooorttvww

2) Program:

```

import java.util.*;
class Palindrome1
{
    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Sanjoi Sethi (18BCE2261)");
        System.out.println("Enter a string:");
        String s=sc.nextLine();
        int len=s.length();
        String t="";

        for(int i=0;i<len;++i)
        {
            char x=s.charAt(i);
            t=x+t;
        }

        if(s.equals(t))
            System.out.println("Given string is Palindrome");
        else
            System.out.println("Given string is not Palindrome");
    }
}

```


Output:

```
C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>javac Sorting2.java

C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>java Sorting2
Sanjoi Sethi (18BCE2261)
Enter a string:
hello world welcome to vit
The sorted string is:
cdeeehillllmoooottvww
C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>javac Sorting2.java

C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>java Sorting2
Sanjoi Sethi (18BCE2261)
Enter a string:
hello everyone my name is sanjoi sethi
The sorted string is:
aaeeeeehhiiiijllmmnnnooorssstvyv
```

3) Write a java program to sort the names in descending order.

3) Program:

```
import java.util.*;
class SortNames3
{
    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Sanjoi Sethi (18BCE2261)");
        System.out.println("Enter a value for the number of names you wish
to sort:");
        int n=sc.nextInt();
        sc.nextLine();
        String s[]=new String[n];

        //Inputting the names of people in the array
        for(int i=0;i<n;++i)
        {
            System.out.println("Enter a name:");
            s[i]=sc.nextLine();
        }

        //Sorting the names in the array
        for(int i=0;i<n;++i)
        {
            for(int j=0;j<n-i-1;++j)
            {
                if(s[j].compareTo(s[j+1])<0)
                {
                    String t=s[j];
                    s[j]=s[j+1];
                    s[j+1]=t;
                }
            }
        }

        //Printing the sorted names
```

```

        System.out.println("The sorted names are as follows:");
        for(int i=0;i<n;++i)
            System.out.println(s[i]);
    }
}

```

Output:

```

C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>javac SortNames3.java

C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>java SortNames3
Sanjoi Sethi (18BCE2261)
Enter a value for the number of names you wish to sort:
5
Enter a name:
Anant
Enter a name:
Riya
Enter a name:
Isha
Enter a name:
Sanjoi
Enter a name:
Kabir
The sorted names are as follows:
Sanjoi
Riya
Kabir
Isha
Anant

```

4) Write a java Program to check whether the given two strings are anagram or not.

Example: Listen silent

4) Program:

```

import java.util.*;
class Anagram4
{
    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Sanjoi Sethi (18BCE2261)");
        System.out.println("Enter string 1:");
        String s1=sc.nextLine();
        int n1=s1.length();
        System.out.println("Enter string 2:");
        String s2 =sc.nextLine();
        int n2=s2.length();

        if(n1!=n2)
            System.exit(0);
        else
        {
            char c1[]=s1.toUpperCase().toCharArray();
            char c2[]=s2.toUpperCase().toCharArray();

```

```

        for(int i=0;i<n1;++i)
        {
            for(int j=0;j<n1-i-1;++j)
            {
                if(c1[j]>c1[j+1])
                {
                    char t=c1[j];
                    c1[j]=c1[j+1];
                    c1[j+1]=t;
                }
            }
        }

        //Sorting the characters in s2
        for(int i=0;i<n2;++i)
        {
            for(int j=0;j<n2-i-1;++j)
            {
                if(c2[j]>c2[j+1])
                {
                    char t=c2[j];
                    c2[j]=c2[j+1];
                    c2[j+1]=t;
                }
            }
        }

        boolean flag=true;
        for(int i=0;i<n1;++i)
        {
            if(c1[i]!=c2[i])
            {
                flag=false;
                break;
            }
        }

        if(flag==true)
            System.out.println("The two strings are anagrams of each
other");
        else
            System.out.println("The two strings are not anagrams of
each other");
    }
}

```

Output:

```

C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>javac Anagram4.java

C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>java Anagram4
Sanjoi Sethi (18BCE2261)
Enter string 1:
Listen
Enter string 2:
Silent
The two strings are anagrams of each other

C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>java Anagram4

```

```
Sanjoi Sethi (18BCE2261)
Enter string 1:
Ponds
Enter string 2:
Lakme
The two strings are not anagrams of each other
```

Method Overloading Programs:

1) Write a Java program that displays area of different Figures(Rectangle, Square, Triangle) using the method overloading.

1) Program:

```
import java.util.*;
class Shapes5
{
    //Area of rectangle
    public float fig_area(float l, float b)
    {
        return l*b;
    }

    //Area of square
    public double fig_area(double s)
    {
        return s*s;
    }

    //Area of triangle
    public double fig_area(double bb, double hh)
    {
        return ((1.0/2)*bb*hh);
    }

    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Sanjoi Sethi (18BCE2261)");
        Shapes5 obj=new Shapes5();
        System.out.println("Enter dimensions of the rectangle:");
        float l=sc.nextFloat();
        float b=sc.nextFloat();
        System.out.println("Enter dimensions of the square:");
        double s=sc.nextDouble();
        System.out.println("Enter dimensions of the triangle:");
        double bb=sc.nextDouble();
        double hh=sc.nextDouble();

        System.out.println("The area of the rectangle is:
"+obj.fig_area(l,b));
        System.out.println("The area of the square is: "+obj.fig_area(s));
        System.out.println("The area of the triangle is:
"+obj.fig_area(bb,hh));
    }
}
```

Output:

```
C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>javac Shapes5.java

C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>java Shapes5
Sanjoi Sethi (18BCE2261)
Enter dimensions of the rectangle:
20.5
15.5
Enter dimensions of the square:
5.5
Enter dimensions of the triangle:
10
30.5
The area of the rectangle is: 317.75
The area of the square is: 30.25
The area of the triangle is: 152.5
```

2) In a school, students of all classes from std I to X appear for the MathPremierLeague examination. Define a class MPL which stores the details of the marks scored by each class. It should contain the following 4 data members: Standard, number of students, marks[] array to store the scores of all the students of the class in MPL exam. Define a parameterized constructor which receives the values for the first two data members from the main() method. Create a form within the constructor, read the marks of all students and hence find the first mark. Define a method findBestClass() to display the standard which has secured the highest mark. Overload this method to display the standard with the highest-class average. The marks array should be declared dynamically based on the strength of the class.

2) Program:

```
import java.util.*;
class MPL6
{
    Scanner sc=new Scanner(System.in);
    int standard;
    int num_students;
    public int first;
    public float average;
    int student_first;
    static MPL6_obj[] = new MPL6[2] ;

    MPL6(int a, int b)
    {
        standard=a;
        num_students=b;
        mark(num_students);
    }

    public void mark(int num_students)
    {
        int max=0;
```

```

int[] marks=new int[num_students];
int average_class=0;
System.out.println("Enter the marks of students");
for(int i =0;i<num_students;i++)
{
    marks[i]=sc.nextInt();
    average_class=average_class+marks[i];
    if(marks[i]>max)
    {
        max=marks[i];
        student_first=i+1;
    }
}
first=student_first;
average=average_class/num_students;
}

public void display()
{
    System.out.println("Standard: "+ standard);
    System.out.println("No of students: "+ num_students);
    System.out.println("First student: "+ first);
    System.out.println("Average of the class: "+ average);
}

public static void bestclass()
{
    float max=0;
    int standard=0;
    for(int i=0;i<2;i++)
    {
        if(obj[i].average>max)
        {
            max=obj[i].average;
            standard=i+1;
        }
    }
    System.out.println("The best class on the basis of average is:
"+standard);
}

public static void avgbestclass()
{
    float max=0;
    int standard=0;
    for(int i=0;i<2;i++)
    {
        if(obj[i].first>max)
        {
            max=obj[i].first;
            standard=i+1;
        }
    }
    System.out.println("The best class on the basis of average is:
"+standard);
}

public static void main(String args[])
{
    Scanner sc = new Scanner(System.in);
    int first=0;

```

```

        float avg=0;
        for(int i=0;i<2;i++)
        {
            System.out.println("Enter the number of students in class
"+(i+1)+":");
            int students = sc.nextInt();
            obj[i] = new MPL6(i,students);
            obj[i].display();
        }
        bestclass();
        avgbestclass();
    }
}

```

Output:

```

C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>javac MPL6.java

C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>java MPL6
Enter the number of students in class 1:
5
Enter the marks of students
40
30
80
60
50
Standard: 0
No of students: 5
First student: 3
Average of the class: 52.0
Enter the number of students in class 2:
5
Enter the marks of students
20
90
40
10
50
Standard: 1
No of students: 5
First student: 2
Average of the class: 42.0
The best class on the basis of average is: 1
The best class on the basis of average is: 1

```

3) Read the following details of 'n' students using Scanner class methods and display the same.

-Registration number (String)

- Name (String that may contain first name, middle name and last name)
- CGPA (Floating point number)
- Programme Name(String)
- School Name (String with multiple words)
- Proctor Name (String that may contain first, middle and last names).

3) Program:

```
import java.util.*;
class Student7
{
    String regno;
    String name;
    float cgpa;
    String program;
    String school;
    String proctor;

    public void input()
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter reg. no.");
        regno=sc.nextLine();
        System.out.println("Enter name:");
        name=sc.nextLine();
        System.out.println("Enter cgpa:");
        cgpa=sc.nextFloat();
        System.out.println("Enter program:");
        program=sc.nextLine();
        sc.nextLine();
        System.out.println("Enter school:");
        school=sc.nextLine();
        System.out.println("Enter proctor name:");
        proctor=sc.nextLine();
    }

    public void display()
    {
        System.out.println("The registration no. of the student is:
"+regno);
        System.out.println("The name of the student is: "+name);
        System.out.println("The cgpa of the student is: "+cgpa);
        System.out.println("The program of the student is: "+program);
        System.out.println("The school of the student is: "+school);
        System.out.println("The name of the proctor is: "+proctor);
    }

    public static void main(String args[])
    {
        System.out.println("Sanjoi Sethi (18BCE2261)");
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the no. of students:");
        int n=sc.nextInt();
        Student7 obj=new Student7();
        for(int i=0;i<n;++i)
        {
            obj.input();
            obj.display();
        }
    }
}
```



```
}
```

Output:

```
C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>javac Student7.java

C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>java Student7
Sanjoi Sethi (18BCE2261)
Enter the no. of students:
1
Enter reg. no.:
18BCE3020
Enter name:
Kriti Arora
Enter cgpa:
8.85
Enter program:
CSE
Enter school:
SCOPE
Enter proctor name:
Aruna K
The registration no. of the student is: 18BCE3020
The name of the student is: Kriti Arora
The cgpa of the student is: 8.85
The program of the student is:
The school of the student is: SCOPE
The name of the proctor is: Aruna K
```

Jagged Array Program:

1) Write a program to demonstrate the knowledge of students in multidimensional arrays and looping constructs. Eg., If there are 4 batches in BTech - "CSE1007" course, read the count of the slow learners (who have scored <25) in each batch. Tutors should be assigned in the ratio of 1:4 (For every 4 slow learners, there should be one tutor). Determine the number of tutors for each batch. Create a 2-D jagged array with 4 rows to store the count of slow learners in the 4 batches. The number of columns in each row should be equal to the number of groups formed for that particular batch (Eg., If there are 23 slow learners in a batch, then there should be 6 tutors and in the jagged array, the corresponding row should store 4, 4, 4, 4, 4,3). Use for-each loop to traverse the array and print the details. Also print the number of batches in which all tutors have exactly 4 students.

1) Program:

```
import java.util.*;
```

```

class Slow8
{
    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Sanjoi Sethi (18BCE2261)");
        int s[][]=new int[4][];
        int slow,x;
        int a=0;

        //Filling the array
        for(int i=0;i<4;++i)
        {
            System.out.println("Enter the no. of slow learners in batch
"+(i+1)+" : ");
            slow=sc.nextInt();
            if(slow%4==0)
            {
                x=slow/4;
                ++a;
            }
            else
                x=slow/4+1;
            s[i]=new int[x];

            for(int j=0;j<x;++j)
            {
                if(slow>4)
                {
                    s[i][j]=4;
                    slow=slow-4;
                }
                else
                {
                    s[i][j]=slow;
                    slow=0;
                }
            }
        }

        //Printing the details
        System.out.println("The contents of the array are:");
        for(int i=0;i<4;i++)
        {
            for(int j:s[i])
            {
                System.out.print(j+" ");
            }
            System.out.println();
        }

        System.out.println("Batch with tutors having exactly 4 students
are: "+a);
    }
}

```

Output:

```
C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>javac Slow8.java

C:\Users\SanJoi\Java Programming Lab\5) 07-9-2021>java Slow8
Sanjoi Sethi (18BCE2261)
Enter the no. of slow learners in batch 1:
30
Enter the no. of slow learners in batch 2:
84
Enter the no. of slow learners in batch 3:
57
Enter the no. of slow learners in batch 4:
40
The contents of the array are:
4 4 4 4 4 4 4 2
4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
4 4 4 4 4 4 4 4 4 4 4 4 4 4 1
4 4 4 4 4 4 4 4 4
Batch with tutors having exactly 4 students are: 2
```
