

COMPUTER BOARD JOURNAL

SUSHMITA DAS

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**Podar International
Senior Secondary School – ISC, PECUL
Certificate**

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Examination No _____ *School* Podar International School _____

This is to certify that the project work written in the journal has been performed by the student satisfactorily.

Date _____ 26/11/2020 Grade _____

External Examiner

Internal Examiner

School Seal

Principal Sign

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1. FLOYD TRIANGLE

```
public class Question1_Floyd_triangle
{
    public static void printFloyd (int rows)
    {
        int number = 1;
        System.out.printf("Floyd's triangle of %d rows is : %n", rows);
        for(int i = 1;i<=rows;i++)
        {
            for ( int j =1; j<= i; j++)
            {
                System.out.print(number +" ");
                number++;
            }
            System.out.println();
        }
    }
}
```

When number of rows entered is 4:

A screenshot of a Windows desktop environment. In the center is a terminal window titled "BlueJ Terminal Window - BoardProject". The window contains the following text:
Floyd's triangle of 4 rows is :
1
2 3
4 5 6
7 8 9 10

The taskbar at the bottom shows several icons for common applications like File Explorer, Task View, and Edge. The system tray indicates the date as 11/26/2020 and the time as 3:33 PM.

When number of rows entered is 10:

A screenshot of a Windows desktop environment. In the center is a terminal window titled "BlueJ Terminal Window - BoardProject". The window contains the following text:
Floyd's triangle of 10 rows is :
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31 32 33 34 35 36
37 38 39 40 41 42 43 44 45
46 47 48 49 50 51 52 53 54 55

The taskbar at the bottom shows several icons for common applications like File Explorer, Task View, and Edge. The system tray indicates the date as 11/26/2020 and the time as 3:34 PM.

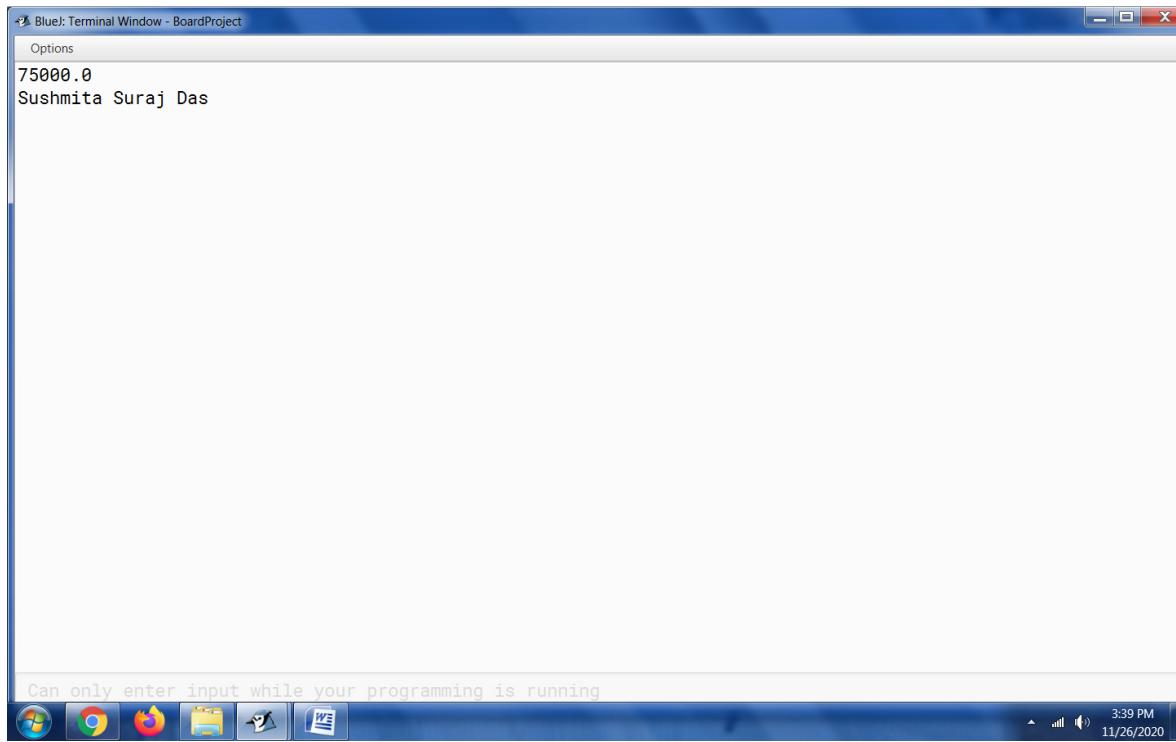
2. EMPLOYEE

```
public class Question2_Employee
{
    double salary1;
    String name_of_employee;
    double final_amt;

    void init(double salary, String name_of_employee1 )
    {
        salary1= salary ;
        name_of_employee = name_of_employee1;
    }
}
```

```
double calc ()  
{  
    final_amt = salary1+((50.0/100.0)*salary1);  
    return final_amt; //caller  
}  
  
String we()  
  
{  
    String name1= name_of_employee;  
    return name1;  
}  
  
public static void main()  
{  
    Question2_Employee obj = new Question2_Employee();  
    obj.init(50000,"Sushmita Suraj Das");  
    double final_amt = obj.calc();  
    String name1 = obj.we();  
    System.out.println(final_amt);  
    System.out.println(name1);  
}
```

When salary entered is 50,000:



BlueJ: Terminal Window - BoardProject

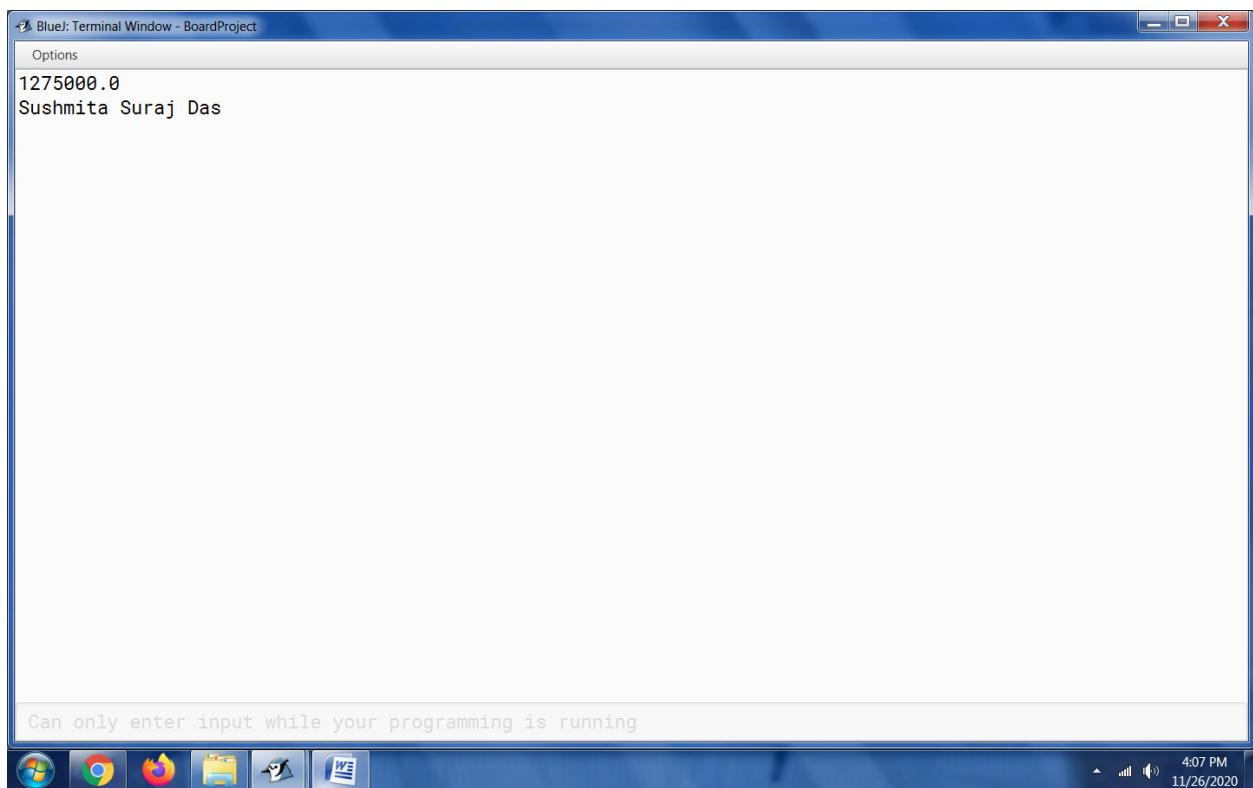
Options

```
75000.0
Sushmita Suraj Das
```

Can only enter input while your programming is running

3:39 PM 11/26/2020

When salary entered is 8,50,000:



BlueJ: Terminal Window - BoardProject

Options

```
1275000.0
Sushmita Suraj Das
```

Can only enter input while your programming is running

4:07 PM 11/26/2020

3. RANDOM NUMBERS

```
import java.util.Random;  
  
public class Question3_Random_Numbers  
{  
    public static void main(String args[])  
    {  
        Random random = new Random();  
  
        int random_int1 = random.nextInt(100);  
        int random_int2 = random.nextInt(100);  
        int random_int3 = random.nextInt(100);  
        int random_int4 = random.nextInt(100);  
        int random_int5 = random.nextInt(100);  
        int random_int6 = random.nextInt(100);  
        int random_int7 = random.nextInt(100);  
        int random_int8 = random.nextInt(100);  
        int random_int9= random.nextInt(100);  
        int random_int10= random.nextInt(100);  
        int random_int11 = random.nextInt(100);  
        int random_int12 = random.nextInt(100);  
        int random_int13= random.nextInt(100);
```

```
int random_int14= random.nextInt(100);
int random_int15= random.nextInt(100);
int random_int16= random.nextInt(100);
int random_int17= random.nextInt(100);
int random_int18= random.nextInt(100);
int random_int19 = random.nextInt(100);
int random_int20 = random.nextInt(100);
```

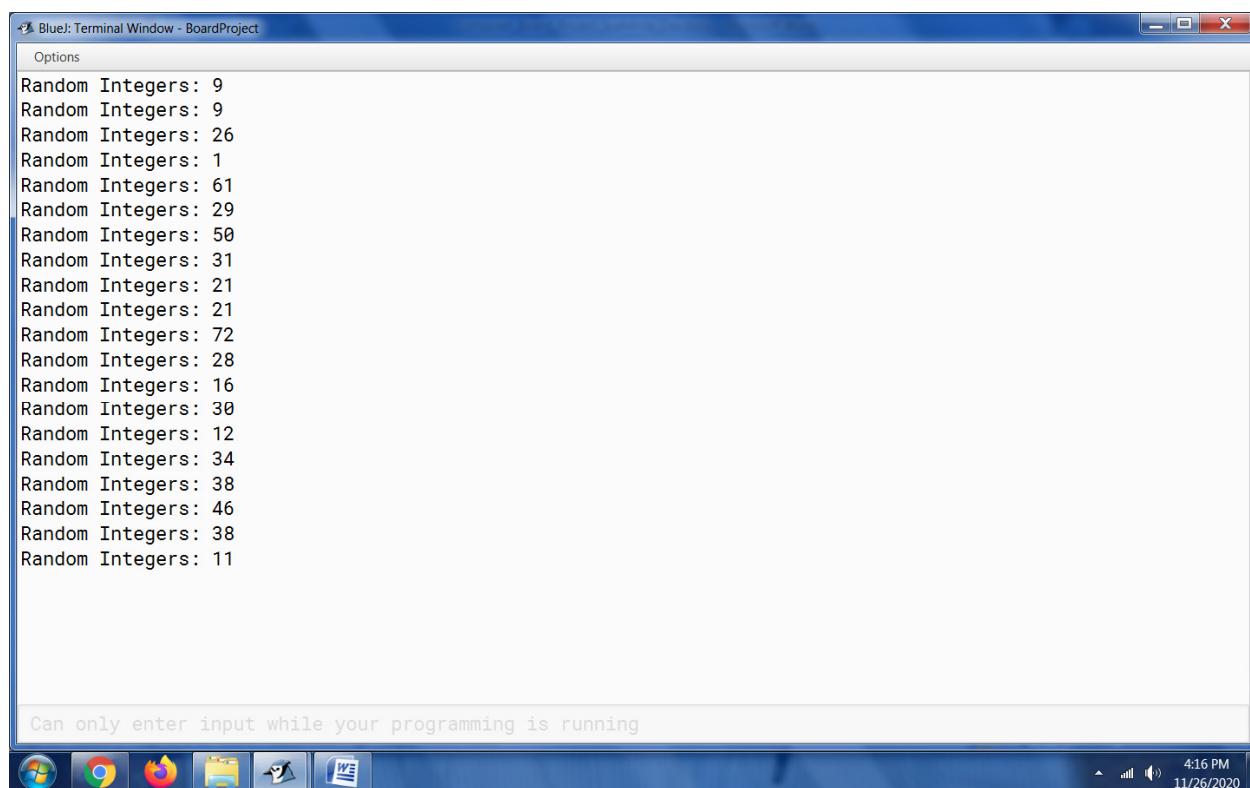
```
System.out.println("Random Integers: "+random_int1);
System.out.println("Random Integers: "+random_int2);
System.out.println("Random Integers: "+random_int3);
System.out.println("Random Integers: "+random_int4);
System.out.println("Random Integers: "+random_int5);
System.out.println("Random Integers: "+random_int6);
System.out.println("Random Integers: "+random_int7);
System.out.println("Random Integers: "+random_int8);
System.out.println("Random Integers: "+random_int9);
System.out.println("Random Integers: "+random_int10);
System.out.println("Random Integers: "+random_int11);
System.out.println("Random Integers: "+random_int12);
System.out.println("Random Integers: "+random_int13);
System.out.println("Random Integers: "+random_int14);
System.out.println("Random Integers: "+random_int15);
```

```
System.out.println("Random Integers: "+random_int16);
System.out.println("Random Integers: "+random_int17);
System.out.println("Random Integers: "+random_int18);
System.out.println("Random Integers: "+random_int19);
System.out.println("Random Integers: "+random_int20);

}

}
```

Output 1:



A screenshot of a terminal window titled "BlueJ: Terminal Window - BoardProject". The window contains a list of 20 randomly generated integers, each preceded by the text "Random Integers: ". The integers displayed are: 9, 26, 1, 61, 29, 50, 31, 21, 21, 72, 28, 16, 30, 12, 34, 38, 46, 38, and 11. Below the terminal window, the Windows taskbar is visible, showing icons for File Explorer, Google Chrome, and Microsoft Edge. The system tray shows the date and time as 4:16 PM on 11/26/2020.

```
Random Integers: 9
Random Integers: 26
Random Integers: 1
Random Integers: 61
Random Integers: 29
Random Integers: 50
Random Integers: 31
Random Integers: 21
Random Integers: 21
Random Integers: 72
Random Integers: 28
Random Integers: 16
Random Integers: 30
Random Integers: 12
Random Integers: 34
Random Integers: 38
Random Integers: 46
Random Integers: 38
Random Integers: 11

Can only enter input while your programming is running
```

Output 2:

The screenshot shows a Windows desktop environment. In the center is a terminal window titled "BlueJ: Terminal Window - BoardProject". The window displays a list of random integers generated by a program. The text in the terminal is as follows:

```
Random Integers: 43
Random Integers: 13
Random Integers: 77
Random Integers: 86
Random Integers: 78
Random Integers: 81
Random Integers: 60
Random Integers: 35
Random Integers: 95
Random Integers: 22
Random Integers: 2
Random Integers: 72
Random Integers: 84
Random Integers: 18
Random Integers: 37
Random Integers: 61
Random Integers: 63
Random Integers: 24
Random Integers: 28
Random Integers: 40
```

At the bottom of the terminal window, there is a message: "Can only enter input while your programming is running". Below the terminal window, the Windows taskbar is visible, featuring icons for the Start button, File Explorer, and other applications. The system tray shows the date and time as "4:16 PM 11/26/2020".

4. BANK DEPOSIT

```
import java.io.*;
class Question4_Bank_Deposit
{
    public static void main(String args[])
        throws IOException{
        InputStreamReader in = new InputStreamReader(System.in);
        BufferedReader br = new BufferedReader(in);
        System.out.println("1. Term Deposit");
        System.out.println("2. Recurring Deposit");
        System.out.print("Enter your choice: ");
        int option = Integer.parseInt(br.readLine());
        switch(option)
        {
            case 1:
                System.out.print("Principal: ");
                double principal = Double.parseDouble(br.readLine());
                System.out.print("Rate of interest: ");
                double rate = Double.parseDouble(br.readLine());
                System.out.print("Time in years: ");
                double time= Double.parseDouble(br.readLine());
                double maturity_value = principal * Math.pow(1 + rate / 100, time);
        }
}
```

```
System.out.println("Maturity amount: " + maturity_value);
break;

case 2:

System.out.print("Monthly installment: ");
principal = Double.parseDouble(br.readLine());

System.out.print("Rate of interest: ");
rate= Double.parseDouble(br.readLine());

System.out.print("Time in months: ");
time = Double.parseDouble(br.readLine());

maturity_value = principal * time + principal * (time * (time + 1) / 2)
* (rate/ 100) * (1.0 / 12);

System.out.println("Maturity amount: " + maturity_value);
break;

default:

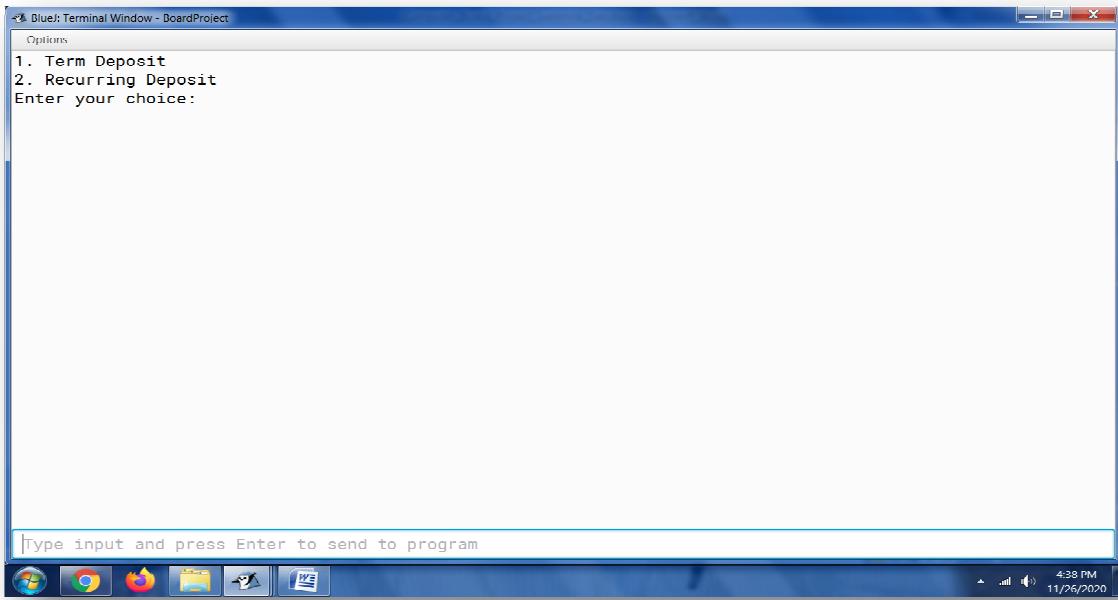
System.out.println("Invalid input. Kindly enter either 1 or 2.");

}

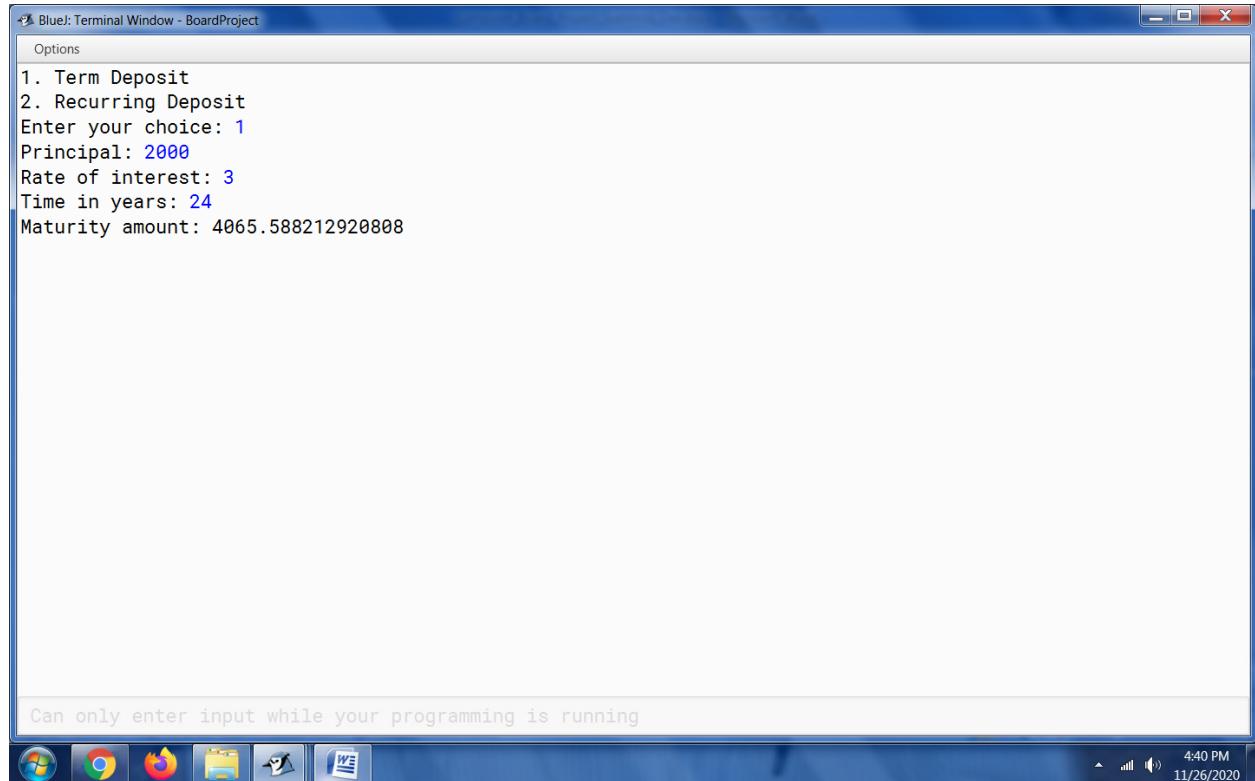
}

}
```

Output Screen before entering an option:



When 1 is entered:



```
BlueJ: Terminal Window - BoardProject
Options
1. Term Deposit
2. Recurring Deposit
Enter your choice: 1
Principal: 10000
Rate of interest: 8.3
Time in years: 13
Maturity amount: 28194.859588685616

Can only enter input while your programming is running
4:55 PM 11/26/2020
```

When 2 is entered:

```
BlueJ: Terminal Window - BoardProject
Options
1. Term Deposit
2. Recurring Deposit
Enter your choice: 2
Monthly installment: 30000
Rate of interest: 4.5
Time in months: 10
Maturity amount: 306187.5

Can only enter input while your programming is running
4:56 PM 11/26/2020
```

The screenshot shows a BlueJ terminal window titled "BlueJ: Terminal Window - BoardProject". The window contains the following text:

```
Options
1. Term Deposit
2. Recurring Deposit
Enter your choice: 2
Monthly installment: 500000
Rate of interest: 7.8
Time in months: 13
Maturity amount: 6795750.0
```

At the bottom of the window, there is a message: "Can only enter input while your programming is running". The system tray at the bottom right shows the date and time as 11/26/2020 and 4:57 PM.

5. TRIANGLE PATTERNS

```
import java.io.*;
```

```
class Question5_Triangle_Pattern
```

```
{
```

```
    public static void main(String args[])
```

```
        throws IOException{
```

```
        InputStreamReader in = new InputStreamReader(System.in);
```

```
        BufferedReader br = new BufferedReader(in);
```

```
        System.out.println("1. Ascending Triangular pattern");
```

```
System.out.println("2. Descending Triangular pattern");

System.out.print("Enter your choice: ");

int choice = Integer.parseInt(br.readLine());

switch(choice){

    case 1:

        // Program for Ascending Triangular pattern

        for(int i=1;i<=5;i++)

        {

            for(int j=1;j<=i;j++)

            {

                System.out.print(j+" ");

            }

            System.out.println();

        }

        break;

    case 2:

        // Program for Descending Triangular pattern

        for(int i=1;i<=5;i++)

        {

            int printval = 5;

            for(int j=5;j>=i;j--)

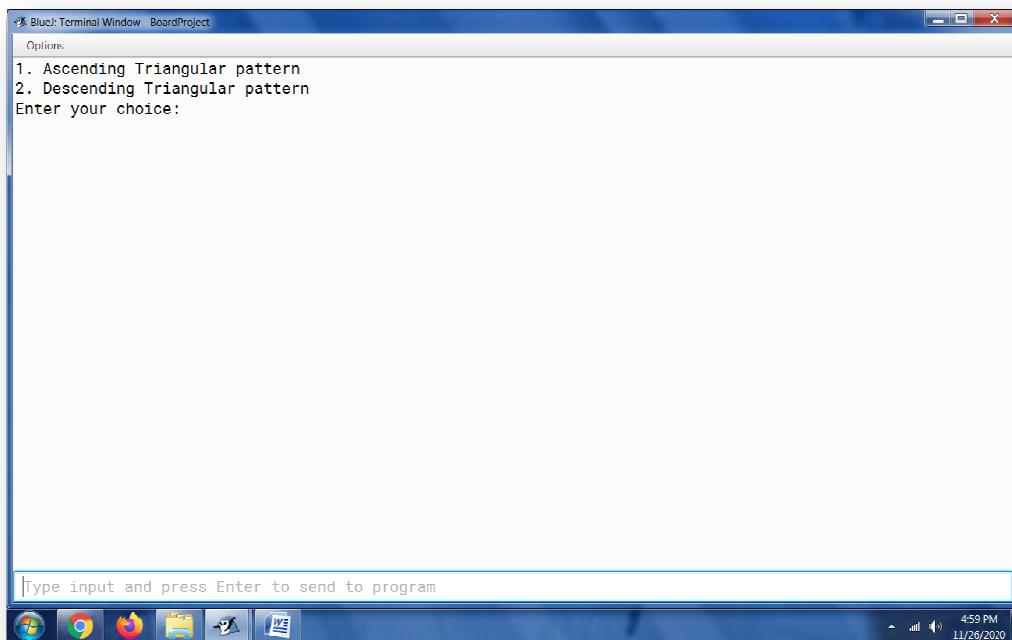
            {


```

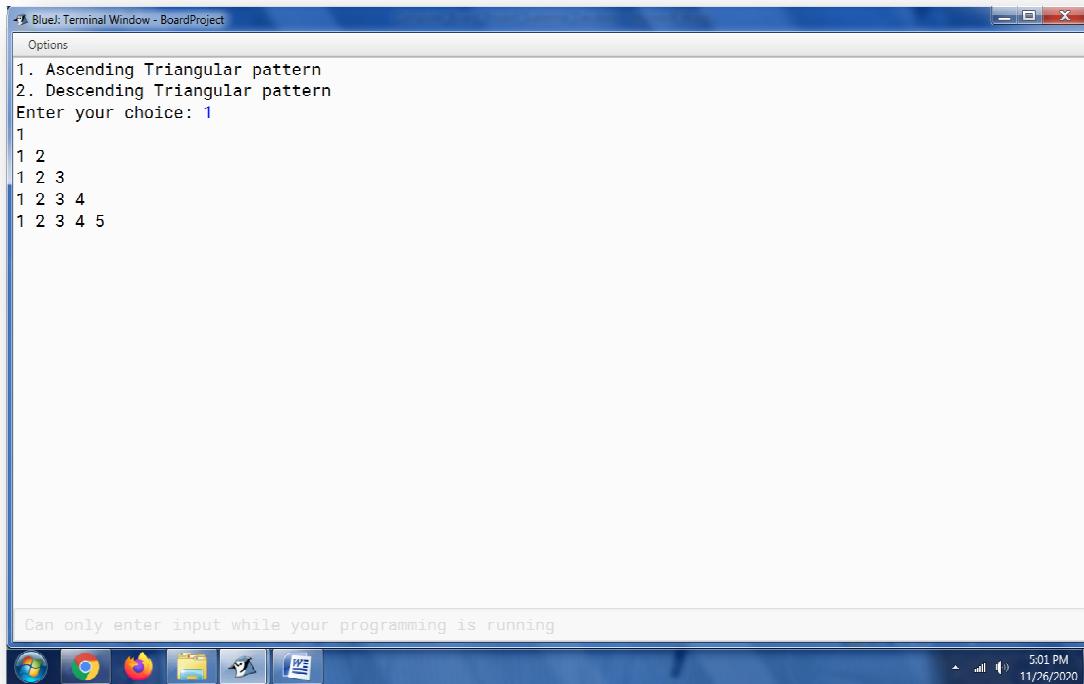
```
        System.out.print(printval+" ");
    }
    System.out.println();
}
break;

default:
System.out.println("Invalid input - Please enter choice as 1 or 2");
}
}
```

Before entering a choice:

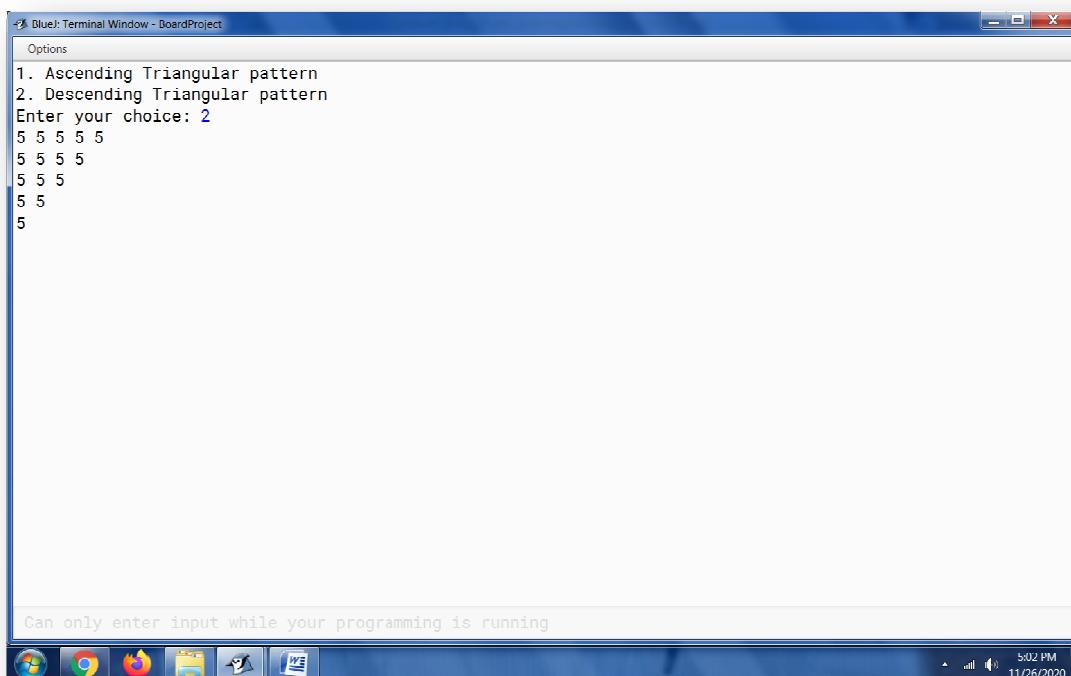


When option 1 is chosen:



A screenshot of a Windows desktop environment showing a BlueJ terminal window titled "BlueJ: Terminal Window - BoardProject". The window contains the following text:
Options
1. Ascending Triangular pattern
2. Descending Triangular pattern
Enter your choice: 1
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
At the bottom of the window, a status bar displays the message "Can only enter input while your programming is running". The taskbar at the bottom of the screen shows various application icons and the date/time "11/26/2020 5:01 PM".

When option 2 is chosen:



A screenshot of a Windows desktop environment showing a BlueJ terminal window titled "BlueJ: Terminal Window - BoardProject". The window contains the following text:
Options
1. Ascending Triangular pattern
2. Descending Triangular pattern
Enter your choice: 2
5 5 5 5 5
5 5 5 5
5 5 5
5 5
5
At the bottom of the window, a status bar displays the message "Can only enter input while your programming is running". The taskbar at the bottom of the screen shows various application icons and the date/time "11/26/2020 5:02 PM".

6. ISBN NUMBER

```
import java.util.*;  
  
public class Question6_ISBN_Number  
{  
    public static void main()  
    {  
        Scanner in=new Scanner(System.in);  
        int ISBN;  
        int n=0,s=0,a=0,b=10;  
        System.out.println("Enter ISBN");  
        ISBN=in.nextInt();  
        while(ISBN>0)  
        {  
            a=ISBN%10;  
            n++;  
            s+=a*b;  
            b--;  
            ISBN/=10;  
        }  
        if(n<10||n>10||s%11!=0)  
            System.out.println("Illegal ISBN");  
        else if(n==10&&s%11==0)
```

```
        System.out.println("Legal ISBN");
    }
}
```

7. STUDENT

```
import java.util.Scanner;
public class Student
{
    String name;
    int roll;
    int marks1,marks2,marks3,marks4,marks5;

    Scanner sc = new Scanner(System.in);

    void input()
    {
        System.out.println("Enter the name of the student");
        name = sc.nextLine();

        System.out.println("Enter the roll number of the student");
        roll = sc.nextInt();

        System.out.println("Enter the marks scored in subject 1");
        marks1= sc.nextInt();

        System.out.println("Enter the marks scored in subject 2");
        marks2 = sc.nextInt();

        System.out.println("Enter the marks scored in subject 3");
        marks3 = sc.nextInt();

        System.out.println("Enter the marks scored in subject 4");
        marks4 = sc.nextInt();

        System.out.println("Enter the marks scored in subject 5");
        marks5 = sc.nextInt();
    }
}
```

```
void allotment()
{
    double avg = (marks1 + marks2 + marks3 + marks4 + marks5)/5.0;
    System.out.println("Average Marks: " + avg);
    if(avg>=90)
    {
        System.out.println("Science with Computers");
    }
    else if(80<=avg && avg<=89)
    {
        System.out.println("Science without Computers");
    }
    else if(70<=avg && avg<=79)
    {
        System.out.println("Commerce with Maths");
    }
    else
    {
        System.out.println("Commerce without Maths");
    }
}

void display()
{
    System.out.println("Name: " + name);
    System.out.println("Roll Number: " + roll);
    allotment();
}

public static void main()
{
    Student obj = new Student();
    obj.input();
    obj.display();
}

}
```

Output 1:

```
Blue: Terminal Window - BoardProject
Options
Enter the name of the student
Sushmita Suraj Das
Enter the roll number of the student
21
Enter the marks scored in 1st subject by the student out of 100.
97
Enter the marks scored in 2nd subject by the student out of 100.
93
Enter the marks scored in 3rd subject by the student out of 100.
84
Enter the marks scored in 4th subject by the student out of 100.
88
Enter the marks scored in 5th subject by the student out of 100.
81
Name: Sushmita Suraj Das
Roll Number: 21
Average Marks: 88.6
Science without Computers

Can only enter input while your programming is running
```

The screenshot shows a Windows terminal window titled "Blue: Terminal Window - BoardProject". The window contains a text-based interaction with a program. The user is prompted to enter the name of the student, which is "Sushmita Suraj Das". Next, the user enters the roll number, "21". The program then asks for marks in five subjects. The user inputs 97, 93, 84, 88, and 81 respectively. The program calculates the average marks as 88.6 and outputs the subject "Science without Computers". A message at the bottom of the window states "Can only enter input while your programming is running". The taskbar at the bottom of the screen shows various icons, and the system tray indicates the date and time as 5:19 PM on 11/26/2020.

Output 2:

```
Blue: Terminal Window - BoardProject
Options
Enter the name of the student
Katelyn Young
Enter the roll number of the student
15
Enter the marks scored in 1st subject by the student out of 100.
64
Enter the marks scored in 2nd subject by the student out of 100.
70
Enter the marks scored in 3rd subject by the student out of 100.
56
Enter the marks scored in 4th subject by the student out of 100.
67
Enter the marks scored in 5th subject by the student out of 100.
88
Name: Katelyn Young
Roll Number: 15
Average Marks: 69.0
Commerce without Maths

Can only enter input while your programming is running
```

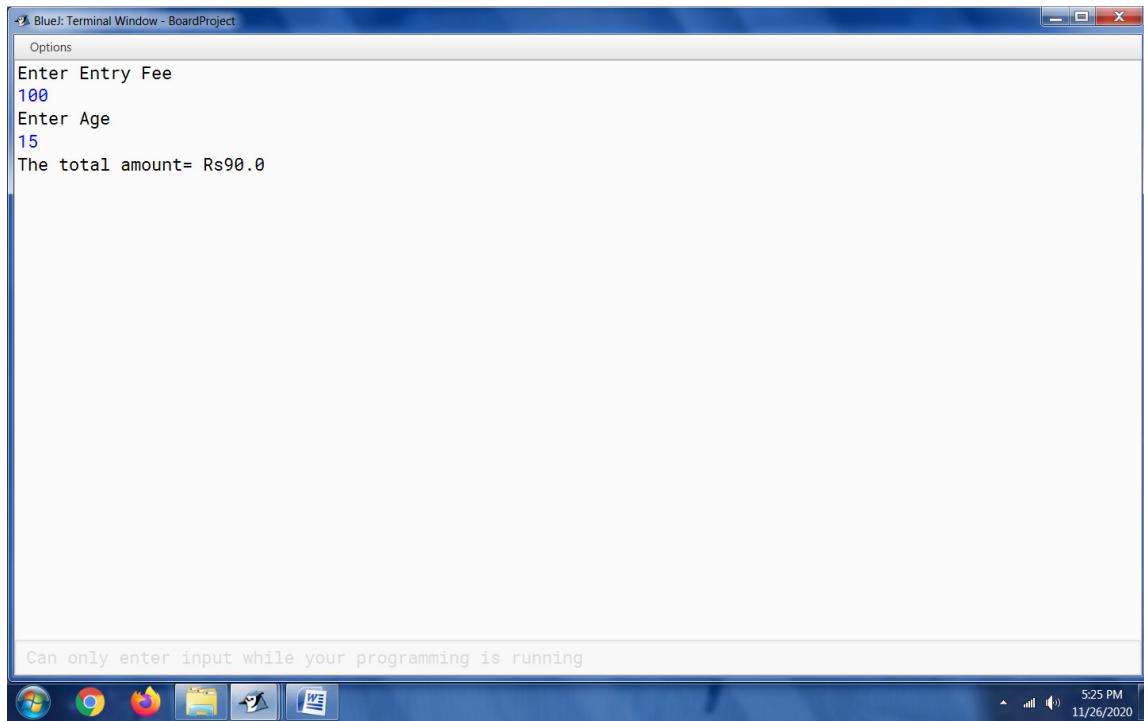
The screenshot shows a Windows terminal window titled "Blue: Terminal Window - BoardProject". The window contains a text-based interaction with a program. The user is prompted to enter the name of the student, which is "Katelyn Young". Next, the user enters the roll number, "15". The program then asks for marks in five subjects. The user inputs 64, 70, 56, 67, and 88 respectively. The program calculates the average marks as 69.0 and outputs the subject "Commerce without Maths". A message at the bottom of the window states "Can only enter input while your programming is running". The taskbar at the bottom of the screen shows various icons, and the system tray indicates the date and time as 5:24 PM on 11/26/2020.

8. PARK

```
import java.util.Scanner;  
  
class Question8_Park  
{  
    double Entryfee,discount,amount;  
    int age;  
    void input()  
    {  
        Scanner sc=new Scanner(System.in);  
        System.out.println("Enter Entry Fee");  
        Entryfee=sc.nextDouble();  
        System.out.println("Enter Age");  
        age=sc.nextInt();  
    }  
    void calculate()  
    {  
        if(age<=12)  
        {  
            discount=(45*Entryfee)/100;  
            amount=Entryfee-discount;  
        }  
        else if(age>=50)
```

```
{  
    discount=(50*Entryfee)/100;  
    amount=Entryfee-discount;  
}  
  
else  
{  
    discount=(10*Entryfee)/100;  
    amount=Entryfee-discount;  
}  
}  
  
void display()  
{  
    System.out.println("The total amount= Rs"+amount);  
}  
  
public static void main()  
{  
    Question8_Park obj=new Question8_Park();  
    obj.input();  
    obj.calculate();  
    obj.display();  
}  
}
```

Output 1:



BlueJ: Terminal Window - BoardProject

Options

```
Enter Entry Fee
100
Enter Age
15
The total amount= Rs90.0
```

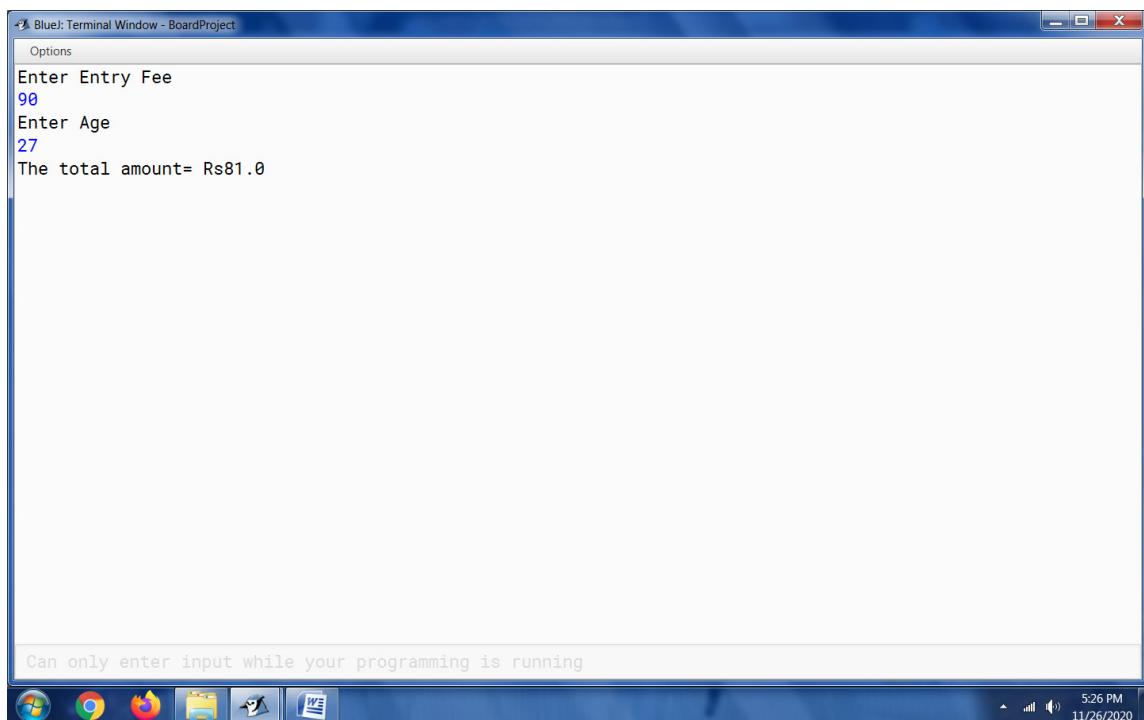
Can only enter input while your programming is running

5:25 PM
11/26/2020

This screenshot shows a terminal window titled "BlueJ: Terminal Window - BoardProject". The window contains the following text:
Options
Enter Entry Fee
100
Enter Age
15
The total amount= Rs90.0

At the bottom of the window, there is a message: "Can only enter input while your programming is running".
The system tray at the bottom right shows the time as 5:25 PM and the date as 11/26/2020.

Output 2:



BlueJ: Terminal Window - BoardProject

Options

```
Enter Entry Fee
90
Enter Age
27
The total amount= Rs81.0
```

Can only enter input while your programming is running

5:26 PM
11/26/2020

This screenshot shows a terminal window titled "BlueJ: Terminal Window - BoardProject". The window contains the following text:
Options
Enter Entry Fee
90
Enter Age
27
The total amount= Rs81.0

At the bottom of the window, there is a message: "Can only enter input while your programming is running".
The system tray at the bottom right shows the time as 5:26 PM and the date as 11/26/2020.

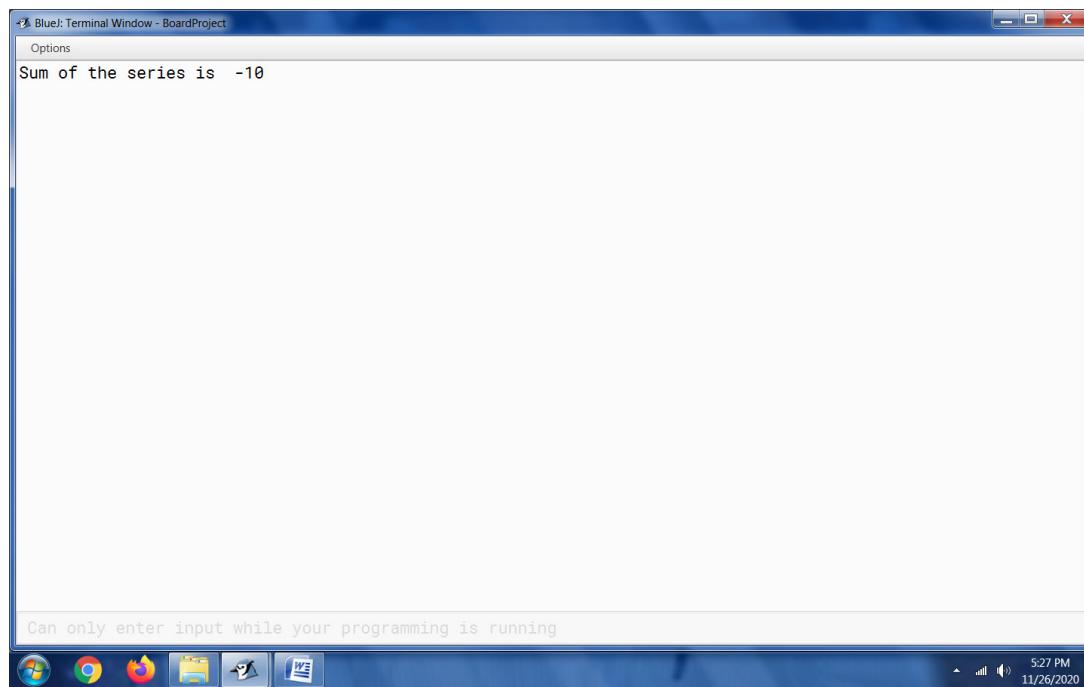
9. SERIES 1 & SERIES 2

- SERIES 1

```
public class Question9_Series1
{
    public static void main (String args [])
    {
        int sumOfSeries = 0;
        int i = 2;
        while(i<=20)
        {
            if (i%4==0)
            {
                sumOfSeries = sumOfSeries - i;
            }
            else
            {
                sumOfSeries = sumOfSeries + i;
            }
            i = i+2;
        }
    }
}
```

```
        System.out.println("Sum of the series is " + sumOfSeries);  
    }  
}
```

Output:

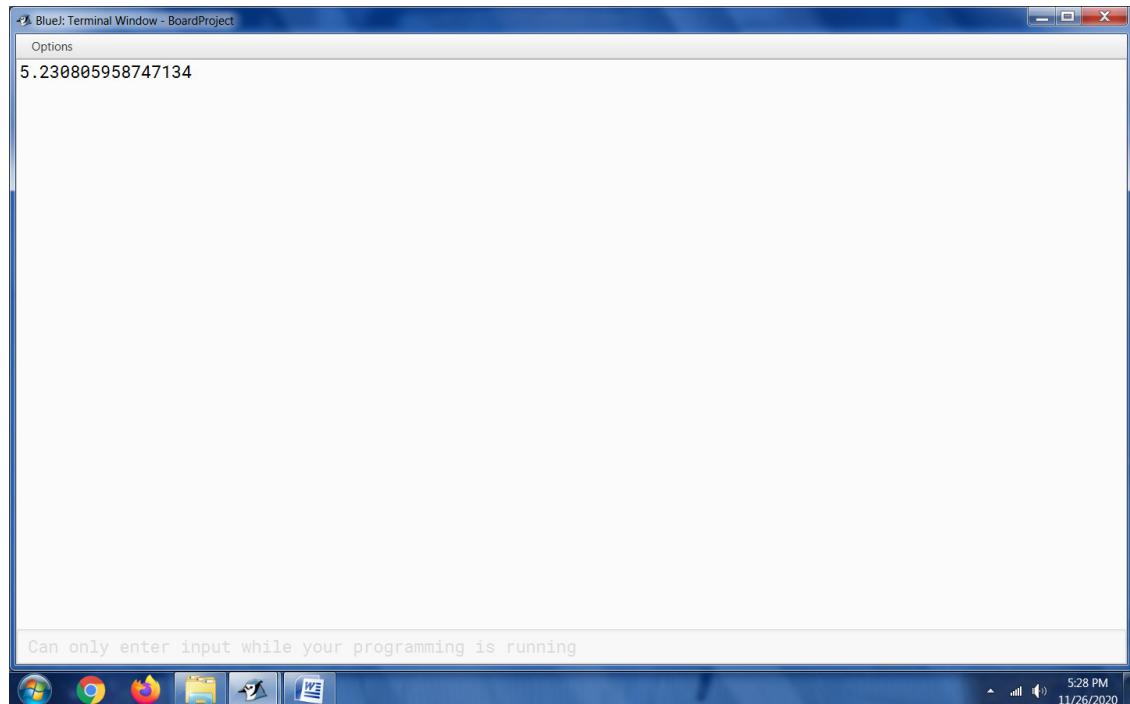


• SERIES 2

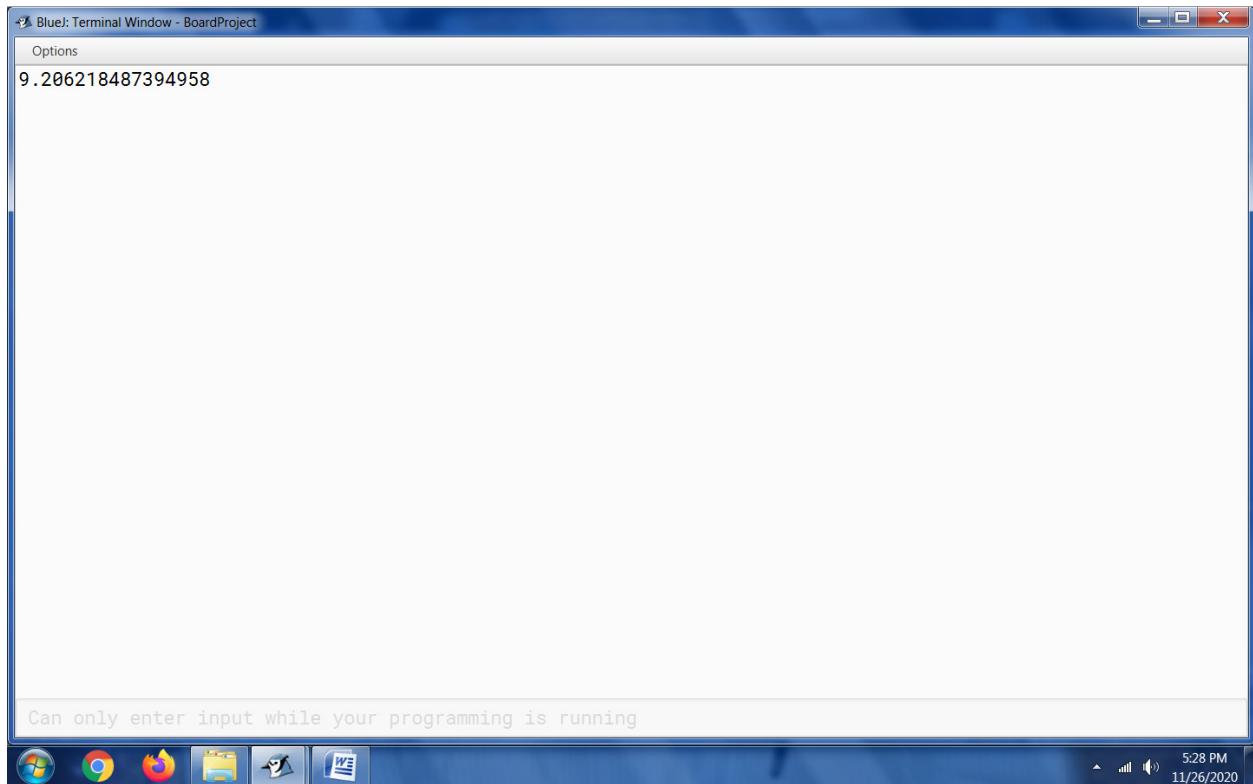
```
public class Question9_Series2  
{  
    public static void main (double x)  
    {  
        double s = 0;  
        double n = 2;  
        for(int i = 2; i<=7; i++)
```

```
{  
    s = s+x/n;  
    n=n+3;  
  
}  
System.out.println(s);  
}  
}
```

Output 1:



Output 2:



10. PATTERN 1 & PATTERN 2

• PATTERN 1

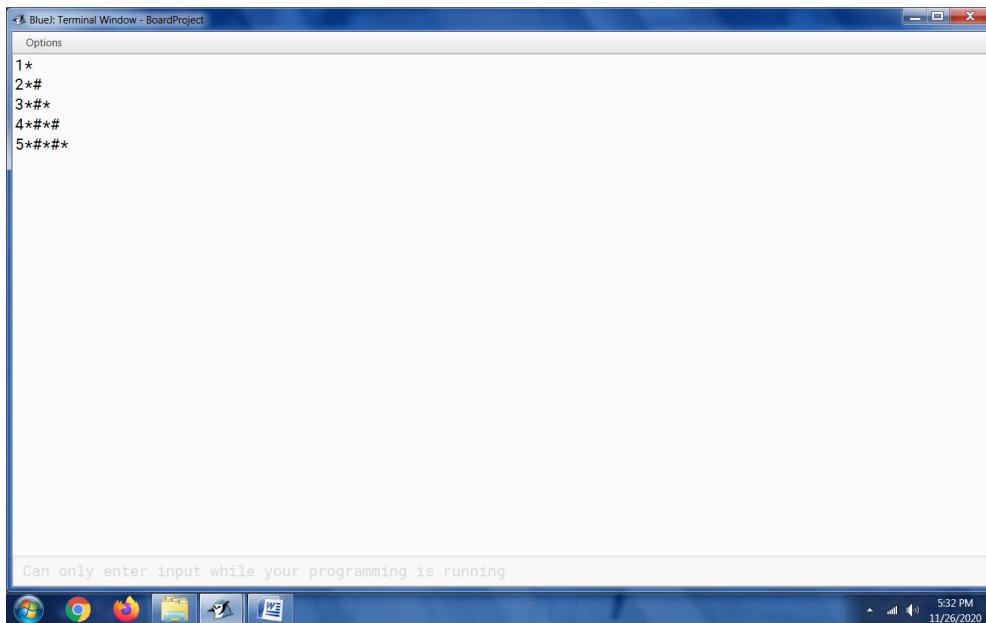
```
public class Question10_Pattern1
{
    public static void main(String args[])
    {
        for(int i=1;i<=5;i++)
        {
            System.out.print(i);
            for(int j =1;j<=i;j++)
                System.out.print(j);
            System.out.println();
        }
    }
}
```

```

{
    if (j%2==1)
        System.out.print("*");
    else
        System.out.print("#");
}
System.out.println();
}
}

```

Output:

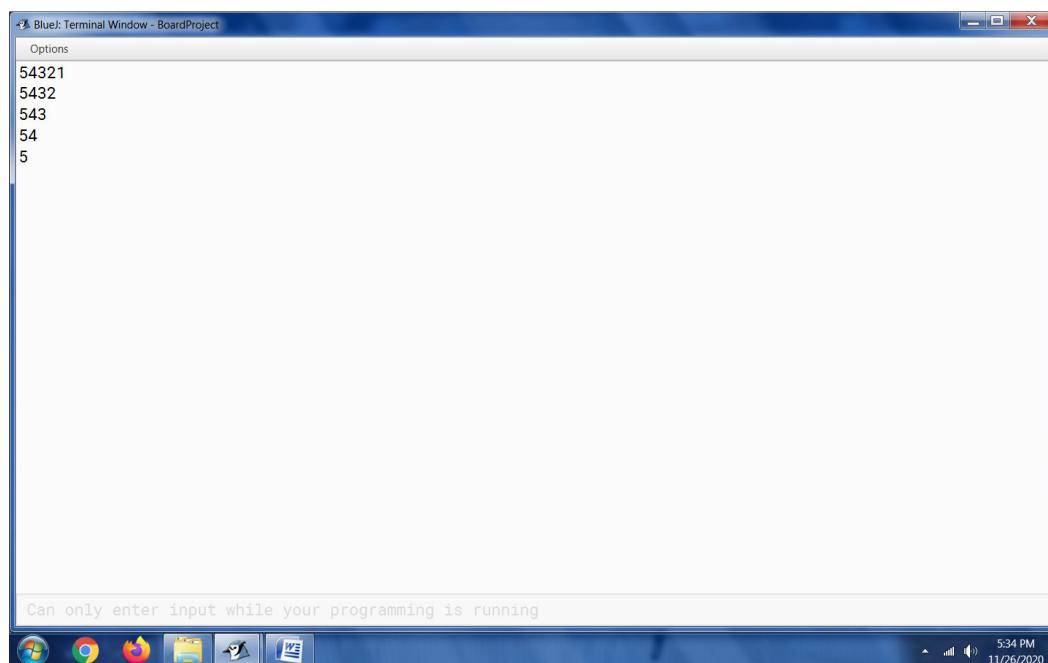


• PATTERN 2

public class Question10_Pattern2

```
{  
    public static void main(String args[])  
    {  
        for(int i=1;i<=5;i++)  
        {  
            for(int j =5;j>=i;j--)  
            {  
                System.out.print(j+"");  
            }  
            System.out.println();  
        }  
    }  
}
```

Output:



11. MARKS

```
import java.util.Scanner;

public class Question11_Marks

{
    public static void main(String[] args)

    {
        Scanner scanner = new Scanner(System.in);

        System.out.print("Enter number of students: ");

        int n = scanner.nextInt();

        int[] rollNumbers = new int[n];

        String[] names = new String[n];

        int[] subject1Marks = new int[n];

        int[] subject2Marks = new int[n];

        int[] subject3Marks = new int[n];

        for (int i = 0; i < n; i++)

        {
            System.out.println("Student " + (i + 1));

            System.out.print("Enter roll number: ");

            rollNumbers[i] = scanner.nextInt();

            System.out.print("Enter name: ");
```

```
scanner.nextLine(); // To consume the new line produced  
on hitting
```

```
// enter after entering roll number  
names[i] = scanner.nextLine();  
  
System.out.print("Enter marks in subject 1: ");  
subject1Marks[i] = scanner.nextInt();  
  
System.out.print("Enter marks in subject 2: ");  
subject2Marks[i] = scanner.nextInt();  
  
System.out.print("Enter marks in subject 3: ");  
subject3Marks[i] = scanner.nextInt();  
  
}  
  
for(int i = 0; i < n; i++)  
{  
  
    System.out.println("Roll number = " + rollNumbers[i] + ",  
Name = " + names[i]);  
  
    int averageMarks = (subject1Marks[i] + subject2Marks[i] +  
                        subject3Marks[i]) / 3;  
  
    if (averageMarks >= 85 && averageMarks <= 100)  
{  
  
        System.out.println("EXCELLENT");  
    }  
  
    else if(averageMarks >= 75 && averageMarks <= 84)  
{
```

```
        System.out.println("DISTINCTION");
    }
    else if (averageMarks >= 60 && averageMarks <= 74)
    {
        System.out.println("FIRST CLASS");
    }
    else if (averageMarks >= 40 && averageMarks <= 59)
    {
        System.out.println("PASS");
    }
    else if (averageMarks < 40)
    {
        System.out.println("POOR");
    }
}
}
```

Output

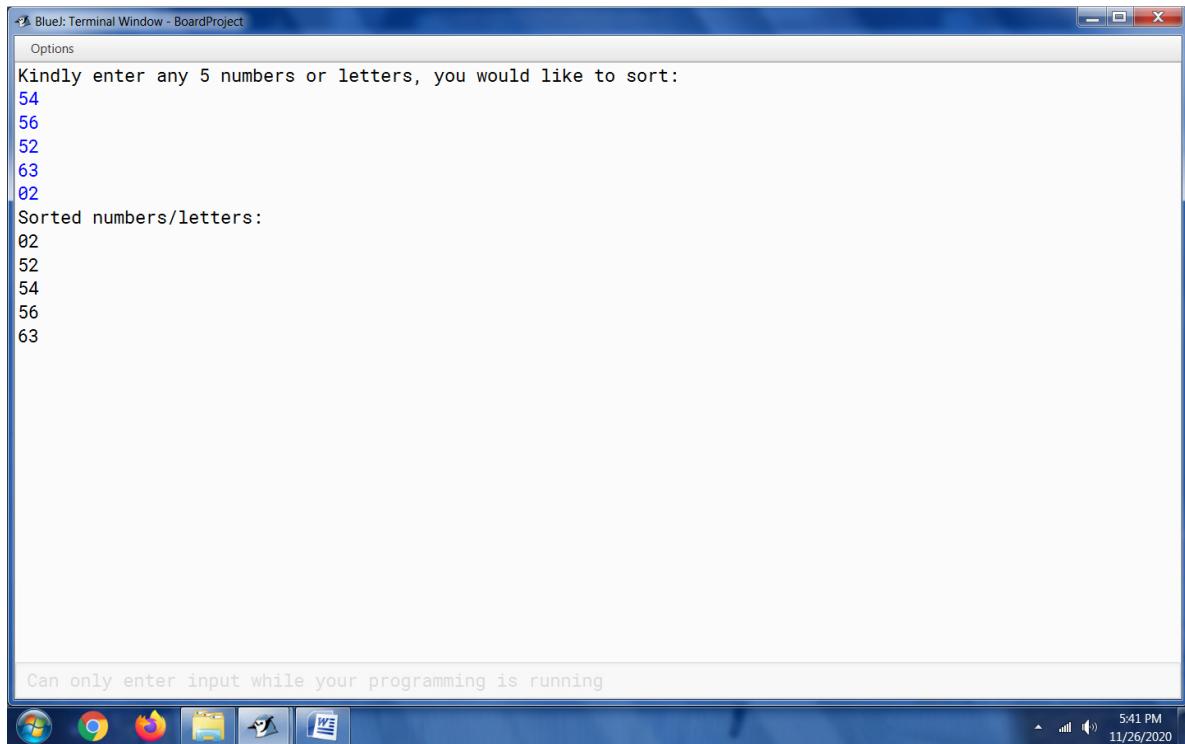
12. BUBBLE SORT TECHNIQUE

```
import java.util.*;
public class Question12_Bubble_Sort_Technique
```

```
{  
public static void main(String[] args)  
{  
  
Scanner sc = new Scanner(System.in);  
  
String[] names = new String[5];  
  
System.out.println("Kindly enter any 5 numbers or letters, you would  
like to sort: ");  
  
for (int i = 0; i < 5; i++)  
  
{  
    names[i] = sc.nextLine();  
  
}  
for (int i = 0; i < names.length - 1; i++)  
  
{  
    for (int j = 0; j < names.length - i - 1; j++)  
}
```

```
{  
    if (names[j].compareTo(names[j + 1]) > 0)  
  
    {  
  
        String temp = names[j];  
  
        names[j] = names[j + 1];  
  
        names[j + 1] = temp;  
  
    }  
}  
  
System.out.println("Sorted numbers/letters: ");  
for (int i = 0; i < names.length; i++)  
{  
    System.out.println(names[i]);  
}  
}
```

Output 1:



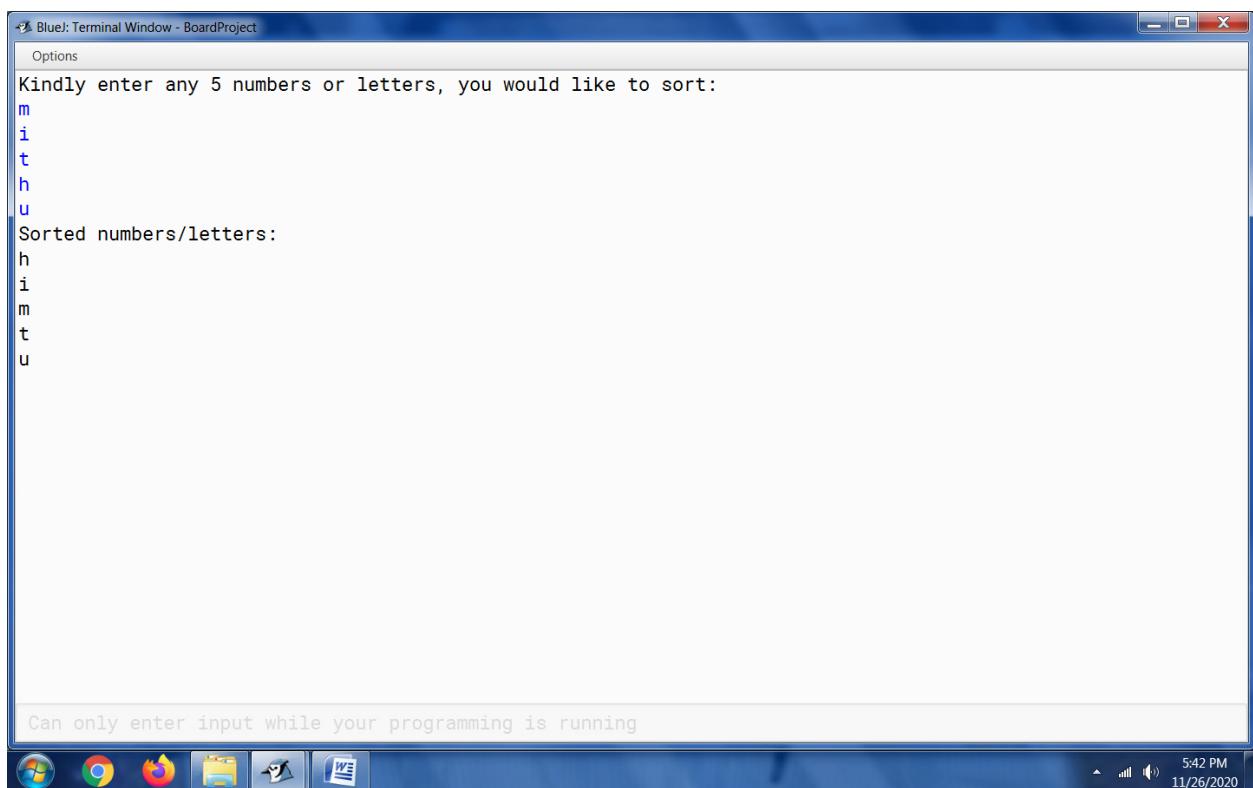
BlueJ: Terminal Window - BoardProject

Kindly enter any 5 numbers or letters, you would like to sort:
54
56
52
63
02
Sorted numbers/letters:
02
52
54
56
63

Can only enter input while your programming is running

5:41 PM 11/26/2020

Output 2:



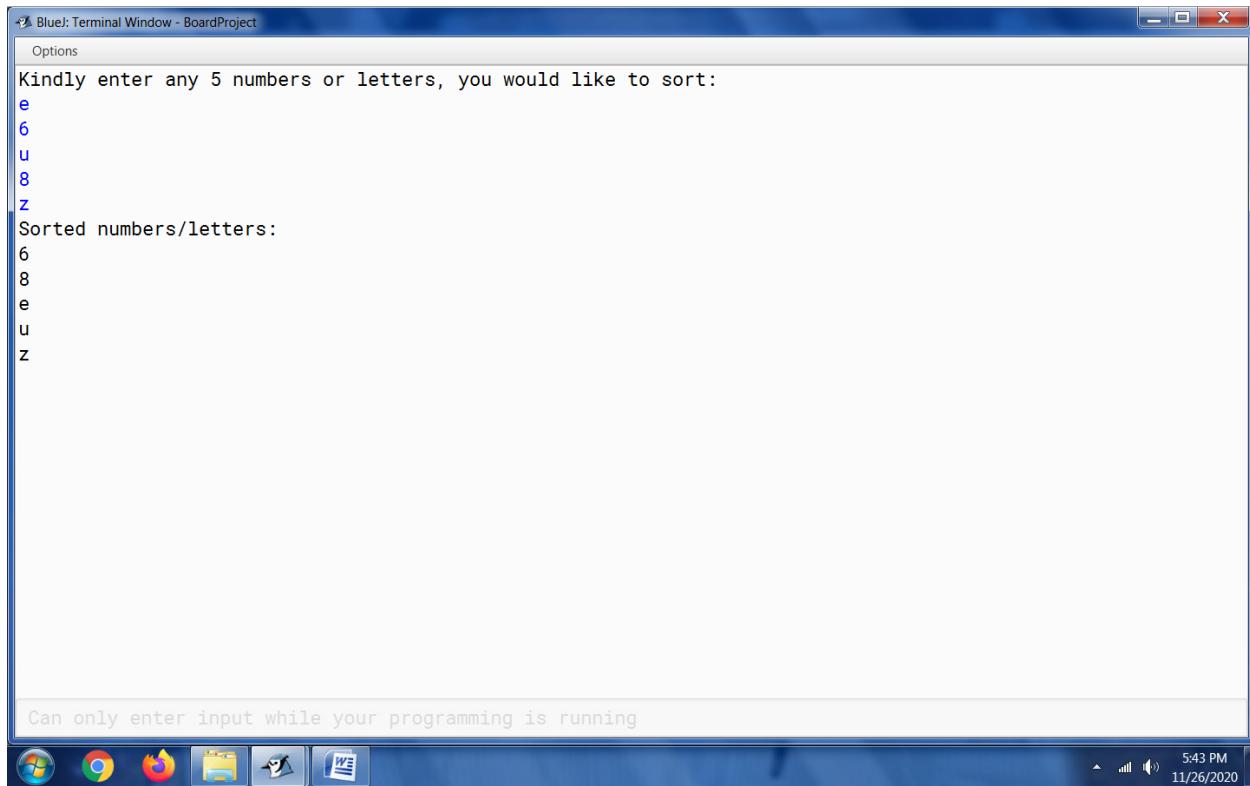
BlueJ: Terminal Window - BoardProject

Kindly enter any 5 numbers or letters, you would like to sort:
m
i
t
h
u
Sorted numbers/letters:
h
i
m
t
u

Can only enter input while your programming is running

5:42 PM 11/26/2020

Output 3:



The screenshot shows a BlueJ terminal window titled "BlueJ: Terminal Window - BoardProject". The window contains the following text:
Kindly enter any 5 numbers or letters, you would like to sort:
e
6
u
8
z
Sorted numbers/letters:
6
8
e
u
z

At the bottom of the window, there is a status bar with the message "Can only enter input while your programming is running". The system tray icons are visible at the bottom left, and the system clock shows "5:43 PM 11/26/2020" at the bottom right.

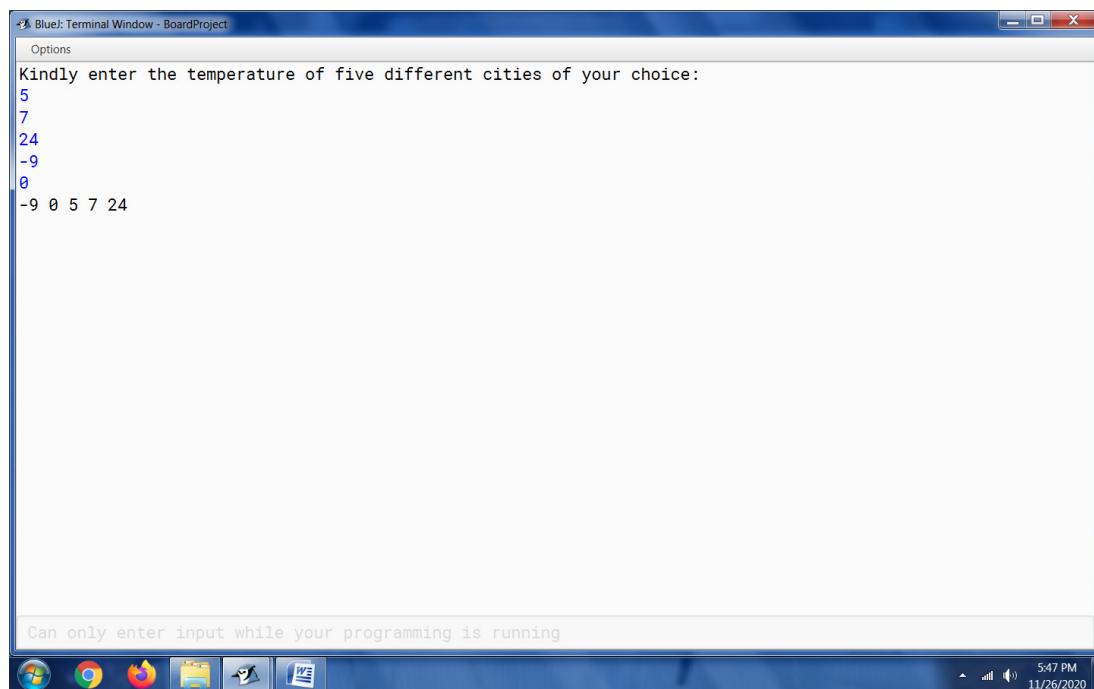
13. TEMPERATURE

```
import java.util.Scanner;  
  
public class Question13_Temperature  
{  
    int [] Temp=new int[8];  
  
    void input()  
    {  
        Scanner sc=new Scanner(System.in);  
  
        System.out.println("Kindly enter the temperature of five different cities  
of your choice:");  
  
        for(int i=0;i<=Temp.length-1;i++)
```

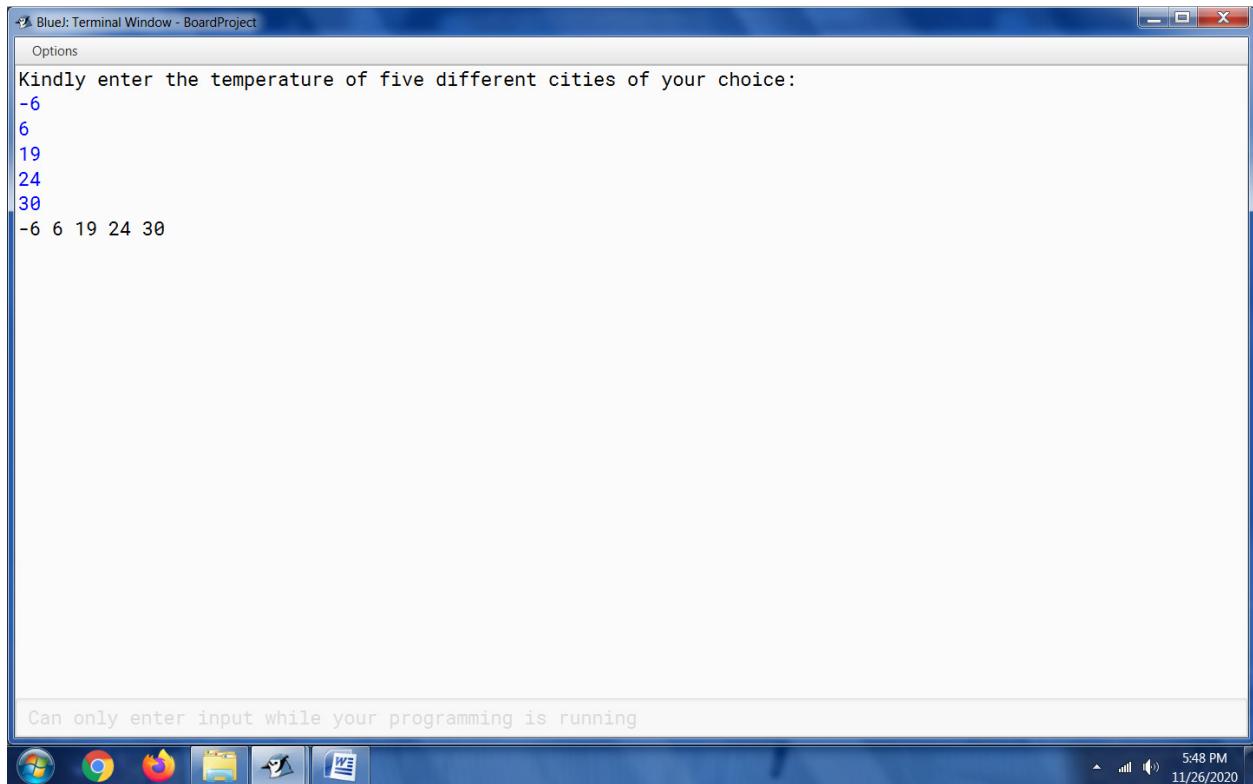
```
{  
    Temp[i]=sc.nextInt();  
}  
}  
  
void Compare()  
{  
    for(int j=0;j<=Temp.length-1;j++)  
    {  
        int temporary;  
        for(int a=0;a<=Temp.length-2;a++)  
        {  
            if(Temp[a]>Temp[a+1])  
            {  
                temporary=Temp[a];  
                Temp[a]=Temp[a+1];  
                Temp[a+1]=temporary;  
            }  
        }  
    }  
}  
  
void display()  
{  
    for(int x=0;x<=Temp.length-1;x++)
```

```
{  
    System.out.print(Temp[x]+" ");  
}  
}  
  
public static void main()  
{  
    Question13_Temperature obj=new Question13_Temperature();  
    obj.input();  
    obj.Compare();  
    obj.display();  
}  
}
```

Output 1:



Output 2:



The screenshot shows a BlueJ terminal window titled "BlueJ: Terminal Window - BoardProject". The window contains the following text:
Kindly enter the temperature of five different cities of your choice:
-6
6
19
24
30
-6 6 19 24 30

At the bottom of the window, there is a status bar with the message "Can only enter input while your programming is running". The system tray at the bottom right shows icons for the taskbar, network connection, volume, and date/time (5:48 PM, 11/26/2020).

14. AVERAGE

```
import java.util.Scanner;  
  
public class Question14_Average  
{  
    double [] Array_num ;  
    double sum=0;  
    double avg;  
  
    Question14_Average(int arraysize)
```

```
{  
    Array_num=new double[arraysize];  
}  
  
void input()  
{  
    Scanner sc=new Scanner(System.in);  
    System.out.println("Kindly enter any ten numbers");  
    for(int i=0;i<=Array_num.length-1;i++)  
    {  
        Array_num[i]=sc.nextDouble();  
    }  
}  
  
void Calculate()  
{  
    for(int j=0;j<=Array_num.length-1;j++)  
    {  
        sum= sum+ Array_num[j] ;  
    }  
    avg=sum/10;  
}  
  
void display()  
{  
    for(int j=0;j<=Array_num.length-1;j++)
```

```
{  
    if(Array_num[j]>avg)  
    {  
        System.out.println(Array_num[j]);  
    }  
}  
}  
  
public static void main()  
{  
    Question14_Average obj=new Question14_Average(10);  
    obj.input();  
    obj.Calculate();  
    obj.display();  
}  
}
```

Output 1:

BlueJ: Terminal Window - BoardProject

```
Kindly enter any ten numbers
12
12
76
56
345
5
6
2
98
76
76.0
345.0
98.0
76.0
```

Can only enter input while your programming is running

5:49 PM 11/26/2020

Output 2:

BlueJ: Terminal Window - BoardProject

```
Kindly enter any ten numbers
23
24
67
45
1
23
56
76
45
67
67.0
45.0
56.0
76.0
45.0
67.0
```

Can only enter input while your programming is running

5:55 PM 11/26/2020

15. LAST DIGIT

```
import java.util.Scanner;  
  
public class Question15_Last_Digit  
{  
    int [] AW ;  
    int temp;  
    Question15_Last_Digit(int arraysize)  
    {  
        AW=new int[arraysize];  
    }  
    void input()  
    {  
        Scanner sc=new Scanner(System.in);  
        System.out.println("Please enter 8 numbers of your choice");  
        for(int i=0;i<=AW.length-1;i++)  
        {  
            AW[i]=sc.nextInt();  
        }  
    }  
    void Calculate()  
    {  
        for(int j=0;j<=AW.length-1;j++)  
    }
```

```
{  
    temp=AW[j]%10;  
    if(temp==3)  
    {  
        System.out.println(AW[j]);  
    }  
}  
}  
public static void main()  
{  
    Question15_Last_Digit obj=new Question15_Last_Digit(8);  
    obj.input();  
    obj.Calculate();  
}  
}
```

Output 1:

The screenshot shows a Windows terminal window with a blue title bar. The title bar text is "Blue: Terminal Window - BoardProject". The window has a menu bar with "Options" and a status bar at the bottom with the text "Can only enter input while your programming is running". The main area of the window contains the following text:

```
Please enter 8 numbers of your choice
23
45
18
09
45
83
122
65
23
83
```

The status bar also displays the time "5:56 PM" and date "11/26/2020".

Output 2:

The screenshot shows a Windows terminal window with a blue title bar. The title bar text is "Blue: Terminal Window - BoardProject". The window has a menu bar with "Options" and a status bar at the bottom with the text "Can only enter input while your programming is running". The main area of the window contains the following text:

```
Please enter 8 numbers of your choice
12
98
76
09
54
67
789
478
```

The status bar also displays the time "5:57 PM" and date "11/26/2020".