

SAP Id: 500091584

Roll No: R2142210822

Name: Ujjwal Kumar Gupta

Course: CSE DevOps (Hons.)

Program & Sem: B.tech & 3rd

Session: 2021-25

INDEX

S.No.	Experiment No.	Title	Date of Performance	Date of Submission	Remarks (By Faculty)
1	2	Basic Java Programming	17 / 08 / 2022	17 / 08 / 2022	

Note: 1. Submit your original work otherwise you will lose marks.

2. Submit all your experiments into a single file

3. The submission must be properly compiled and in provided format only

Experiment No. 2_____

Date of performance: 17 / 08 / 2022

Date of Submission: 17 / 08 / 2022

SAP Id: 500091584

Roll No.: R2142210822

Name of the Student: Ujjwal Kumar Gupta

1. Title: Basic Java Programming

2. Objective:

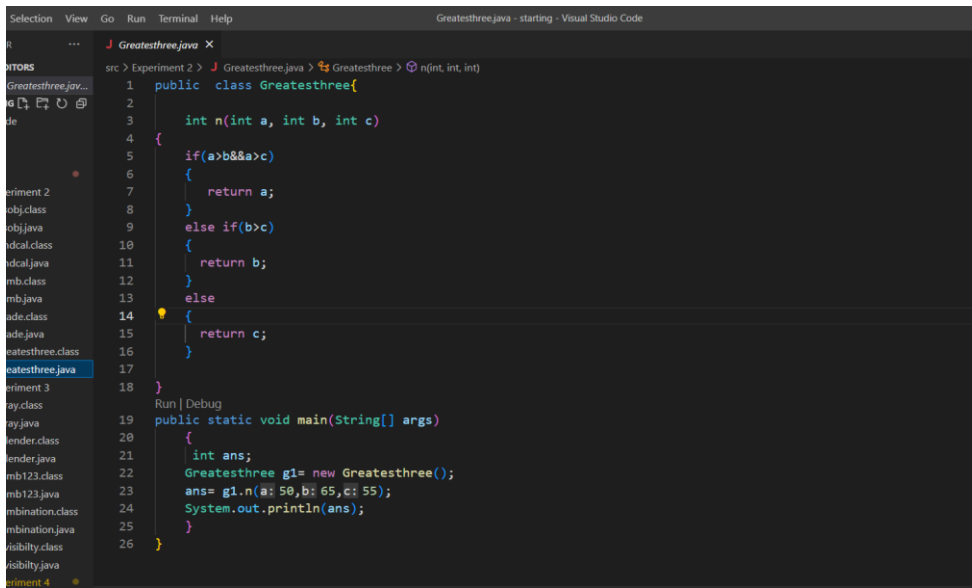
3. List of lab activities: 1) Write a program to find the largest of 3 numbers.

2) Write a program to implement a command line calculator.

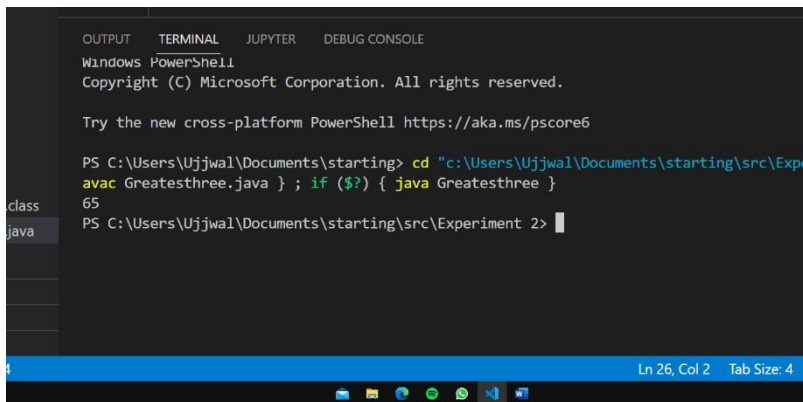
3) Write a program using classes and object in java.

4) Write a program to accept 10 student's marks in an array, arrange it into ascending order, convert into the following grades and print marks and grades in the tabular form. Between 40 and 50 : PASS Between 51 and 75 : MERIT and above : DISTINCTION

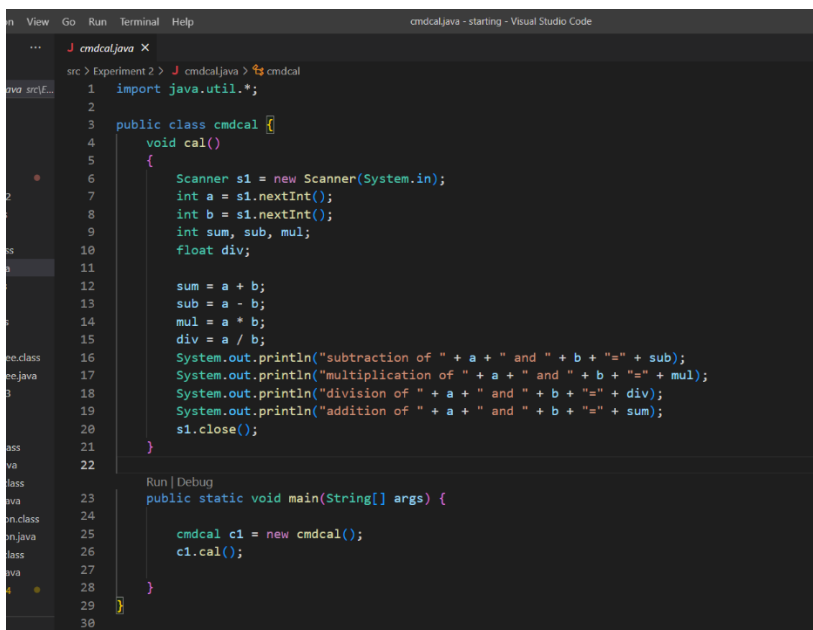
4. Algorithm/Flowchart and Code followed by Output screenshot (2 samples for each program):



```
1 public class Greatestthree{
2
3     int n(int a, int b, int c)
4     {
5         if(a>b&& a>c)
6         {
7             return a;
8         }
9         else if(b>c)
10        {
11            return b;
12        }
13        else
14        {
15            return c;
16        }
17    }
18 }
19 public static void main(String[] args)
20 {
21     int ans;
22     Greatestthree g1= new Greatestthree();
23     ans= g1.n(50,b: 65,c: 55);
24     System.out.println(ans);
25 }
26 }
```



```
PS C:\Users\Ujjwal\Documents\starting> cd "C:\Users\Ujjwal\Documents\starting\src\Experiment 2"
PS C:\Users\Ujjwal\Documents\starting\src\Experiment 2> javac Greatestthree.java
PS C:\Users\Ujjwal\Documents\starting\src\Experiment 2> java Greatestthree
```



```
1 import java.util.*;
2
3 public class cmdcal {
4     void cal()
5     {
6         Scanner s1 = new Scanner(System.in);
7         int a = s1.nextInt();
8         int b = s1.nextInt();
9         int sum, sub, mul;
10        float div;
11
12        sum = a + b;
13        sub = a - b;
14        mul = a * b;
15        div = a / b;
16        System.out.println("subtraction of " + a + " and " + b + " = " + sub);
17        System.out.println("multiplication of " + a + " and " + b + " = " + mul);
18        System.out.println("division of " + a + " and " + b + " = " + div);
19        System.out.println("addition of " + a + " and " + b + " = " + sum);
20        s1.close();
21    }
22 }
23 public static void main(String[] args) {
24
25     cmdcal c1 = new cmdcal();
26     c1.cal();
27 }
28 }
29
30 }
```

```
cmdcal.java src[E...
1  import java.util.*;
2
3  public class cmdcal {
4      void cal()
5      {
6          Scanner s1 = new Scanner(System.in);
7          int a = s1.nextInt();
8          int b = s1.nextInt();

OUTPUT  TERMINAL  JUPYTER  DEBUG CONSOLE
PS C:\Users\Ujjwal\Documents\starting\src\Experiment 2> cd "c:\Users\Ujjwal\Documents\starting\src\Experiment 2\" ; if ($?) { javac cmdcal.java } ; if ($?) { java cmdcal }
4
5
subtraction of 4 and 5=-1
multiplication of 4 and 5=20
division of 4 and 5=0.8
addition of 4 and 5=9
PS C:\Users\Ujjwal\Documents\starting\src\Experiment 2>
```

```
EXPLORER  ...  J clsobj.java 1 X
src > Experiment 2 > J clsobj.java > ...
1  import java.util.Scanner;
2
3  public class clsobj {
4      int add;
5
6      int sum(int a, int b) {
7          add = a + b;
8          System.out.println(a + b);
9          return add;
10     }
11
12     Run | Debug
13     public static void main(String[] args)
14     {
15         int ans;
16         Scanner s1 = new Scanner(System.in);
17         int a = s1.nextInt();
18         int b = s1.nextInt();
19         clsobj c1 = new clsobj();
20         ans = c1.sum(a, b);
21         s1.close();
22     }
23
24 }
25
```

```
nt 2
ass
va 1
class
java
ass
va
ass
va
three.class
three.java
nt 2

OUTPUT  TERMINAL  JUPYTER  DEBUG CONSOLE
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Ujjwal\Documents\starting> cd "c:\Users\Ujjwal\Documents\starting\src\Experiment 2\" ; if ($?) { javac clsobj.java } ; if ($?) { java clsobj }
100
150
250
PS C:\Users\Ujjwal\Documents\starting\src\Experiment 2>
```

```

src > Experiment 2 > J Grade.java > Grade > main(String[])
1  import java.util.Scanner;
2  public class Grade
3  {
4  void grade(int []a, int n)
5  {
6      for(int i=0;i<n;i++)
7      {
8          if(a[i]>75)
9          {
10             System.out.println(x: "Distinction");
11         }
12         else if(a[i]>50)
13         {
14             System.out.println(x: "Merit");
15         }
16         else if(a[i]>39)
17         {
18             System.out.println(x: "Pass");
19         }
20         else
21         {
22             System.out.println(x: "Fail");
23         }
24     }
25 }
26
27 Run | Debug
28 public static void main(String[] args)
29 {
30     int []a= new int[10];
31     int n=10;
32     Scanner s1= new Scanner(System.in);
33     for(int i=0;i<10;i++)
34     {
35         a[i]=s1.nextInt();
36     }
37
38     Grade g1= new Grade();
39     g1.grade(a,n: 10);
40     s1.close();
41 }

```

```

OUTPUT    TERMINAL    JUPYTER    DEBUG CONSOLE
10
90
58
45
72
12
38
85
56
89
Fail
Distinction
Merit
Pass
Merit
Fail
Fail
Distinction
Merit
Distinction
PS C:\Users\Ujjwal\Documents\starting\src\Ex

```

5. Brief notes about all the concepts related to the lab experiment

- Initialize array:
Int [] a
- Objects of the method by “new” and calling it in main method.
- For taking user input Scanner should be imported.