

# **OOP EXPERIMENT-1**

**NAME-ANMOL**

**SAP-590011794**

**BATCH-20**

**DATE-1 FEB 2026**

**SUBMITTED TO- PROF. Kalluri Shareef Babu**

**Topics to be covered: class creation, running, compiling, variable type declaration, if else, operators, printing statements as outputs**

## EX 1A

Write a Java program to print Name, Roll Number and Branch.

```
OOPS > J exe1a.java > ...
You, 2 days ago | 1 author (You)
● 1 // write a program to print name,roll number and branch
You, 2 days ago | 1 author (You) | Windsurf: Refactor | Explain
2 public class exe1a
3 {
4     public static void main(String args[])
5     {
6         System.out.println(x: "Name:Anmol Thapliyal");
7         System.out.println(x: "Roll no:590011794");
8         System.out.println(x: "Branch: CSE AIML");    "AI
9     }
10 }
11
```

OUTPUT 22 TERMINAL PORTS

```
● PS C:\Users\<Anmol> > cd OOPS
● PS C:\Users\<Anmol> > java exe1a
Name:Anmol Thapliyal
Roll no:590011794
Branch: CSE AIML
◆ PS C:\Users\<Anmol> > █
```

### Observation:

creates a class named exe1a and prints the name, roll number and branch of the student.

## EX 1B

Write a Java program to declare two integers and print their sum.

```
OOPS > J exe1b.java > ...
    You, 2 days ago | 1 author (You)
1 // write a java program to declare two integers and print their sum
    You, 2 days ago | 1 author (You) | Windsurf: Refactor | Explain
2 public class exe1b
3 {
4     Run main | Debug main | Run | Debug | Windsurf: Refactor | Explain | Generate Javadoc | X
5     public static void main(String args[])
6     {
7         int a=7;
8         int b=72;
9         int sum=a+b;
10        System.out.println("Sum is:"+sum);
11    }
12 }
```

OUTPUT 19 TERMINAL PORTS

- PS C:\Users\<Anmol> > java exe1b  
Sum is:79  
PS C:\Users\<Anmol> > █

**Observation:** creates a class named exe1b and prints the sum of two integers using main method and int data type variables a and b

## EX 1C

Write a Java program to calculate the area of a rectangle.

```
OOPS > J exe1c.java > ...
You, 2 days ago | 1 author (You)
1 // write a java program to calculate the area of a rectangle
You, 2 days ago | 1 author (You) | Windsurf: Refactor | Explain
2 public class exe1c
3 {
4     Run main | Debug main | Run | Debug | Windsurf: Refactor | Explain | Generate
5     public static void main(String args[])
6     {
7         int l=17;
8         int b=55;
9         int area=l*b;
10        System.out.println("Area of rectangle is:"+area);
11    }
12 }
```

OUTPUT 19 TERMINAL PORTS

- PS C:\Users\<Anmol> > java exe1c  
Area of rectangle is:935
- PS C:\Users\<Anmol> > █

**Observation:** creates a class named exe1c and prints the area of a rectangle using main method and int data type variables l and b for length and breadth respectively

## EX 1D

Write a Java program to calculate Simple Interest.

OOPS > exe1d.java > Language Support for Java(TM) by Red Hat > exe1d

You, 2 days ago | 1 author (You)

1 // write a java program to calculate simple interest

You, 2 days ago | 1 author (You) | Windsurf: Refactor | Explain

2 public class exe1d

3 {

4 Run main | Debug main | Run | Debug | Windsurf: Refactor | Explain | Generate

5 public static void main(String args[])

6 {

7 float p=700f;

8 float t=5f;

9 float r=4.3f;

10 float si=(p\*t\*r)/100; You, 2 days ago • A

11 System.out.println("Simple Interest is:"+si);

12 }

13 }

OUTPUT 19 TERMINAL PORTS

- PS C:\Users\<Anmol> > java exe1d  
Simple Interest is:150.50002
- PS C:\Users\<Anmol> > █

**Observation:** creates a class named exe1d and prints the simple interest using main method and float data type variables p, t and r for principal, time and rate respectively and si for simple interest variable is created to store the calculated simple interest value.

## EX 1E

Write a Java program to swap two numbers using a temporary variable.

```
OOPS > J exe1e.java > ...
You, 2 days ago | 1 author (You)
1 // write a java program to swap two numbers using a temporary variable
You, 2 days ago | 1 author (You) | Windsurf: Refactor | Explain
2 public class exe1e
3 {
4     Run main | Debug main | Run | Debug | Windsurf: Refactor | Explain | Generate Javadoc | X
5     public static void main(string args[])
6     {
7         int a=3;
8         int b=23;
9         int temp;
10        System.out.println("Before swapping:a="+a+" b="+b);
11        temp=a;
12        a=b;
13        b=temp;
14        System.out.println("After swapping:a="+a+" b="+b);
15    }
16 }
```

OUTPUT 19 TERMINAL PORTS

- PS C:\Users\<Anmol> > java exe1e  
Before swapping:a=3 b=23  
After swapping:a=23 b=3  
◆◆ PS C:\Users\<Anmol> > █

**Observation:** creates a class named exe1e and swaps two numbers using a temporary variable and prints the values before and after swapping using main method and int data type variables a and b for the two numbers and temp for temporary variable.

## EX 1F

Write a Java program to swap two numbers without using a temporary variable.

```
OOPS > J exe1f.java > ...
You, 2 days ago | 1 author (You)
1 // write a java program to swap two numbers without using a temporary variable
You, 2 days ago | 1 author (You) | Windsurf: Refactor | Explain
2 public class exe1f
3 {
4     Run main | Debug main | Run | Debug | Windsurf: Refactor | Explain | Generate Javadoc | X
5     public static void main(String args[])
6     {
7         int a=7;
8         int b=13;
9         System.out.println("Before swapping:a="+a+" b="+b);
10        a=a+b;
11        b=a-b;
12        a=a-b;
13        System.out.println("After swapping:a="+a+" b="+b);
14    }
15 }
```

OUTPUT 19 TERMINAL PORTS

- PS C:\Users\<Anmol> > java exe1f  
Before swapping:a=7 b=13  
After swapping:a=13 b=7

**Observation:** creates a class named exe1f and swaps two numbers without using a temporary variable and prints the values before and after swapping using main method and int data type variables a and b for the two numbers.

## EX 1G

Write a Java program to check whether a number is even or odd.

```
OOPS > J exe1g.java > ...
You, 2 days ago | 1 author (You)
1 // write a java program to check whether a number is even or odd
You, 2 days ago | 1 author (You) | Windsurf: Refactor | Explain
2 public class exe1g
3 {
4     public static void main(String args[])
5     {
6         int n=7;
7         if(n%2==0)
8             System.out.println(x: "Number is even");
9         else
10            System.out.println(x: "Number is odd");
11    }
12 }
13

OUTPUT 19 TERMINAL PORTS

● PS C:\Users\<Anmol> > java exe1g
Number is odd
❖ PS C:\Users\<Anmol> > 
```

**Observation:** creates a class named exe1g and checks whether a number is even or odd using main method and int data type variable n for the number using modulus operator and if-else statement to determine evenness or oddness.

## EX 1H

Write a Java program to find the largest of two numbers.

```
OOPS > J exe1h.java > ...
You, 2 days ago | 1 author (You)
1 // write a java program to find the largest of two numbers
You, 2 days ago | 1 author (You) | Windsurf: Refactor | Explain
2 public class exe1h
3 {
4     Run main | Debug main | Run | Debug | Windsurf: Refactor | Explain | Generate Ja
5     public static void main(String args[])
6     {
7         int a=100;
8         int b=999;
9         if(a>b)
10            System.out.println("Largest number is:"+a);
11        else
12            System.out.println("Largest number is:"+b);
13    }
14
```

OUTPUT 19 TERMINAL PORTS

- PS C:\Users\<Anmol> > java exe1h  
Largest number is:999
- PS C:\Users\<Anmol> >

## Observation:

creates a class named exe1h and finds the largest of two numbers using main method and int data type variables a and b for the two numbers using if-else statement to compare the two numbers.

## EX 1I

Write a Java program to find the largest of three numbers.

OOPS > J exe1i.java > Java > exe1i > main(String[] args)

You, 2 days ago | 1 author (You)

1 // write a java program to find the largest of three numbers

You, 2 days ago | 1 author (You) | Windsurf: Refactor | Explain

2 public class exe1i

3 {

4 Run main | Debug main | Run | Debug | Windsurf: Refactor | Explain | Generate

5 public static void main(String args[])

6 {

7 int a=10;

8 int b=25;

9 int c=15;

10 if(a>b && a>c) You, 2 days ago • Add various

11 {

12 System.out.println("Largest number is:"+a);

13 }

14 else if(b>c)

15 {

16 System.out.println("Largest number is:"+b);

17 }

18 else

19 {

20 System.out.println("Largest number is:"+c);

21 }

22 }

```
PS C:\Users\<Anmol> > java ex11  
Largest number is:25  
PS C:\Users\<Anmol> >
```

## **Observation:**

creates a class named exe1i and finds the largest of three numbers using main method and int data type variables a, b and c for the three numbers using if-else-if statement to compare the three numbers.

EX 1.J

Write a Java program to check whether a given year is a leap year.

OOPS > J exe1j.java > Language Support for Java(TM) by Red Hat > exe1j > main(String[])

You, 2 days ago | 1 author (You)

1 // write a java program to check whether a year is a leap year

You, 2 days ago | 1 author (You) | Windsurf: Refactor | Explain

2 public class exe1j

3 {

4 Run main | Debug main | Run | Debug | Windsurf: Refactor | Explain | Generate Javadoc | X

5 public static void main(String args[])

6 {

7 int year=2026; You, 2 days ago • Add various Java pro

8 if(year%4==0)

9 System.out.println(x: "Leap year");

10 else

11 System.out.println(x: "Not a leap year");

12 }

13 }

OUTPUT 19 TERMINAL PORTS

PS C:\Users\<Anmol> > java exe1j  
Not a leap year  
PS C:\Users\<Anmol> >

## Observation:

creates a class named exe1j and checks whether a year is a leap year using main method and int data type variable year for the year using modulus operator and if-else statement to determine leap year status and print the result.

## EX 1K

Write a Java program to check whether a character is a vowel or consonant.

```
OOPS > J exe1k.java > ...
You, 2 days ago | 1 author (You)
1 // write a java program to check whether a character is a vowel or consonant
You, 2 days ago | 1 author (You) | Windsurf: Refactor | Explain
2 public class exe1k
3 {
4     Run main | Debug main | Run | Debug | Windsurf: Refactor | Explain | Generate Javadoc | X
5     public static void main(String args[])
6     {
7         char ch='a';
8         if(ch=='a' || ch=='e' || ch=='i' || ch=='o' || ch=='u')
9             System.out.println(x: "Vowel");
10            else
11                System.out.println(x: "Consonant");
12
13 }
```

OUTPUT 19 TERMINAL PORTS

- PS C:\Users\<Anmol> > java exe1k  
Vowel
- PS C:\Users\<Anmol> > █

**Observation:** creates a class named exe1k and checks whether a character is a vowel or consonant using main method and char data type variable ch for the character using if-else statement to determine vowel or consonant status and print the result.

## EX 1L

Write a Java program to perform addition, subtraction, multiplication and division.

```
OOPS > J exe11.java > ...
You, 2 days ago | 1 author (You)
1 // write a java program to perform addition, subtraction, multiplication and division
You, 2 days ago | 1 author (You) | Windsurf: Refactor | Explain
2 public class exe11
3 {
4     public static void main(String args[])
5     {
6         float a=26;
7         float b=88;
8         System.out.println("Addition:"+ (a+b));
9         System.out.println("Subtraction:"+ (a-b));
10        System.out.println("Multiplication:"+ (a*b));
11        System.out.println("Division:"+ (a/b));
12    }
13 }
14
```

OUTPUT 19 TERMINAL PORTS

```
PS C:\Users\<Anmol> > java exe11
Addition:114.0
Subtraction: -62.0
Multiplication:2288.0
Division:0.29545453
PS C:\Users\<Anmol> >
```

**Observation:** creates a class named exe11 and performs addition, subtraction, multiplication and division using main method and float data type variables a and b for the two numbers and prints the results of the operations.