

# VIT<sup>®</sup>

**Vellore Institute of Technology**  
(Deemed to be University under section 3 of UGC Act, 1956)

## **Computer Programming Java**

### **MOODLE LAB TASK 2**

**Faculty: Sathya Raj R**

**Slot: L3+L4+L29+L30**

**Venue: SJT 515**

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**Reg ID: 21BCE4007**

## Scanner Class Questions

**Q1. Write a Java code to get the Registration No, Name, CGPA of a student using user input.**

### CODE:

```
import java.util.Scanner;

public class Getdetails {
    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the details:");
        System.out.print("Name:");
        String name=sc.nextLine();
        System.out.print("Reg No:");
        int reg=sc.nextInt();
        System.out.print("CGPA:");
        float cgpa=sc.nextFloat();
        sc.close();
        System.out.println("Name:"+name);
        System.out.println("Register No:"+reg);
        System.out.println("CGPA:"+cgpa);
    }
}
```

## OUTPUT:

```
J Getdetails.java > Getdetails > main(String[])
1  import java.util.Scanner;
2  public class Getdetails {
    Run | Debug
3      public static void main(String args[])
4      {
5          Scanner sc=new Scanner(System.in);
6          System.out.println(x:"Enter the details:");
7          System.out.print(s:"Name:");
8          String name=sc.nextLine();
9          System.out.print(s:"Reg No:");
10         int reg=sc.nextInt();
11         System.out.print(s:"CGPA:");
12         float cgpa=sc.nextFloat();
13         sc.close();
14         System.out.println("Name:"+name);
15         System.out.println("Register No:"+reg);
16         System.out.println("CGPA:"+cgpa);
17     }
18
19 }
20
```

PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\Soumyojyoti Saha\OneDrive - vit.ac.in\Desktop\java sem 7> cd "c:\Users\Soumyojyoti Saha\
f ($?) { java Getdetails }
Enter the details:
Name:Soumyojyoti Saha
Reg No:4007
CGPA:9.21
Name:Soumyojyoti Saha
Register No:4007
CGPA:9.21
PS C:\Users\Soumyojyoti Saha\OneDrive - vit.ac.in\Desktop\java sem 7> 
```

**Q2. Write a Java code to get the Factorial of a number given using user input.**

**CODE:**

```
import java.util.Scanner;

class Factorial_user{

    public static void main(String args[]){
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter value of the number:");
        int number=sc.nextInt();
        sc.close();
        int fact=1;
        //It is the number to calculate factorial
        for(int i=1;i<=number;i++){
            fact=fact*i;
        }
        System.out.println("Factorial of "+number+" is: "+fact);
    }
}
```

## OUTPUT:

```
J Factorial_user.java > ...
1  import java.util.Scanner;
2  class Factorial_user{
    Run | Debug
3      public static void main(String args[]){
4          Scanner sc=new Scanner(System.in);
5          System.out.println(x:"Enter value of the number:");
6          int number=sc.nextInt();
7          sc.close();
8          int fact=1;
9          //It is the number to calculate factorial
10         for(int i=1;i<=number;i++){
11             fact=fact*i;
12         }
13         System.out.println("Factorial of "+number+" is: "+fact);
14     }
15     }
```

PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\Soumyojyoti Saha\OneDrive - vit.ac.in\Desktop\java sem 7> cd "c:\Users\Soumyojyoti Saha\
a Factorial_user }
Enter value of the number:
5
Factorial of 5 is: 120
PS C:\Users\Soumyojyoti Saha\OneDrive - vit.ac.in\Desktop\java sem 7> 
```

**Q3. Write a Java code to get the Fibonacci series till a count given using user input.**

**CODE:**

```
import java.util.Scanner;

class Fibonacci_user{

    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the value of count:");
        int count=sc.nextInt();
        sc.close();

        int n1=0,n2=1,n3,i;

        System.out.print(n1+" "+n2);//printing 0 and 1

        for(i=2;i<count;++i)//loop starts from 2 because 0 and 1 are already
        printed
        {
            n3=n1+n2;
            System.out.print(" "+n3);
            n1=n2;
            n2=n3;
        }
    }
}
```

## OUTPUT:

```
J Fibonacci_user.java > Fibonacci_user > main(String[])
1  import java.util.Scanner;
2  class Fibonacci_user{
    Run | Debug
3      public static void main(String args[])
4      {
5          Scanner sc=new Scanner(System.in);
6          System.out.println("Enter the value of count:");
7          int count=sc.nextInt();
8          sc.close();
9          int n1=0,n2=1,n3,i;
10         System.out.print(n1+" "+n2);//printing 0 and 1
11
12         for(i=2;i<count;++i)//loop starts from 2 because 0 and 1 are already printed
13         {
14             n3=n1+n2;
15             System.out.print(" "+n3);
16             n1=n2;
17             n2=n3;
18         }
19
20     }}
```

PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\Soumyojyoti Saha\OneDrive - vit.ac.in\Desktop\java sem 7> cd "c:\Users\Soumyojyoti Saha\
a Fibonacci_user }
Enter the value of count:
13
0 1 1 2 3 5 8 13 21 34 55 89 144
PS C:\Users\Soumyojyoti Saha\OneDrive - vit.ac.in\Desktop\java sem 7> 
```

**Q4. Write a Java code to get the greatest of 3 numbers given using user input.**

**CODE:**

```
import java.util.Scanner;

public class Greatestof3_user {

    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter value of a,b,c respectively");
        int a=sc.nextInt();
        int b=sc.nextInt();
        int c=sc.nextInt();
        if(a>b && a>c)
        {
            System.out.println("A is greatest");
        }
        else if (b>a && b>c)
        {
            System.out.println("B is greatest");
        }
        else
        {
            System.out.println("C is greatest");
        }
    }
}
```



## OUTPUT:

```
J Greatestof3_user.java > Run | Debug Greatestof3_user > main(String[])
1  import java.util.Scanner;
2  public class Greatestof3_user {
3      public static void main(String args[])
4      {
5          Scanner sc=new Scanner(System.in);
6          System.out.println(x:"Enter value of a,b,c respectively");
7          int a=sc.nextInt();
8          int b=sc.nextInt();
9          int c=sc.nextInt();
10         if(a>b && a>c)
11         {
12             System.out.println(x:"A is greatest");
13         }
14         else if (b>a && b>c)
15         {
16             System.out.println(x:"B is greatest");
17         }
18         else
19         {
20             System.out.println(x:"C is greatest");
21         }
22     }
23 }
```

PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\Soumyojyoti Saha\OneDrive - vit.ac.in\Desktop\java sem 7> cd "c:\Users\Soumyojyoti Saha\
ava Greatestof3_user }
Enter value of a,b,c respectively
63
53
79
C is greatest
PS C:\Users\Soumyojyoti Saha\OneDrive - vit.ac.in\Desktop\java sem 7> 
```

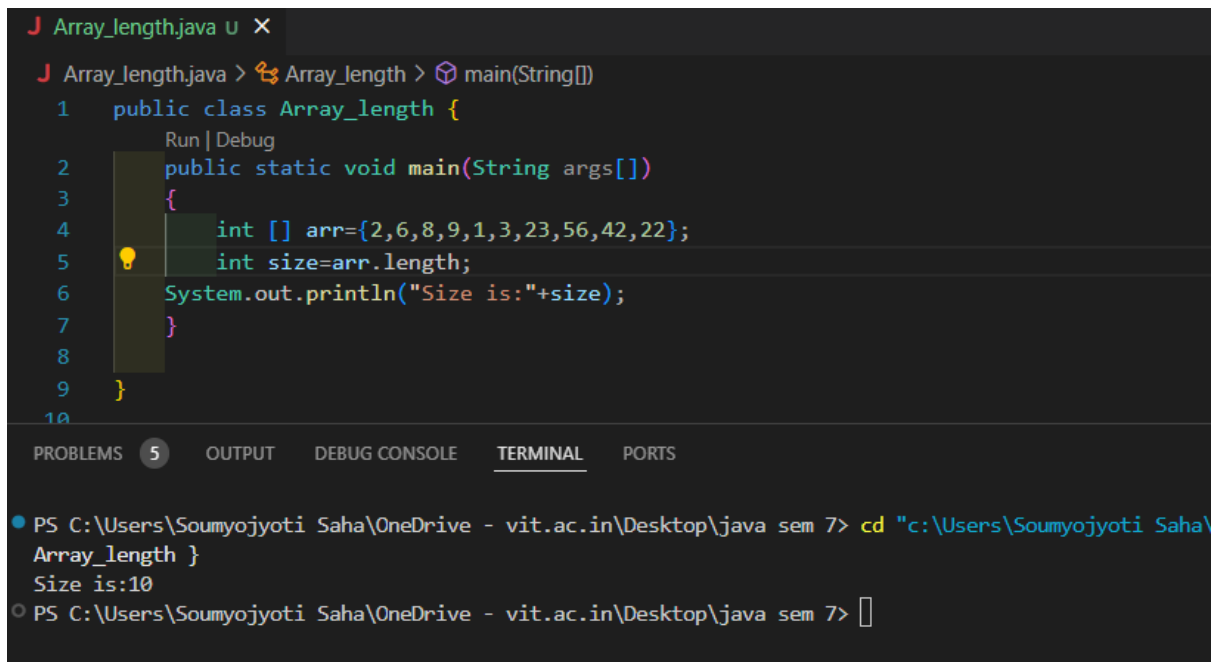
## ARRAYS

**Q5. Write a Java code to initialize an integer array and print its length.**

### CODE:

```
public class Array_length {  
    public static void main(String args[])  
    {  
        int [] arr={2,6,8,9,1,3,23,56,42,22};  
        int size=arr.length;  
        System.out.println("Size is:"+size);  
    }  
}
```

### OUTPUT:



The screenshot shows an IDE window titled 'Array\_length.java'. The code editor displays the same Java code as in the 'CODE' block. Below the code editor, there are tabs for 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', 'TERMINAL', and 'PORTS'. The 'TERMINAL' tab is active, showing the command prompt output: 'PS C:\Users\Soumyojyoti Saha\OneDrive - vit.ac.in\Desktop\java sem 7> cd "c:\Users\Soumyojyoti Saha\'; 'Array\_length }'; 'Size is:10'; and 'PS C:\Users\Soumyojyoti Saha\OneDrive - vit.ac.in\Desktop\java sem 7> '.

```
J Array_length.java U X  
J Array_length.java > Array_length > main(String[])  
1 public class Array_length {  
    Run | Debug  
2     public static void main(String args[])  
3     {  
4         int [] arr={2,6,8,9,1,3,23,56,42,22};  
5         int size=arr.length;  
6         System.out.println("Size is:"+size);  
7     }  
8  
9 }  
10  
PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL PORTS  
● PS C:\Users\Soumyojyoti Saha\OneDrive - vit.ac.in\Desktop\java sem 7> cd "c:\Users\Soumyojyoti Saha\  
Array_length }  
Size is:10  
○ PS C:\Users\Soumyojyoti Saha\OneDrive - vit.ac.in\Desktop\java sem 7> 
```

**Q6. Write a Java code to initialize an integer array get data using user input and print its elements.**

**CODE:**

```
import java.util.Scanner;

public class Arrayelements_user {
    public static void main(String args[])
    {
        Scanner sc=new Scanner(System.in);
        System.out.print("Enter Array size:");
        int n=sc.nextInt();
        int [] arr=new int [n];
        System.out.println("Enter array elements:");
        for(int i=0;i<n;i++)
        {

            arr[i]=sc.nextInt();
        }
        sc.close();
        System.out.println("Array elements are:");
        for(int i=0;i<arr.length;i++)
        {
            System.out.println(arr[i]);

        }
    }
}
```

## OUTPUT:

```
J Arrayelements_user.java > Run | Debug
1  import java.util.Scanner;
2  public class Arrayelements_user {
3      public static void main(String args[])
4      {
5          Scanner sc=new Scanner(System.in);
6          System.out.print(s:"Enter Array size:");
7          int n=sc.nextInt();
8          int [] arr=new int [n];
9          System.out.println(x:"Enter array elements:");
10         for(int i=0;i<n;i++)
11         {
12             arr[i]=sc.nextInt();
13         }
14         sc.close();
15         System.out.println(x:"Array elements are:");
16         for(int i=0;i<arr.length;i++)
17         {
18             System.out.println(arr[i]);
19         }
20     }
21 }
22
23
24
25
26
```

PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\Soumyojyoti Saha\OneDrive - vit.ac.in\Desktop\java sem 7> cd "c:\Users\Soumyojyoti Saha\OneDrive
java Arrayelements_user }
Enter Array size:5
Enter array elements:
2 6 9 8 32
Array elements are:
2
6
9
8
32
PS C:\Users\Soumyojyoti Saha\OneDrive - vit.ac.in\Desktop\java sem 7> 
```

END