1. Write a program in java to Read and Print an Integer value.

Ans :

```
import java.util.Scanner;
public class interger
{
	public static void main(String args[])
	{
		int num;
		System.out.println("Enter the number :-");
		Scanner J=new Scanner(System.in);
		num=J.nextInt();
		System.out.println("Enter number is :" +num);
	}
}
```

Output:

```
F:\ankit>javac jk.java

F:\ankit>java jk
Enter the number :-
44
Enter number is :44
```

2. Write a program in java for Addition of Two Numbers with and without using Scanner.

Ans:

```
import java.util.*;
public class addition
{
	public static void main(String args[])
{
	int num1 =  33;
```

```
                int num2 = 23;
                int sum = num1 + num2;
                System.out.println("the sum of " + num1 + " and " + num2 + " is:  " +sum);
        }
}
```

Output :

```
F:\ankit>javac addition1.java

F:\ankit>java addition1
the sum of 33 and 23 is:  56
```

3. Write a program in java to calculate Simple interest.

Ans:

```
import java.util.*;
class Interest
{
   public static void main(String args[])
   {

                Scanner in = new Scanner(System.in);
                System.out.println("Enter the Principle amount :");
                double principle = in.nextDouble();
                System.out.println("Enter the Rate of interest :");
                double rate = in.nextDouble();
                System.out.println("Enter the Time period  :");
                double time = in.nextDouble();
                double sp = principle * rate * time/100;
                System.out.println("The simple interset is : "+sp);
   }
```

}

```
F:\ankit>javac Interest.java

F:\ankit>java Interest
Enter the Principle amount :
44555
Enter the Rate of interest :
44
Enter the Time period  :
55
The simple interset is : 1078231.0
```

4 . Write a program in java to display ASCII value of alphabets.?

Ans:

```
import java.util.*;
class AsciiValues {
   public static void main(String args[])
   {
      System.out.println("ASCII values of uppercase alphabets:");
      for (char ch = 'A'; ch <= 'Z'; ch++) {
         System.out.println(ch + " : " + (int) ch);
      }
      System.out.println("\nASCII values of lowercase alphabets:");
      for (char ch = 'a'; ch <= 'z'; ch++)
          {
              System.out.println(ch + " : " + (int) ch);
      }
   }
}
```

Output:

```
F:\ankit>java Ascii
ASCII values of uppercase alphabets:
A : 65
B : 66
C : 67
D : 68
E : 69
F : 70
G : 71
H : 72
I : 73
J : 74
K : 75
L : 76
M : 77
N : 78
O : 79
P : 80
Q : 81
R : 82
S : 83
T : 84
U : 85
V : 86
W : 87
X : 88
Y : 89
Z : 90
```

```
ASCII values of lowercase alphabets:
a : 97
b : 98
c : 99
d : 100
e : 101
f : 102
g : 103
h : 104
i : 105
j : 106
k : 107
l : 108
m : 109
n : 110
o : 111
p : 112
q : 113
r : 114
s : 115
t : 116
u : 117
v : 118
w : 119
x : 120
y : 121
z : 122

F:\ankit>
```

5. Write a program in java to Calculate Area of The Circle.

Ans:

```
import java.util.Scanner;
public class CircleArea
{
   public static void main(String args[])
         {
      Scanner scanner = new Scanner(System.in);
      System.out.print("Enter the radius of the circle: ");
      double radius = scanner.nextDouble();
      double area = Math.PI * radius * radius;
      System.out.printf("The area of the circle with radius %.2f is: %.2f%n", radius, area);
      scanner.close();
   }
}
```

Output :

```
F:\ankit>java CircleArea
Enter the radius of the circle: 2
The area of the circle with radius 2.00 is: 12.57

F:\ankit>
```

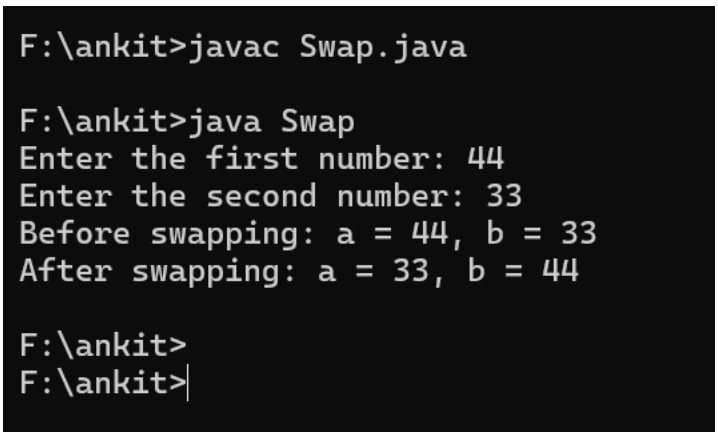
6. Write a program in java to swap two numbers without using third variable.

Ans:

```
import java.util.Scanner;
class Swap{
```

```
    public static void main(String args[]) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter the first number: ");
        int a = scanner.nextInt();
        System.out.print("Enter the second number: ");
        int b = scanner.nextInt();
        System.out.println("Before swapping: a = " + a + ", b = " + b);
        a = a + b;
        b = a - b;
                    a = a - b;
        System.out.println("After swapping: a = " + a + ", b = " + b);
        scanner.close();
    }
}
```

Output:



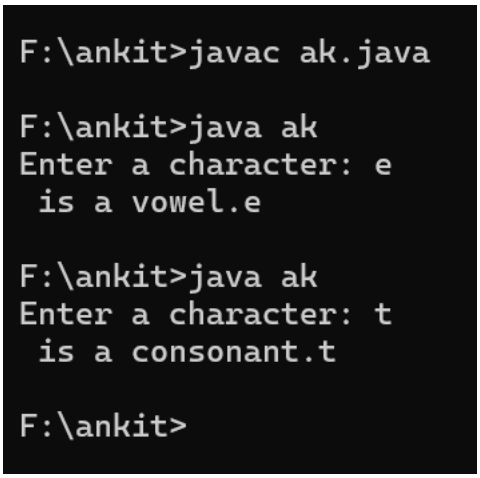
7. Write a program in java to Check Vowel or Consonant.

Ans:

```
import java.util.Scanner;
public class Vc
{
```

```
   public static void main(String[] args)
           {
      Scanner scanner = new Scanner(System.in);
      System.out.print("Enter a character: ");
      char ch = scanner.next().charAt(0);
      char lowerCh = Character.toLowerCase(ch);
      if (Character.isLetter(lowerCh))
{
  if (lowerCh == 'a' || lowerCh == 'e' || lowerCh == 'i' || lowerCh == 'o' || lowerCh == 'u')
{
            System.out.println( " is a vowel."+ch);      }
           else
                   {
                           System.out.println( " is a consonant."+ch);
}
                   }
                   else
                           {
                                   System.out.println("Invalid input! Please enter letter.");
                           }
      scanner.close();
   }
}
```

Output:



8. Write a program in java to Check Whether a Number is Prime.

Ans:
```
import java.util.Scanner;
class Prime {
   public static void main(String args[]) {
      Scanner in = new Scanner(System.in);
      System.out.println("Enter a number:");
      int num = in.nextInt();
      if (num < 2)
                        {
         System.out.println(" is not a prime number :" +num);
         return;
                        }
      int count = 0;
      for (int i = 1; i <= num; i++) {
         if (num % i == 0) {
            count++;
         }
      }
      if (count == 2)
               {
         System.out.println(" a prime number :" +num);
```

```
    } else {
       System.out.println("  not a prime number :" +num);
    }
    in.close();
  } }
```

output :

```
F:\ankit>javac prime1.java

F:\ankit>java Prime1
Enter a number:
5
 a prime number :5

F:\ankit>java Prime1
Enter a number:
777
  not a prime number :777

F:\ankit>
```

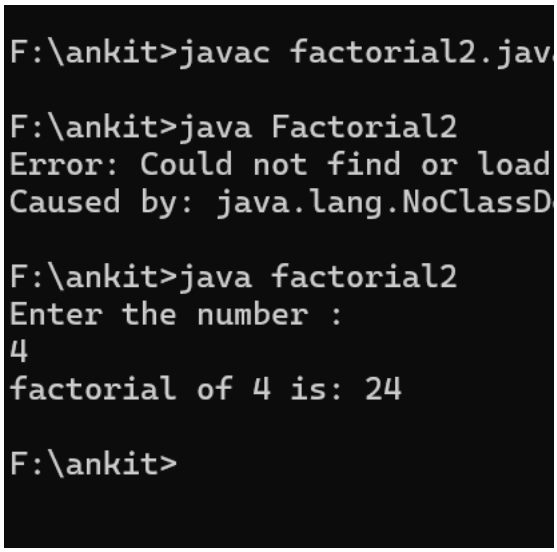
9. Write a program in java to find factorial of a number.

Ans:

```
import java.util.Scanner;
class factorial
{
        public static void main(String args[])
        {
                Scanner sc = new Scanner(System.in);
                int i,fact=1;
                System.out.println("Enter the number :");
                int num = sc.nextInt();
                for(i=1; i<=num ;i++)
```

```
            {
                fact = fact*i;
            }
            System.out.println("factorial of " + num + " is: " + fact);
        }
}
```

Output:



10. Write a program in java to Find the Largest of three Numbers.

Ans:

```
import java.util.Scanner;
public class largestnum
{
   public static void main(String args[])
     {
      Scanner sc = new Scanner(System.in);
      System.out.println("Enter the first number:");
      int num1 = sc.nextInt();
      System.out.println("Enter the second number:");
      int num2 = sc.nextInt();
```

```
      System.out.println("Enter the third number:");
      int num3 = sc.nextInt();
      int l;
      if (num1 > = num2 && num1 > = num3) {
        lar = num1;
      } else if (num2 >= num1 && num2 >= num3) {
         lar= num2;
      } else {
         lar = num3;
      }
      System.out.println("The largest number is: " + lar);
   }
}
```

Output:

```
F:\java poh>javac largestnum.java

F:\java poh>java largestnum
Enter the first number:
44
Enter the second number:
55
Enter the third number:
999
The largest number is: 999

F:\java poh>
```

11. Write a program in java to Find Sum of Fibonacci Series

Ans:

```
import java.util.Scanner;
class fabsum
{
   public static void main(String args[])
     {
      Scanner sc = new Scanner(System.in);
      System.out.println("Enter the number of terms in the Fibonacci series:");
```

```
        int n = sc.nextInt();
        int a = 0, b = 1;
        int sum = 0;
        for (int i = 1; i <= n; i++)
                {
           sum += a;
           int next = a + b;
           a = b;
           b = next;
        }
        System.out.println("The sum of the first " + n + " terms of the Fibonacci series is: " + sum);
    }
}
```

Output:

```
F:\ankit>javac sum.java

F:\ankit>java sum
Error: Could not find or load main class sum
Caused by: java.lang.ClassNotFoundException: sum

F:\ankit>java fabsum
Enter the number of terms in the Fibonacci series:
5
The sum of the first 5 terms of the Fibonacci series is: 7

F:\ankit>
```

12. Write a program in java to print the elements of an array.

Ans:

```
import java.util.Scanner;
class ArrayEle
{
   public static void main(String args[])
```

```
    {
     Scanner sc = new Scanner(System.in);
     System.out.println("Enter the size of the array:");
     int size = sc.nextInt();
     int array = new int[size];
     System.out.println("Enter " + size + " elements:");
     for (int i = 0; i < size; i++)
     {
              array[i] = sc.nextInt();
     }
     System.out.println("The elements of the array are:");
     for (int i = 0; i < size; i++)
              {
                       System.out.println(array[i]);    }
  }
}
```

Output:

```
F:\java poh>java ArrayEle
Enter the size of the array:
3
Enter 3 elements:
1
2
3
The elements of the array are:
1
2
3

F:\java poh>
```

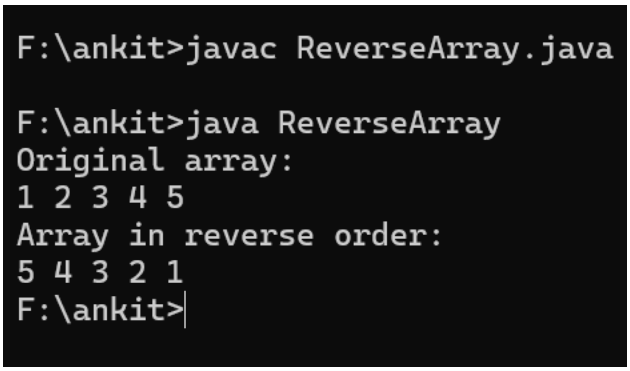
13. Write a program in java to print the elements of an array in reverse order

Ans:

```
import java.util.Scanner;
class ReverseArray {
   public static void main(String args[])
    {
```

```
        int [] arr = new int [] {1, 2, 3, 4, 5};
        System.out.println("Original array: ");
        for (int i = 0; i < arr.length; i++)
                {
           System.out.print(arr[i] + " ");
        }
        System.out.println();
        System.out.println("Array in reverse order: ");
        for (int i = arr.length-1; i >= 0; i--) {
           System.out.print(arr[i] + " ");
        }
    }
}
```

Output:



14. Write a program in java to copy all elements of one array into another array.

Ans:

```
import java.util.Scanner;
class copyarray
 {
    public static void main(String args[])
      {
                int a[]=new int[5];
```

```
        int b[]=new int[5];
        Scanner r=new Scanner(System.in);
        System.out.println("Enter the value of first array :");
        for(int i=0;i<5;i++)
        {
                a[i]=r.nextInt();
        }
        System.out.println("first array Elements :");
        for(int i=0; i<5 ;i++)
        {
                System.out.println(a[i]+" ");
        }

System.out.println("second array Elements :");

for(int i=0; i<5 ;i++)
        {
                b[i]=a[i];
                System.out.println(b[i]+" ")  }
    }
}
```

Output:

```
F:\ankit>javac ReverseArray.java

F:\ankit>java ReverseArray
Original array:
1 2 3 4 5
Array in reverse order:
5 4 3 2 1
F:\ankit>
```

15. Write a program in java to Print Right Triangle Star Pattern

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

Output:

```
F:\ankit>javac Rtriangle.java

F:\ankit>java Rtriangle
*
**
***
****
*****

F:\ankit>
```