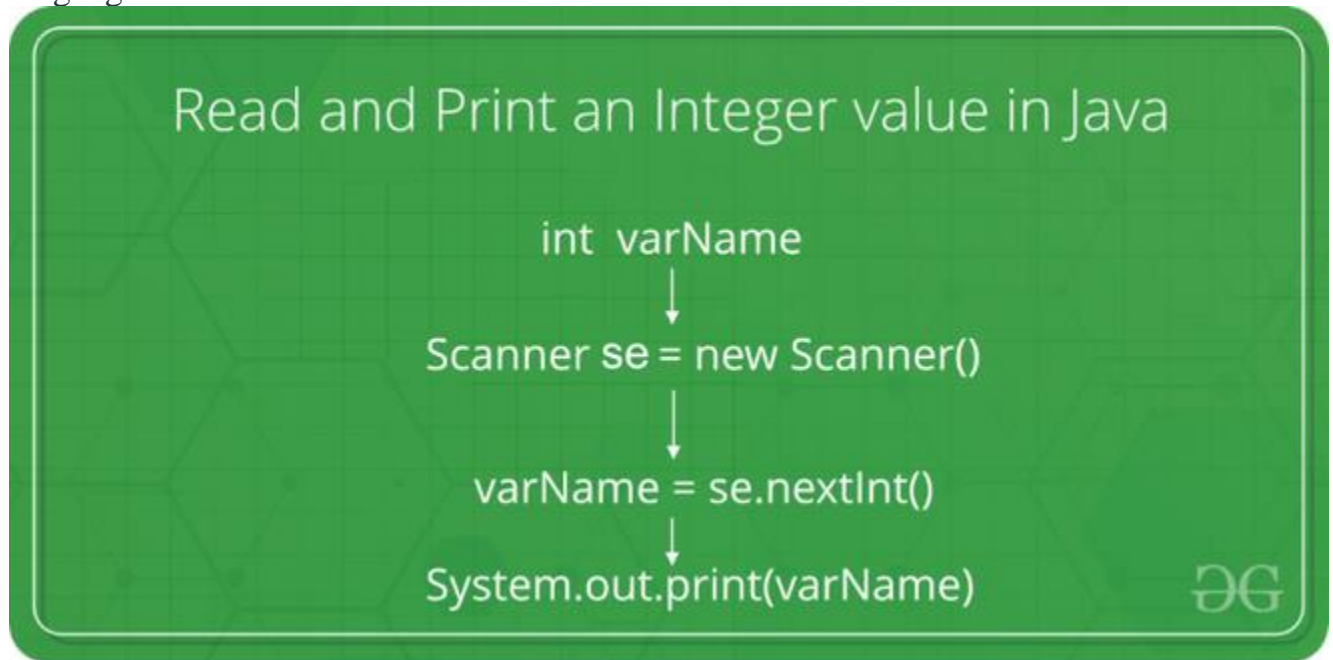# How to Read and Print an Integer value in Java

•

The given task is to take an integer as input from the user and print that integer in Java language.

In the below program, the syntax and procedures to take the integer as input from the user are shown in Java language.

Steps for Input

1. The user enters an integer value when asked.
2. This value is taken from the user with the help of **nextInt()** method of **Scanner Class**. The nextInt() method, in Java, reads the next integer value from the console into the specified variable.

Syntax of Scanner Class

```
variableOfIntType = ScannerObject.nextInt();
```

where **variableOfIntType** is the variable in which the input value is to be stored.
And **ScannerObject** is the beforehand created object of the Scanner class.

Steps for Output

1. This entered value is now stored in the **variableOfIntType**.
2. Now to print this value, **System.out.println()** or **System.out.print()** method is used. The System.out.println() method, in Java, prints the value passed as the parameter to it, on the console screen and the changes the cursor to the next line on the console. Whereas System.out.print() method, in Java, prints the value passed as the parameter to

it, on the console screen and the cursor remains on the next character of the last printed character on the console.

Syntax of println

```
System.out.println(variableOfXType);
```

Hence, the integer value is successfully read and printed.

Program Read and Print an Integer value in Java

Below is the implementation of the above method:

- Java

```java
// Java program to take an integer

// as input and print it

import java.io.*;

import java.util.Scanner;



// Driver Class

class Accept {

    // main function

    public static void main(String[] args)

    {

        // Declare the variables

        int num;
```

```java
// Input the integer

System.out.println("Enter the integer: ");

// Create Scanner object

Scanner s = new Scanner(System.in);

// Read the next integer from the screen

num = s.nextInt();

// Display the integer

System.out.println("Entered integer is: + num);

}

}
```

Input
```
Enter the integer: 10
```
Output
```
Entered integer is: 10
```

```java
2. // Java Program to print Multiplication of two floating
   // point Number.


import java.io.*;
```

```java
class Multiply {

    public static void main(String[] args)
    {

        // f is to ensures that numbers are float DATA TYPE
        float f1 = 1.5f;
        float f2 = 2.0f;

        // to store the multiplied value
        float p = f1 * f2;

        // to print the product
        System.out.println("The product is: " + p);
    }
}
```

Output

```
The product is: 3.0
```

3.

```java
// Java Program to Swap Two values using third variable
// using temp variable
```

```java
// Importing generic libraries
import java.util.*;

class Swap {
    // Function to swap two numbers
    // Using temporary variable
    static void swapValuesUsingThirdVariable(int m, int n)
    {
        // Swapping the values
        int temp = m;
        m = n;
        n = temp;
        System.out.println("Value of m is " + m + " and Value of n is " + n);
    }


    // Main driver code
    public static void main(String[] args)
    {
        // Random integer values
        int m = 9, n = 5;

        // Calling above function to
        // reverse the numbers
        swapValuesUsingThirdVariable(m, n);
    }
```

```
}
```

output

Value of m is 5 and Value of n is 9

4.

```java
// Java Program to Check if Given Integer is Odd or Even

// Importing required classes
import java.io.*;
import java.util.Scanner;

// Main class
class Odd {

    // Main Driver Method
    public static void main(String[] args)
    {
        // Declaring and initializing integer variable
        int num = 10;

        // Checking if number is even or odd number
        // via remainder
        if (num % 2 == 0) {

            // If remainder is zero then this number iseven
```

```java
        System.out.println("Entered Number is Even");

    }


    else {

        // If remainder is not zero then this number is
        // odd
        System.out.println("Entered Number is Odd");

    }

}
}
```

Output

Entered Number is Even

5.

```java
// Java program to find all the
// prime numbers from 1 to N
class Prime {

    // Function to print all the
    // prime numbers till N
    static void prime_N(int N)
    {
        // Declaring the variables
        int x, y, flg;
```

```java
        // Printing display message
        System.out.println("All the Prime numbers within 1 and " + N +
"are:");

        // Using for loop for traversing all
        // the numbers from 1 to N
        for (x = 1; x <= N; x++) {

            // Omit 0 and 1 as they are
            // neither prime nor composite
            if (x == 1 || x == 0)
                continue;

            // Using flag variable to check
            // if x is prime or not
            flg = 1;

            for (y = 2; y <= x / 2; ++y) {
                if (x % y == 0) {
                    flg = 0;
                    break;
                }
            }

            // If flag is 1 then x is prime but
            // if flag is 0 then x is not prime
```

```java
            if (flg == 1)
                System.out.print(x + " ");
        }
    }


    // The Driver code
    public static void main(String[] args)
    {
        int N = 45;


        prime_N(N);
    }
}
```

Output

```
All the Prime numbers within 1 and 45 are:
2 3 5 7 11 13 17 19 23 29 31 37 41 43
```

6.

```java
// JAVA program to find Armstrong
// numbers between two integers
import java.io.*;
import java.math.*;


class Armstrong {
```

```java
// Function to print Armstrong
// Numbers between two integers
static void ArmstrongNum(int l, int h)
{
    for (int j = l + 1; j < h; ++j) {

        // Calculating number of digits
        int y = j;
        int N = 0;
        while (y != 0) {
            y /= 10;
            ++N;
        }

        // Calculating the sum of nth
        // power of all the digits
        int sum_power = 0;
        y = j;
        while (y != 0) {
            int d = y % 10;
            sum_power += Math.pow(d, N);
            y /= 10;
        }

        // Checking if the current number
```

```java
                // i is equal to the sum of nth
                // power of all the digits
                if (sum_power == j)
                    System.out.print(j + " ");
        }
    }


    // The Driver code
    public static void main(String args[])
    {
        int n1 = 50;
        int n2 = 500;
        ArmstrongNum(n1, n2);
        System.out.println();
    }
}
```

Output
```
153 370 371 407
```


7.

```java
// java program to check whether input
// character is a vowel or consonant


import java.io.*;


public class Vowel {
```

```java
    // Function to find whether an input
    // character is vowel or not
    static void Vowel_Or_Consonant(char y)
    {
        if (y == 'a' || y == 'e' || y == 'i' || y == 'o'
            || y == 'u')
            System.out.println("It is a Vowel.");
        else
            System.out.println("It is a Consonant.");
    }


    // The Driver code
    static public void main(String[] args)
    {
        Vowel_Or_Consonant('b');
        Vowel_Or_Consonant('u');
    }
}
```

Output

```
It is a Consonant.

It is a Vowel.
```

8.

```java
// Java program to find compound interest for
// given values.
```

```java
import java.io.*;

class CompoundInterest
{
    public static void main(String args[])
    {
        double principal = 10000, rate = 10.25, time = 5;

        /* Calculate compound interest */
        double CI = principal *
                    (Math.pow((1 + rate / 100), time));

        System.out.println("Compound Interest is "+ CI);
    }
}
// This code is contributed by Anant Agarwal.
```

Output

```
Compound Interest is 16288.946267774416
```

9.
```java
// Java program to find the perimeter of a Rectangle

import java.io.*;
```

```java
class Perimeter {

    // Method to calculate the perimeter of the rectangle
    // with given length and breadth
    static void perimeter(int length, int breadth)
    {
        // Calculate the 'perimeter' using the formula
        int perimeter = 2 * (length + breadth);

        System.out.println("The perimeter of the given
rectangle of length "
                + length + " and breadth " + breadth + " = "
                + perimeter);
    }

    // Driver method
    public static void main(String[] args)
    {
        // Initialize a variable length that stores length of
        // the given rectangle
        int length = 10;

        // Initialize a variable breadth that stores breadth
        // of the given rectangle
        int breadth = 20;
```

```
            // Call the perimeter method on these length and

            // breadth

            perimeter(length, breadth);

        }

}
```

Output

10

Right Triangle Star Pattern:

```
import java.io.*;


// Java code to demonstrate right star triangle

public class Pattern {

    // Function to demonstrate printing pattern

    public static void StarRightTriangle(int n)

    {

        int a, b;


            // outer loop to handle number of rows
```

```java
            // k in this case
            for (a = 0; a < n; a++) {

                    // inner loop to handle number of columns
                    // values changing acc. to outer loop
                    for (b = 0; b <= a; b++) {
                        // printing stars
                        System.out.print("* ");
                    }

                    // end-line
                    System.out.println();
            }
        }


    // Driver Function
    public static void main(String args[])
    {
        int k = 5;
        StarRightTriangle(k);

    }
}
```

Output

```
*
* *
* * *
```

```
*  *  *  *

*  *  *  *  *
```