

# C++ Basic Input/Output

C++ I/O operation is using the stream concept. Stream is the sequence of bytes or flow of data. It makes the performance fast.

If bytes flow from main memory to device like printer, display screen, or a network connection, etc, this is called as **output operation**.

If bytes flow from device like printer, display screen, or a network connection, etc to main memory, this is called as **input operation**.

## I/O Library Header Files

Let us see the common header files used in C++ programming are:

Header File	Function and Description
<iostream>	It is used to define the <b>cout</b> , <b>cin</b> and <b>cerr</b> objects, which correspond to standard output stream, standard input stream and standard error stream, respectively.
<iomanip>	It is used to declare services useful for performing formatted I/O, such as <b>setprecision</b> and <b>setw</b> .
<fstream>	It is used to declare services for user-controlled file processing.



## Standard output stream (cout)

The **cout** is a predefined object of **ostream** class. It is connected with the standard output device, which is usually a display screen. The cout is used in conjunction with stream insertion operator (<<) to display the output on a console

Let's see the simple example of standard output stream (cout):

```
#include <iostream>
using namespace std;
int main( ) {
    char ary[] = "Welcome to C++ tutorial";
    cout << "Value of ary is: " << ary << endl;
```

```
}
```

Output:

```
Value of ary is: Welcome to C++ tutorial
```

## Standard input stream (cin)

The **cin** is a predefined object of **istream** class. It is connected with the standard input device, which is usually a keyboard. The cin is used in conjunction with stream extraction operator (>>) to read the input from a console.

Let's see the simple example of standard input stream (cin):

```
#include <iostream>
using namespace std;
int main( ) {
    int age;
    cout << "Enter your age: ";
    cin >> age;
    cout << "Your age is: " << age << endl;
}
```



Output:

```
Enter your age: 22
Your age is: 22
```

## Standard end line (endl)

The **endl** is a predefined object of **ostream** class. It is used to insert a new line characters and flushes the stream.

Let's see the simple example of standard end line (endl):

```
#include <iostream>
using namespace std;
int main( ) {
    cout << "C++ Tutorial";
    cout << " Javatpoint"<<endl;
    cout << "End of line"<<endl;
}
```

```
}
```

Output:

```
C++ Tutorial Javatpoint  
End of line
```

← prev

next →

## Please Share



## Join Javatpoint Test Series

Placement	AMCAT	Bank	GATE
Papers	eLitmas	PO/Clerk	NEET
TCS	Java	UPSSSC	CAT
HCL	Python	Government	Railway
Infosys	C	Exams	CTET
IBM	Programming	SSC	IIT JEE
Accenture	Networking	Civil Services	SBI



## Learn Latest Tutorials



VBA



SSIS



NGINX



SSRS



Blockchain



ETL



Bugzilla



Jenkins



Pytorch



Agile



JIRA



Tableau

## Preparation



Aptitude



Reasoning



Verbal A.



Interview



Company

## Trending Technologies



AI



AWS



Selenium



IoT



Cloud



Hadoop



ReactJS



React Native  
Tutorial



NODE  
JS



ReactJS

React Native

Node.js



D. Science



Angular 7

## B.Tech / MCA



DBMS



DS



DAA



OS



C. Network



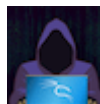
Compiler D.



COA



D. Math.



E. Hacking



C. Graphics



Software E.



Web Tech.



Cyber Sec.



Automata



C



C++



Java



.Net





Python



Programs



Control S.

