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 **cout, cin and cerr** 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 **setprecision and setw.**
<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

Bugzilla

Jenkins

Pytorch

Agile

JIRA

Tableau

Preparation

Aptitude

Reasoning

Verbal A.

Interview

Company

Trending Technologies

AI

AWS

Selenium

IoT

Cloud

Hadoop

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.