

A job ready bootcamp in C++, DSA and IOT

## Standard input and output



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# Agenda

- ① Write your first C++ program
- ② cout and cin
- ③ iostream
- ④ namespace
- ⑤ endl

Write a C++ program to calculate  
Square of a number .

```
#include <stdio.h>
int main()
{
    int x,y;
    printf("Enter a number");
    scanf("%d", &x);
    y=x*x;
    printf("Square of %d is %d", x, y);
    return 0;
}
```

What is cout ?

printf() → predefined function

cout → predefined Object

<< → insertion operator

printf("Hello");

cout << "Hello";

printf("value of a is %d", a);

cout << "value of a is " << a;

class

variables → properties  
function → methods  
operators

Object . variable

Object . functions

Object .

जादू में बताऊंगा

Object Operator

What is cin?

scanf() → Predefined Function

cin → Predefined Object

>> → Extraction Operator

scanf("%d", &x);

cin >> x;

scanf("%d %d", &a, &b);

cin >> a >> b;

## iostream

iostream is a standard C++ header for declarations of cout and cin

iostream.h was old and non standard C++ way to declare cout and cin.

## namespace

```
namespace n1
{
    int a=5;
}

namespace n2
{
    int a=6;
}

int main()
{
    cout<< n1::a;
    cout<< n2::a;
}
```

namespace in C++  
allowed us to group  
named entities like  
variables, functions  
and classes.

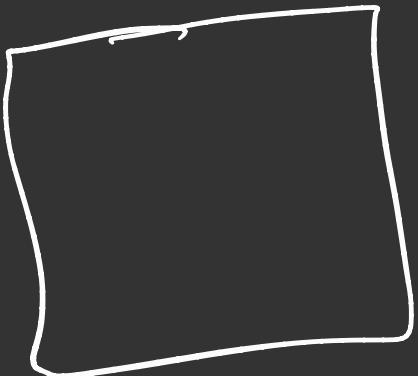
namespace declarations  
appear only at global  
scope

std  
≡

std  
≡

std  
≡

std



namespace  
n1

int x;  
void f1()

≡

○ ○ ○  
○ ○ ○

n2

void f1()  
void f2()

≡

○ ○ ○  
○ ○ ○

n1::f1()

↑  
scope resolution  
operator

endl

endl is a manipulator and does the same task as '\n' (newline) character during standard output.