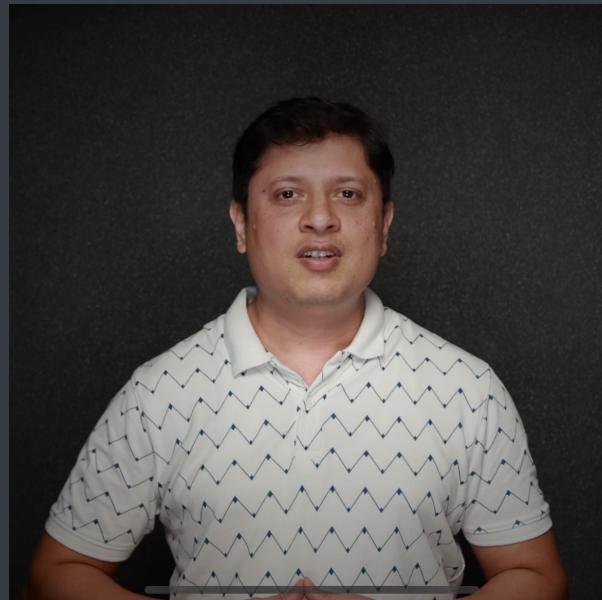


C, C++, DSA in depth

Standard input and output



Saurabh Shukla (MySirG)

Agenda

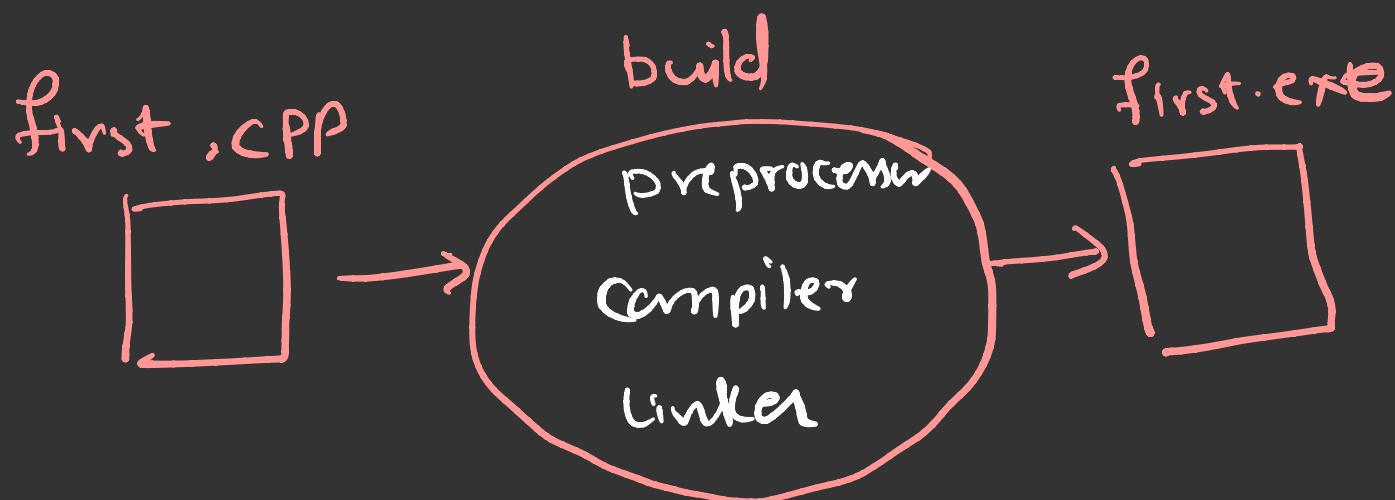
- ① Write your first C++ program
- ② cout and cin
- ③ iostream
- ④ namespace
- ⑤ endl

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;
}
```

For first program of C++

- ① file extension must be . CPP
- ② g++ compiler
- ③ C++ is a superset of C



```
> g++ -std=c++17 -o first first.cpp
```

What is cout ?

printf() → predefined function

cout → predefined Object

→ output stream

<< → insertion operator / put to operator

printf("Hello");

cout << "Hello";

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

cout << "Value of a is " << a;

class

variables → properties
function → methods verb
operators

Object . variable

Object . functions

Object .

जादे में बताऊंगा

Object Operator

What is cin?

scanf() → Predefined function

cin → predefined object

>> → Extraction operator / get from

scanf("%d", &x);
cin >> x;

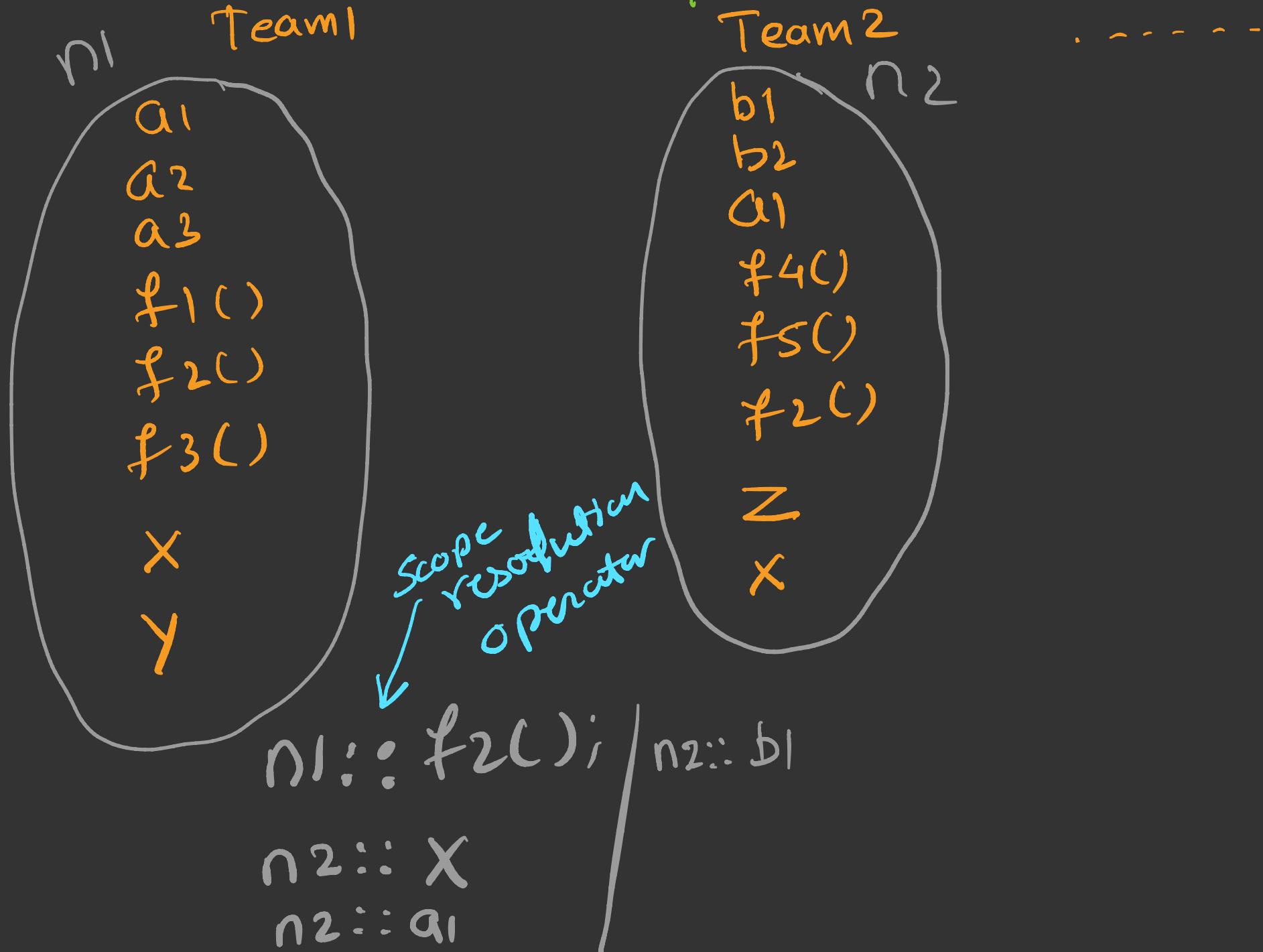
scanf("%d %d", &a, &b);
cin >> a >> b;

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 → Keyword



namespace

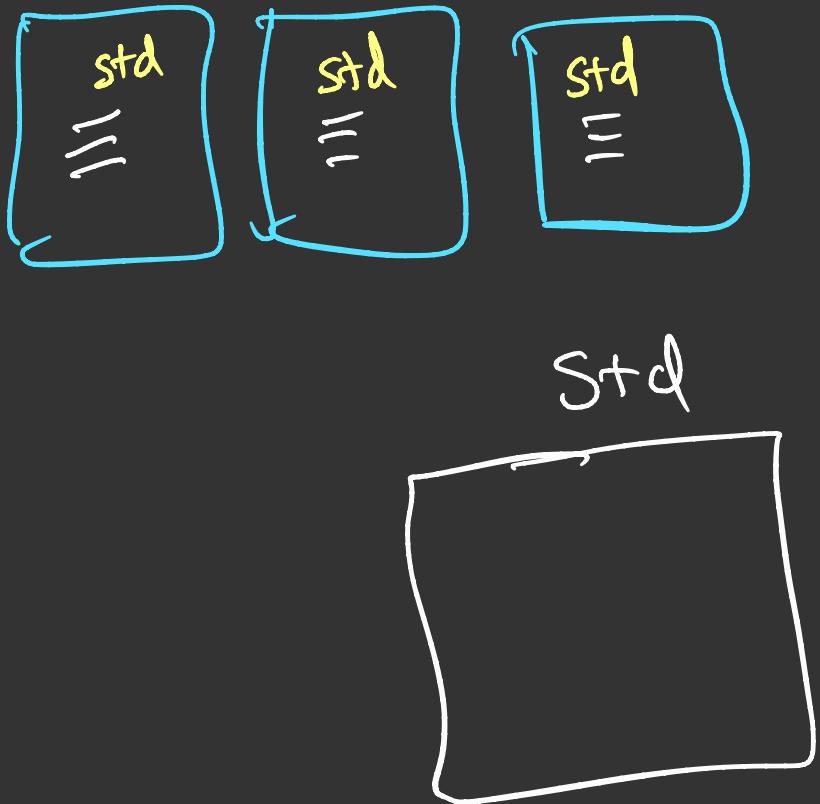
```
namespace n1
{
    int a=5;
}

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

namespace

n1

int x;
void f1()

=

o o o
c s r

n2

void f1()
void f2()

=

o o o
o o o

n1::f1()

↑
scope resolution
operator

endl

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