

C, C++, DSA in depth

Algorithms



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Agenda

- ① STL algorithms
- ② major methods
- ③ lambda

Algorithms

C++ standard library provides template functions that perform algorithms.

The C++ standard library algorithms are generic because they can operate on a variety of data structures.

The data structures that they can operate on, include not only the C++ Standard Library container classes such as vector and list, but also program defined data structures and arrays of elements that satisfy the requirements of a particular algorithm.

C++ standard library algorithms achieve this level of generality by accessing and traversing the elements of a container indirectly through iterators.

The header for STL algorithm library is `algorithm`

Some of the functions

adjacent_find()

all_of()

any_of()

binary_search()

lower_bound()

upper_bound()

max_element()

min_element()

for_each()

generate()

count()

find()

equal()

fill()

merge()

remove()

reverse()

replace()

lambda in C++

[capture clause] (parameters) → return-type
{
 definition
}

Introduced in C++11

[] (int a, int b) → int { return (a+b) }