

Sort in C++11

Sort este o functie definita in `<algorithm>`, ce sorteaza elementele dintr-un container ce permite acces in $O(1)$ la orice element.

Declararea din <algorithm>

(1)

```
template< class RandomIt >  
void sort( RandomIt first, RandomIt last );
```

(2)

```
template< class RandomIt, class Compare >  
void sort( RandomIt first, RandomIt last,  
Compare comp );
```

Compare

- * **sort**
- * **set**
- * **map**
- * **priority_queue**
- * **nth_element**
- * **max**
- * **min**

Complexitate

$O(N \cdot \log(N))$

$N = \text{std::distance}(\text{first}, \text{last})$ comparații

Mod de functionare

Este folosit introsort, o sortare hibrida intre quicksort si heapsort.

$$\text{depth_limit} = 2 \cdot \lfloor \log_2(N) \rfloor$$