

# Unordered Set

An `unordered_set` is an unordered associative container implemented using a hash table where keys are hashed into indices of a hash table so that the insertion is always randomized. All operations on the `unordered_set` take constant time  $O(1)$  on an average which can go up to linear time  $O(n)$  in the worst case which depends on the internally used hash function, but practically they perform very well and generally provide a constant time lookup operation. The `unordered_set` can contain a key of any type – predefined or user-defined data structure but all the keys must be `unique`.

1. To use an unordered set, you have to include the 'unordered\_set' header file

```
#include <unordered_set>
```

2. The syntax to define an unordered set is:

```
std::unordered_set<data_type> name;
```

## Functions

---

Most of the functions of unordered set are same as `set`. But the `upper_bound()` and `lower_bound()` functions do not exist for an unordered set.