Multiset

Multisets are a type of associative containers similar to set with the exception that they can have duplicate values. The elements are still sorted like a set.

1. To use a multiset, you have to import the 'set' header file

```
#include <set>
```

2. The syntax to define a multiset is:

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

3. The syntax to define a descending order multiset is:

```
std::multiset<data_type, std::greater<data_type>> name;
```

Functions

Most of the functions are similar to set.

- insert(x) - Inserts the element x in the multiset. -> O(log n)
- clear() - Removes all elements from the multiset -> O(n)
- erase(const g) - Removes all occurrences of value 'g' from the multiset.
- erase(iterator position) - Removes the element at the position pointed by the iterator. You can also give beginning and end iterator to remove all elements between them
- count(const g) - Returns the number of matches to element 'g' in the multiset.

Other functions work same as set.

The time complexities for doing various operations on Multisets are –

- Insertion of Elements- O(log N)
- Accessing Elements – O(log N)
- Deleting Elements- O(log N)