

Searching Multimaps Exercises

- Describe the `lower_bound()` and `upper_bound()` member functions of `multimap` and `multiset`
- What are the results of calling `upper_bound()` and `lower_bound()` with a key that is not in the container?
- How can we use the returned iterators in a loop?
- Write a simple program to demonstrate the use of `lower_bound()` and `upper_bound()`

- Write a program which
 - Calls `lower_bound()` and `upper_bound()`
 - Uses a loop to find an element which has a given key and value
 - Displays the element's key and value

- Write a program which
 - Uses `lower_bound()` and `upper_bound()` to find all the elements which have a given key and value
 - Calls a standard algorithm to store these elements in a vector
 - Displays the contents of the vector

- Describe the `equal_range()` member function
- Rewrite the last program to use `equal_range()`

- Write a program which creates a vector with some duplicate elements and calls `lower_bound()`, `upper_bound()` and `equal_range()` on it
 - Are there any particular requirements that apply to the vector?