Data Structures

STL Priority Queue

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Max-heap

```
 8 void test_prioirty_queue_max_heap() {
 9     // It acts like a max-heap
10     priority_queue<int> mx_heap;
11     mx_heap.push(1);
12     mx_heap.push(3);
13     mx_heap.push(7);
14     mx_heap.push(5);
15     mx_heap.push(9);
16
17     while (!mx_heap.empty()) {
18         cout << mx_heap.top() << " ";
19         mx_heap.pop();
20     }
21     cout << "\n";
22     // 9 7 5 3 1
23 }
```

Min-Heap

```
25 void test_prioirty_queue_min_heap() {
26     // It acts like a min-heap...just copy the syntax
27     priority_queue <int, vector<int>, greater<int>> mn_heap;
28     mn_heap.push(1);
29     mn_heap.push(3);
30     mn_heap.push(7);
31     mn_heap.push(5);
32     mn_heap.push(9);
33 
34     while (!mn_heap.empty()) {
35         cout << mn_heap.top() << " ";
36         mn_heap.pop();
37     }
38     cout << "\n";
39     // 1 3 5 7 9
40 
41     // Min heap of strings
42     priority_queue <string, vector<string>, greater<string>> mn_heap_str;
43 
```

"Acquire knowledge and impart it to the people."

"Seek knowledge from the Cradle to the Grave."