Heaps STL

1. We have a priority_queue container in the Standard Template Library for Heaps.
2. By default, priority_queue in STL is a MaxHeap.

Declaration

1) MaxHeap

priority_queue<int, vector<int> > pq;

2) MinHeap

To declare MinHeap, we take one more parameter that is *greater<int>*.

priority_queue<int, vector<int>, greater<int> > pq;

Note: We can take any datatype for the node in priority_queue such as pair<int,int> etc. For that we just need to replace *int* with *pair<int,int>.*

Different operations

Operation	Description	Time Complexity
push()	Pushes the element into the heap. Example: pq.push(9).	O(log(n))
pop()	Pops the element from the heap. Example: pq.pop().	O(log(n))
top()	Returns the top element of the heap. Example: pq.top()	O(1)
size()	Returns the size of the heap. Example: pq.size()	O(1)