IEEE CP SMP 2018

Assignment 2

Topic: Time Complexity

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1. Stacks

- top() : O(1)
- push() : O(1)
- pop() : O(1)
- size() : O(n)

2. Queues

- front() : O(1)
- back() : O(1)
- push() : O(1)
- pop() :O(1)
- size() : O(n)

3. Vectors

- begin():O(1)
- end():O(1)
- push_back():O(1)
- erase():O(n+m),n=removed element;m=number of elements moved
- size():0(1)
- sort():0(n log )
- find(): O(n)

4. Arrays

- sizeof():O(1)
- sort():O(n log^2 n)
- lower_bound():O(n)
- upper_bound():O(n)
- next_permutation():O(1)
- prev_permutation():O(1)

5. Pair

- make_pair():O

- push_back():O(1)
- begin():O(1)
- end():O(1)
- sort():O

6. Priority Queue

- push():O(n)
- top():O(1)
- make_pair():O
- pop():O(logn)
- empty():O(1)
- size():O(1)

7. Map

//got really confused with maps

8. Set

- insert():O(logn)
- size():O(1)
- begin():O(1)
- erase():O(n)
- end():O(1)
- find(): O(n)

9. MultiSet

- insert():O(logn)
- make_pair():O
- begin():O(1)
- erase():O(n)
- end():O(1)
- size():O(1)

10. Double Ended Queue

- begin():O(1)
- end():O(1)
- push_front():O(1)

- push_back():O(1)
- pop.front():O(1)
- pop.back():O(1)
- size():O(n)