Longest substring w/o repeating char.

q	u	u	k	e	u
0	1	2	3	4	5

ans = 3.

q u u → u u → u k

ukeu

q	✗ 0
u	✗ ✗ ✗ (2) 1
k	1
e	1

aaa bb ccc

→ longest palindrome (len).

a - 3

b - 2

c - 3

2

E

cbaaabc

7

f

→ even +

→ odd { — → even

— → even

— → even }

+1

Queue — collection.

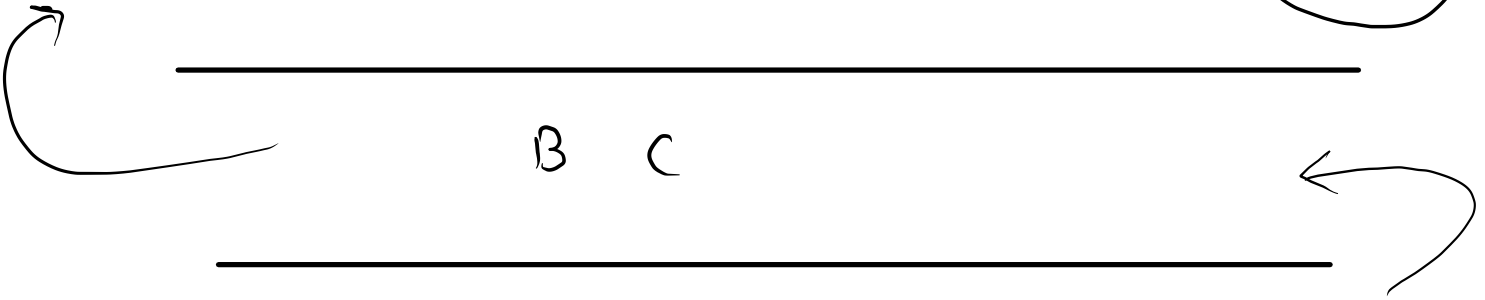
↳ interface.

(Pipe like DS).

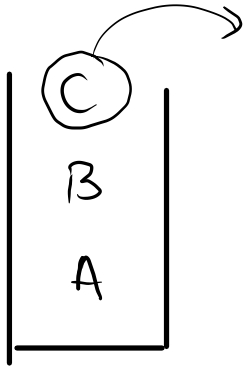
Stack

↳ class.

FIFO



A



LIFO

Print Binary.

n = 5 — i/p.

1 — 1
2 — 10
3 — 11
4 — 100
5 — 101

n = 5.

o/p.

1 10 11 100 101

$1 \le i \le n$

Binary.

n = 5.

"1" "10" "11" "100" "101" "110" "111"
"1000" "1001"

Qu

rem = "1" "10" "11" "100" "101"

rem
print
add 2 more
1 → 0 1

1
10
11
100
101

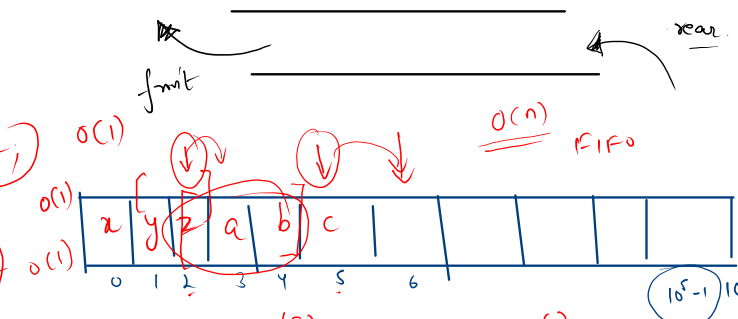
rem → add 2

0001
0010
0011
0100
0101
0110
0111

"1" "10" "100"

"1"

Queue. (arr).



(a)

remove()

z a b

rear = front

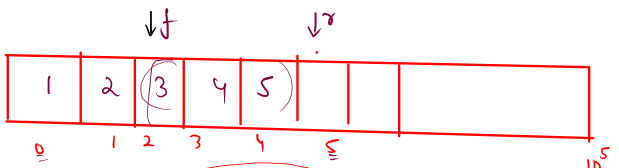
add(z)

(y)

(z)

(b)

print front rear.



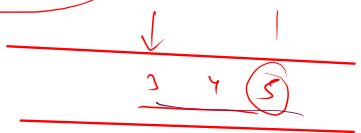
Add { 1 2 3 4 5

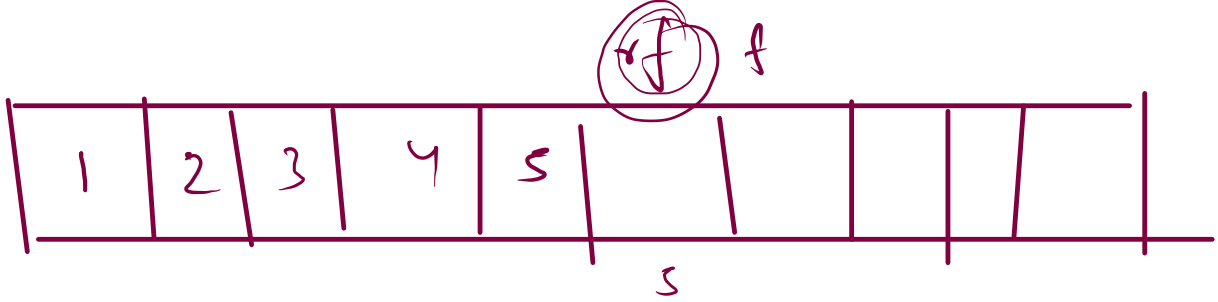
rem { 2 times

size = r - f = 5

r - f

5 - 2 = 3





1 2 3 4 5

$f = 5$

$5 - 5 = 0$

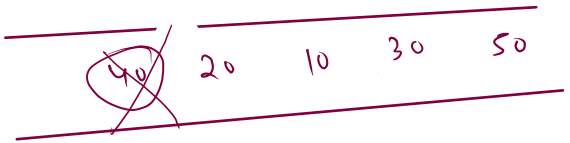
$[f, r)$ empty.

$r == f$

$s = 0$

delete from Q

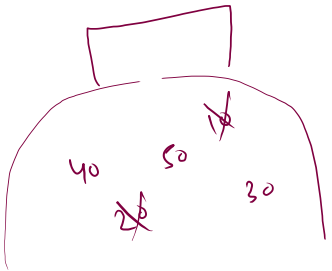
Qu. remove



priority is minimum ele.

pq.remove() //10

pq.remove() //20

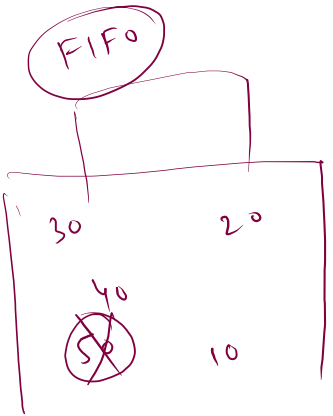


priority → is max

FIFO

pq.remove()
50

pq.remove()
40



40
20
10
30
50