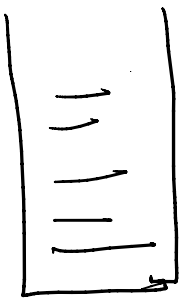
28-Dec-21

28 December 2021 20:57

Stack :-

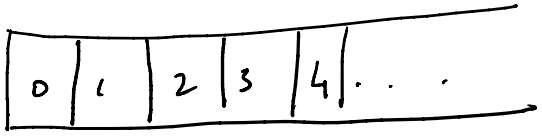


LIFO
FILO

	T.C.
=> Push	O(1)
=> Pop	O(1)
=> isEmpty	O(1)
=> size()	O(1)
=> peek()	O(1)

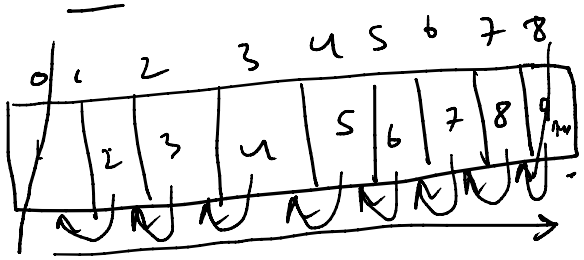
Stack {
ArrayList<Integer> data;
}

Queue : FIFO, LILO



	T.C.
add()	O(1)
remove()	O(n)
Peek	O(1)
isEmpty	O(1)
size()	O(1)

Arraylist



Balanced Parenthesis :-

( ) => true

[{ ( ) }] => true

[( ) => false

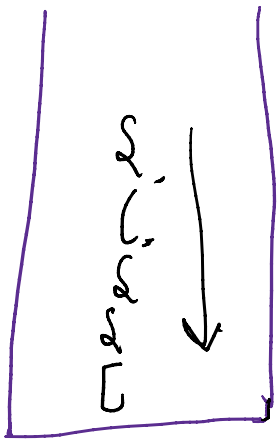
] => false

( ] => false

] = false

"[{{({})}}]"

0 1 2 3 4 5 6 7 8 9



(a+b)

{[{}] => false) (=> false

```
if(c=='['||c=='{'||c=='('){
    push(c);
} else if(c==']'||c=='}'||c==')'){
    if(st.isEmpty) return false;
    else if(c==']' && st.peek=='[')
        Pop
    else if(c=='}' && st.peek=='{')
        Pop
    else if(c==')' && st.peek=='(')
        Pop
    else return false;
  } else continue;
}
return st.isEmpty();
}
```

Duplicate Brackets

((a+b)) = True

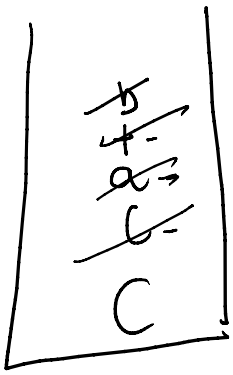
(a+(b+c)) = false

((a+b)+(c+d)) = false

((a)) = true

"(~~(a+b)~~)"

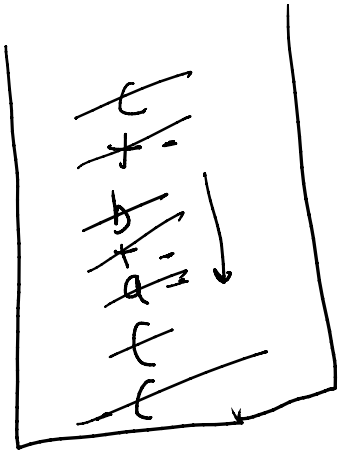
if (closing bracket {



} else {

puts (a)

((a+b)+c)



=> return false