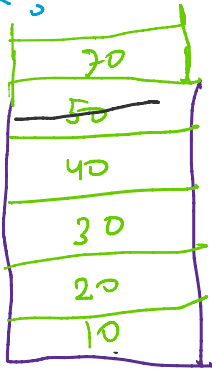


LIFO
FILO

Stack:-



$peek() \Rightarrow 50$
 $pop() \Rightarrow 50$
 $size() \Rightarrow 4$
 $push(70)$

Array of integers data:

$$\begin{matrix} 0 & 1 & 2 & 3 & 4 & 5 & 6 \\ [10, 20, 30, 40, 50, 60, 70] \end{matrix}$$

$remove(0) \Rightarrow O(1)$

$remove(arr.size()-1) \Rightarrow O(1)$

Valid Parenthesis:-

$[()] \Rightarrow \text{true}$

$[()] = \text{false}$

$[(\&)]$

$$\left[\begin{array}{c} \{ \\ (\\ [\end{array} \right] \Rightarrow \text{false}$$

$$\begin{array}{c} (\quad [\quad \{ \text{ - opening} \\) \quad] \quad \} \text{ - closing} \end{array}$$

$$11 \quad \begin{matrix} 0 & 1 & 2 & 3 & 4 & 5 & 6 & 7 \\ [(() [])] \end{matrix} \quad 11$$

$$\left[\begin{array}{c} \cancel{[} \\ \cancel{(} \\ \cancel{[} \\ \cancel{[} \end{array} \right]$$

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=> false

50 -> 40 -> 30 -> 20 -> 10