

Live Assignment [2] (190050820001)

* Operations on STACKS -

1.) Algorithm Push - Array

Input: The new item ITEM to be pushed onto it.

Output: A stack with a newly pushed ITEM at the TOP position.

Data Structure: An array A with TOP as the pointer.

Steps:

1. If $TOP \geq SIZE$ then
2. Print "Stack is full"
3. Else
4. $TOP = TOP + 1$
5. $A[TOP] = ITEM$
6. EndIf
7. Stop

2.) Algorithm Pop - Array

Input: A stack with elements.

Output: Removes an item ITEM from the top of the stack if it is not empty.

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Data Structure: An array A with TOP as the pointer.

Steps:

1. If $TOP \leq 1$ then
2. Print "Stack is empty"
3. Else
4. $ITEM = A[TOP]$
5. $TOP = TOP - 1$
6. EndIf
7. Stop