

ALGORITHM OF STACK OPERATION

PUSH (INSERT) OPERATION ALGO.

Step-1 [check for static overflow]

if $\text{top} \geq \text{size}$ then
o/p "stack is overflow"

exit

Step-2 [increments the top values by one]

$\text{top} = \text{top} + 1$

Step-3 [perform insertion]

$\text{stack}[\text{top}] = \text{data}$

Step-4 exit

POP (DELETE) OPERATION ALGO.

Step-1 [check the stack is empty]

if $\text{top} = 0$ then

o/p "stack is under flow"

exit

Step-2 [remove the top information]

$\text{data} = \text{stack}[\text{top}]$

$\text{top} = \text{top} - 1$

Step-3 [return the format information of the
stack]

Step-4 exit

PEEP (SEARCH) OPERATION ALGO.

Step-1 [check the stack is empty]

if $\text{top-loc}+1 < 0$ then

o/p "stack is overflow"

exit

Step-2 [check max position of top]

if $\text{loc} > \text{top}$

o/p "the max position of top", top

Step-3 if $i == \text{loc}$

return (peep element)

Step-4 exit

DISPLAY() OPERATION ALGO.

Step-1 [check the stack is empty]

if $\text{top} = 0$ then

o/p "stack is under flow"

exit

Step-2 [Display values]

repeat step-3 for $i = \text{top}$ To $i \geq 0$

Step-3 print $\text{stack}[i]$

Step-4 exit

UPDATE OPERATION ALGO.

Step-1 [check the stack is empty]

if $\text{top-loc}+1 < 0$ then

o/p "stack is empty"

exit

Step-2 [check max position of top]

if $\text{loc} > \text{top}$

o/p "the max position of top", top

Step-3 [change the element]

if ($\text{loc} == i$)

(1) $\text{stack}[\text{top}] = \text{val}$

(2) $\text{top} = \text{loc}$

(3) return val

Step-4 exit

THANK
YOU
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