Stack using Array

Algorithm

display

1) Check condition TOP == -1, if true Stack is empty
2) Display "TOP" and display Stack[TOP]
3) Repeat until i > 0, initially i = TOP-1 display value of stack[i]
4) End.

Push

1) Check condition if TOP == MAX-1
   1.1) If true, display "STACK IS FULL"
2) TOP++
3) STACK[TOP] = item
4) End.

Pop

1) Check condition TOP == -1
   1.1) If true display "Underflow"
2) deleteItem = STACK[TOP];
3) TOP--
4) Display "Deleted Successfully"
5) End.

Main

1) Read value to MAX
2) Intialize ITEM=0 , CHOICE=0, TOP=-1
3) Repeat until user says to stop
4) Enter the value of CHOICE
4.1) if CHOICE=1, Execute display
4.2) if CHOICE=2, Read value to ITEM and then execute PUSH
4.3) if CHOICE=3, Execute POP
4.4) if CHOICE=4, Exit the Repeat loop
5) End

Output

Enter the MAX Value of Stack 10

Enter Choice
1) display
2) insert (Push)
3) remove (POP)
4) Exit . . . 2
Enter the Item to be insert: 3

Enter choice
1) display
2) insert (Push)
3) remove (POP)
4) Exit . . . 1

3 <--
Enter Choice
1) display
2) insert (Push
3) remove (POP)
4) Exit . . . 3
3 deleted Successfully