Page No. :
Date : / 201

Week 2 - Stack implementation:

Write a program to simulate working of stack using an array with the following:
a) Push b) Pop c) Display.

Algorithm:

Step 1: [Method to implement Push]
Overflow check:
if TOP = MAXSIZE - 1
then print STACK OVERFLOW
return

Step 2: Increment Top value:
TOP = TOP + 1

Step 3: Insert item at top:
S[TOP] = item

Step 4: Push method ends

Step 5: [Method to implement Pop]
Underflow check:
if TOP = -1
then print STACK UNDERFLOW
return

Step 6: Delete item and then print the item deleted:
item = S[TOP]
print item

RISH

Step 7: Decrement Top value:
TOP = TOP - 1
Step 8: Pop method ends
Step 9: [Method to Implement Display]
Underflow check:
if TOP = -1
then print STACK IS EMPTY
return
Step 10: for(i=0; i<=TOP; i++)
print S[i]
Step 11: Display method ends
Step 12: [Main method implementation]:
Enter choice, 1.Push, 2.Pop, 3. Display or 4 Exit
Step 13: Switch(choice)
Case 1: call ~~Pop/Peek~~ Push method.
~~Print~~ input items to be inserted.
Case 2: Call Pop method
Case 3: Call Display method.
Default: exit