Program 15 To implement Push & Pop operations on Stack

Algorithm

PUSH

Step 1:-IF TOP = = MAX-1 then

Stack is overflow

Exit

Step 2:-TOP++

Step 3:-Read DATA

Step 4:-Stack [TOP]

Step5:-Stop

POP

Step 1:- IF TOP = = -1 then

Stack is underflow Exit

Step 2:-Stack [TOP] = NILL

Step 3:-TOP = TOP – 1

Step 4:-Stop

Source code

#include<stdio.h>

#include<stdlib.h>

#define MAX 3

int TOP=-1;

int push(int []);

int pop(int []);

int display(int []);

void main()

{

int array[5],d;

system("color F9");

do

{

printf("\nENTER THE CHOICE\*\*\n 1.PUSH\n2.POP\n3.DISPALY\n4.EXIT\n ");

scanf("%d",&d);

switch(d)

{

case 1: push(array);

break;

case 2: pop(array);

break;

case 3: display(array);

break;

case 4: exit(0);

break;

default : printf("\nWrong choice\n");

}

}while(1);

}

int push(int array[])

{

int ITEM;

if(TOP==MAX-1)

{

printf("\nOVERFLOW\n");

}

else

{

printf("\nEnter the item\n");

scanf("%d\n",&ITEM);

TOP++;

array[TOP]=ITEM;

return 0;

}

}

int pop(int array[])

{

int ITEM;

if(TOP==-1)

{

printf("\nunderflow\n");

}

ITEM=array[TOP];

TOP--;

return 0;

}

int display(int array[])

{

int i;

for(i=0;i<=TOP;i++)

{

printf("%d\n",array[i]);

}

}



