LAB 1

1BM23CS027

#include <stdio.h>

#include <stdlib.h>

#define MAX 3

int s[10], top=-1, i, item, ch;

void push();

int pop();

void display();

void main()

{

while(1)

{

printf("1:push\n2:pop\n3:display\n4:exit\n");

printf("enter your choice:\n");

scanf("%d",&ch);

switch(ch)

{

case 1: push();

break;

case 2: item=pop();

if(item!=-1)

printf("popped element=%d",item);

break;

case 3: display();

break;

case 4: exit(0);

break;

}

}

}

void push()

{

if(top==MAX-1)

{

printf("stack overflow");

return;

}

printf("enter element to be pushed:");

scanf("%d",&item);

top=top+1;

s[top]=item;

}

int pop()

{

if(top==-1)

{

printf("stack underlow\n");

return(-1);

}

item=s[top];

top=top-1;

return(item);

}

void display()

{

if(top==-1)

{

printf("stack is empty");

return;

}

printf("stack contents:\n");

for(i=top;i>=0;i--)

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

}