// Stack implementation in C using Array.

#include<stdio.h>

#include<stdlib.h> // header file for exit and return function

#define max 5

int stack[max],top=-1; // global variable

void push();

int pop();

void disp();

main()

{

int w,r; // w stand for your want and r for catch return value

for(;;) // for infinite loop

{

printf("\n1. Push");

printf("\n2. Pop");

printf("\n3. Display the Stack ");

printf("\n4. EXIT");

printf("\n\nEnter what you want:");

scanf("%d",&w);

switch(w)

{

case 1:

push();

break;

case 2:

r=pop();

break;

case 3:

disp();

break;

case 4:

exit(1);

default:

printf("\nInvalid Choice !!\n");

}

}

}

void push()

{

int num;

if(top==max-1)

{

printf("\nStack is Full !\n");

return;

}

else {

printf("\nEnter a number for Insert:");

scanf("%d",&num);

top++;

stack[top]=num;

}

}

int pop()

{

int e;

if(top==-1)

{

printf("\nStack is Empty !!\n");

return;

}

else {

e=stack[top];

printf("\n%d was Deleted !\n",e);

top--;

return e;

}

}

void disp()

{

int i;

if(top==-1){

printf("\nNothing to Display !!\n");

return;

}

else {

printf("\n");

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

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

printf("\n");

}

}