#include <stdio.h>

#include <stdlib.h>

struct node

{

int info;

struct node \*ptr;

}\*top,\*top1,\*temp;

int count = 0,size;

void main()

{

int n, ch, e;

printf("STACK OPERATIONS")

printf("\n 1 - PUSH");

printf("\n 2 - POP");

printf("\n 3 - DISPLAY");

printf("\n 4 - EXIT");

CREATE();

while (1)

{

printf("\n ENTER CHOICE : ");

scanf("%d", &ch);

switch (ch)

{

case 1:

printf("ENTER DATA TO BE PUSHED : ");

scanf("%d", &n);

PUSH(n);

break;

case 2:

POP();

break;

case 3:

DISPLAY();

break;

case 4:

exit(0);

default :

printf(" WRONG CHOICE ");

break;

}

}

}

void CREATE()

{

top = NULL;

}

void PUSH(int data)

{

if (top == NULL)

{

top =(struct node \*)malloc(1\*sizeof(struct node));

top->ptr = NULL;

top->info = data;

}

else

{

temp =(struct node \*)malloc(1\*sizeof(struct node));

temp->ptr = top;

temp->info = data;

top = temp;

}

count++;

}

void DISPLAY()

{

top1 = top;

if (top1 == NULL)

{

printf("STACK IS EMPTY");

return;

}

while (top1 != NULL)

{

printf("%d ", top1->info);

top1 = top1->ptr;

}

}

void POP()

{

top1 = top;

if (top1 == NULL)

{

printf("\n UNDERFLOW");

return;

}

else

top1 = top1->ptr;

printf("\n POPPED VALUE IS %d", top->info);

free(top);

top = top1;

count--;

}