#include<stdio.h>

#include<stdlib.h>

typedef struct

{

int key;

}element;

struct stack

{

element data;

struct stack \* link;

};

typedef struct stack \*stackptr;

stackptr top[100];

void create()

{

int i;

for(i=0;i<100;i++)

{

top[i]=NULL;

}

}

void push(element item,int i)

{

stackptr temp;

temp=(struct stack\*)malloc(sizeof(struct stack));

temp->data=item;

temp->link=top[i];

top[i]=temp;

}

element pop(int i)

{

stackptr temp=top[i];

element item;

element x;

x.key=-1;

if(!temp)

return x;

item=temp->data;

top[i]=top[i]->link;

free(temp);

return item;

}

void display(int i)

{

stackptr temp=top[i];

for(;(temp)!=NULL;temp=temp->link)

{

printf("%d\t",(temp->data).key);

}

}

void main()

{

create();

int a,j;

while(1){

printf("enter the stack number:\n");

scanf("%d",&a);

printf("Enter 1 to push\n2 to pop\n3 to display.\n");

int o;

element item;

scanf("%d",&o);

switch (o)

{

case 1:

printf("Enter the item:\n");

scanf("%d",&j);

item.key=j;

push(item,a);

break;

case 2:

printf("%d",pop(a).key);

break;

case 3:

display(a);

}

printf("\nenter 0 to exit\n");

int b;

scanf("%d",&b);

if (b==0)

{

break;

}

}

}