#include<stdio.h>

#include<stdlib.h>

void push();

void pop();

void display();

void peek();

struct node

{

int data;

struct node \*next;

}\*head,\*temp;

int main()

{

int n,i;

scanf("%d",&n);

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

{

push();

}

display();

peek();

pop();

display();

peek();

return 0;

}

void push()

{

struct node \*newnode=(struct node\*)malloc(sizeof(struct node));

scanf("%d",&newnode->data);

if(head==NULL)

{

head=newnode;

newnode->next=NULL;

}

else

{

newnode->next=head;

head=newnode;

}

}

void pop()

{

if(head==NULL)

{

printf("stack is empty");

}

else

{

temp=head;

head=temp->next;

free(temp);

}

}

void display()

{

temp=head;

while(temp!=NULL)

{

printf("\n %d ",temp->data);

temp=temp->next;

}

}

void peek()

{

temp=head;

printf(" %d ",temp->data);

}