#include<stdio.h>

#include<string.h>

#include<stdlib.h>

struct listnode {

int val;

struct listnode \*next;

};

struct listnode\* mergeTwoLists(struct listnode\* list1,struct listnode\* list2){

struct listnode \*temp,\*l;

if(list1==NULL || list2==NULL){

if(list1==NULL){

return(list2);

}else if(list2==NULL){

return(list1);

}

}

if(list1->val<list2->val){

l = list1;

list1 = list1->next;

}else{

l = list2;

list2 = list2->next;

}

temp = l;

while(list1!=NULL && list2!=NULL){

if(list1->val<list2->val){

temp->next = list1;

list1 = list1->next;

}else{

temp->next = list2;

list2 = list2->next;

}

temp = temp->next;

}

if(list1==NULL){

temp->next = list2;

}else if(list2==NULL){

temp->next = list1;

}

return(l);

}

struct listnode\* mergeKLists(struct listnode\*\* lists, int listsSize){

struct listnode \*head = lists,\*tail,\*temp;

if(listsSize==0)

return(NULL);

else{

temp = lists[0];

for(int i=1;i<listsSize;i++)

temp = mergeTwoLists(temp,lists[i]);

return(temp);

}

}