#include<string.h>

#include<ctype.h>

#include<malloc.h> /\* malloc()等 \*/

#include<limits.h> /\* INT\_MAX等 \*/

#include<stdio.h> /\* EOF(=^Z或F6),NULL \*/

#include<stdlib.h> /\* atoi() \*/

#include<io.h> /\* eof() \*/

#include<math.h> /\* floor(),ceil(),abs() \*/

#include<process.h> /\* exit() \*/

#define TRUE 1

#define FALSE 0

#define OK 1

#define ERROR 0

#define INFEASIBLE -1

#define LIST\_INIT\_SIZE 100

#define LISTINCREMRNT 10

typedef int ElemType;

typedef int Status;

typedef int Boolean;

typedef struct

{

ElemType \* elem; //储存空间基地址

int length; // 记录当前链表长度

int listsize; //链表规模

} SqList;

Status InitList(SqList \*L)

{

(\*L).elem = (ElemType\*)malloc(LIST\_INIT\_SIZE\*sizeof(ElemType));

if(!(\*L).elem)

exit(OVERFLOW);

(\*L).length = 0;

(\*L).listsize = LIST\_INIT\_SIZE;

return OK;

}

Status DestroyList(SqList \*L)

{ /\* 操作结果：三元组T被销毁 \*/

free((\*L).elem);

(\*L).elem=NULL;

(\*L).length =0;

return OK;

}

void ClearList(SqList \*L) {

(\*L).length = 0;

}

Status ListEmpty(SqList L) //值拷贝

{

return L.length ==0 ?1:0;

}

Status ListLength(SqList L)

{

return L.length ;

}

Status GetEle(SqList L,int i,int \*e)

{

if(i<1||i>L.length)

return ERROR;

\*e = L.elem[i-1];

return OK;

}

Status ListInsert(SqList \*L ,int i, int e)

{

int \*newbase;

int \*p, \*q;

if(i<1||i>(\*L).length+1)

return ERROR;

if((\*L).length>(\*L).listsize)

{

newbase = (ElemType\*)realloc((\*L).elem, ((\*L).listsize + LISTINCREMRNT) \* sizeof(ElemType));

if(!newbase)

exit(OVERFLOW);

(\*L).elem = newbase;

(\*L).listsize += LISTINCREMRNT;

}

q = &((\*L).elem[i-1]);

for(p=&(\*L).elem[(\*L).length - 1]; p>=q; --p)

{

\*(p+1) = \*p;

}

\*q = e;

++(\*L).length;

return OK;

}

Status LocateElem(SqList \*L,int e)

{

int i = 1;

while (i<(\*L).length && (\*L).elem[i-1])

i++;

if(i<(\*L).length)

return i;

else

return ERROR;

}

Status ListDelete(SqList \*L,int i,int \*e)

{

int \*p;

if(i<1||i>(\*L).length)

return ERROR;

\*e = (\*L).elem[i-1];

for(p=&(\*L).elem[i-1];p<&(\*L).elem[(\*L).length-2];p--)

{

\*p = \*(p+1);

}

(\*L).length--;

return OK;

}

Status ListTraverse(SqList L)

{

for(int i=0;i<L.length-1;i++)

{

printf(" %d ",L.elem [i]);

}

return OK;

}

void MergeList(SqList La, SqList Lb,SqList \*Lc)

{

InitList(Lc);

int i=1, j=1, k=0;

int La\_length = ListLength(La);

int Lb\_length = ListLength(Lb);

int ai,bj;

while ((i<=La\_length) && (j<=Lb\_length))

{

GetEle(La, i, &ai);

GetEle(Lb, j, &bj);

if(ai<=bj)

{

ListInsert(Lc, ++k, ai);

++i;

}

else

{

ListInsert(Lc, ++k, bj);

++j;

}

}

while(i<=La\_length)

{

GetEle(La, i++, &ai);

ListInsert(Lc, ++k, ai);

}

while(j<=Lb\_length)

{

GetEle(Lb, j++, &bj);

ListInsert(Lc, ++k, bj);

}

}

void main()

{

SqList L1,L2,L3;

//int e;

int i;

if(InitList(&L1)==1 && InitList(&L2)==1)

{

printf("顺序表初始化成功\n");

}

for(i=1;i<10;i++)

ListInsert(&L1,i, 2\*i);

for(i=1;i<10;i++)

ListInsert(&L2,i, (2\*i+1));

a(&L1);

b(&L2);

MergeList(L1, L2, &L3);

ListTraverse(L3);

DestroyList(&L1);

DestroyList(&L2);

DestroyList(&L3);

}

int a(Sqlist \*L)

int A[] ;int &max ;int &min; int i;

max=A[0];

min=A[0];

for(i=0;i<L->length;i++)

{

if(max<A[i])

max=A[i];

else if (A[i]<min)

min=A[i];}

int main()

{

int max ,min;

a(L1,max);

b(L1,min);

printf("%d%d",max,min);

}

void MergeList(Sqlist list1,Sqlist list2,Sqlist &listc)

{ int i = 1,j = 1,k = 0;

int an,bn,La\_len,Lb\_len;

La\_len = ListLength(list1);

Lb\_len = ListLength(list2);

while((i<=La\_len)&&(j<=Lb\_len))

{

an = GetElem(list1,i);

bn = GetElem(list2,j);

if(an<=bn)

{

Insert(listc,an);

++i;

}

if(an>bn)

{

Insert(listc,bn);

++j;

}

}

while(i<=La\_len)

{

an = GetElem(list1,i);

Insert(listc,an);

++i;

}

while(j<=Lb\_len)

{

bn = GetElem(list2,j);

Insert(listc,bn);

++j;

}

return listc;

}

总结：

因为在学习c语言的时候结构体和指针的问题没有进行足够的学习，所以在学习过程中有很大的困难，通过查询网上的程序，对结构体指针有了基本的认识，以后会在这方面继续学习