/\*1、设有三个候选人（库里，哈登，阿德托昆博），总共有50张选票，完成函数，统计出本赛季的票王。\*/

#include <stdio.h>

#include <string.h>

struct person

{ char name[20];

int cnt;

};

//统计谁是票王！！

struct person count(struct person st[],char \*tt[])

{

}

void output(struct person st)

{

printf("本赛季票王是%s，共得到选票%d张\n",st.name,st.cnt);

}

int main()

{

char \*xp[50]={"库里","哈登","阿德托昆博","阿德托昆博","库里","库里","阿德托昆博","库里","阿德托昆博","库里","库里","库里","库里","库里","库里","库里","库里","库里","库里","库里","库里","库里","阿德托昆博","阿德托昆博","哈登","阿德托昆博","阿德托昆博","库里","库里","哈登","库里","哈登","库里","库里","库里","库里","库里","哈登","哈登","哈登","哈登","库里","库里","哈登","哈登","哈登","库里","库里","库里","库里"};

struct person leader[3]={"库里",0,"哈登",0,"阿德托昆博",0};

struct person pw;

pw=count(leader,xp);

output(pw);

printf("\n");

return 0;

}

2、删除任意一个有序链表中的重复元素（相同的值保留一个）

#include<malloc.h>

#include<stdlib.h>

#include<stdio.h>

typedef struct LNode

{

int data;

struct LNode\* next;

}LNode, \*LinkList;

void creatlist(LinkList \*head)

{

LinkList p,q;

\*head=(LinkList)malloc(sizeof(LNode));

(\*head)->next=NULL;

q=\*head;

int ch;

scanf("%d",&ch);

while (ch!=-1)

{

p=(LinkList)malloc(sizeof(LNode));

p->data=ch;

q->next=p;

q=p;

scanf("%d",&ch);

}

p->next=NULL;

}

//输出链表

void traverselist(LinkList L)

{ if (L!=NULL)

{L=L->next;

while (L!=NULL&&L->next!=NULL)

{printf("%d->",L->data);

L=L->next;}

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

}

}

void delsame( LinkList L ) // 删除相同元素并释放内存

{

}

void main( void )

{

LinkList LA = NULL;

creatlist(&LA);

traverselist(LA);

traverselist(LA);

}

/\*

3、学生记录由学号和成绩组成，N名学生的数据已经在主函数中放入结构体数组，编写函数，计算出平均分并统计出把低于平均分的学生信息数据。

\*/

#include <stdio.h>

typedef struct {

char num[10];

double s;

}STREC;

double fun(STREC \*a,STREC \*b,int \*n)

{

}

void main()

{

STREC s[8]={{"gao05",85},{"gao03",76},{"gao02",69},{"gao04",85},{"gao01",91},{"gao07",72},{"gao08",64},{"gao06",87}};

STREC h[8],t;

int i,j,n;

double ave;

ave=fun(s,h,&n);

//输出平均成绩

printf("the %d student data which is lower than %7.3f:\n",n,ave);

//输出低于平均分的学生信息

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

printf("%s %4.1f\n",h[i].num,h[i].s);

printf("\n");

}

/\*

4、10家公司（AA,BB,CC,DD,EE,FF,GG,HH,II,JJ,KK）参与投标,每个公司报一次价格，专家经过评标，选出中标公司。

评标规则：最接近平均报价的公司中标。

编程：实现自动评标。

\*/

#include <stdio.h>

#include <math.h>

struct com

{

char company[20];

int price;

};

typedef struct com com;

com fun(com \*t1,int n)

{

}

int main()

{

com gs[10]={"AA",76,"BB",80,"CC",70,"DD",83,"EE",85,"FF",89,"GG",88,"HH",100,"II",93,"JJ",99};

com zb;

zb=fun(gs,10);

printf("中标的公司为：%s\n",zb.company);

return 0;

}

/\*5、编程：完成函数，实现在屏幕上模拟显示一个动态数字式时钟，即实时显示系统时间（如11:22:35）。\*/

#include <stdio.h>

#include<windows.h>

#include <time.h>

struct clock

{

int hour;

int minute;

int second;

};

typedef struct clock CLOCK;

//初始化数字化时钟

void initclock(CLOCK \*myclock,int x,int y,int z)

{

myclock->hour=x;

myclock->minute=y;

myclock->second=z;

}

//时间更新函数

void update(CLOCK \*myclock)

{

}

//显示时间

void display(CLOCK \*myclock)

{

printf("%2d:%2d:%2d\r", myclock->hour, myclock->minute, myclock->second); //利用\r实现了动态刷新显示

}

int main(){

CLOCK myclock;

long i;

//获取系统时间

time\_t t;

struct tm \*lt;

time(&t); //获取时间戳

lt=localtime(&t); //转化为时间结构

initclock(&myclock,lt->tm\_hour,lt->tm\_min,lt->tm\_sec);//数字化时钟显示初始时间设置为系统当前时间

for (i = 0; i < 100000; i++)

{

update(&myclock); /\*时钟更新\*/

display(&myclock); /\*时间显示\*/

Sleep(1000);/\*延时1秒,包含在window.h\*/

}

return 0;

}

/\*

6、编程：完成函数，实现任意输入两个24小时制的时间，输出两个时间的时间差。

输入时间1：11:12:23

输入时间2：10:10:18

1:2:5

继续[y/n]?:y

输入时间1：12:13:14

输入时间2：23:24:56

11:11:42

\*/

#include <stdio.h>

#include <string.h>

typedef struct

{

int second;

int minute;

int hour;

}Time;

void swap(Time \*time1,Time \*time2)

{

//确保第一个时间比第二个时间大

if((time2->hour>time1->hour)||((time2->hour==time1->hour)&&(time2->minute>time1->minute))||((time2->hour==time1->hour)&&(time2->minute==time1->minute)&&(time2->second>time1->second)))

{

Time tmp;

tmp=\*time1;

\*time1=\*time2;

\*time2=tmp;

}

}

Time subtract(Time time1,Time time2)

{

}

void printtime(Time time)

{

printf("%d:%d:%d",time.hour,time.minute,time.second);

}

int main()

{

Time time1;

Time time2;

Time time3;

char ch;

do

{

printf("输入时间1：");

scanf("%d:%d:%d",&time1.hour,&time1.minute,&time1.second);

printf("输入时间2：");

scanf("%d:%d:%d",&time2.hour,&time2.minute,&time2.second);

swap(&time1,&time2);

time3=subtract(time1,time2);

printtime(time3);

printf("\n");

printf("继续[y/n]?:");

scanf(" %c",&ch);

}while((ch=='y')||(ch=='Y'));

return 0;

}

/\*7、一批20本图书（书名，作者，出版社，价格，出版日期）。

编程：（1）求购买2000年（包括2000年）以后出版的数的花销？

（2）共买了高等教育出版社的书籍有多少本？\*/

#include <stdio.h>

#include <string.h>

struct cbrqs

{

int year;

int month;

int day;

};

typedef struct books

{

char name[30];

char author[20];

char publish[40];

float price;

struct cbrqs cbrq;

}book;

//求成本

float huaxiao(book tt[],int n,int x)

{

}

//求册数

int count(book tt[],int n,char ts[])

{

}

int main()

{ book ts[20]={"操作系统","汤子瀛","北京大学出版社",37,1997,3,15,"操作系统","张丹","清华大学出版社",35,1999,5,40,"高级语言程序设计","谭浩强","高等教育出版社",40,1999,4,20,"程序设计基础","张琳","清华大学出版社",33,1994,5,15,"计算机基础","王楠","高等教育出版社",34,1995,8,15,"数据结构","严蔚敏","清华大学出版社",38,1996,4,25,"网络原理","张浩","高等教育出版社",39.5,1997,5,15,"高级语言程序设计","叶坤","北京大学出版社",36,1997,5,15,"操作系统","汤和","吉林大学出版社",35.5,1997,6,15,"java程序设计","张瀛","高等教育出版社",37,1993,3,15,"windows程序设计","苏芒","高等教育出版社",36.5,2000,7,27,"信息管理","林星","北京大学出版社",38,1998,9,12,"c程序设计","汤子瀛","北京大学出版社",37,1997,3,15,".net程序设计","何莎","高等教育出版社",37,1997,9,15,"操作系统-2","李刚","北京大学出版社",43,1999,6,11,"物联网基础","凌云","高等教育出版社",37,2017,5,29,"大数据处理","谭峰","北京大学出版社",37,2000,7,15,"操作系统","汤子","北京大学出版社",40.5,2004,3,15,"高级语言程序设计","张岩","吉林大学出版社",35,2010,12,18,"python程序设计","郑楚","北京大学出版社",35.5,2008,11,26};

int cs;

float cb;

//求2000以后出版的书的成本（包括2000年）

cb=huaxiao(ts,20,2000);

printf("2000以后出版的书的成本为：%.2f\n",cb);

//求共有多少本书来自高等教育出版社

cs=count(ts,20,"高等教育出版社");

printf("来自高等教育出版社的册数为：%d\n",cs);

return 0;

}

/\*8、输入10个学生的学号、姓名和成绩，输出学生的成绩等级和不及格人数。

等级：A ：85－100；B：70－84；C：60－69；D：0－59

\*/

#include <stdio.h>

struct student{

int num;

char name[20];

int score;

char grade;

};

typedef struct student st;

void inputstudent(st \*stu)

{

int i;

for(i=0;i<10;i++)

{

printf("请输入第%d个人的学号：\n",i+1);

scanf("%d",&stu[i].num);

printf("请输入第%d个人的姓名：\n",i+1);

scanf("%s",stu[i].name);

printf("请输入第%d个人的成绩：\n",i+1);

scanf("%d",&stu[i].score);

}

}

int set\_grade(struct student \* p)

{

}

void outputstudent(st \*p)

{

int i;

for(i=0;i<10;i++,p++)

{

printf("学号：%d,姓名：%s,成绩：%d,等级：%c\n",p->num,p->name,p->score,p->grade);

}

}

int main(void)

{

struct student stu[10], \*ptr;

int count;

ptr = stu;

inputstudent(ptr);

count = set\_grade( ptr );

outputstudent(ptr);

printf("不及格的人数为：%d个\n",count);

return 0;

}