**图书信息：**

#include<stdio.h>

#define N 10

struct Date{

int year;

int month;

int day;

};

struct Book{

int bnum;

struct Date pubday;

char bname[20];

char author[20];

char publish[20];

int price;

};

void read(struct Book \*p,int n)

{

int i;

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

{

printf("Please input :Book number,Book name,Author name,Publisher name,Price,Publish Date(year,month,day)\n");

scanf("%d%s%s%s%d%d%d%d",&p[i].bnum,p[i].bname,p[i].author,p[i].publish,&p[i].price,&p[i].pubday.year,&p[i].pubday.month,&p[i].pubday.day);

}

}

void print(struct Book \*p,int n)

{

int i;

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

{

printf("Book No.%d:\nName:%s\nAuthor:%s\nPublisher:%s\nPrice:%d\nPublish date is:%d.%d.%d\n\n",p[i].bnum,p[i].bname,p[i].author,p[i].publish,p[i].price,p[i].pubday.year,p[i].pubday.month,p[i].pubday.day);

}

}

void sort(struct Book \*p,int n)

{

struct Book temp;

int i,j,k;

for(i=0;i<n-1;i++)

{

k=i;

for(j=i+1;j<n;j++)

if(p[j].bnum<p[k].bnum)

k=j;

temp=p[k];

p[k]=p[i];

p[i]=temp;

}

}

void main()

{

struct Book lib[N];

read(lib,N);

sort(lib,N);

print(lib,N);

}

Test Data:

10 J j Jj 10 2010 10 10

2 B b Bb 2 2002 2 2

3 C c Cc 3 2003 3 3

4 D d Dd 4 2004 4 4

5 E e Ee 5 2005 5 5

6 F f Ff 6 2006 6 6

1 A a Aa 1 2001 1 1

7 G g Gg 7 2007 7 7

8 H h Hh 8 2008 8 8

9 I i Ii 9 2009 9 9

**复数运算：**

#include<stdio.h>

#include<math.h>

struct complex{

double real;

double imagine;

};

void plus(struct complex x1,struct complex x2,struct complex \*plusout)

{

plusout->real=x1.real+x2.real;

plusout->imagine=x1.imagine+x2.imagine;

}

void multiple(struct complex x1,struct complex x2,struct complex \*mulout)

{

mulout->real=x1.real\*x2.real-x1.imagine\*x2.imagine;

mulout->imagine=x1.real\*x2.imagine+x2.real\*x1.imagine;

}

double molen(struct complex x1)

{

double len;

len=sqrt(x1.real\*x1.real+x1.imagine\*x1.imagine);

return len;

}

int main()

{

struct complex x1,x2,plusout,mulout;

double len;

int choose;

printf("请选择功能：1.加法 2.乘法 3.求模:\n");

scanf("%d",&choose);

while(choose==1)

{

printf("请输入No.1复数a+ib：(输入ab即可)\n");

scanf("%lf%lf",&x1.real,&x1.imagine);

printf("请输入No.2复数a+ib：(输入ab即可)\n");

scanf("%lf%lf",&x2.real,&x2.imagine);

plus(x1,x2,&plusout);

printf("%lf+i%lf",plusout.real,plusout.imagine);

return 1;

}

while(choose==2)

{

printf("请输入No.1复数a+ib：(输入ab即可)\n");

scanf("%lf%lf",&x1.real,&x1.imagine);

printf("请输入No.2复数a+ib：(输入ab即可)\n");

scanf("%lf%lf",&x2.real,&x2.imagine);

multiple(x1,x2,&mulout);

printf("%lf+i%lf",mulout.real,mulout.imagine);

return 2;

}

while(choose==3)

{

printf("请输入复数a+ib：(输入ab即可)\n");

scanf("%lf%lf",&x1.real,&x1.imagine);

len=molen(x1);

printf("%lf",len);

return 3;

}

}

**约瑟夫环：**

#include<stdio.h>

#include<stdlib.h>

struct node{

int num;

struct node \*next;

};

void main()

{

struct node head,\*p,\*q;

int i,j,m,n;

printf("请输入人数n和报数周期m：\n");

scanf("%d%d",&n,&m);

p=&head;

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

{

p->next=(struct node \*)malloc(sizeof(struct node));

p=p->next;

p->num=i;

}

p->next=head.next;

p=head.next;

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

{

for(j=2;j<m;j++)

p=p->next;

q=p->next;

p->next=q->next;

p=q->next;

free(q);

}

printf("第%d号仍在场上\n",p->num);}

**单链表递归反转：**