

C语言大作业之图书管理系统的实现详程

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序

时间在流去，我们在长大。

嗨，这里是狐狸~~

今天是2022年的一月四日了，元旦小长假也过去了，新年新气象，新年新目标，我们要向前看，不要执意过去了，感谢过去，把握现在，展望未来，这是我们现在应该做的。好了，废话不多说，今天我们分享一个系统，确实也有许久没有分享过系统了，今天就给大家详细讲一下这个图书管理系统吧。

主要内容

开发一个图书信息管理系统，图书信息包括：图书编号、书名、作者、出版社、类别、出版时间、价格等基本信息（也可以根据自己情况进行扩充，比如是否借出、库存量等）。使之能提供以下基本功能：

- (1) 图书信息录入功能(图书信息用文件保存) - - 输入
- (2) 图书信息浏览功能 - - 输出
- (3) 查询功能(至少一种查询方式)、排序功能(至少一种排序方式)：
按书名查询
按作者名查询 按照价钱排序 按出版时间排序等等
- (4) 图书信息的删除与修改

扩展功能：可以按照自己的程度进行扩展。比如

- (1) 简单的权限处理
- (2) 报表打印功能
- (3) 甚至根据自己情况，可以加上学生信息，并扩充为图书借阅系统。
- (4) 模糊查询
- (5) 综合查询
- (6) 统计功能 比如统计处某一类别的图书信息 或筛选出小于指定数量库存的图书信息等等。

概要设计

- 1 图书录入可以录入图书名，作者，出版社，出版日期，价格！录入图书编号时函数就会判断此编号是否存在,若存在不能成功录入！
- 2 图书浏览可以浏览全部图书！
- 3 图书查询提供按图书编号模糊查询，按图书名关键字查询，按图书编号精确查询，按图书名精确查询！模糊查询和关键字查询事通过比价字符串的相似度而实现的！
- 4 修改删除图书可以通过图书查询来查询操作的图书编号，通过编号操作！函数会提示用户是否调用图书查询来找到自己想要的图书的编号。如果某一本图书已经被借阅那么用户就不能删除该图书！
- 5 借阅图书通过学号和图书编号进行借阅！如果该学号是第一次借阅那么会提示用户输入自己的姓名,并存入student.txt，方便以后借阅与归还！
- 6 归还图书先提供学号，然后程序会输出该学号借阅的所有图书，然后再通过编号归还！
- 7 借阅查询可查询某个学生已借但未归还的图书！

项目源码

结构体

先建立结构体，定义结构体成员

```
typedef struct book/*图书结构体*/{char num[10]; /*书号*/char name[10]; /*书名*/char auth[10]; /*作者*/int count;int sum;}book;typedef struct borrow/*借书结构体*/{char id[20];char user[20];char book[20];char bookid[20];struct borrow *next;}bbnode,*bblink;struct user { char num[10];/* 学号 */ char pass[15];char name[15]; char sex[10]; }; typedef struct unode { struct user data; struct unode *next; }unode,*ulink; unode *os;
```

登录界面函数

```
int login(ulink l) { /******登陆窗口初始化*****/while(!flag){char user_id[10],password[10],tmp;int i=0;user_id[0]='
```

```
int login(ulink l){/******登陆窗口初始化*****/while(!flag){char user_id[10],password[10],tmp;int i=0;user_id[0]='\0';password[0]='\0';textbackground(179);clrscr();gotoxy(33,23);textcolor(yellow);cputs("esc = exit");textcolor(white);textbackground(179);box(1,1,80,24);h_line(2,3,78);gotoxy(15,2);cputs("login now please input the user__id and password");bar_(30,10,23,5,5);/******账号过滤*****/while(user_id[0]=='\0'){gotoxy(31,11);textcolor(yellow);textbackground(5);cputs("user__id:");gotoxy(31,13);cputs("password:");textbackground(179);textcolor(white);gotoxy(28,7);cputs("please input the user__id!");textbackground(179);textcolor(yellow);gotoxy(27,11);putch(272);gotoxy(27,13);putch(' ');gotoxy(40,11);tmp=getch();if(tmp==27){flg=27;return 0;}while(tmp!='\r'&&i<=9&&(tmp>=64&&tmp<=90)||((tmp>=97&&tmp<=122)||((tmp>=48&&tmp<=57)))){textcolor(yellow);textbackground(5);putch(tmp);user_id[i]=tmp;i++;tmp=getch();if(tmp==27){flg=27;return 0;}}user_id[i]='\0';}/******密码过滤*****/while(password[0]=='\0'){gotoxy(28,7);textbackground(179);textcolor(white);cputs(" input the password now ");textbackground(179);textcolor(yellow);gotoxy(27,13);putch(272);gotoxy(27,11);putch(' ');gotoxy(40,13);i=0;tmp=getch();if(tmp==27){flg=27;return 0;}while(tmp!='\r'&&i<=10&&(tmp>=64&&tmp<=90)||((tmp>=97&&tmp<=122)||((tmp>=48&&tmp<=57)))){textbackground(5);putch('*');password[i]=tmp;i++;tmp=getch();if(tmp==27){flg=27;return 0;}}password[i]='\0';}/******把账号和密码进行对比验证*****/if(!strcmp(user_id,"admin")&&!strcmp(password,"admin")){return 2;}if(cmps(l,user_id,password)){ return 1;}}
```

```
};password[0]='
```

```
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```

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p<=122||(tmp>=48&&tmp<=57))){textbackground(5);putch('*');password[i]=tmp;i++;tmp=getch();if(tmp==27){flg=27;return 0;}}password[i]='\0';/*把账号和密码进行对比验证*/if(!strcmp(user_id,"admin")&&!strcmp(password,"admin")){return 2;}if(cmps(l,user_id,password)){ return 1;}}
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```

```
int login(ulink l){/*登陆窗口初始化*/while(!flag){char user_id[10],password[10],tmp;市场营销毕业论文范文int i=0;user_id[0]='\0';password[0]='\0';textbackground(179);clrscr();gotoxy(33,23);textcolor(yellow);cputs("esc = exit");textcolor(white);textbackground(179);box(1,1,80,24);h_line(2,3,78);gotoxy(15,2);cputs("login now please input the user__id and password");bar_(30,10,23,5,5);/*账号过滤*/while(user_id[0]=='\0'){gotoxy(31,11);textcolor(yellow);textbackground(5);cputs("user__id:");gotoxy(31,13);cputs("password:");textbackground(179);textcolor(white);gotoxy(28,7);cputs("please input the user__id!");textbackground(179);textcolor(yellow);gotoxy(27,11);putch(272);gotoxy(27,13);putch(' ');gotoxy(40,11);tmp=getch();if(tmp==27){flg=27;return 0;}while(tmp!='\r'&&i<=9&&(tmp>=64&&tmp<=90)||((tmp>=97&&tmp<=122||(tmp>=48&&tmp<=57)))){textcolor(yellow);textbackground(5);putch(tmp);user_id[i]=tmp;i++;tmp=getch();if(tmp==27){flg=27;return 0;}}user_id[i]='\0';/*密码过滤*/while(password[0]=='\0'){gotoxy(28,7);textbackground(179);textcolor(white);cputs(" input the password now ");textbackground(179);textcolor(yellow);gotoxy(27,13);putch(272);gotoxy(27,11);putch(' ');gotoxy(40,13);i=0;tmp=getch();if(tmp==27){flg=27;return 0;}while(tmp!='\r'&&i<=10&&(tmp>=64&&tmp<=90)||((tmp>=97&&tmp<=122||(tmp>=48&&tmp<=57)))){textbackground(5);putch('*');password[i]=tmp;i++;tmp=getch();if(tmp==27){flg=27;return 0;}}password[i]='\0';/*把账号和密码进行对比验证*/if(!strcmp(user_id,"admin")&&!strcmp(password,"admin")){return 2;}if(cmps(l,user_id,password)){ return 1;}}
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```
'){gotoxy(28,7);textbackground(179);textcolor(white);cputs(" input the password now ");textbackground(179);textcolor(yellow);gotoxy(27,13);putch(272);gotoxy(27,11);putch(' ');gotoxy(40,13);i=0;tmp=getch();if(tmp==27){flg=27;return 0;}while(tmp!='\r'&&i<=10&&(tmp>=64&&tmp<=90)||((tmp>=97&&tmp<=122||(tmp>=48&&tmp<=57)))){textbackground(5);putch('*');password[i]=tmp;i++;tmp=getch();if(tmp==27){flg=27;return 0;}}password[i]='
```

```
int login(ulink l){/*登陆窗口初始化*/while(!flag){char user_id[10],password[10],tmp;int i=0;user_id[0]='\0';password[0]='\0';textbackground(179);clrscr();gotoxy(33,23);textcolor(yellow);cputs("esc = exit");textcolor(white);textbackground(179);box(1,1,80,24);h_line(2,3,78);gotoxy(15,2);cputs("login now please input the user__id and password");bar_(30,10,23,5,5);/*账号过滤*/while(user_id
```

```
[0]=='\0'){gotoxy(31,11);textcolor(yellow);textbackground(5);cputs("user__id:");gotoxy(31,13);cputs("password:");textbackground(179);textcolor(white);gotoxy(28,7);cputs("please input the user__id!");textbackground(179);textcolor(yellow);gotoxy(27,11);putch(272);gotoxy(27,13);putch(' ');gotoxy(40,11);tmp=getch();if(tmp==27){flg=27;return 0;}while(tmp!='r'&&i<=9&&(tmp>=64&&tmp<=90)||((tmp>=97&&tmp<=122)||((tmp>=48&&tmp<=57)))){textcolor(yellow);textbackground(5);putch(tmp);user_id[i]=tmp;i++;tmp=getch();if(tmp==27){flg=27;return 0;}}user_id[i]='\0';/*****密码过滤*****/while(password[0]=='\0'){gotoxy(28,7);textbackground(179);textcolor(white);cputs(" input the password now ");textbackground(179);textcolor(yellow);gotoxy(27,13);putch(272);gotoxy(27,11);putch(' ');gotoxy(40,13);i=0;tmp=getch();if(tmp==27){flg=27;return 0;}while(tmp!='r'&&i<=10&&(tmp>=64&&tmp<=90)||((tmp>=97&&tmp<=122)||((tmp>=48&&tmp<=57)))){textbackground(5);putch('*');password[i]=tmp;i++;tmp=getch();if(tmp==27){flg=27;return 0;}}password[i]='\0';/*****把账号和密码进行对比验证*****/if(!strcmp(user_id,"admin")&&!strcmp(password,"admin")){return 2;}if(cmps(l,user_id,password)){ return 1;}};/*****把账号和密码进行对比验证*****/if(!strcmp(user_id,"admin")&&!strcmp(password,"admin")){return 2;}if(cmps(l,user_id,password)){ return 1;}}
```

选择界面函数

```
void choose(){while(1){ textbackground(179);clrscr();gotoxy(33,2);textcolor(white);cputs("administrastor");textcolor(yellow);box(1,1,80,24);h_line(2,3,78);gotoxy(3,6);cputs(">>>-----1.user management-----<<<");gotoxy(3,10);cputs(">>>-----2.book management-----<<<");gotoxy(3,14);cputs(">>>-----3.borrow books-----<<<");gotoxy(30,22);textcolor(red);cputs("please select!!!");flg=getch();if(flg=='2')bookss();if(flg=='1')users();if(flg=='3')borrow();if(flg==27){flg=-1;return;}}void admin(){while(1){choose();if(flg=='1')bookss();if(flg=='2')users();if(flg=='3')borrow();if(flg==27){return;}}}
```

操作界面函数

```
void user(ulink h){int flag;bblink l,p,r;/* 链表 */ file *fp; /* 文件指针 */ int count=0; l=(bnode*)malloc(sizeof(bnode)); l->next=null; r=l; fp=fopen(bfile,"rb"); if(fp==null) { fp=fopen(bfile,"wb"); } while(!feof(fp)) {p=(bnode*)malloc(sizeof(bnode)); if(fread(p,sizeof(bnode),1,fp)) /* 将文件的内容放入接点中 */ { p->next=null; r->next=p; r=p; /* 将该接点挂入链中 */ count++; } } while(1) {textbackground(179);clrscr();textcolor(yellow);box(1,1,80,24);h_line(2,3,78);gotoxy(3,2);textcolor(red);cputs("a.");textcolor(blue);cputs("my message ");textcolor(red);cputs("b.");textcolor(blue);cputs("modify my message ");textcolor(red);cputs("c.");textcolor(blue);cputs("my borrow ");textcolor(red);cputs("d.");textcolor(blue);cputs("search book");textcolor(yellow);gotoxy(50,50);flag=getch(); switch(flag){ case 'a':show(os);break ;/*****添加用户*****/case 'b':modify_user(h);save(h);break;/*****删除用户*****/case 'c':myborrow();break;case 'd':usersearch(); break;case 27:return; } }
```

添加函数

图书的添加，包括用户添加以及管理员添加

```
void add(blink l){ bnode *p,*r,*s; char num[10]; r=l; s=l->next; while(r->next!=null) r=r->next; textcolor(red);gotoxy(25,4);cputs("input the message about book");gotoxy(31,10);textcolor(yellow);cputs("book id:");scanf("%s",num); p=(bnode *)malloc(sizeof(bnode)); while(s) { if(strcmp(s->data.num,num)==0) { textcolor(white);gotoxy(25,15);cputs("this id:");printf("%s",num); cputs("is exist!"); gotoxy(25,22);cputs("please press any key to continue..."); gotoxy(255,252);getch(); return; } s=s->next; } strcpy(p->data.num,num); gotoxy(31,12);textcolor(yellow);cputs("input book name:"); scanf("%s",p->data.name); gotoxy(31,14);cputs("input your book auth:"); scanf("%s",p->data.auth); gotoxy(31,16);cputs("input your book count:"); scanf("%d",&p->data.count); bookcount=p->data.count+bookcount;p->data.sum=0;p->next=null; r->next=p; r=p; gotoxy(30,22);textcolor(red);cputs("add book success !!!");getch();textcolor(yellow);} /*****管理员添加用户*****/void add(ulink l){ unode *p,*r,*s; char num[10]; r=l; s=l->next; while(r->next!=null) r=r->
```

```
next; textcolor(red); gotoxy(25,4); cputs("input the message about book"); gotoxy(31,10); textcolor(yellow); cputs("user id:"); scanf("%s", num); p=(unode *) malloc(sizeof(unode)); while(s) { if(strcmp(s->data.num, num)==0) { gotoxy(25,15); cputs("this id:"); printf("%s", num); cputs("is exist!"); gotoxy(25,22); textcolor(red); cputs("please press any key to continue..."); gotoxy(255,252); getch(); return; } s=s->next; } strcpy(p->data.num, num); gotoxy(31,12); textcolor(yellow); cputs("input password:"); scanf("%s", p->data.pass); gotoxy(31,14); cputs("input your name:"); scanf("%s", p->data.name); gotoxy(31,16); cputs("input the sex:"); scanf("%s", p->data.sex); p->next=null; r->next=p; r=p; gotoxy(30,22); cputs("add user success !!!"); usercount++; getch(); textcolor(yellow); }
```

查找函数

用户查找以及管理员查找

```
/******管理员查找图书*****/ void qur(blink l) { int sel; char findmess[20]; bnode *p; if(l->next) { gotoxy(30,4); textcolor(white); cputs("not find bookdata!!!"); getch(); return; } textcolor(red); gotoxy(25,4); cputs("please select search type !"); gotoxy(10,8); textcolor(white); cputs("1.search by id"); gotoxy(10,10); cputs("2.search by name"); gotoxy(10,12); cputs("please select 1 or 2:"); scanf("%d", &sel); if(sel==1) { gotoxy(36,8); textcolor(yellow); cputs("input the search id:"); scanf("%s", findmess); p=locate(l, findmess, "num"); if(p) { gotoxy(36,12); textcolor(white); cputs("book id:"); printf("%s", p->data.num); gotoxy(36,14); textcolor(white); cputs("book name:"); printf("%s", p->data.name); gotoxy(36,16); textcolor(white); cputs("book author:"); printf("%s", p->data.auth); gotoxy(36,18); textcolor(white); cputs("book count:"); printf("%d", p->data.count); getch(); textcolor(yellow); gotoxy(30,21); cputs("search success !!!"); } else { gotoxy(30,22); textcolor(red); cputs("not finde !!!"); getch(); } } else if(sel==2) /* 姓名 */ { gotoxy(36,8); textcolor(yellow); cputs("input the search name:"); scanf("%s", findmess); p=locate(l, findmess, "name"); if(p) { gotoxy(36,12); textcolor(white); cputs("book id:"); printf("%s", p->data.num); gotoxy(36,14); textcolor(white); cputs("book name:"); printf("%s", p->data.name); gotoxy(36,16); textcolor(white); cputs("book author:"); printf("%s", p->data.auth); gotoxy(36,18); textcolor(white); cputs("book count:"); printf("%d", p->data.count); getch(); textcolor(yellow); } else { textcolor(red); gotoxy(30,22); cputs("not finde !!!"); } } else { textcolor(red); gotoxy(30,22); cputs("error !!!"); getch(); } } /******用户查找图书*****/ void usersearch() { int sel; char findmess[20]; bnode *p; blink l; /* 链表 */ file *fp; /* 文件指针 */ int count=0; bnode *p, *r; l=(bnode *) malloc(sizeof(bnode)); l->next=null; r=l; fp=fopen(file, "rb"); if(fp==null) { fp=fopen(file, "wb"); } while(!feof(fp)) { p=(bnode *) malloc(sizeof(bnode)); if(fread(p, sizeof(bnode), 1, fp)) /* 将文件的内容放入接点中 */ { p->next=null; bookcount=bookcount+p->data.count; booksum=booksum+p->data.sum; r->next=p; r=p; /* 将该接点挂入连中 */ count++; } fclose(fp); /* 关闭文件 */ if(l->next) { gotoxy(30,4); textcolor(white); cputs("not find bookdata!!!"); getch(); return; } textcolor(red); gotoxy(25,4); cputs("please select delete type !"); gotoxy(10,8); textcolor(white); cputs("1.search by id"); gotoxy(10,10); cputs("2.search by name"); gotoxy(10,12); cputs("please select 1 or 2:"); scanf("%d", &sel); if(sel==1) { gotoxy(36,8); textcolor(yellow); cputs("input the search id:"); scanf("%s", findmess); p=locate(l, findmess, "num"); if(p) { gotoxy(36,12); textcolor(white); cputs("book id:"); printf("%s", p->data.num); gotoxy(36,14); textcolor(white); cputs("book name:"); printf("%s", p->data.name); gotoxy(36,16); textcolor(white); cputs("book author:"); printf("%s", p->data.auth); gotoxy(36,18); textcolor(white); cputs("book count:"); printf("%d", p->data.count-p->data.sum); getch(); textcolor(yellow); } else { gotoxy(30,22); textcolor(red); cputs("not finde !!!"); getch(); } } else if(sel==2) { gotoxy(36,8); textcolor(yellow); cputs("input the search name:"); scanf("%s", findmess); p=locate(l, findmess, "name"); if(p) { gotoxy(36,12); textcolor(white); cputs("book id:"); printf("%s", p->data.num); gotoxy(36,14); textcolor(white); cputs("book name:"); printf("%s", p->data.name); gotoxy(36,16); textcolor(white); cputs("book author:"); printf("%s", p->data.auth); gotoxy(36,18); textcolor(white); cputs("book count:"); printf("%d", (p->data.count-p->data.sum)); getch(); textcolor(yellow); } else { textcolor(red); gotoxy(30,22); cputs("not finde !!!"); } } else { textcolor(red); gotoxy(30,22); cputs("error !!!"); getch(); } } /******图书查找*****/ int cmpbook(blink l, char id[], char na[]) { char findm[20]; bnode *p; if(l->next) { gotoxy(25,4); textcolor(red); cputs("not find book!!!"); getch(); return 0; } strcpy(findm, id); p=locate(l, findm, "num"); if(p) { strcpy(y, findm, na); p=locate(l, findm, "name"); if(p) { return 1; } else { textcolor(red); gotoxy(30,22); cputs("book name is null !!!"); getch(); return 0; } } else { gotoxy(30,22); textcolor(red); cputs("book id is null !!!"); getch(); return 0; } }
```

删除函数

图书的删除

```
void del(blink l) { int sel; bnode *p,*r; char findmess[20]; if(!l->next) { gotoxy(25,4);textcolor(red);cputs("====高中女生>not thing could delete!\n"); getch();return; } textcolor(red);gotoxy(25,4);puts("please select delete type!");gotoxy(10,8);textcolor(white);cputs("1.delete by book id");gotoxy(10,10);cputs("2.delete by book name");gotoxy(10,12);cputs("please select 1 or 2:");scanf("%d",&sel); if(sel==1) { gotoxy(36,8);textcolor(yellow);cputs("input the delete id:"); scanf("%s",findmess); p=locate(l,findmess,"num"); if(p) { bookcount=bookcount-p->data.count;r=l; while(r->next!=p) r=r->next; r->next=p->next; free(p); gotoxy(30,22);textcolor(red);cputs("delete success!\n"); textcolor(yellow); } else {textcolor(red);gotoxy(30,22); cputs("error !!"); } } else if(sel==2) { gotoxy(36,8);textcolor(yellow);cputs("input the delete name:"); scanf("%s",findmess); p=locate(l,findmess,"name"); if(p) { r=l; while(r->next!=p) r=r->next; r->next=p->next; free(p); gotoxy(30,22);textcolor(red);cputs("delete success!\n"); bookcount--;textcolor(yellow); } else{gotoxy(25,18);cputs("not find!!"); } } else{textcolor(red);gotoxy(30,现代移动通信技术22); cputs("error !!"); }getch();textcolor(yellow);}
```

借书管理函数

```
void borrow(){while(1){int flag;bblink l,p,r; /* 链表 */ file *fp; /* 文件指针 */ int count=0; l=(bnode*)malloc(sizeof(bnode)); l->next=null; r=l; fp=fopen(bfile,"rb"); if(fp==null) { fp=fopen(bfile,"wb"); } while(!feof(fp)) {p=(bnode*)malloc(sizeof(bnode)); if(fread(p,sizeof(bnode),1,fp)) /* 将文件的内容放入接点中 */ { p->next=null; r->next=p; r=p; /* 将该接点挂入连中 */ count++; } borrowcount=count;} while(1) {textbackground(179);clrscr();textcolor(yellow);box(1,1,80,24);h_line(2,3,78);gotoxy(3,2);textcolor(red);cputs("b");textcolor(blue);cputs("orrow book ");textcolor(red);cputs("r");textcolor(blue);cputs("eturn book ");textcolor(red);cputs("s");textcolor(blue);cputs("earch borrow ");textcolor(yellow);printf("count: (borrow=%d)",borrowcount);textcolor(red);gotoxy(50,50);flag=getch(); switch(flag){ case 'b':add_borrow(l);break; /******添加用户***** */case 'r':del_borrow(l);save_borrow(l);break;case 's':qur_borrow(l);break;case 27:return;} } }
```

信息储存函数

图书信息的储存

```
*****借书信息保存*****/void save_borrow(bblink l) { file* fp; bnode *p; int flag=1,count=0; fp=fopen(bfile,"wb"); if(fp==null) { gotoxy(35,12);textcolor(red); cputs("open error!"); exit(1); } p=l->next; while(p) { if(fwrite(p,sizeof(bnode),1,fp)==1) { p=p->next; count++; } else { flag=0; break; } } if(flag) { textcolor(red);gotoxy(30,24); /*** printf("save success.(saved%d)",count);**调试的时候用的*/fclose(fp); }
```

还书函数

```
/* 还书的操作 */ void del_borrow(bblink l) { int sel; bnode *p,*r; bnode *l;char findmess[20];file *fp; /* 文件指针 */bnode *p,*r,*q;l=(bnode*)malloc(sizeof(bnode)); l->next=null; r=l; fp=fopen(file,"rb"); if(fp==null) { fp=fopen(file,"wb"); }while(!feof(fp)){ p=(bnode*)malloc(sizeof(bnode)); if(fread(p,sizeof(bnode),1,fp)) /* 将文件的内容放入接点中 */ { p->next=null; r->next=p; r=p; /* 将该接点挂入连中 */ }fclose(fp); /* 关闭文件 */ if(!l->next){gotoxy(30,4);textcolor(red);cputs("not book could return!\n");getch();return;}textcolor(red);gotoxy(25,4);puts("please select return type!");gotoxy(10,8); textcolor(white);cputs("1.return by borrow id");gotoxy(10,10);cputs("2.return by book name");gotoxy(10,12);cputs("please select 1 or 2:");scanf("%d",&sel);if(sel==1){gotoxy(36,8);textcolor(yellow);cputs("input the borrow id:");scanf("%s",findmess);p=locate_borrow(l,findmess,"num");if(p) { q=locate(l,findmess,"num");if(q) { q->data.sum=q->data.sum-1;save(l); } r=l; while(r->next!=p) r=r->next; r->next=p->next; free(p); gotoxy(30,22);textcolor(red);cputs("return success!\n"); borrowcount--;getch();textcolor(yellow); } else {gotoxy(30,22);textcolor
```

```
or(red);cputs("note find !!"); getch();} else if(sel==2) { gotoxy(36,8);textcolor(yellow);cputs("input the book name:"); scanf("%s",findmess); p=locate_borrow(l,findmess,"book");if(p) { q=locate(l,findmess,"name"); if(q) { q->data.sum=q->data.sum-1;save(l);} r=l; while(r->next!=p) r=r->next; r->next=p->next; free(p); gotoxy(30,22);textcolor(red);cputs("borrow success!\n"); borrowcount--;getch();textcolor(yellow); } else{gotoxy(30,18);textcolor(red); cputs("not find!!"); getch();} else{gotoxy(30,22);textcolor(red);cputs("not finde !!"); getch();}textcolor(yellow);}
```

修改函数

也分为用户和管理员两种情况

```
/* ****用于管理员修改用户资料 ***/void modify(ulink l) { unode *p; char findmess[20]; if(!->next) {gotoxy(30,4);textcolor(red);cputs("not thing could modify!"); getch();return; } gotoxy(30,4);textcolor(red);cputs("modify user message");gotoxy(25,8);textcolor(yellow);cputs("input the user id:");scanf("%s",findmess); p=locate(l,findmess,"num"); if(p) { textcolor(yellow);gotoxy(25,10);printf("input the new id(old:%s):",p->data.num); scanf("%s",p->data.num); gotoxy(25,12);printf("input the new password(old:%s):",p->data.pass); scanf("%s",p->data.pass); gotoxy(25,14);printf("input the new name(old:%s):",p->data.name); scanf("%s",p->data.name); gotoxy(25,16);printf("input the new sex(old:%s):",p->data.sex); scanf("%s",p->data.sex); gotoxy(30,20);textcolor(red);cputs("modify success !!!"); getch();textcolor(yellow);} else {gotoxy(30,16);textcolor(red);cputs("not finde !!!"); getch();} } /****供用户修改用户自己资料 */void modify_user(ulink l){ unode *p; char findmess[20]; if(!->next) {gotoxy(30,4);textcolor(red);cputs("not thing could modify!"); getch();return; } gotoxy(30,4);textcolor(red);cputs("modify user message");gotoxy(33,8);textcolor(yellow);strcpy(findmess,os->data.num);printf("your id:%s",findmess);p=locate(l,findmess,"num"); if(p) { textcolor(yellow);gotoxy(24,10);printf("input the new password(old:%s):",p->data.pass); scanf("%s",p->data.pass); gotoxy(24,12);printf("input the new name(old:%s):",p->data.name); scanf("%s",p->data.name); gotoxy(24,14);printf("input the new sex(old:%s):",p->data.sex); scanf("%s",p->data.sex); gotoxy(31,18);textcolor(red);cputs("modify success !!!"); getch();textcolor(yellow);} else {gotoxy(30,16);textcolor(red);cputs("not finde !!!"); getch();}}
```

添加借书函数

```
/******添加借书*****/void add_borrow(bblink l) { ulink h; /* 链表 */ file *fp; /* 文件指针 */ unode *q,*t;blink l; /* 链表 */ file *fp; /* 文件指针 */ int ttl; bnode *p,*r;char bookid[20];char bookname[20];char userid[20];bbnode *p,*r,*s; char num[10]; r=l; s=l->next; while(r->next!=null) r=r->next; l=(bnode*)malloc(sizeof(bnode)); l->next=null; r=l; fp=fopen(file,"rb"); if(fp==null) { fp=fopen(file,"wb"); } while(!feof(fp)) { p=(bnode*)malloc(sizeof(bnode)); if(fread(p,sizeof(bnode),1,fp)) /* 将文件的内容放入接点中 */ { p->next=null; bookcount=bookcount+p->data.count; r->next=p; r=p; /* 将该接点挂入连中 */ } } fclose(fp); /* 关闭文件 */ h=(unode*)malloc(sizeof(unode)); h->next=null; t=h;fp=fopen(ufile,"rb"); if(fp==null) { fp=fopen(ufile,"wb"); } while(!feof(fp)) { q=(unode*)malloc(sizeof(unode)); if(fread(q,sizeof(unode),1,fp)) /* 将文件的内容放入接点中 */ { q->next=null; t->next=q; t=q; /* 将该接点挂入连中 */ } } fclose(fp); textcolor(red);gotoxy(25,4);cputs("please input thease message");gotoxy(30,10);textcolor(yellow);cputs("input borrow id:");scanf("%d",&ttl);itoa(ttl,num,10);p=(bbnode*)malloc(sizeof(bbnode));while(s) { if(strcmp(s->id,num)==0) { gotoxy(30,15);cputs("borrow id:");printf("%s",num); cputs("is exist!"); gotoxy(26,22);textcolor(red);cputs("please press any key to continue..."); gotoxy(255,252);getch(); return; } s=s->next; } strcpy(p->id,num);gotoxy(31,12);textcolor(yellow);cputs("input book id:"); scanf("%s",bookid);gotoxy(31,14);textcolor(yellow);cputs("input book name:"); scanf("%s",bookname);/*****图书判断在否**春风里*****/ if(cmpbook(l,bookid,bookname)){strcpy(p->bookid,bookid);strcpy(p->book,bookname);gotoxy(31,16);cputs("input your id:"); scanf("%s",userid);/*****用户判断在否*****/if(cmpuser(h,userid)){strcpy(p->user,userid);p->next=null; r->next=p; r=p; if(changeb(l,bookid)){gotoxy(30,22);cputs("borrow success !!!");save_borrow(l);borrowcount++; getch();} } textcolor(yellow);}
```

查找借书函数

查找自己借了哪些书

```
void myborrow(){int i; bblink l,p,r; /* 链表 */ file *fp; /* 文件指针 */ int count=0; l=(bnode*)mallo  
c(sizeof(bnode)); l->next=null; r=l; fp=fopen(bfile,"rb"); if(fp==null) { fp=fopen(bfile,"wb"); } i=6;while(!feof(f  
p)) { p=(bnode*)malloc(sizeof(bnode)); if(fread(p,sizeof(bnode),1,fp)) /* 将文件的内容放入接点中 */ {  
textcolor(white);gotoxy(30,4);cputs("your borrow book");if(strcmp(p->user,os->data.num)==0){textcolor(yellow);got  
oxy(20,i);printf("borrow id:%s\tbook id:%s\tbook name:%s",p->id,p->bookid,p->book);i++; p->next=null; r->next=  
p; r=p; /* 将该接点挂入连中 */ count++; } } myborrow=count;if(myborrow==0){textcolor(yellow);got  
oxy(30,13);cputs("you no borrow !!"); } }fclose(fp);textcolor(yellow);gotoxy(65,2);printf("(borrow=%d)",m  
yborrow);getch(); }
```

借书管理函数

```
void borrow(){while(1){int flag;bblink l,p,r; /* 链表 */ file *fp; /* 文件指针 */ int count=0; l=(bnode*  
)malloc(sizeof(bnode)); l->next=null; r=l; fp=fopen(bfile,"rb"); if(fp==null) { fp=fopen(bfile,"wb"); } while(!feo  
f(fp)) {p=(bnode*)malloc(sizeof(bnode)); if(fread(p,sizeof(bnode),1,fp)) /* 将文件的内容放入接点中 */ { p  
->next=null; r->next=p; r=p; /* 将该接点挂入连中 */  
count++; } borrowcount=count;} while(1) {textbackground(179);clrscr();textcolor(yellow);box(1,1,80,24);h  
_line(2,3,78);gotoxy(3,2);textcolor(red);cputs("b");textcolor(blue);cputs("orrow book ");textcolor(red);cputs("r");textcolo  
r(blue);cputs("eturn book ");textcolor(red);cputs("s");textcolor(blue);cputs("earch borrow ");textcolor(yellow);print  
f("count: (borrow=%d)",borrowcount);textcolor(red);gotoxy(50,50);flag=getch(); switch(flag){ case 'b':add_b  
orrow(l);break; /******添加用户***** */case 'r':del_borrow(l);save_borrow(l);break;case 's':qur_borrow(l);bre  
ak;case 27:return;} } }
```

主函数

```
main(){ ulink h,os; /* 链表 */ file *fp; /* 文件指针 */ unode *p,*r;h=(unode*)malloc(sizeof(unode)); h-  
>next=null; r=h; fp=fopen(ufile,"rb"); if(fp==null) { fp=fopen(ufile,"wb"); } while(!feof(fp)) { p=(  
unode*)malloc(sizeof(unode)); if(fread(p,sizeof(unode),1,fp)) /* 将文件的内容放入接点中 */ {  
p->next=null; r->next=p; r=p; /* 将该接点挂入连中 */  
}}fclose(fp);system("wellcome");if(flag==27){flag=-1;return;}while(1){flag=login(h);if(flag==27){flag=-1;break;} if(flag==2){c  
hoose();flag=0;}if(flag==1){user(h);flag=0;}}
```

总结

今天的代码量有点小多，难度也不小，用了大量的链表来储存数据，还有一些功能因为篇幅的问题没有放上来，总的来说，这个图书管理系统的功能是很全面的，无论从哪个角度来看。当然啦。有兴趣的同学可以进群领取完整的源码看看，绝对是一个不错的机会，可以说，你要是学会了这个系统，你的c语言在我看来就完全没有问题了，而且在数据结构一块，你也算是小成了，所以希望大家可以认真学习，争取早日掌握。

这也是2022年的第一篇文章了，希望2022继续加油，向大家分享更多有趣的、有用的知识，十分感谢大家的一路支持，后续我还会发布更多的项目源或者学习资料，希望大家可以持续关注。

到此这篇关于c语言大作业之图书管理系统的实现详程的文章就介绍到这了,更多相关c语言 图书管理系统内容请搜索 www.887551.com 以前的文章或继续浏览下面的相关文章希望大家以后多多支持www.887551.com !

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