综合部分代码

#include <stdio.h>

#include<iostream.h>

#include <stdlib.h>

#include <winsock.h>

#include <mysql.h>

#pragma comment(lib,"libmysql.lib")

class inventory

{

public:

MYSQL mysql,\*sock; // 定义数据库连接的句柄，它被用于几乎所有的 MySQL 函数

MYSQL\_RES \*res; // 查询结果集，结构类型

MYSQL\_FIELD \*fd ; // 包含字段信息的结构

MYSQL\_ROW row ; // 存放一行查询结果的字符串数组

char qbuf[256]; // 存放查询 sql 语句字符串

int bianhao;char shuming[20];char zuozhe[20];char chubanshe[20];

char chubanriqi[20];int jine;char leibie[20];int zongrukushuliang;int dangqiankucunliang;

int yijiechubenshu;//数据成员为此表的字段

void createinventorybook();//增加操作

void deleteinventorybook();//删除操作

void alterinventorybook();//修改操作

void selectinventorybook();//查询操作

};

class borrow:public inventory

{

public:

int bianhao;char shuming[20];int jine;int jieshuzhenghao;int jieshuriqi;int daoqiriqi;

int fakuanjine;

void createborrowbook();//增加借书

void returnborrowbook();//还书操作

void renewbook();//续借操作

};

class person:public inventory

{

public:

int jieshuzhenghao;char xingming[20];char banji[20];char xuehao[20];

//数据成员

void createperson();//增加读者信息

void deleteperson();//删除读者信息

void selectperson();//查询读者信息

};

class tongji:public inventory

{

public:

void jieyuepaihangbang();//借阅排行榜

void ziliaozhuangtai();//资料状态统计

};

void inventory::createinventorybook()//库存信息增加

{

mysql\_init(&mysql);

if (!(sock = mysql\_real\_connect(&mysql,"localhost","root","12345678","liaoyuxin",0,NULL,0)))

{

fprintf(stderr,"Couldn't connect to engine!/n%s/n/n", mysql\_error(&mysql));

perror("");

exit(1);

}

sprintf(qbuf, "create database liaoyuxin;");

mysql\_query(&mysql, qbuf);

sprintf(qbuf, "use liaoyuxin;");

mysql\_query(&mysql, qbuf);

sprintf(qbuf, "create table inventorybook(bianhao int,shuming varchar(10),zuozhe varchar(10),chubanshe varchar(10),chubanriqi varchar(10),jine int,leibie varchar(10),zongrukushuliang int,dangqiankucunliang int,yijiechubenshu int);");

mysql\_query(&mysql, qbuf);

cout<<"请输入图书的库存信息包括编号、书名、作者、出版社、出版日期、金额、类别、总入库数量、当前库存量、已借出本数"<<endl;

cin>>bianhao>>shuming>>zuozhe>>chubanshe>>chubanriqi>>jine>>leibie>>zongrukushuliang>>\

dangqiankucunliang>>yijiechubenshu;

sprintf(qbuf, "insert into inventorybook values ('%d', '%s', '%s', '%s', '%s', '%d', '%s', '%d', '%d', '%d');"\

,bianhao,shuming,zuozhe,chubanshe,chubanriqi,jine,leibie,zongrukushuliang,\

dangqiankucunliang,yijiechubenshu);

mysql\_query(&mysql, qbuf);

cout<<endl;

cout<<endl;

cout<<"编号 书名 作者 出版社 出版日期 金额 类别 总入库数量 当前库存量 已借出本数"<<endl;

mysql\_query(&mysql, "select \* from inventorybook");//储存结果集

res=mysql\_store\_result(&mysql);

int n;n=mysql\_field\_count(&mysql);//获取字段数

while (row = mysql\_fetch\_row(res))

{

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

printf("%s ",row[i]);

cout<<endl;

}

cout<<endl;

cout<<endl;

}

void inventory::deleteinventorybook()//库存信息删除

{

mysql\_init(&mysql);

if (!(sock = mysql\_real\_connect(&mysql,"localhost","root","12345678","liaoyuxin",0,NULL,0)))

{

fprintf(stderr,"Couldn't connect to engine!/n%s/n/n", mysql\_error(&mysql));

perror("");

exit(1);

}

sprintf(qbuf, "create database liaoyuxin;");

mysql\_query(&mysql, qbuf);

sprintf(qbuf, "use liaoyuxin;");

mysql\_query(&mysql, qbuf);

cout<<"请输入要删除书本信息的编号:"<<endl;

int a;

cin>>a;

sprintf(qbuf,"delete from inventorybook where bianhao=%d;",a);

mysql\_query(&mysql, qbuf);

cout<<endl;

cout<<endl;

cout<<"删除完数据后的的书本信息"<<endl;

cout<<"编号 书名 作者 出版社 出版日期 金额 类别 总入库数量 当前库存量 已借出本数"<<endl;

mysql\_query(&mysql, "select \* from inventorybook");//储存结果集

res=mysql\_store\_result(&mysql);

int n;n=mysql\_field\_count(&mysql);//获取字段数

while (row = mysql\_fetch\_row(res))

{

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

printf("%s ",row[i]);

cout<<endl;

}

cout<<endl;

cout<<endl;

}

void inventory::alterinventorybook()//库存信息修改

{

mysql\_init(&mysql);

if (!(sock = mysql\_real\_connect(&mysql,"localhost","root","12345678","liaoyuxin",0,NULL,0)))

{

fprintf(stderr,"Couldn't connect to engine!/n%s/n/n", mysql\_error(&mysql));

perror("");

exit(1);

}

sprintf(qbuf, "create database liaoyuxin;");

mysql\_query(&mysql, qbuf);

sprintf(qbuf, "use liaoyuxin;");

mysql\_query(&mysql, qbuf);

cout<<"请输入要修改书本信息的编号:"<<endl;

int a;

cin>>a;

cout<<"请输入要修改的字段名及要修改的数据"<<endl;

char a1[20],char b1[20];

cin>>a1>>b1;

sprintf(qbuf,"update inventorybook set %s='%s' where bianhao=%d;",a1,b1,a);

mysql\_query(&mysql, qbuf);

cout<<endl;

cout<<endl;

cout<<"修改完数据后的的书本信息"<<endl;

cout<<"编号 书名 作者 出版社 出版日期 金额 类别 总入库数量 当前库存量 已借出本数"<<endl;

mysql\_query(&mysql, "select \* from inventorybook");//储存结果集

res=mysql\_store\_result(&mysql);

int n;n=mysql\_field\_count(&mysql);//获取字段数

while (row = mysql\_fetch\_row(res))

{

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

printf("%s ",row[i]);

cout<<endl;

}

cout<<endl;

cout<<endl;

}

void inventory::selectinventorybook()//库存信息查询

{

mysql\_init(&mysql);

if (!(sock = mysql\_real\_connect(&mysql,"localhost","root","12345678","liaoyuxin",0,NULL,0)))

{

fprintf(stderr,"Couldn't connect to engine!/n%s/n/n", mysql\_error(&mysql));

perror("");

exit(1);

}

sprintf(qbuf, "create database liaoyuxin;");

mysql\_query(&mysql, qbuf);

sprintf(qbuf, "use liaoyuxin;");

mysql\_query(&mysql, qbuf);

cout<<"请输入要查询的字段名及要查询的数据"<<endl;

char a1[20],char b1[20];

cin>>a1>>b1;

sprintf(qbuf,"select \* from inventorybook where %s='%s';",a1,b1);

mysql\_query(&mysql, qbuf);

cout<<endl;

cout<<endl;

cout<<"查询完数据后的的书本信息"<<endl;

cout<<"编号 书名 作者 出版社 出版日期 金额 类别 总入库数量 当前库存量 已借出本数"<<endl;

mysql\_query(&mysql, "select \* from inventorybook");//储存结果集

res=mysql\_store\_result(&mysql);

int n;n=mysql\_field\_count(&mysql);//获取字段数

while (row = mysql\_fetch\_row(res))

{

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

printf("%s ",row[i]);

cout<<endl;

}

cout<<endl;

cout<<endl;

}

void borrow::createborrowbook()//借阅图书增加

{

mysql\_init(&mysql);

if (!(sock = mysql\_real\_connect(&mysql,"localhost","root","12345678","liaoyuxin",0,NULL,0)))

{

fprintf(stderr,"Couldn't connect to engine!/n%s/n/n", mysql\_error(&mysql));

perror("");

exit(1);

}

sprintf(qbuf, "create database liaoyuxin;");

mysql\_query(&mysql, qbuf);

sprintf(qbuf, "use liaoyuxin;");

mysql\_query(&mysql, qbuf);

sprintf(qbuf, "create table borrowbook(bianhao int,shuming varchar(10),jinge int,jieshuzhenghao int,jieshuriqi int,daoqiriqi int,fakuanjine int);");

mysql\_query(&mysql, qbuf);

cout<<"请输入已借出图书的库存信息包括编号、书名、金额、借书证号、借书日期、到期日期、罚款金额"<<endl;

int bianhao;char shuming[20];int jine;int jieshuzhenghao;int jieshuriqi;int daoqiriqi;

int fakuanjine;

cin>>bianhao>>shuming>>jine>>jieshuzhenghao>>jieshuriqi>>daoqiriqi>>fakuanjine;

sprintf(qbuf, "insert into borrowbook values ('%d', '%s', '%d', '%d', '%d', '%d', '%d');",bianhao,shuming,jine,jieshuzhenghao,jieshuriqi,daoqiriqi,fakuanjine);

mysql\_query(&mysql, qbuf);

sprintf(qbuf, "select \* from borrowbook;");

mysql\_query(&mysql, qbuf);

cout<<endl;

cout<<endl;

cout<<"借出图书后的信息"<<endl;

cout<<"编号 书名 金额 借书证号 借书日期 到期日期 罚款金额 "<<endl;

mysql\_query(&mysql, "select \* from borrowbook");//储存结果集

res=mysql\_store\_result(&mysql);

int n;n=mysql\_field\_count(&mysql);//获取字段数

while (row = mysql\_fetch\_row(res))

{

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

printf("%s ",row[i]);

cout<<endl;

}

cout<<endl;

cout<<endl;

}

void borrow::returnborrowbook()//借阅图书归还

{

mysql\_init(&mysql);

if (!(sock = mysql\_real\_connect(&mysql,"localhost","root","12345678","liaoyuxin",0,NULL,0)))

{

fprintf(stderr,"Couldn't connect to engine!/n%s/n/n", mysql\_error(&mysql));

perror("");

exit(1);

}

sprintf(qbuf, "create database liaoyuxin;");

mysql\_query(&mysql, qbuf);

sprintf(qbuf, "use liaoyuxin;");

mysql\_query(&mysql, qbuf);

cout<<"请输入要还回已借阅书本信息的编号:"<<endl;

int a;

cin>>a;

sprintf(qbuf,"update inventorybook set dangqiankucunliang=dangqiankucunliang+1 where bianhao=%d;",a);

mysql\_query(&mysql, qbuf);//当前库存量加一

sprintf(qbuf,"update inventorybook set yijiechubenshu=yijiechubenshu-1 where bianhao=%d;",a);

mysql\_query(&mysql, qbuf);//已借出数量减一

cout<<endl;

cout<<endl;

cout<<"还回后的的书本库存信息";

cout<<"编号 书名 作者 出版社 出版日期 金额 类别 总入库数量 当前库存量 已借出本数"<<endl;

mysql\_query(&mysql, "select \* from inventorybook");//储存结果集

res=mysql\_store\_result(&mysql);

int n;n=mysql\_field\_count(&mysql);//获取字段数

while (row = mysql\_fetch\_row(res))

{

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

printf("%s ",row[i]);

cout<<endl;

}

cout<<endl;

cout<<endl;

}

void borrow::renewbook()//借阅图书续借

{

mysql\_init(&mysql);

if (!(sock = mysql\_real\_connect(&mysql,"localhost","root","12345678","liaoyuxin",0,NULL,0)))

{

fprintf(stderr,"Couldn't connect to engine!/n%s/n/n", mysql\_error(&mysql));

perror("");

exit(1);

}

sprintf(qbuf, "create database liaoyuxin;");

mysql\_query(&mysql, qbuf);

sprintf(qbuf, "use liaoyuxin;");

mysql\_query(&mysql, qbuf);

cout<<"请输入要续借已借阅书本信息的编号:"<<endl;

int a;

cin>>a;

cout<<"请输入要续借的天数："<<endl;

int b;

cin>>b;

sprintf(qbuf,"update borrowbook set daoqiriqi=daoqiriqi+%d where bianhao=%d;",b,a);

mysql\_query(&mysql, qbuf);//到期日期增加

cout<<endl;

cout<<endl;

cout<<"续借后的的书本借出信息"<<endl;

cout<<"编号 书名 金额 借书证号 借书日期 到期日期 罚款金额 "<<endl;

mysql\_query(&mysql, "select \* from borrowbook");//储存结果集

res=mysql\_store\_result(&mysql);

int n;n=mysql\_field\_count(&mysql);//获取字段数

while (row = mysql\_fetch\_row(res))

{

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

printf("%s ",row[i]);

cout<<endl;

}

cout<<endl;

cout<<endl;

}

void person::createperson()//读者信息增加

{

mysql\_init(&mysql);

if (!(sock = mysql\_real\_connect(&mysql,"localhost","root","12345678","liaoyuxin",0,NULL,0)))

{

fprintf(stderr,"Couldn't connect to engine!/n%s/n/n", mysql\_error(&mysql));

perror("");

exit(1);

}

sprintf(qbuf, "create database liaoyuxin;");

mysql\_query(&mysql, qbuf);

sprintf(qbuf, "use liaoyuxin;");

mysql\_query(&mysql, qbuf);

sprintf(qbuf, "create table person(jieshuzhenghao int,xingming varchar(20),banji varchar(20),xuehao varchar(20));");

mysql\_query(&mysql, qbuf);

cout<<"请输入借书人信息包括借书证号、姓名、班级、学号"<<endl;

cin>>jieshuzhenghao>>xingming>>banji>>xuehao;

sprintf(qbuf, "insert into person values ('%d', '%s', '%s', '%s');",jieshuzhenghao,xingming,banji,xuehao);

mysql\_query(&mysql, qbuf);

cout<<endl;

cout<<endl;

cout<<"借书证号 姓名 班级 学号"<<endl;

mysql\_query(&mysql, "select \* from person");//储存结果集

res=mysql\_store\_result(&mysql);

int n;n=mysql\_field\_count(&mysql);//获取字段数

while (row = mysql\_fetch\_row(res))

{

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

printf("%s ",row[i]);

cout<<endl;

}

cout<<endl;

cout<<endl;

}

void person::deleteperson()//读者信息删除

{

mysql\_init(&mysql);

if (!(sock = mysql\_real\_connect(&mysql,"localhost","root","12345678","liaoyuxin",0,NULL,0)))

{

fprintf(stderr,"Couldn't connect to engine!/n%s/n/n", mysql\_error(&mysql));

perror("");

exit(1);

}

sprintf(qbuf, "create database liaoyuxin;");

mysql\_query(&mysql, qbuf);

sprintf(qbuf, "use liaoyuxin;");

mysql\_query(&mysql, qbuf);

cout<<"请输入要删除读者的学号:"<<endl;

int a;

cin>>a;

sprintf(qbuf,"delete from person where xuehao=%d;",a);

mysql\_query(&mysql, qbuf);

cout<<endl;

cout<<endl;

cout<<"删除完读者后的的读者信息"<<endl;

cout<<"借书证号 姓名 班级 学号"<<endl;

mysql\_query(&mysql, "select \* from person");//储存结果集

res=mysql\_store\_result(&mysql);

int n;n=mysql\_field\_count(&mysql);//获取字段数

while (row = mysql\_fetch\_row(res))

{

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

printf("%s ",row[i]);

cout<<endl;

}

cout<<endl;

cout<<endl;

}

void person::selectperson()//读者信息查询

{

mysql\_init(&mysql);

if (!(sock = mysql\_real\_connect(&mysql,"localhost","root","12345678","liaoyuxin",0,NULL,0)))

{

fprintf(stderr,"Couldn't connect to engine!/n%s/n/n", mysql\_error(&mysql));

perror("");

exit(1);

}

sprintf(qbuf, "create database liaoyuxin;");

mysql\_query(&mysql, qbuf);

sprintf(qbuf, "use liaoyuxin;");

mysql\_query(&mysql, qbuf);

cout<<"请输入要查询的字段名及要查询的数据"<<endl;

char a1[20],char b1[20];

cin>>a1>>b1;

sprintf(qbuf,"select \* from person where %s='%s';",a1,b1);

mysql\_query(&mysql, qbuf);

cout<<endl;

cout<<endl;

cout<<"查询完数据后的的读者信息"<<endl;

cout<<"借书证号 姓名 班级 学号"<<endl;

mysql\_query(&mysql, "select \* from person");//储存结果集

res=mysql\_store\_result(&mysql);

int n;n=mysql\_field\_count(&mysql);//获取字段数

while (row = mysql\_fetch\_row(res))

{

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

printf("%s ",row[i]);

cout<<endl;

}

cout<<endl;

cout<<endl;

}

void tongji::jieyuepaihangbang()//借阅排行

{

mysql\_init(&mysql);

if (!(sock = mysql\_real\_connect(&mysql,"localhost","root","12345678","liaoyuxin",0,NULL,0)))

{

fprintf(stderr,"Couldn't connect to engine!/n%s/n/n", mysql\_error(&mysql));

perror("");

exit(1);

}

sprintf(qbuf, "create database liaoyuxin;");

mysql\_query(&mysql, qbuf);

sprintf(qbuf, "use liaoyuxin;");

mysql\_query(&mysql, qbuf);

sprintf(qbuf,"select \* from inventorybook order by yijiechubenshu desc;");

mysql\_query(&mysql, qbuf);

cout<<endl;

cout<<endl;

cout<<"排序完的库存表"<<endl;

cout<<"编号 书名 作者 出版社 出版日期 金额 类别 总入库数量 当前库存量 已借出本数"<<endl;

mysql\_query(&mysql, "select \* from inventorybook");//储存结果集

res=mysql\_store\_result(&mysql);

int n;n=mysql\_field\_count(&mysql);//获取字段数

while (row = mysql\_fetch\_row(res))

{

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

printf("%s ",row[i]);

cout<<endl;

}

cout<<endl;

cout<<endl;

}

void tongji::ziliaozhuangtai()//资料统计

{

mysql\_init(&mysql);

if (!(sock = mysql\_real\_connect(&mysql,"localhost","root","12345678","liaoyuxin",0,NULL,0)))

{

fprintf(stderr,"Couldn't connect to engine!/n%s/n/n", mysql\_error(&mysql));

perror("");

exit(1);

}

sprintf(qbuf, "create database liaoyuxin;");

mysql\_query(&mysql, qbuf);

sprintf(qbuf, "use liaoyuxin;");

mysql\_query(&mysql, qbuf);

sprintf(qbuf,"select \* from inventorybook where leibie='baokan';");

mysql\_query(&mysql, qbuf);

cout<<"报刊的库存表"<<endl;

cout<<"编号 书名 作者 出版社 出版日期 金额 类别 总入库数量 当前库存量 已借出本数"<<endl;

mysql\_query(&mysql, "select \* from inventorybook");//储存结果集

res=mysql\_store\_result(&mysql);

int n;n=mysql\_field\_count(&mysql);//获取字段数

while (row = mysql\_fetch\_row(res))

{

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

printf("%s ",row[i]);

cout<<endl;

}

sprintf(qbuf,"select \* from inventorybook where leibie='qikan';");

mysql\_query(&mysql, qbuf);

cout<<"期刊的库存表"<<endl;

cout<<"编号 书名 作者 出版社 出版日期 金额 类别 总入库数量 当前库存量 已借出本数"<<endl;

mysql\_query(&mysql, "select \* from inventorybook");//储存结果集

res=mysql\_store\_result(&mysql);

int n1;n1=mysql\_field\_count(&mysql);//获取字段数

while (row = mysql\_fetch\_row(res))

{

for(int i=0;i<n1;i++)

printf("%s ",row[i]);

cout<<endl;

}

sprintf(qbuf,"select \* from inventorybook where leibie='shuji';");

mysql\_query(&mysql, qbuf);

cout<<"书籍的库存表"<<endl;

cout<<"编号 书名 作者 出版社 出版日期 金额 类别 总入库数量 当前库存量 已借出本数"<<endl;

mysql\_query(&mysql, "select \* from inventorybook");//储存结果集

res=mysql\_store\_result(&mysql);

int n2;n2=mysql\_field\_count(&mysql);//获取字段数

while (row = mysql\_fetch\_row(res))

{

for(int i=0;i<n2;i++)

printf("%s ",row[i]);

cout<<endl;

}

}

void main()

{

cout<<" \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"<<endl;

cout<<" \* 图书管理系统 \*"<<endl;

cout<<" \* \*"<<endl;

cout<<" \* 系统功能： \*"<<endl;

cout<<" \*1.借阅图书管理：增、删、查、改 \*"<<endl;

cout<<" \*2.借阅管理：借书、还书、续借 \*"<<endl;

cout<<" \*3.读者管理：增、删、查 \*"<<endl;

cout<<" \*4.统计分析：，排行、分类、统计 \*"<<endl;

cout<<" \* \*"<<endl;

cout<<" \* \*"<<endl;

cout<<" \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"<<endl;

int f=10;

while(f)

{

cout<<"请选择要进入的模块：0：不做操作1：图书库存2：已借阅图书3：读者信息管理4：统计模块"<<endl;

cin>>f;

if(f==1)

{

int b=5;

while(b)

{

inventory a1;//定义一个图书库存表的对象

cout<<"请输入要对库存信息进行的操作：0.不做操作1.增 2.删 3.查 4.改."<<endl;

cin>>b;

if(b==1)

a1.createinventorybook();//图书库存表增加元组操作

else if(b==2)

a1.deleteinventorybook();//图书库存表删除元组操作

else if(b==3)

a1.selectinventorybook();//图书库存表查询元组操作

else if(b==4)

a1.alterinventorybook();//图书库存表修改元组操作

else if(b==0)

break;

}

}

if(f==2)

{

int a=6;

while(a)

{

borrow a2;//定义一个已借阅图书表的对象

cout<<"请输入要对借出图书进行的操作：0.不做操作1.借书记录 2.还书 3.续借"<<endl;

cin>>a;

if(a==1)

a2.createborrowbook();//借阅记录录入数据库

else if(a==2)

a2.returnborrowbook();//还回书增加数据库

else if(a==3)

a2.renewbook();//续借信息录入数据库

else if(a==0)

break;

}

}

if(f==3)

{

int c=7;

while(c)

{

person a3;//定义一个借阅读者表的对象

cout<<"请输入要对读者信息进行的操作：0.不做操作1.读者录入 2.读者删除 3.读者查询"<<endl;

cin>>c;

if(c==1)

a3.createperson();//读者信息录入

else if(c==2)

a3.deleteperson();//删除读者信息

else if(c==3)

a3.selectperson();//查询读者信息

else if(c==0)

break;

}

}

if(f==4)

{

int d=5;

while(d)

{

tongji a4;//定义一个统计操作的对象

cout<<"请输入要进行的操作：0.不做操作1.借阅排行榜 2.资料状态统计 3.借阅统计"<<endl;

cin>>d;

if(d==1)

a4.jieyuepaihangbang();//借阅排行榜

else if(d==2)

a4.ziliaozhuangtai();//资料统计状态

else if(d==3)

a4.jieyuepaihangbang();//借阅统计

else if(d==0)

break;

}

}

else if(f==0)

break;

}

}