3.13

**Ye Hongting.cpp**

# include <iostream>

# include "Invoice.h"

# include<iomanip>

# include<string>

using std::string;

using std::cout;

using namespace std;

int main()

{

Invoice store1("0001","food",8,4);

cout<<"Number"<<setw(15)<<"Description"<<setw(12)

<<"Purchased"<<setw(15)<<"Per price"<<setw(10)<<"Amount"<<endl;

cout<<setw(6)<<store1.getnumber()<<setw(15)

<<store1.getdescription()<<setw(12)<<store1.getpurchased()

<<setw(15)<<store1.getprice()<<setw(10)<<store1.getInvoiceAmount();

system("pause");

return 0;

}

**Invoice,h**

# include <iostream>

# include <string.h>

using std::string;

using namespace std;

class Invoice

{

public:

Invoice(string number,string description,int purchased,int price);

void setnumber(string number);

string getnumber();

void setdescription(string description);

string getdescription();

void setpurchased(int purchased);

int getpurchased();

void setprice(int price);

int getprice();

int getInvoiceAmount();

private:

string num;

string des;

int pur;

int pri;

};

**Invoice.cpp**

# include <iostream>

# include <string.h>

# include "Invoice.h"

Invoice::Invoice(string number,string description,int purchased,int price)

{

if(purchased<=0)

purchased=0;

if(price<=0)

price=0;

Invoice::setnumber(number);

Invoice::setdescription(description);

Invoice::setpurchased(purchased);

Invoice::setprice(price);

}

void Invoice::setnumber(string number)

{

num=number;

}

string Invoice::getnumber()

{

return num;

}

void Invoice::setdescription(string description)

{

des=description;

}

string Invoice::getdescription()

{

return des;

}

void Invoice::setpurchased(int purchased)

{

pur=purchased;

}

int Invoice::getpurchased()

{

return pur;

}

void Invoice::setprice(int price)

{

pri=price;

}

int Invoice::getprice()

{

return pri;

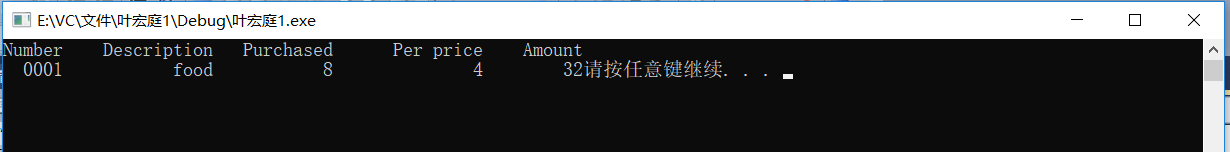
}

int Invoice::getInvoiceAmount()

{

return pur\*pri;

}



3.15

**Ye Hongting.cpp**

# include <iostream>

# include "Date.h"

using std::cout;

int main()

{

Date date(2018,12,1);

date.displayDate();

system("pause");

return 0;

}

**Date.h**

# include <iostream>

class Date

{

public:

Date(int year,int month,int day);

void setyear(int year);

int getyear();

void setmonth(int month);

int getmonth();

void setday(int day);

int getday();

void displayDate();

private:

int Year;

int Month;

int Day;

};

**Date.cpp**

# include <iostream>

# include "Date.h"

using std::cout;

Date::Date(int year,int month,int day)

{

setyear(year);

if(month>=1&&month<=12)

setmonth(month);

else

setmonth(1);

setday(day);

}

void Date::setyear(int year)

{

Year=year;

}

void Date::setmonth(int month)

{

Month=month;

}

void Date::setday(int day)

{

Day=day;

}

int Date::getyear()

{

return Year;

}

int Date::getmonth()

{

return Month;

}

int Date::getday()

{

return Day;

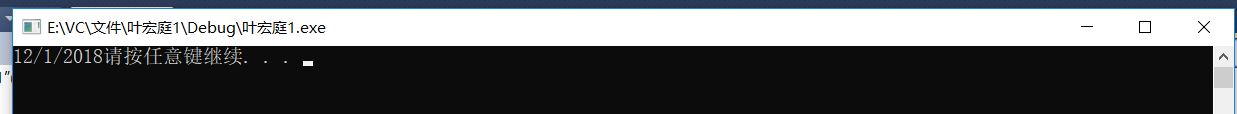
}

void Date::displayDate()

{

cout<<Month<<"/"<<Day<<"/"<<Year;

}



**3.11**

**Ye Hongting.cpp:**

# include <iostream>

# include <string>

# include "Gradebook.h"

using std::cout;

using std::endl;

int main()

{

Gradebook book("C++","Yang Guanyu");

book.displaymessage();

system("pause");

return 0;

}

**Gradebook.h:**

# include <iostream>

# include <string.h>

# include <string>

using std::string ;

class Gradebook

{

public:

Gradebook(string CourseName,string InstructorName);

void setCourseName(string CourseName);

string getCourseName();

void setInstructorName(string InstructtorName);

string getInstructorName();

void displaymessage();

private:

string coursename;

string instructorsname;

};

**Gradebook.cpp:**

# include <iostream>

# include "Gradebook.h"

using std::cout;

Gradebook::Gradebook(string CourseName,string InstructorName)

{

Gradebook::setCourseName(CourseName);

Gradebook::setInstructorName(InstructorName);

}

void Gradebook::setCourseName(string CourseName)

{

coursename=CourseName;

}

string Gradebook::getCourseName()

{

return coursename;

}

void Gradebook::setInstructorName(string InstructtorName)

{

instructorsname=InstructtorName;

}

string Gradebook::getInstructorName()

{

return instructorsname;

}

void Gradebook::displaymessage()

{

cout<<"welcome to Gradebook"<<"\nCourse name:"<<getCourseName()

<<"\nInstructor:"<<getInstructorName();

}



**3.14**

**Ye Hongting.cpp:**

# include <iostream>

# include <string>

# include "Employee.h"

using std::cout;

using std::endl;

int main()

{

Employee employee1("Ye","Hongting",10000);

Employee employee2("Yang","Guanyu",100);

cout<<"Ye Hongting's yearly salary:"<<employee1.getSalary()\*12<<endl;

cout<<"Yang Guanyu's yearly salary:"<<employee2.getSalary()\*12<<endl;

system("pause");

return 0;

}

**Employee.h:**

# include <iostream>

# include <string>

using std::string;

class Employee

{

public:

Employee(string Fname,string Lname,int salary);

void setFirstName(string Fname);

string getFirstName();

void setLastName(string Lname);

string getLastName();

void setSalary(int salary);

int getSalary();

private:

string FirstName;

string LastName;

int Salary;

};

**Employee.cpp:**

# include <iostream>

# include "Employee.h"

Employee::Employee(string Fname,string Lname,int salary)

{

setFirstName(Fname);

setLastName(Lname);

if(salary>=0)

setSalary(salary);

else

setSalary(0);

}

void Employee::setFirstName(string Fname)

{

FirstName=Fname;

}

string Employee::getFirstName()

{

return FirstName;

}

void Employee::setLastName(string Lname)

{

LastName=Lname;

}

string Employee::getLastName()

{

return LastName;

}

void Employee::setSalary(int salary)

{

Salary=salary;

}

int Employee::getSalary()

{

return Salary;

}

