

# C++ experiment 2

## C++ 实验报告二

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MathJax 提供数学公式支持 | ProcessOn.com 提供流程图支持

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### Code:

*main.cpp:*

```
//main.cpp
#include <iostream>
#include "Person.h"
#include "Date.h"

/* run this program using the console pauser or add your own getch, system("pause") or i

int main(int argc, char** argv)
{
    person p1;
    p1.printPerson();
    p1.getBirthday().printDate();
    std::cout<<std::endl;

    person p2("test2",111,Date(2018,2,2));
    //person p2("t",111,(2018,2,2)); It is wrong! Do not use this!
    p2.printPerson();
    p2.getBirthday().printDate();
    std::cout<<std::endl;

    p1.setName("test1");
    p1.setID(222);
    p1.setBirthday(2018,1,1);
    //person::setBirthday(int y,int m,int d);
    p1.printPerson();
    p1.getBirthday().printDate();
    std::cout<<std::endl;
```

```
    system("pause");
    return 0;
}
```

## *Person.h:*

```
//Person.h
#ifndef PERSON_H
#define PERSON_H

#include <iostream>
#include <string>
#include "Date.h"

class person
{
private:
    std::string name;
    int id;
    Date birthday;
public:
    person(std::string n="", int i=0, Date d=Date(2000,0,0));
    ~person();
    void setName(std::string n);
    void setID(int i);
    void setBirthday(int y, int m, int d);
    void printPerson();
    std::string getName();
    int getID();
    Date getBirthday();
    person getPerson();
};

#endif
```

## *Person.cpp*

```
//Person.cpp
#include "Person.h"

person::person(std::string n, int i, Date d)
{
    name=n;
    id=i;
    birthday=d;
}
```

```

}

void person::setBirthDay(int y,int m,int d)
{
    birthday.setDate(y,m,d);
}

person::~~person()
{

}

void person::setName(std::string n)
{
    name=n;
}

void person::setID(int i)
{
    id=i;
}

void person::printPerson()
{
    std::cout<<"Name: "<<name<<", ID: "<<id<<std::endl;
    std::cout<<"Birthday: ";
    birthday.printDate();
}

std::string person::getName()
{
    return name;
}

int person::getID()
{
    return id;
}

Date person::getBirthDay()
{
    return birthday;
}

person person::getPerson()
{
    return *this;
}

```

## Date.h

```
//#pragma once

#ifndef DATE_H
#define DATE_H

class Date
{
public:
    Date(int y = 2000, int m = 1, int d = 1);
    void setDate(int y, int m, int d);
    void printDate();
    int getYear();
    Date getDate();
private:
    int year;
    int month;
    int day;
};

#endif
```

## Date.cpp

```
//#include "stdafx.h"
#include "Date.h"
#include <iostream>
using namespace std;

Date::Date(int y, int m, int d)
{
    setDate(y, m, d);
}

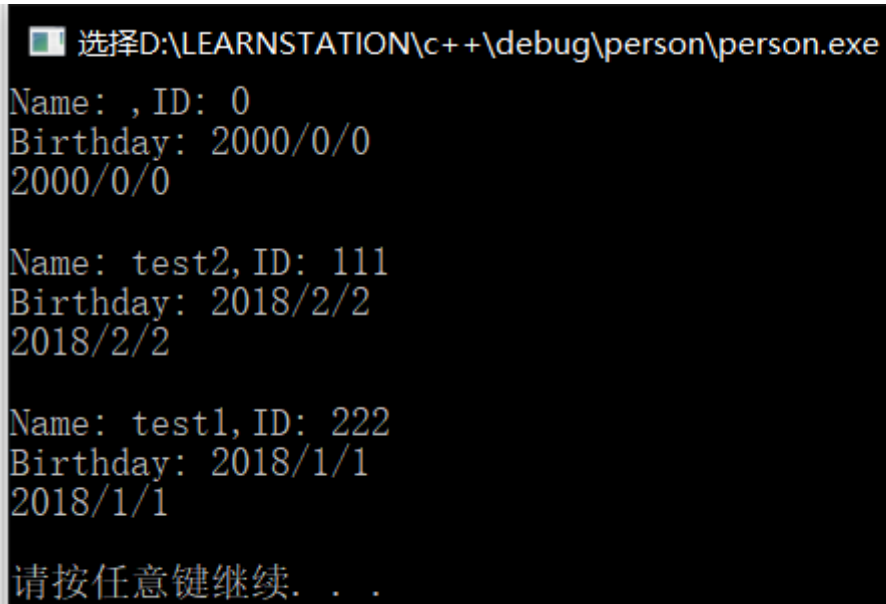
void Date::setDate(int y, int m, int d)
{
    year = y;
    month = m;
    day = d;
}

void Date::printDate()
{
    cout << year << "/" << month << "/" << day << endl;
}

int Date::getYear()
{
    return year;
}
```

```
}  
Date Date::getDate()  
{  
    return *this;  
}
```

## Demo:



```
选择D:\LEARNSTATION\c++\debug\person\person.exe  
Name: , ID: 0  
Birthday: 2000/0/0  
2000/0/0  
  
Name: test2, ID: 111  
Birthday: 2018/2/2  
2018/2/2  
  
Name: test1, ID: 222  
Birthday: 2018/1/1  
2018/1/1  
  
请按任意键继续. . .
```