**实验报告**

**实验项目名称: 通讯录程序设计与实现**

学生姓名: 林俊浩

学号: 11348076 班级： 计2

实验室： 宿舍

专业： 计算机科学与技术

学院： 信息科学与技术

最后一次实验时间： December 12, 2011

**实验名称：通讯录程序设计与实现**

1. **题目要求：**

1.实现一个通讯录程序，并有相应的各种功能

1. **实验目的：**
2. 掌握各种基本的C++语句，语法等
3. 掌握一个控制台程序的开发流程
4. 初步了解一个程序的架构，并设计实现
5. **实验环境:**

1.硬件平台：普通联想笔记本电脑一台

2.软件平台：windows7下的 VC++6.0

1. **实验原理：**
2. 利用<iostream>库中的标准输入输出流(cin,cout)进行读取字符
3. 利用<fstream>库中的文件操作对象（fstream）进行对数据在磁盘的保存
4. **程序特点：**
5. 界面仿一般命令行的形式。
6. 程序可确定是否为本程序所生成的文件。
7. 程序在保存文件时，会进行简单的加密。
8. 程序分几个类和几个模块构成。
9. **实验方法与步骤(内容)：**

考虑到整个程序较大且为了以后易扩展和代码的重用，我将其主要功能抽象并封装为一个类：CDataBase，并主要由主程序调用这个类的方法要实现各种功能。

1. 创建空白新工程，向新工程中添加空文件

2. 编写代码

3. 编译、调试、生成主程序：infoSystem.exe

1. **实验结果与其分析：**

主程序：infoSystem.exe

实验内容相关代码：见附件

程序运行测试：（测试平台：win7）

1. **程序首次运行流程：**

1.在win7中双击infoSystem.exe图标开始运行

2.首次运行界面为：

Please input the path of a data file:(infoSystem.dat)

3.直接回车：

File doesn't exsit!

Do you want to create the file:infoSystem.dat?(Y/N):

4.按y回车：

Creating the file:infoSystem.dat ...

Opening infoSystem.dat ...

Open the file:infoSystem.dat successfully!

5.随后进入下面<menu>界面：

infoSystem:

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

menu : Return to menu.

resetAll : ResetAll.

showAll : Show all the infomation.

showGivenPerson : Given the person,and show the infomation about it.

showGivenType : Given the information's type and show just about this.

search : Search given person and given information's type.

addPerson : Add a person.

addType : Add an information type.

delPerson : Delete a person.

delType : Delete an information type.

setPerson : Set the information of a given person.

resetType : Reset the the name of type and the len of type.

save : Save.

quit : Save and quit.

help : Show the menu.

clear : Clear the screen.

printAfter : Set whether to printAll after every action.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Order\_$:showall

6.输入上面左边的各个命令并回车，即可进行对应的操作。

**2）下面将给出一个应用例子，来说明各个命令的使用和功能：**

1. **打开infoSystem.exe，按顺序，执行下面代码(可直接复制下面所有命令，粘贴到程序中（包含回车）)：**

y

showall

addPerson

Eric

463222898

612764

nameljh@sina.com

y

showall

addperson

anny

523666251

612766

anny19930305@sina.com

n

showall

showGivenPerson

anny

showGivenType

Phone

addType

25

age

y

addperson

bob

563222145

13524569872

Bob19931103@sina.com

18

y

showall

setPerson

anny

anny

19

y

resetType

Email

e-mail

y

showall

delPerson

anny

y

deltype

age

y

save

printAfter

addperson

chilly

532171456

13562598452/618452

no mail

y

quit

**2.执行效果如下：**

（说明：默认新建通讯录会有Name, QQ, Phone, Email）

Please input the path of a data file:(infoSystem.dat)

File doesn't exsit!

Do you want to create the file:infoSystem.dat?(Y/N):y

Creating the file:infoSystem.dat ...

Opening infoSystem.dat ...

Open the file:infoSystem.dat successfully!

infoSystem:

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

menu : Return to menu.

resetAll : ResetAll.

showAll : Show all the infomation.

showGivenPerson : Given the person,and show the infomation about it.

showGivenType : Given the information's type and show just about this.

search : Search given person and given information's type.

addPerson : Add a person.

addType : Add an information type.

delPerson : Delete a person.

delType : Delete an information type.

setPerson : Set the information of a given person.

resetType : Reset the the name of type and the len of type.

save : Save.

quit : Save and quit.

help : Show the menu.

clear : Clear the screen.

printAfter : Set whether to printAll after every action.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Order\_$:showall

---------------------

|Name|QQ|Phone|Email|

---------------------

Order\_$:addPerson

Input the data:

Name(10):Eric

QQ(10):463222898

Phone(18):612764

Email(30):nameljh@sina.com

Do you want to save now?(Y/N)y

Save successfully!

Order\_$:showall

----------------------------------------

|Name| QQ| Phone| Email|

----------------------------------------

|Eric|463222898|612764|nameljh@sina.com|

----------------------------------------

Order\_$:addperson

Input the data:

Name(10):anny

QQ(10):523666251

Phone(18):612766

Email(30):anny19930305@sina.com

Do you want to save now?(Y/N)n

The data have not been saved.

Order\_$:showall

---------------------------------------------

|Name| QQ| Phone| Email|

---------------------------------------------

|Eric|463222898|612764| nameljh@sina.com|

---------------------------------------------

|anny|523666251|612766|anny19930305@sina.com|

---------------------------------------------

Order\_$:showGivenPerson

Name:anny

---------------------------------------------

|Name| QQ| Phone| Email|

---------------------------------------------

|anny|523666251|612766|anny19930305@sina.com|

---------------------------------------------

Order\_$:showGivenType

Name of type:Phone

-------------

|Name| Phone|

-------------

|Eric|612764|

-------------

|anny|612766|

-------------

Order\_$:addType

The max size of type:25

The name of type(25):age

Do you want to save now?(Y/N)y

Save successfully!

Order\_$:addperson

Input the data:

Name(10):bob

QQ(10):563222145

Phone(18):13524569872

Email(30):Bob19931103@sina.com

age(25):18

Do you want to save now?(Y/N)y

Save successfully!

Order\_$:showall

------------------------------------------------------

|Name| QQ| Phone| Email|age|

------------------------------------------------------

|Eric|463222898| 612764| nameljh@sina.com| |

------------------------------------------------------

|anny|523666251| 612766|anny19930305@sina.com| |

------------------------------------------------------

| bob|563222145|13524569872| Bob19931103@sina.com| 18|

------------------------------------------------------

Order\_$:setPerson

Name:anny

(Note:No input means no change.)

Name(10):(anny)

Change to:anny

QQ(10):(523666251)

Change to:

Phone(18):(612766)

Change to:

Email(30):(anny19930305@sina.com)

Change to:

age(25):()

Change to:19

Do you want to save now?(Y/N)y

Save successfully!

Order\_$:resetType

Name of type:Email

(Note:No input means no change.)

The max size of type:(30)

Change to:

Name of type(30):(Email)

Change to:e-mail

Rename type successfully!

Do you want to save now?(Y/N)y

Save successfully!

Order\_$:showall

------------------------------------------------------

|Name| QQ| Phone| e-mail|age|

------------------------------------------------------

|Eric|463222898| 612764| nameljh@sina.com| |

------------------------------------------------------

|anny|523666251| 612766|anny19930305@sina.com| 19|

------------------------------------------------------

| bob|563222145|13524569872| Bob19931103@sina.com| 18|

------------------------------------------------------

Order\_$:delPerson

Name:anny

Delete person:anny success!

Do you want to save now?(Y/N)y

Save successfully!

Order\_$:deltype

Name of type:age

Delete type:age successfully!

Do you want to save now?(Y/N)y

Save successfully!

Order\_$:save

Save successfully!

Order\_$:printAfter

printAfter=true

--------------------------------------------------

|Name| QQ| Phone| e-mail|

--------------------------------------------------

|Eric|463222898| 612764| nameljh@sina.com|

--------------------------------------------------

| bob|563222145|13524569872| Bob19931103@sina.com|

--------------------------------------------------

Order\_$:addperson

Input the data:

Name(10):chilly

QQ(10):532171456

Phone(18):13562598452/618452

e-mail(30):no mail

Do you want to save now?(Y/N)y

Save successfully!

-----------------------------------------------------------

| Name| QQ| Phone| e-mail|

-----------------------------------------------------------

| Eric|463222898| 612764| nameljh@sina.com|

-----------------------------------------------------------

| bob|563222145| 13524569872| Bob19931103@sina.com|

-----------------------------------------------------------

|chilly|532171456|13562598452/618452| no mail|

-----------------------------------------------------------

Order\_$:quit

结束

1. 实验总结（心得与体会或对改进实验的建议）：

1. 改进方面：1）.加入导入模块，进行批量导入信息　2）提供各种排序输出

2.体会：如果能在在开始动手去写代码前，做好充足的设计并将之写下来，如：明确哪个类要追踪哪些数据、要接供哪些接口、整体的系统要如何架构、各种算法的选择、要分成哪些模块来实现等，那么整个写代码的过程将会比较顺利且能够节省许多用在调试和修改方面的时间。