



ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ



Institute of technology of Cambodia

Department of Information and communication Engineering

The lesson taking about using File IO in c++

TP: 18 file IO

TP: Algorithm and Programming II

Lecturer: BOU CHANNA

Student: VEN THON

ID: e20191250

Group: I3-GIC-C

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Problem1:

Create a structure of customer (customerID, name, gender, customer type (VIP, guest, normal), phone number).

a. Create an array of customer, say myCustomers.

b. Ask a user to input information of 10 customers and store in myCustomers

c. Write data from myCustomers into a file named ListCustomer.txt

```
start here X *number1.cpp X
1  #include<iostream>
2  #include<iomanip>
3  #include<fstream>
4  using namespace std;
5  struct Customer{
6      string customerID;
7      string name;
8      char gender;
9      string customer_tye;
10     string Phone_number;
11 };
12 Customer myCustomer[10];
13 int main(){
14     fstream f1;
15     string data;
16     f1.open("ListCustomer.txt",ios::out);
17     for(int k=1; k<9; k++){
18         cout<<"\n\tInformation customer:"<<k<<"\n";
19         cout<<"\tEnter CustomerID# ";cin>>myCustomer[k].customerID;
20         cout<<"\tEnter name# ";cin>>myCustomer[k].name;
21         cout<<"\tEnter gender (F/M)# ";cin>>myCustomer[k].gender;
22         cout<<"\tEnter customerType (VIP,guest,normal)# ";cin>>myCustomer[k].customer_tye;fflush(stdin);cin.clear();
23         cout<<"\tEnter Phone_number# ";getline(cin,myCustomer[k].Phone_number);
24
25         f1<<myCustomer[k].customerID<<"\t"<<myCustomer[k].name
26         <<"\t"<<myCustomer[k].gender<<"\t"<<myCustomer[k].customer_tye<<"\t"<<myCustomer[k].Phone_number<<"\n";
27     }
28     f1.close();
29 }
```

"C:\Users\Admin\Desktop\code c++\file-IO\TP18fileIO\number1.exe"

```
Information customer:1
Enter CustomerID# e01
Enter name# pov
Enter gender(F/M)# M
Enter customerType(VIP,guest,normal)# VIP
Enter Phone_number# 098765

Information customer:2
Enter CustomerID# e02
Enter name# yin
Enter gender(F/M)# F
Enter customerType(VIP,guest,normal)# guest
Enter Phone_number# 089765

Information customer:3
Enter CustomerID# e03
Enter name# rak
Enter gender(F/M)# M
Enter customerType(VIP,guest,normal)# normal
Enter Phone_number# 089765

Information customer:4
Enter CustomerID# e04
Enter name# bin
Enter gender(F/M)# M
Enter customerType(VIP,guest,normal)# VIP
Enter Phone_number# 02345
```

```
Information customer:5
Enter CustomerID# e05
Enter name# kin
Enter gender(F/M)# F
Enter customerType(VIP,guest,normal)# normal
Enter Phone_number# 056789
```

```
Information customer:6
Enter CustomerID# e06
Enter name# rin
Enter gender(F/M)# M
Enter customerType(VIP,guest,normal)# guest
Enter Phone_number# 059876
```

```
Information customer:7
Enter CustomerID# e07
Enter name# reth
Enter gender(F/M)# M
Enter customerType(VIP,guest,normal)# normal
Enter Phone_number# 03456
```

```
Information customer:8
Enter CustomerID# e08
Enter name# bombom
Enter gender(F/M)# F
Enter customerType(VIP,guest,normal)# VIP
Enter Phone_number# 023476
```

```
process returned 0 (0x0)   execution time : 197.352 s
press any key to continue.
```

ListCustomer.txt - Notepad

File Edit Format View Help

e01	pov	M	VIP	098765
e02	yin	F	guest	089765
e03	rak	M	normal	089765
e04	bin	M	VIP	02345
e05	kin	F	normal	056789
e06	rin	M	guest	059876
e07	reth	M	normal	03456
e08	bombom	F	VIP	023476

Problem2:

Write a program to store information of students. A student has name, age and email.

- a) Get the data from file and store to variables in your program
- b) Display the data
- c) Add information of 3 more students
- d) Store those data into a file then close the program

```
art here X *number2.cpp X
1  #include<iostream>
2  #include<fstream>
3  using namespace std;
4
5  int main(){
6      fstream file;
7      int ID;
8      string name;
9      int age;
10     string Email;
11     file.open("Data.txt",ios::in); //open and read file
12
13     while(!file.eof()){ //read until end of file
14         file>>name>>age>>Email;
15         cout<<name<<" "<<age<<" "<<Email<<endl;
16     }
17     file.close();
18     cout<<"\n\n";
19     file.open("Data.txt",ios::app);
20     for(int k=1; k<=3; k=k+1){
21         cout<<"\n\tEnter your name: "; cin>>name;
22         cout<<"\tEnter your age: "; cin>>age;
23         cout<<"\tEnter your Email: "; cin>>Email;
24
25         file<<name<<" "<<age<<" "<<Email<<endl;
26     }
27     file.close();
28 }
29
```

is & others

"C:\Users\Admin\Desktop\code c++\file-IO\TP18fileIO\number2.exe"


```
Dara 23 dara@gmail.com
Rose 18 rose@gmail.com
Jack 20 jack@gmail.com
Soka 24 soka@gmail.com
Soka 24 soka@gmail.com
```

```
Enter your name: ss
Enter your age: 30
Enter your Email: ss@gmail.com
```

```
Enter your name: gg
Enter your age: 40
Enter your Email: gg@gmail.com
```

```
Enter your name: ww
Enter your age: 50
Enter your Email: ww@gmail.com
```

```
Process returned 0 (0x0)   execution time : 132.699 s
Press any key to continue.
```

 Data.txt - Notepad

File Edit Format View Help

```
Dara 23 dara@gmail.com
Rose 18 rose@gmail.com
Jack 20 jack@gmail.com
Soka 24 soka@gmail.com
```

```
ss 30 ss@gmail.com
gg 40 gg@gmail.com
ww 50 ww@gmail.com
```

Problem3:

Write a program to create 1000 txt files in a folder located in your computer D:TP18MultipleFilesYourName. Each file contains sequence number as follows:

- File n= store numbers from n to $10*n$
- Examples:
 - File1 = contains numbers 1, 2, 3, 4, 5, ..., 10
 - File2=contains numbers 2, 3, 4, ... 20
 -
 - Filen=contains numbers n, n+1, n+2, ..., $10*n$

```
art here X *number2.cpp X number3.cpp X
1  #include<iostream>
2  #include<string>
3  #include<fstream>
4  using namespace std;
5
6  main(){
7      fstream File1;
8      string fname;
9
10     for(int i=1;i<=1000;i++){
11         fname="File"+to_string(i)+".txt";
12         File1.open(fname.c_str(),ios::out);
13
14         for(int k=i;k<=10*i;k++){
15             File1<<k<<" ";
16         }
17         File1.close();
18     }
19     cout<<"Created 1000 Files successful!!!\n";
20 }
21
```