

FACULTY OF COMPUTER SCIENCE AND ENGINEERING
HO CHI MINH CITY UNIVERSITY OF TECHNOLOGY

[CO2019] Programming fundamentals - Summer 2019

Assignment Report

FALCULTY OF MANAGEMENT PROGRAM

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1 Introduction

For this assignment, Dev C++ 5.11 is used to do this assignment, which can be downloaded from website: <https://sourceforge.net/projects/orwelldvcpp/> .

This assignment helps students gain more knowledge about the basic concepts of C / C ++: struct, class, reading, writing, advanced programming and database, and the ways to handle database using C++, and database here is stored in excel file or csv to be specific.

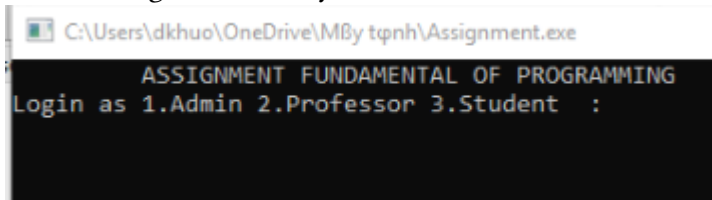
2 Main Activities

2.1 Users log in/out

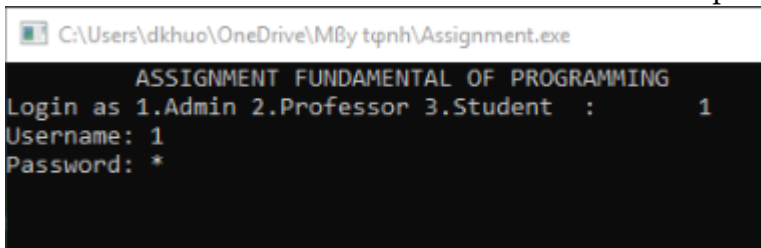
There are 3 main users of this system: Administrator, Professor and Student. Depending on each user , they will have a particular functions.

By default, every password for every user is "1".

User can login when they choose a role on the screen by entering 1, 2 or 3 recording to their role.



When entering 1, user can log in as Administrator, and they have to enter username and password of administrator which is "1" for username and "1" for password.



Similar when entering 2, user can log in as Professor, and they have to enter username and password of professor which is "1001" to "1005" for username and "1" for password. Here, the Professor will have the username exactly the same with their ID, and ID of Professor has prefix is "100".

```
C:\Users\dkhuo\OneDrive\MBy t\pnh\Assignment.exe
ASSIGNMENT FUNDAMENTAL OF PROGRAMMING
Login as 1.Admin 2.Professor 3.Student :      2
Username: 1001
Password: *
```

And when entering 3, user can log in as Student, with username is "1752001" to "1752005" and password is "1". Student, like professor, they will have username same as their ID, Student's ID has prefix is "1752".

```
C:\Users\dkhuo\OneDrive\MBy t\pnh\Assignment.exe
ASSIGNMENT FUNDAMENTAL OF PROGRAMMING
Login as 1.Admin 2.Professor 3.Student :      3
Username:1752001
Password: *
```

After log in and using user's function, user can log out by entering "0" or continue using by entering "1". When log out, the console will clear screen and turn back to ask log in.

```
ASSIGNMENT FUNDAMENTAL OF PROGRAMMING
Login as 1.Admin 2.Professor 3.Student :      3
Username:1752001
Password: *
Success log in
Enter 1 search course by name:
Enter 2 view profile:
2
Full Name: Nguyen Dinh Khuong
Student ID:1752001
Registered Credits:20
GPA: 7.9175
Address: Ward:12/District:Binh Thanh/City:Ho Chi Minh
Registered courses: c++ | arduino | linux | ios |
Courses in current semester: c++ | arduino | python | java | linux | sql | ios | android

Enter 1 to continue , 0 to logout.
```

2.2 Administrator - search user(By ID, Name or Address)

When log in Administrator , admin can search every user in the system by entering user's ID , name or address.

By entering 1, admin just need to enter user's ID. It will show every information of the user. Role,ID,Name,Username,Address>Password respectively.

Role	ID	Name	Username	Address	Password
Admin	1	A.Jefferson	1	LongAn	1
Professor	1002	A.Alisa	1002	TPHCM	1
Professor	1003	B.Thompson	1003	QuangNar	1
Professor	1004	A.Lavigne	1004	HaNoi	1
Professor	1005	T.Sawadi	1005	PhanThiet	1
Student	1752001	N.Khuong	1752001	TPHCM	1
Student	1752002	N.Nguyen	1752002	TPHCM	1
Student	1752003	N.Khang	1752003	LongAn	1
Student	1752004	Q.Truong	1752004	BaoLoc	1
Student	1752005	T.Thien	1752005	DongNai	1


```

ASSIGNMENT FUNDAMENTAL OF PROGRAMMING
Login as 1.Admin 2.Professor 3.Student :      1
Username: 1
Password: *
Success log in
Enter 1 to search user in the system.
1
Search by 1.ID 2.Name 3.Adress
1
Enter user ID:
1752001

Student 1752001 N.Khuong 1752001 TPHCM 1

Enter 1 to continue , 0 to logout.

```

By entering 2, admin will enter user's name. It will show every information of the user. (Enter correctly the name)

Role	ID	Name	Username	Address	Password
Admin	1	A.Jefferson	1	LongAn	1
Professor	1002	A.Alisa	1002	TPHCM	1
Professor	1003	B.Thompson	1003	QuangNar	1
Professor	1004	A.Lavigne	1004	HaNoi	1
Professor	1005	T.Sawadi	1005	PhanThiet	1
Student	1752001	N.Khuong	1752001	TPHCM	1
Student	1752002	N.Nguyen	1752002	TPHCM	1
Student	1752003	N.Khang	1752003	LongAn	1
Student	1752004	Q.Truong	1752004	BaoLoc	1
Student	1752005	T.Thien	1752005	DongNai	1


```

C:\Users\dkhuo\OneDrive\MBy tqnh\Assignment.exe
ASSIGNMENT FUNDAMENTAL OF PROGRAMMING
Login as 1.Admin 2.Professor 3.Student :      1
Username: 1
Password: *
Success log in
Enter 1 to search user in the system.
1
Search by 1.ID 2.Name 3.Adress
2
Enter user name:
A.Lavigne

Professor 1004 A.Lavigne 1004 HaNoi 1

Enter 1 to continue , 0 to logout.

```

And when entering 3, admin enters user's address. It will print out every user with that address.

Role	ID	Name	Username	Address	Password
Admin	1	A.Jefferson	1	LongAn	1
Professor	1002	A.Aalisa	1002	TPHCM	1
Professor	1003	B.Thompson	1003	QuangNar	1
Professor	1004	A.Lavigne	1004	HaNoi	1
Professor	1005	T.Sawadi	1005	PhanThiet	1
Student	1752001	N.Khuong	1752001	TPHCM	1
Student	1752002	N.Nguyen	1752002	TPHCM	1
Student	1752003	N.Khang	1752003	LongAn	1
Student	1752004	Q.Truong	1752004	BaoLoc	1
Student	1752005	T.Thien	1752005	DongNai	1

```

C:\Users\dkhuo\OneDrive\M8y tpmh\Assignment.exe

ASSIGNMENT FUNDAMENTAL OF PROGRAMMING
Login as 1.Admin 2.Professor 3.Student : 1
Username: 1
Password: *
Success log in
Enter 1 to search user in the system.
1
Search by 1.ID 2.Name 3.Address
3
Enter user address:
TPHCM

Professor 1002 A.Aalisa 1002 TPHCM 1

Student 1752001 N.Khuong 1752001 TPHCM 1
Student 1752002 N.Nguyen 1752002 TPHCM 1

Enter 1 to continue , 0 to logout.

```

Log out administrator by entering "0" after searching.

2.3 Student - Search course by name

Student can search the course by entering their name.

Firstly, to use that function we need to log in as a student.

Secondly, entering 1 to search course by name.

Thirdly, Input the course name and it will print out the information of that course. Course ID, name, Max student, Credits respectively

ID	Name	Max Student	Credit
CO1001	c++	30	5
CO1002	arduino	40	5
CO1003	python	40	5
CO1004	java	30	5
CO1005	linux	20	5
CO1006	sql	50	5
CO1007	ios	40	5
CO1008	android	60	5

```

ASSIGNMENT FUNDAMENTAL OF PROGRAMMING
Login as 1.Admin 2.Professor 3.Student : 3
Username:1752001
Password: *
Success log in
Enter 1 search course by name:
Enter 2 view profile:
1
Enter course name:
arduino

CO1002 arduino 40 5

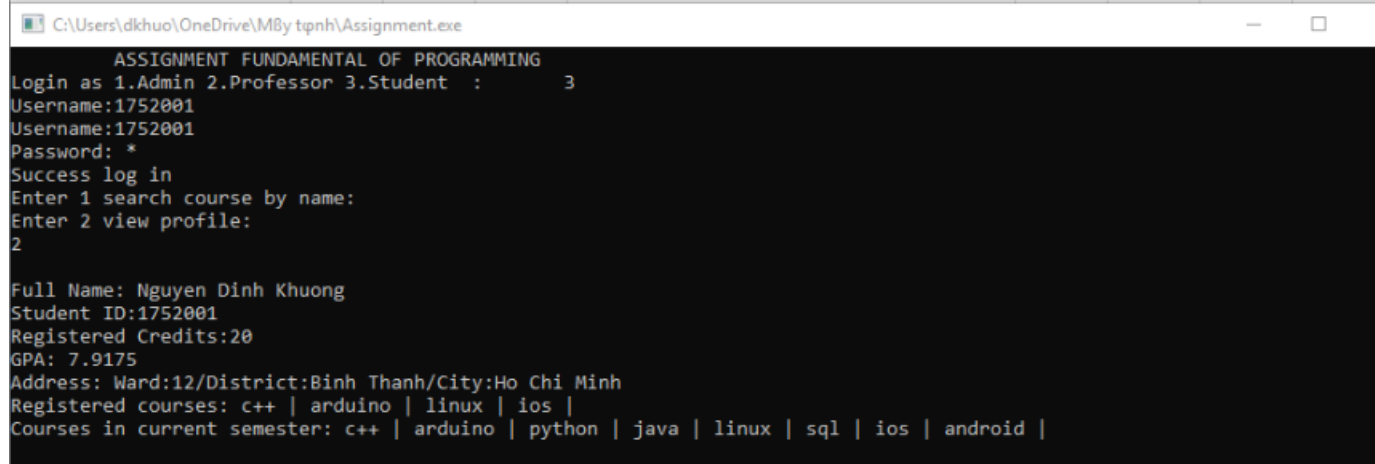
```

After searching , we can enter "1" to continue and search course or view profile, or we can enter "0" to log out.

2.4 Student - View profile

Student can view their profile when entering 2 after log in.

Fullname	ID	Registered	GPA	Address	Reg Co1	Reg Co2	Reg Co3	Reg Co4
Nguyen Dinh Khuong	1752001	20	7.9175	Ward:12/District:Binh Thanh/City:Ho Chi Minh	c++	arduino	linux	ios
Nguyen Huu Nguyen	1752002	20	7.4175	Ward:20/District:10/City:Ho Chi Minh	c++	arduino	python	ios
Nguyen Ngo Chi Khang	1752003	15	6.11	Ward:2/District:Thu Thua/City:Long An	c++	arduino	python	
Quang Truong	1752004	20	6.6665	Ward:7/District:21/City:Bao Loc	c++	arduino	python	java
Tran Hong Vu Thien	1752005	15	7.33	Ward:8/District:17/City:Dong Nai	c++	arduino	python	



```

ASSIGNMENT FUNDAMENTAL OF PROGRAMMING
Login as 1.Admin 2.Professor 3.Student :      3
Username:1752001
Username:1752001
Password: *
Success log in
Enter 1 search course by name:
Enter 2 view profile:
2

Full Name: Nguyen Dinh Khuong
Student ID:1752001
Registered Credits:20
GPA: 7.9175
Address: Ward:12/District:Binh Thanh/City:Ho Chi Minh
Registered courses: c++ | arduino | linux | ios |
Courses in current semester: c++ | arduino | python | java | linux | sql | ios | android |

```

View profile will show every detail of the student such as: Full name, ID , Registered credits, GPA (this is GPA = to every final score of the student's course in Grade.csv file), Address, Registered courses and they also can see the courses in current semester.

The courses in semester we can see in the "Courses.csv" attached file and the registered courses of the student can be seen in Profile.csv file, the grade of the student can be seen in the Grade.csv file => GPA = (every final score)/(number of attended courses).

3 Discussion

Even though, there are many questions that haven't answered in this assignment and the imperfect coding due to my lack of knowledge and coding skill but through this assignment we can know more about read and search the database using C++. And this will be the very first step for us to achieve more in the future.

The attached file include:

User.csv : this file stored every user basic information as: ID,Name,username and password

Professor.csv : this file stores information of professors.

Student.csv : this file stores information of students.

Course.csv : this file stores information of courses.

Grade.csv : this file stores information of the score student have in the specific course.

Profile.csv : this file stores study profile of the student.

4 Workload/Contribution

Members:

1.Nguyen Dinh Khuong: Searching, coding, designing, help in writing report.(60%)

2.Numa Timipere Princewill: Writing report.(40%)

5 References

Lists of url:

1. <https://sourceforge.net/projects/orwelldevcpp/>

2. <https://www.youtube.com/watch?v=eOdFiTSyOns&loop=0>

3. <https://www.geeksforgeeks.org/csv-file-management-using-c/>