CSC230 Lab 3

Due: Feb. 15th, 11:59pm

Goal: This lab includes function and arguments passing. You will use **pointers, array**.

Please try your best to finish the lab in class, and submit it to CANVAS.

PART I: Reverse a given string

In this part, you are provided with a file called **charP.cpp**. The main function in this file uses a function called reverse(), which is defined in a different file **misc.cpp**. The reverse() function reverses the a given string. For example, if a string "hello" is passed as argument to reverse(), the string will be changed to "olleh".

When we run this program, we have:

./a.out
hello
olleh

Please note:

- Do not change anything in **charP.cpp**
- The reverse() function must be defined in **misc.cpp** file
- Read page 24 of our Quick C++ Introduction slides. It shows how to work on multiple files for one project
- Inside reverse() function, you can use *(p+i) to access array element, where p is the char pointer (which points to the begin of the char array) and i is the index value of the element
- When you compile, type
  g++ charP.cpp misc.cpp

PART II: Read values from command line

Write a file **arrD.cpp**. This program reads in **five** char values from keyboard, save them into an array, array size is **50**. The program then reads an index value, then deletes the value at the given position. In fact, to delete it, the program move all the following values shifted to left. For example, if we have the following values in the array:

```
 P  I  L  O  T
--------------------
0  1  2  3  4
```

If the user types index value 2, the values in the array will be:

```
 P  I  O  T
---------------------
0   1  2  3  4
```

In the above example, we list the indices under the char values.

When you run the program, the result should be:

```
./a.out
P I L O T
2
The result is: P I O T
```

Please note:

1. In the program, the values will be shifted to the left.
2. When the result is printed out, the char values are separated by one space.

Wrap up

When you're done, jar three files to lab3.jar

jar –cvf lab3.jar *

Submit lab3.jar to Canvas.

Make sure you logout before you leave!

If you cannot finish lab in class, please save all your files. Next time you login the computer in the lab, you can continue work on your files. Please save them before you logout. If you work in a Linux lab, please save the file to your machine. However, if you are working in the Mac lab, please save the file to a CLOUD. The Mac machine will erase everything you saved once you logout.