Introduction to COMP 206
Lab 1

The labs, for this course, are designed to be completed on your own at home of in the 3rd floor Trottier labs. These labs are not graded. You do not hand in these labs. If you prefer to work on a lab in a supervised setting, check the TA Information schedule for the Lab TA period(s). You will find this schedule in our MyCourses page under Content/Course Information. The supervised labs are not teaching environments. The Lab TA will simply be present to answer questions and provide support.

This lab is about getting used to the course's development environment.

QUESTION ZERO: Optional problem

(A) Let us learn a little about the Linux Manifesto.

Google "Linux Documentation Project Manifesto". Summarize the manifesto in two to four sentences.

(B) Popularity of development environments

There are two kinds of development environments: Servers and Personal Computers. Developers use Personal Computers or Servers to create their software. Industry deploys their software on Servers. User / Customers use their Personal Computers' browser or programs to connect with Servers.

Look at the following two links and determine the popularity of Windows vs Apple vs Linux for (A) Personal Computers and (B) Servers.

The two links are: https://www.w3schools.com/browsers/browsers_os.asp and https://en.wikipedia.org/wiki/Usage_share_of_operating_systems

QUESTION ONE: Getting and using your CS user account

All assignments will be graded on the **linux.cs.mcgill.ca** server. This means that the assignments you submit must be able to run on this machine. It is important that you establish the following procedure when submitting assignments:

1. Using the linux.cs.mcgill.ca server. The TAs have access to this server for grading. You can ssh into this machine or go to Trottier 3rd floor to work on this machine, to create your assignments. All computers on the third floor of Trottier can be used. We will talk about ssh (remote connections) in depth in another lab.
    a. HOWEVER! You cannot log into this server using your first.last@mail.mcgill.ca account because that will redirect you to the McGill server and not to linux.cs.mcgill.ca even though you logged in using a computer in Trottier or logged in from home by typing `ssh linux.cs.mcgill.ca`
    b. You must first create a computer science user account by doing the following:
        i. Make sure you are on campus (or using a VPN)
        ii. Open your browser and type: https://newuser.cs.mcgill.ca and follow the instructions.
        iii. If you wish to reset your password: https://newpassword.cs.mcgill.ca
2. Now try to login.
    a. If you are at home and using a Mac, go to the command line (launchpad then Terminal or search Terminal) and type `ssh linux.cs.mcgill.ca` , you should see a prompt asking you for your CS user name and password. If all goes well, you will then see the welcome message and a prompt from the server. Or, you can type `ssh username@linux.cs.mcgill.ca` , it will only prompt you for the password.
    b. If you are in the Trottier lab, you will see a GUI login screen. Enter your CS user name and password. If all goes well, you will see the desktop. Find the command line (terminal) icon and double click it. You will now see a similar interface as the Mac students using ssh: a welcome message and a prompt.
    c. If you are home with a Windows computer, we will talk about this another time, since ssh is not installed on most Windows computers. If you still want to try, download the open source program named Putty. Just use Google to find it. But, our next lab will explore open source tools that are available for Mac and Windows for remote work.
3. You don't know how to use the server yet, so, let us just logout
    a. If you are at home using a Mac, then type `logout` and your connection with the server ends. Then click on the X to close the Terminal window.
    b. If you are in Trottier and in the command line window then type `exit` to close the window or press the X to close the window. Then you will need to logout of the desktop. On the right top of the screen (usually) is the logout menu option. Select it.
    c. If you are at home using Windows and Putty, then press X to close the Putty program.

You have completed the lab.