Bash Programming
Lab C

A mentoring section is provided at the end of this lab.

The labs, for this course, are designed to be completed on your own at home or 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 with your TA tutorial group, then check the schedule for your TA's tutorial session. You will find this schedule in our MyCourses page under Content/Course Information/TA Information. Since the university has limited lab space, your TA might ask you to bring your laptop and work in a classroom instead of a lab.

This lab is about programming in Bash.

Some labs will have a question zero. These questions will not be covered by the TA during the tutorial. It is extra content meant for you to do on your own.

QUESTION ZERO: Optional problem

The following are great links that will help you learn to program in Bash:

- Introduction: https://linuxhint.com/30_bash_script_examples/
- Intermediate: http://matt.might.net/articles/bash-by-example/
- Some advanced: https://www.macs.hw.ac.uk/~hwloidl/Courses/LinuxIntro/x945.html

QUESTION ONE: Try to write some scripts

From the web links from Question Zero, copy and run the following programs from the "some advanced" link https://www.macs.hw.ac.uk/~hwloidl/Courses/LinuxIntro/x945.html :

I suggest the following:

Version 1: Explicit For loop

Version 2: Using a Shell Function

QUESTION TWO: Write your own script

Modify **Version 2: Using a Shell Function** to return, properly, the value from count_lines(). Look at our class notes to see ways we can return values from functions. Write two versions of this script. In each version try a different way to return a value.

You have completed your lab.

TA MENTORING SECTION

The TA will cover the following during this mentoring session:

- Teach the students about passing parameters in Bash
- Teach the students about returning values in Bash
- What is the difference between returning an error code and a result
    - From a subroutine
    - From a bash script to the command line (or calling environment)
- Explore two additional interesting examples provided from those links above.
- Answer student questions