

VIM

Lab B

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 getting used to editing text files using the command line editor VIM instead of a GUI text editor.

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

(A) Why use VIM? <https://www.tecmint.com/reasons-to-learn-vi-vim-editor-in-linux/>

(B) Play with the VIM Tutor

First: Log into **mimi.cs.mcgill.ca**

Then: from the command line prompt type: `vimtutor`

And follow the instructions.

QUESTION ONE: Basic VIM Actions

Login to **mimi.cs.mcgill.ca** and from the command line prompt do the following:

1. Create a subdirectory called **LabB**.
2. Change directory (`cd`) into LabB.
3. Create your first text file by typing: `vim first.txt`
vim is the name of the text editor and **first.txt** is the name of your text file. You could have used any name for the text file name.
4. If you did the above correctly, you will see a blank black screen with tildes on the left and your filename at the bottom. If you see a GUI interface, then exit that program and type `vi first.txt` at the command line instead. This app supports both GUI and text interfaces. For this course we need to get used to the text interface.
5. VIM does not have a menu. **VIM is either in menu mode or edit mode**. By default, when started, **VIM** is in **menu mode** (known as **escape mode**). From escape mode you can switch modes and invoke commands. For example, to switch to **input mode** (aka edit mode) **press the letter lower case i to switch to input mode**, now you can enter data. Let us try this:

a) Go into input mode.

- b) Type in `hello world` then press enter and,
- c) Type in `welcome to VIM` and press enter.
- d) Press the ESC key to go to **escape mode**.
- 6. Use the arrow keys to move the cursor to the `hello world` line. If your connection is not setup correctly the arrow keys will not work. If you find yourself in this situation you can replace the arrow keys with the letter keys: `ijkl`, for up, left, down, and right, respectively.
- 7. To delete this entire line of text press the letters `dd` one after the other quickly. If you did this correctly then the line will have been deleted.
- 8. To exit the editor and save the file, make sure you are in escape mode by pressing ESC (it is okay to press ESC multiple times, but you only need to do it once). Then you want to switch to **command mode**. Command mode can only be entered from escape mode by pressing the colon key (`:`). You will know that you did this correctly because the cursor will have moved to the bottom of the screen and a colon prompt will precede the cursor. Save your file by typing the letter `w` and pressing enter.
- 9. To exit the program: make sure you are in scape mode, then go into command mode, and type the letter `q` and press enter. If you did this correctly, then you will see the command line.
- 10. Check your text file using: `cat first.txt`
You should see what is left of your file after you exited the editor.

QUESTION TWO: The VIM Crib Sheet

In the lecture slides a VIM crib sheet was provided. With the TA, or on your own, try out some of the commands.

QUESTION THREE: Write and Edit a Letter

For an exercise, use VIM to write the following short letter:

September 2019

Dear Mom,

School is great. Please send money.

Love,

Your daughter/son

Replace “Mom” with whoever you like, and properly fill in “daughter” or “son” at the end.

Save this file and `cat` the file to see if it is formatted correctly.

Then, pretend you change your mind and edit the date to be the exact day and add how much money you would like to get.

Save this file and `cat` the file to see if it is formatted correctly.

You have completed the lab.

TA MENTORING SECTION

During this mentoring session, the TA will do the following:

- Help the students organize their home directory by creating a folder called COMP206 and subfolders called ASSIGNMENTS and LABS (in lower case).
- Within the LABS folder they should create a LAB B folder and do all the work for this lab in that folder.
- Do together with the students additional VI comments like:
 - Dd
 - O
 - O
 - Yank
 - Put
- Explore ways to grep
 - With their lab B file
 - Using who to find someone
 - Using `ls | grep 'text'` and `grep 'text' `ls``
 - Explain what is going on
- Answer student questions