Introduction
Overview of 201 Lab and Linux Tutorials

Stef Nychka
Department of Computing Science
University of Alberta

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Can you Log In?

- Should be same login and password from 115.
- If you cannot log in, get your ONE Card and go to the Helpdesk.
- The Helpdesk is in CSC 1-45.
Overview

1 Lab Summary
   - Lab Description
   - Getting Xfce
   - Lab Policies

2 Linux and Emacs Tutorials
   - Linux and Emacs Interactive Examples
   - Learning More

3 Before Next Lab
Welcome to the 201 Lab!

You will learn the basics of C programming.
This will be done in a Linux environment.
Like Windows, Linux is an operating system.

You will be doing
- Linux and Linux programming tools tutorials.
- Lab Exercises
- 3 Programming Assignments.
- A Lab Exam.

Lots of new stuff.
So it will be interesting and challenging!
Getting Xfce

Xfce is a desktop environment (basically a GUI interface to Linux). It will be used in 201.

Do you have Xfce or FVWM? *(Resources → Linux Tutorial for screenshots)* Follow along with your TA to "get" Xfce:

- Everyone is to type `copyrcfiles` at the command prompt.
  - If you already have Xfce: menu (left on button bar, black mouse over a blue X) → System → Terminal

- If you have FVWM, skip all files except
  - backup `.emacs`, `.xinitrc`, `.Xresources`
  - logout: Ctrl - F1 → Exit/Restart FVWM → Yes, Really Quit
  - log back in

else, if you already have Xfce, just backup `.emacs` (it’s okay if you’re not prompted)
A Typical Lab

- Attendance is recommended, but not required.

- Interactive presentations for up to about two hours.

- Then work on Lab Exercise (Schedule → Lab Exercises).
  - Submitted electronically.
  - Due at end of lab period.

- When no presentation, can get 1-on-1 help from TA. When there are many questions:
  - There will be a Questions list on the board.
  - If you have a question, write your name in the list.
  - 10 minutes per question.
Communication Outside the Lab

- You need to read, and it is best to use, the newsgroup. TA will briefly demonstrate and describe (using ualberta.test):
  - https://webnews.srv.ualberta.ca. enter CCID
    (Campus Computing ID ... see 201 web site).
  - ualberta.courses.cmput.201

- Don’t post or attach code. You can get into trouble.

- Can email TA (email address online, and on whiteboard)
  - Use CCID.
  - Attach all relevant code.
  - Ask specific questions.
  - TA will spend about 15 minutes, and will reply with what they have found.

- Read about this and more at Schedule → Course Policies

- Questions?
You will learn not only C basics, but also Linux basics.

C and Linux have steep learning curves.

Linux has many tools which support programming.

One of those tools is an *Emacs* editor for text files, with support for C source code.

There are introductory Linux and Emacs tutorials at

*Resources → Linux* (under Tutorials)

*Resources → Emacs* (under Tutorials)

TA will show you quickly.
Preparing Source Code

Note most of the following are in the Linux tutorial. Follow along with your TA:

1. Xfce menu (left on button bar, black mouse over a blue X) → System → Terminal
2. make a directory with `mkdir C201`
3. go into that directory with `cd`, and use tab completion (`cd C201`, `mkdir Lab1`, `cd Lab1`)
4. create a new file and edit it: `emacs hello.c &`
5. copy `hello.c` from online, paste into Emacs, save
Compile, run, then fix code:

1. compile with `gcc`
2. fix the mistake, compile and run, save and exit
   - look mainly at first compilation error
3. `ls`
4. `man ls`, search `man` page for "long listing", and `ls -l`
5. `cd ..`

After doing the Lab Exercise, do Linux and Emacs tutorials on your own (and feel free to ask questions).
Learning More

To learn more about Linux and Emacs:

- Go to the *Learning more* sections of the tutorials.
- Experiment and ask the TA.
- Get used to using `man` pages. See the *Using man Pages* section in the Linux Tutorial.
Before Next Lab

- Read *Schedule* → *Assignments*, then Assignment 1, and try starting
- Bring King text to each lab.

- Questions?