

CS 3035, Fall 2022

In-Lab Exercise 2

August 25, 2022

For today's lab exercise, we will:

1. Complete the Ubuntu OS installation on VirtualBox or UTM.
2. Run some basic commands in the Ubuntu terminal.
3. Install required compilers, interpreters, and a text editor. You may chose to install any text editor of your choice or use the one that comes pre-installed with Ubuntu (gedit). Some popular options are Sublime Text and Nano.
4. You will be required to submit a lab report **due by end of class**. The instructions for the lab report are at the end of this handout.

Instructions

To install the Ubuntu OS:

1. VirtualBox: Please follow instructions from last lab.
2. UTM: Instructions will be shown by instructor. Also available at UTM's website: <https://mac.getutm.app/gallery/ubuntu-20-04>.

Basic commands:

Open your Ubuntu terminal , click on 'Activities' (top-left corner), and type Terminal in the search bar. Please run the following commands in the terminal:

1. `pwd` — to know which directory you are in
2. `ls` — list files in your directory
3. `cd` — go to a directory using a path
4. `mkdir, rmdir` — make and remove a directory
5. `rm, rm -r` — remove a file, directory
6. `cp, cp -r` — copy a file or directory
7. `mv, mv -r` — move a file or directory
8. `touch` - to create a new file
9. Additional commands for your knowledge: `sudo, man, help`

Required installations:

Open your Ubuntu terminal , click on 'Activities' (top-left corner), and type Terminal in the search bar. We will install the interpreters and compilers we need through the Terminal. Please run the following commands:

1. Before any of these installations, run the following command:
 1. `sudo apt update`
2. Install GHC, the Glasgow Haskell Compiler and related packages:
 1. `sudo apt install ghc`
3. Install nodejs and nodejs package manager, used for interpreting JavaScript:
 1. `sudo apt install nodejs`
 2. `sudo apt install npm`
4. Install the pip package manager, used to manage python addons:
 1. `sudo apt install python3-pip`

5. Install GCC, the GNU compiler for C
 1. `sudo apt install build-essential`

Lab Report

You will be required to submit a lab report. The lab report must include screenshots showing the output of the following commands (in red). Please label your screenshots to indicate what they are showing.

1. `gcc -v`
2. `ghci` followed by `42`, followed by `:quit`
3. `node -v`
4. `python3 --version` (no space between the two dashes '--')
- *Python is already installed in Ubuntu. You will not need to install it.*
5. Outputs of the basic commands (1-8) in Linux

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