

CISC1600/1610 R03

Lab1 Instruction

Sept 5, 2022

Goal: In this lab, we will focus on learning about Linux environment:

- logging to remote server
- command line interface of Linux, basic commands related to file system
- using emacs editor to type in first C++ program
- compiling and running a first C++ program

This instruction refers to a set of tutorials that can be found here:

<https://fordhamcis.github.io/CISTutorials/>

Note: *To make sure everyone has same/similar experience, please either use the lab PC (running Linux) or your Mac laptop.*

After the lab class, if you use a Windows laptop, you can try to follow the tutorial here: <https://fordhamcis.github.io/CISTutorials/windowsTutorials/> to install the MobaXterm and login to storm using MobaXterm).

Step 1: Turn on the desktop and login as student

Password is: 441EastFordhamRoad

These lab PCs are running Linux operating system.

Step 2: Follow the instructor to find the “Terminal” program in the desktop

These terminal programs offer a **command line interface** to the system. In which you can type a command, and system will execute it. This is in contrast to a Graphics User Interface (such as Windows).

Step 3: Follow [the tutorial](#) to log on to storm, using the username/password handed out by the instructor.

ssh -l your_account storm.cis.fordham.edu

Step 4: Follow the [Linux Tutorials \(Part 1\)](#) to get familiar with a few commands.

Create a directory named cs1, and go to the directory.
Then create a directory under cs1 named lab1, and go to the directory.

Step 5: Follow the [emacs tutorial](#) to type up a simple file with the following content:

```
#include <iostream> // allows program to output data to // the screen

// function main begins program execution
int main()
{
    std::cout << "Welcome to C++!\n"; // display message

    return 0; // indicate that program ended successfully
} // end function main
```

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Really easy way to get start with emacs:

1. ***Type the following command to edit the given file:***

Emacs lab1.cpp

2. ***Remember how to save your work, and how to exit from emacs:***

C-x C-c	Quit emacs (Note: C-x means to press the control key and while you are holding it down, press x. Other places use the notation ^X or ctrl-X.)
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C-x C-s	Save a file (the one you see)
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Step 6: Try to compile the program by typing the following command into the terminal

```
g++ lab1.cpp
```

If you have any errors, do not panic. The instructor will help you fix them.

Step 7: Try to run the program by typing the following command into the terminal:

```
./a.out
```

You have finished lab1!