# COMP 370 Homework 2 – Unix server and command-line exercises

Assigned Sept 11, 2021
Due Sept 18, 2021 @ 11:59 PM

The goal of this assignment is for you to get more familiar with your Unix EC2 – both as a data science machine and as a server (as a data scientist, you'll need it as both).

## Task 1: Setting up a webserver

The objective of this task is to setup your EC2 instance to run an Apache webserver on port 8008. Your goal is to have it serving up the file comp370_hw2.txt at the www root. In other words, your friend should be able to open a web browser and access it at http://X.Y.Z.W:8008/comp370_hw2.txt, where X.Y.Z.W is the public IP address of your EC2. You should put some interesting text in the file comp370_hw2.txt so something shows up when you load it in a web browser.

One key detail to keep in mind is the security configuration of your EC2 - you'll need to ensure that it allows port 8008 traffic through.

## Task 2: Setting up a database server

The objective of this task is to setup your EC2 instance to run an instance of the MariaDB database on port 6002. Your goal is for someone to be able to log into the database server and access an (empty) database named "comp370_test" as the "comp370" user. To do this, you will need to do the following in roughly this order:

1. Install the MariaDB database server (try Googling "install mariadb ubuntu"...)
2. Configure the database to run on an external port
3. Create an empty database named "comp370_test"
4. Add a new user "comp370" to your database server with permission to access the comp370_test database. Use the password "$ungl@ss3s" for the password for this user.

Make sure your MariaDB instance is publicly accessible, otherwise you won't be able to access the database from your personal computer.

To test this, you can install a relational database client (like DBeaver) on your personal computer and log into the database.

## Some Tips

- This assignment will involve a substantial amount of googling (or possibly using ChatGPT) and working on the UNIX command line.
- If you don't understand a concept, google it and read up on it.
- If you don't understand how to do something, try googling it and making sense of instructions you find
- If you use ChatGPT to get the answers, that's okay. But once you get it to work, take notes, and then do it from your notes – typing everything (i.e., don't use ChatGPT).
- You **will** need to edit files on your EC2. My preferred editor is vim - but there's a steep learning curve. If this is your first time using Unix or text editors, I would recommend using pico or nano.

## Submission Instructions

Your MyCourses submission should contain the following:

- webserver_setup.md
  - A file that contains the sequence of steps/commands required to setup a functioning webserver with a file named comp370_hw2.txt being served from the www root.

- database_setup.md

- o A file that provides the sequence of steps/commands required to setup a functioning database that is accessible from the public internet.

Note that there's no proscribed structure for these files. You can make a bulleted list and have sentences in each, or sections for each step. Whatever captures your process best.