Assignment 1, Fall 2023
CS4823/CS6643, Parallel Computing
Linux Programming Bootstrap

Purpose

The purpose of this assignment is to ensure that everyone has access to the department's Linux servers and is able to program on these servers. Additionally, that you have access to e-copy of the textbook.

Due Date

This assignment is due next Tue, 8/29 at 11:59pm.

Materials to Review and Submit

1. Read Chapter 1 of textbook, and additional related slides posted for this chapter. Submit answer to Q1.1 in Grama's book to top 500 supercomputers.
2. Review How to login to VDI, Linux, SSH, etc., in the CS labs FAQ .

Instructions

1. Use a ssh client to log into any one of the CS Linux Fox servers:
   https://sciences.utsa.edu/_documents/computer-science/lab/fox-servers.pdf
   You can use any ssh client you like. Your username should be your myUSTAID (abc123 ID). Your default password (if you have not changed it) should be your banner id without '@'.

2. To make sure you have full access to the server, create the following program using a text editor (vim, nano or emacs, etc.). Type in, not cut-and-paste, as latter may introduce extraneous, invisible characters. Call the file hello_world.c .

   ```
   #include <stdio.h>
   int main(int argc, char *argv[]){
           printf ("Hello world from Fox server!\n");
           return 0;
   }
   ```

3. Run the command "clear". This command clears the window.
4. Now compile the program using the following command.

   $gcc -o hello.exe hello_world.c

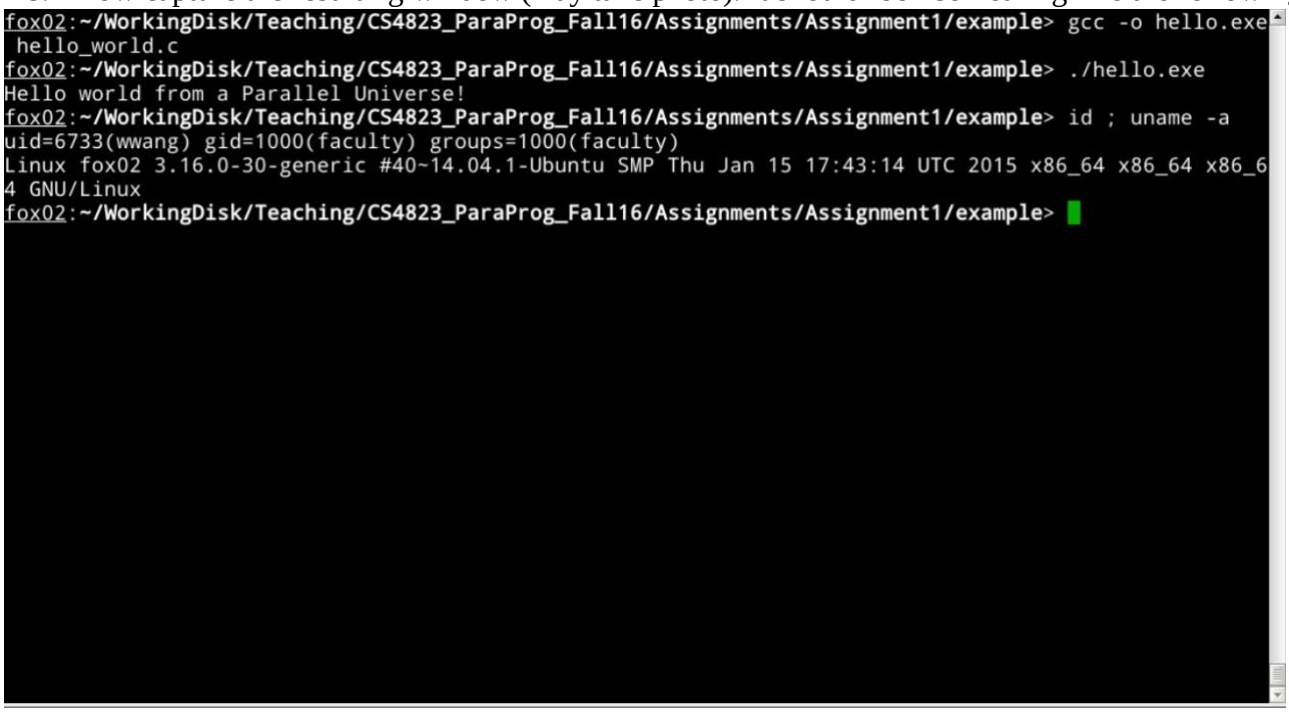
5. It is possible you will get an error when compiling saying some file is not found. Use Google search to find a solution to the problem and fix it.
6. Run the program with the following command to make sure it executes.

   $./hello.exe

7. Finally run the following command to print your identity:

   $id; uname -a

8. Now capture the resulting window (may take photo). It should look something like the following:



Items to Submit

1. Submit the captured screenshot to Canvas.

   Notes:
   - You can have any directory structure, and you can work on any of the Linux Fox servers. Your directory structure and sever name in your screenshot do not have to match the above example.
   - It is permissible on this assignment to help one another. However, in your screenshot, your "uid (username)" should match your identity in Canvas. You will need these Linux servers for subsequent assignments.

2. Submit answer to Q1.1 in Grama's book about top 500 supercomputers.