Assignment #1 (80 Points) – COSC 4327 – Dr. Leonard Brown
Due: September 20, 2023

Problem Description
Submit answers to the following questions in a text, MS Word, or PDF document.

1. (*15 points*) What is a Linux distro? List three (3) differences between Fedora and Debian. Which is Ubuntu based on? What is the purpose of the Kali Linux distribution? Is Kali Linux based on Fedora or Debian?

2. (*10 points*) Give a sequence of bash commands that create the following files & directories. Create a directory under the home directory called `semesters`. This directory should have three subdirectories, `spring`, `summer`, and `fall`. Each of these subdirectories should have a file called months.txt. This file should contain the months (results of the cal command) for the months of the corresponding semester (January-April, May-August, September-December).

3. (*15 points*) Give a sequence of bash commands that will create the following files and directories.
- Create a directory under the user's home directory called `work`.
- `work` should contain a file called `binaries.list` which has a long listing of the first 10 files available in the /bin directory (one file per line).
- In addition, `work` should contain a file called `password.txt` which should contain the last five lines in the /etc/passwd file.
- Finally, `work` should contain a subdirectory called `BACKUP` which contains copies of all files in the home directory that have been modified in the last 2 weeks (last modified date is less than 14 days ago).

4. (*5 points*) Give a sequence of UNIX commands that will remove the directories and subdirectories created in the previous questions.

5. (*8 points*) Use the online manual to learn about the `stty` command. Describe its purpose along with three of its options.

6. (*12 points*) Use the online manual to identify and describe a sequence of commands that will connect an external USB drive and copy files from the current working directory to the USB.

7. (*15 points*) List the differences between *bash* and five (5) different shells. At least three (3) differences should be listed for each shell.

Submission

Submit your assignment through Canvas. If your assignment contains multiple files, zip them into a single folder before submitting.

Notes

Points can be deducted from your assignment based on the quality of its presentation. This includes ensuring your documentation is free from grammatical and spelling mistakes. It also includes ensuring your source code is properly formatted and commented. Handwritten assignments will **not** be accepted.