Lab Part 1 - Unix Basic Skills

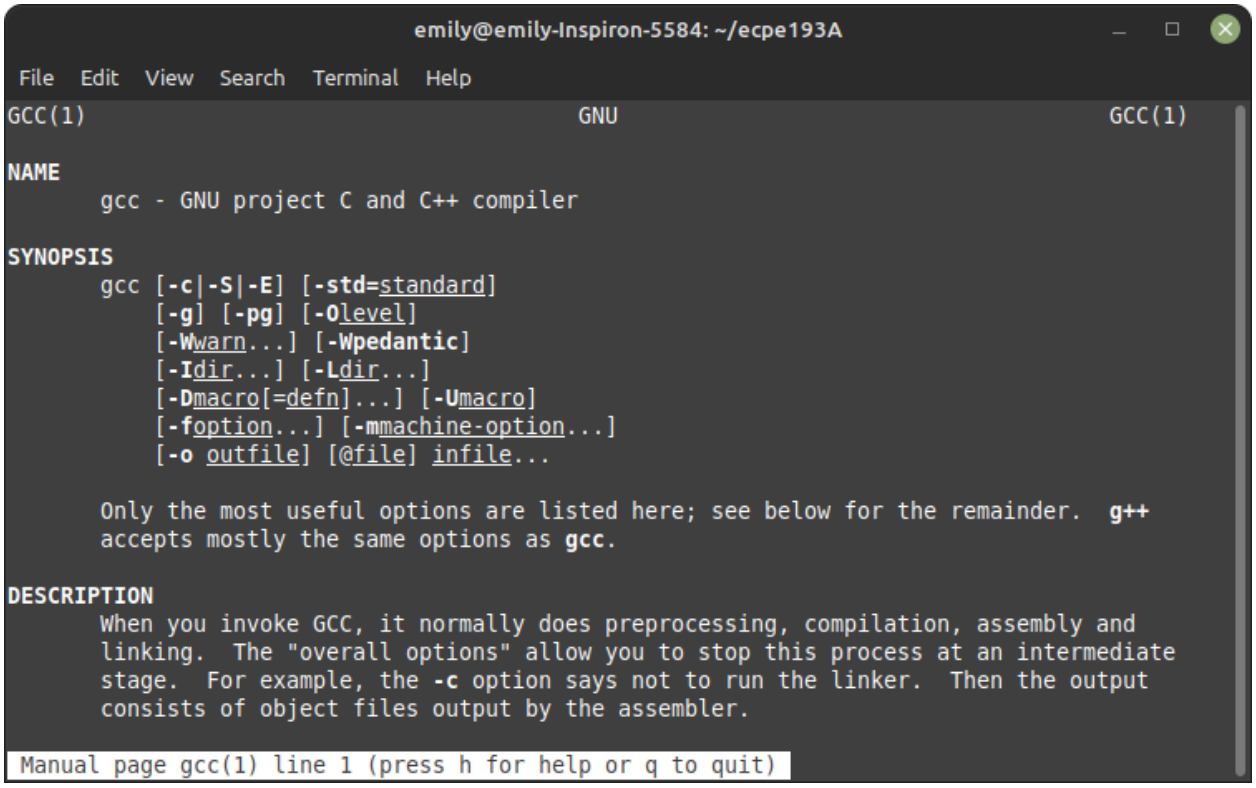
1. What command would I type to go to the following directory?
   /home/vpallip/ecpe170/project1/src

unix> /home/vpallip/ecpe170/project1/src

2. In the following file pathname, what is the top-level directory (i.e. highest in the hierarchy) and what is the lowest-level directory?
   /home/vpallip/ecpe170/project2/src/main.c

Top-level directory: /home
Lowest-level directory: /src

3. Copy the first page of the manual for the GCC compiler.
   Tip: This program is run with the gcc command at the command line.

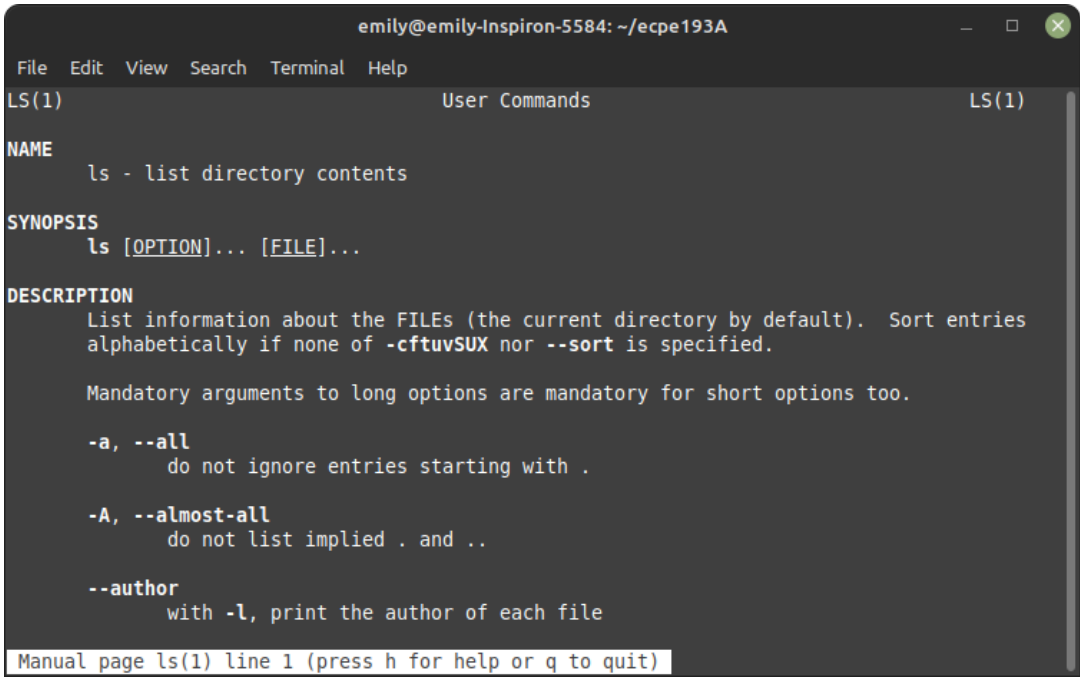


4. (Question 4a) What does this command do? sudo rm -rf /
   Tip: **DO NOT** type this at the command line to find out, **you will regret it!**

Removes ALL root owned files and directories

Questions 5-13:
Show the command (or keystrokes) that are needed to perform the desired operation.
In addition, document your command, clearly identifying the command name and describing the purpose of each argument that follows.

5. Display information on how to use the ls command, such as what optional arguments the program accepts.
   (Also, what key do you press to advance to the next page? What do you press to exit?)

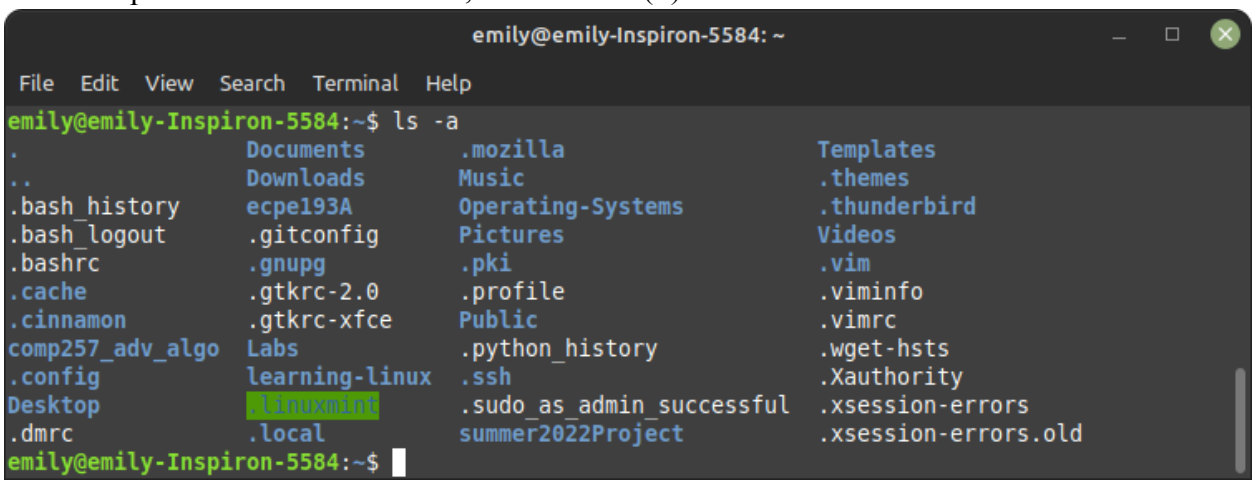


Use the page up and page down buttons to advance through the file documentation;
Press 'q' to exit

6. Count the number of characters in myfile.txt and save the result in the file myfile_char_count.txt (if the filename is also saved in the output file, that's OK)

unix> wc myfile.txt > myfile_char_count.txt

7. List all files contained in your home directory, including **hidden files** where the filename starts with a period.
   This command should work for *any* user, so don't put an explicit path that hardwires it to a specific username. Instead, use the tilde (~) character.



8. Move the file "data.txt" from the current directory to inside the directory "experiment1". The destination directory is located directly under (i.e. inside) the user's home directory. Note: The current directory is left unspecified in this problem.

unix> mv data.txt ~/experiment1

9. Sort the directory listing of the /etc directory by file size

unix> ls -S /etc

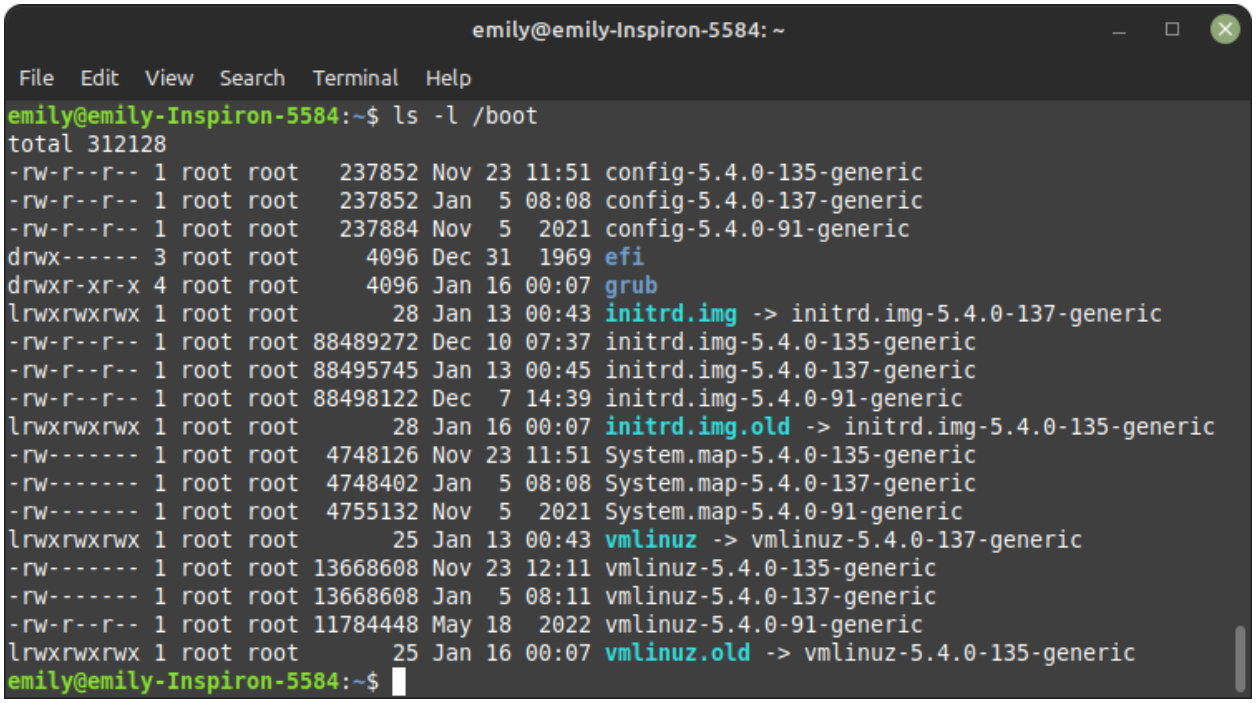
10. Download the file http://www.google.com/doodles/roswells-66th-anniversary from the web to your current directory.

unix> wget http://www.google.com/doodles/roswells-66th-anniversary

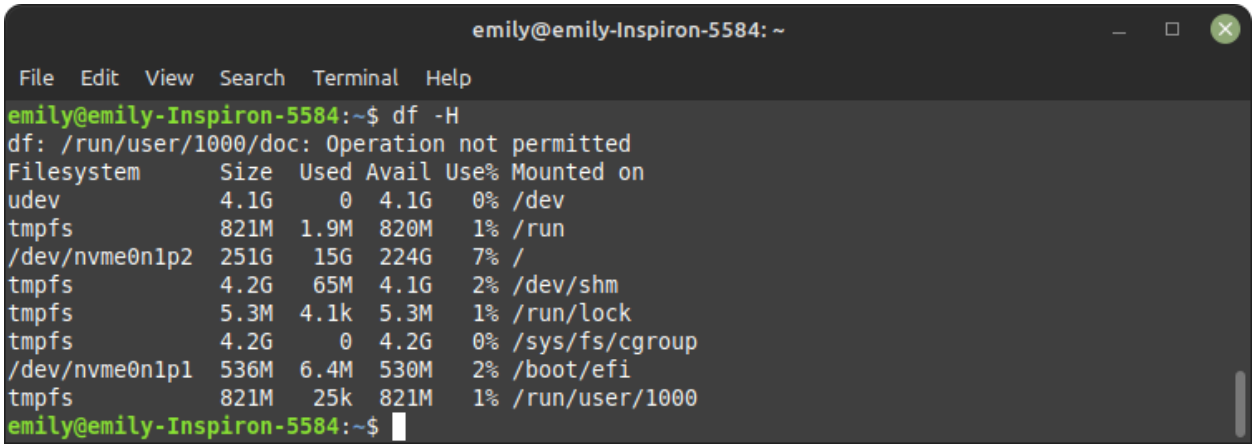
11. Print the current directory that you are in. (By "print", I want to know *what* directory you are currently in, and where it exists in the filesystem. I do not want a list of the files in that directory).

/home/emily/ecpe193A

12. Do a long listing for files stored in the /boot directory, and include the size of each file in human-friendly units like megabytes or kilobytes.



13. Report the free space available on the disk in human-friendly units like megabytes or kilobytes.



14. What is the Linux kernel?

It's the heart of the Linux OS

15. How is Ubuntu Linux different from the Linux kernel?

Ubuntu is a distribution of Linux while Linux is the actual OS

16. What is a Virtual Machine?

Software that allows an operating system (for example Windows or IOS) to run various other operating systems (such as Linux) without overwriting the current operating system

17. How is dual booting different from a virtual machine?

Dual booting allows multiple operating systems to run together on one system whereas a VM uses software to run a separate OS on that application

18. What is the best text editor: vi or emacs?

There is not one correct answer. This is a controversial topic that is subject to each individual's personal preference. Both are great options, but I personally prefer Vim.

19. Beyond inflicting pain and suffering on newbies, what are 3 advantages of using the command line to control a computer?

The command line offers more control and a better understanding of the user's system as well as faster performance. The GUI also uses more of the system's resources.

20. What does one dot (.) mean in a file path? What do two dots (..) mean in a path?

. = current working directory

.. = previous directory