**Daily Progress Report**

**20-01-2022:**

* Installed linux (ubuntu) alongside windows 8

**21-01-2022:**

Linux commands learned:

* **Navigation:**

1. pwd : print working directory
2. ls : List of names of directories that exist in current working directory
3. ls /home/aamir/Downloads : to list all the subdirectories of the directory whose path is given.( Downloads is not the current working directory.)
4. ls -R: to view all the files in subdirectories as well.
5. ls -a : will show the hidden files.
6. ls -al: will list files, subdirectories with additional information like permission, size, owner etc.
7. mkdir Practice; make a new directory named ‘Practice’ in the current working directory
8. mkdir Practice/p1: make a directory in the Practice subdirectory
9. mkdir -p Practice/p2/p1 : Make a directory ‘p2’ in between the parent directory ‘Practice’ and its child directory ‘p1’
10. cd Practice; change the new current working directory to one among the directories in the current working directory(here I navigated to ‘Practice’ and made it the current working directory.)
11. cd /home/aamir/Downloads: change the current working directory by specifying the complete path to directory.
12. cd ~/Downloads: ~ represents the current user's home directory path.
13. cd : to go straight to the home directory.
14. cd .. : to change to the directory one level up in the path to the current working directory.
15. cd - : to go to the previous directory.
16. find /home/ -name file.txt : to find the file.txt path in the home directory
17. find . -name file.txt : to find the file.txt from the current directory path.

* **File Manipulation:**

1. touch file1.txt: create a new file named ‘file1.txt’.we can also specify the complete path of the directory in which to create the new file.
2. gedit file1.txt: open the file1.txt with the gedit text editor of ubuntu.
3. mv file1.txt file2.txt: Renames the file1.txt to file2.txt
4. mv file1.txt ~/Downloads: Moves file1.txt to the directory whose path is specified in the second argument.
5. cp file2.txt newfile.txt : makes a copy of the file2.txt and names it as newfile.txt.
6. cat file2.txt: To view the contents of file2.txt in the terminal
7. cat >filename.txt : creates a new file named filename.txt. Allows you to write into the file from the terminal. Press “control + d” to exit from the command.
8. cat f1.txt f2.txt >f3.txt : copies the contents f1.txt and f2.txt into the f3.txt ( ie concatenates contents of f1 and f2 into the f3.txt)
9. less file2.txt: To view the contents of the file2.txt in the terminal in a more sophisticated style than cat. Press “q” to get out of ‘less’
10. rm file2.txt: To remove file2.txt from the working directory. The simple rm cannot remove the directories.
11. rm -d temp: To remove the empty directory named ‘temp’.
12. rmdir temp: Another command to remove empty directory named “temp”
13. rm -r dir1: To remove the non-empty directory named ‘dir1’ along with all its content files and subdirectories.

* **Other commonly used commands:**

1. grep hello file.txt: searches for the word “hello” in the file.txt
2. df : to get disk space usage in KBs’.
3. df -m: to get disk space usage in MBs’.
4. du : gives the disk usage of files or directories in the current working directory in terms of blocks.
5. du -h : to view report in kb
6. du -h -m: to view report in mb
7. head file1.txt: will show the first 10 lines of file1.txt
8. head -n 5 file1.txt : will show the first 5 lines of the file1.txt
9. tail file1.txt: will show the last 10 lines of file1.txt
10. tail -n 5 file1.txt: will show the last 5 lines..
11. diff file1.txt file2.txt : compares the contents of two files line by line.
12. ping google.com: used to check connectivity with google.com
13. wget *“download link”* : will download from the link
14. uname -a : gives all the details of the system like os, system name etc.
15. top : gives a list of running processes and their CPU usage.
16. history : gives list of commands run over a period of time
17. man tail: gives the manual for tail command. Can be used with other commands as well.
18. echo I learned about 30 linux commands >> file2.txt: will add the text between “echo” and “>>” into the file2.txt
19. hostname ; gives the hostname of the system
20. hostname -i : gives the ip address of the system

Linux file permissions:

* Permission groups
* Permission types
* chmod command for setting permissions
* chown command to set Owner/group for a file
* setuid/setgid special permissions
* Sticky bit permissions

**24-01-2022**

* Installed git and vim on linux system
* basics of version control and what is git?
* git commands
  + git config –global : to set username and email id
  + git init
  + git status
  + git add
  + git log
  + git commit
  + git rm
  + git mv
  + git remote add : to add remote hosting repository url to git
  + git push
* Installed vim editor and learned how to use it as text editor in terminal

**25-01-2022**

continued to work on git and vim:

* git workflow
* git branches
  + git branch
  + git branch -r
  + git branch -a
  + git branch -v
  + git branch dev
  + git checkout dev
  + git checkout -
  + git checkout -b dev2
  + git branch -d dev2
  + git branch -D dev2
* Dealing with conflicts
* merge conflicts
  + git merge dev