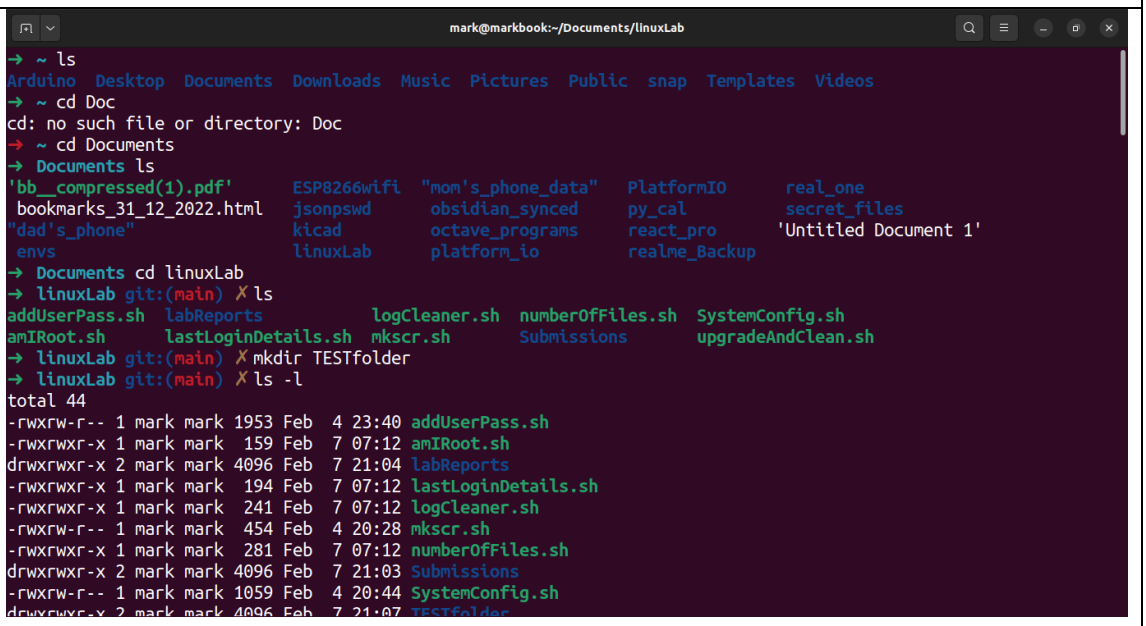
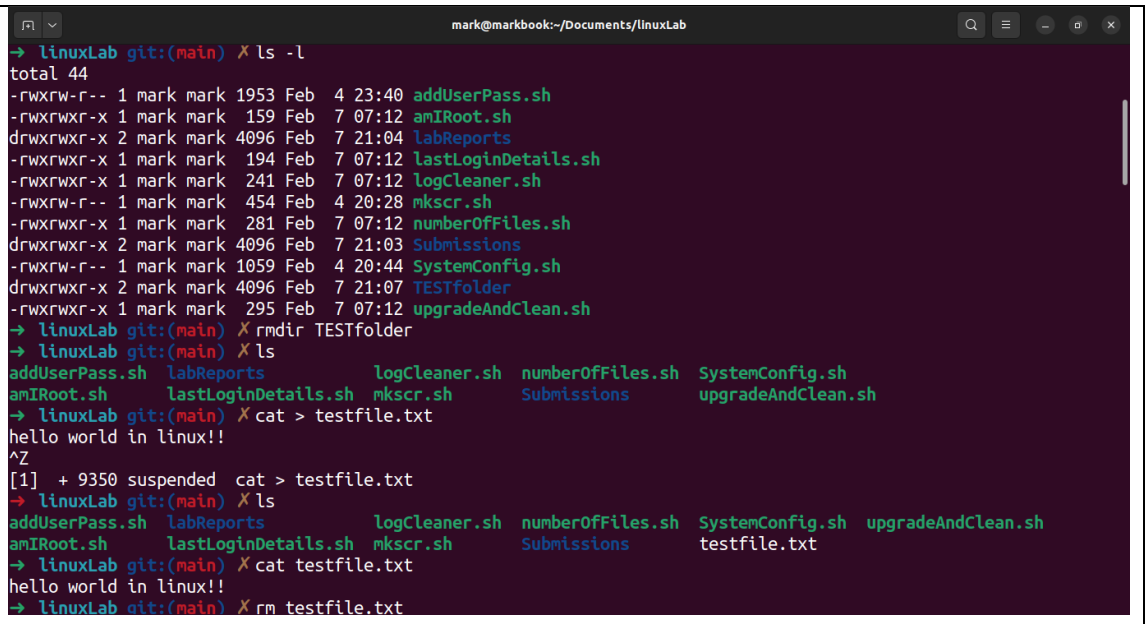
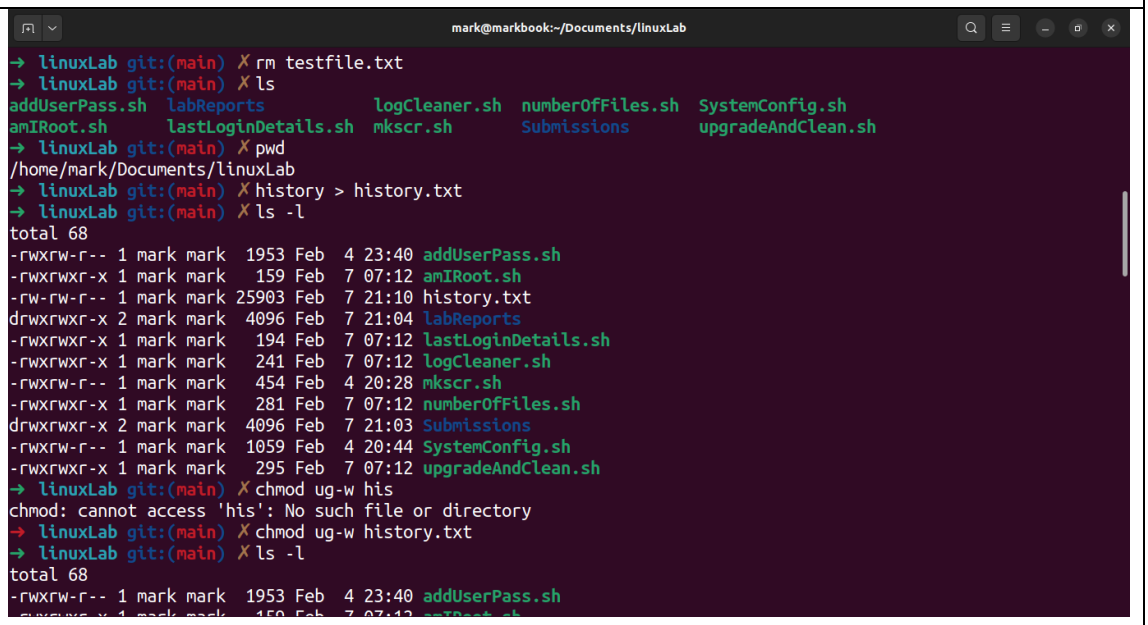
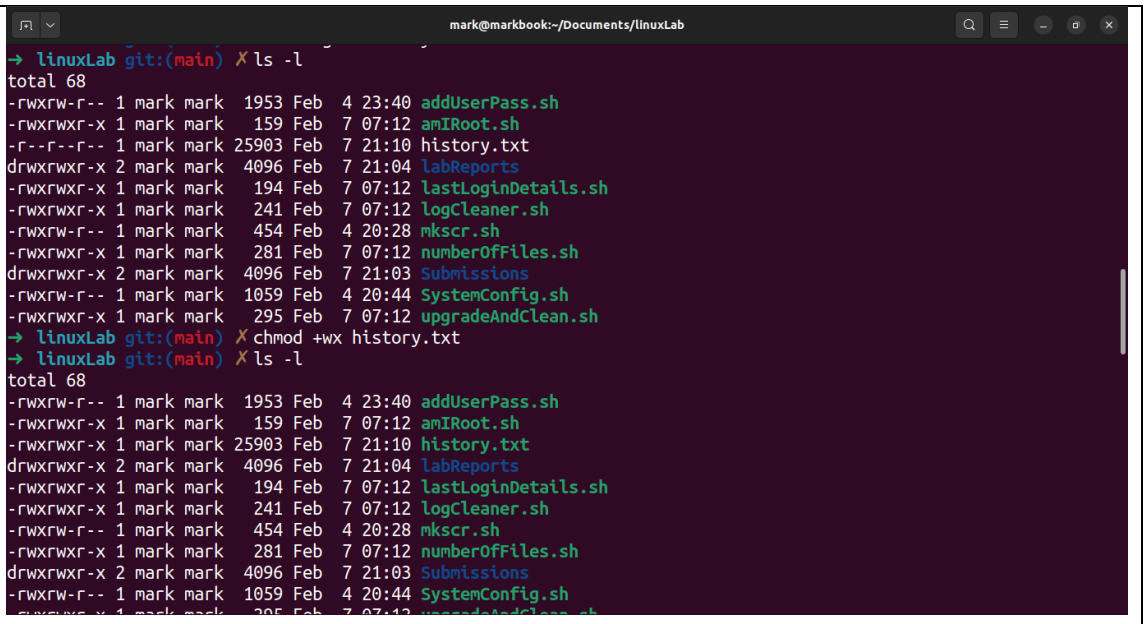
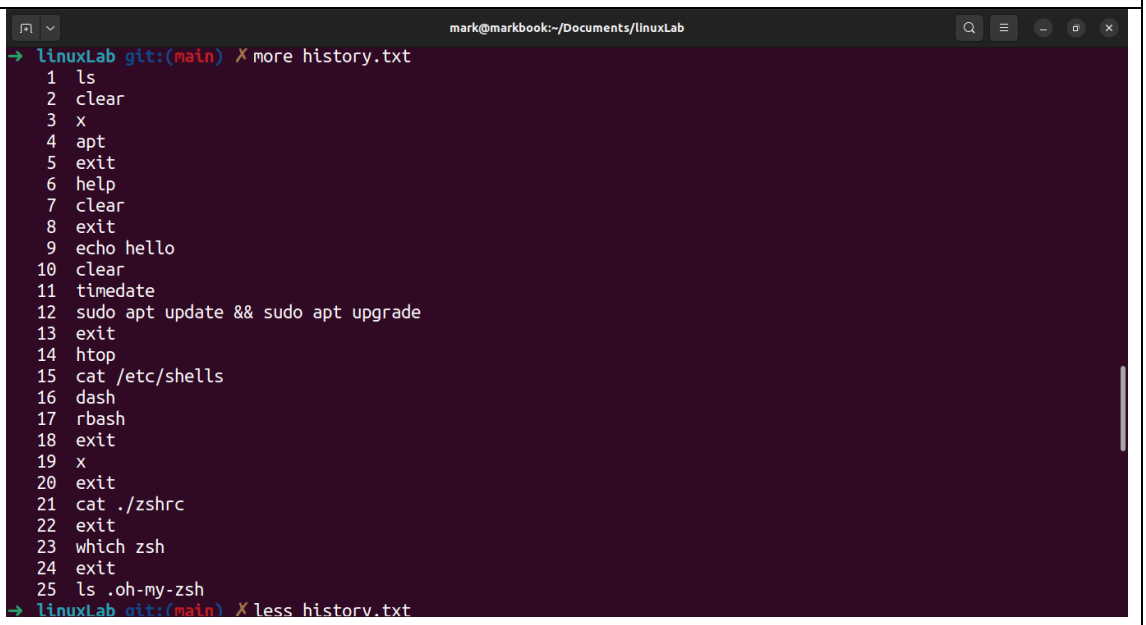
	Experiment No : 2 **Date :**
Title	**Basic Linux Commands**
Aim	To Study and practice basic Linux commands
Hardware Requirement	Personal Computer
Software Requirement	Linux Operating System(Ubuntu 20.04) , Shell-Interpreter
Theory	Linux is an operating system's kernel. Linux is a UNIX clone, created by Linus Torvalds from Scratch. Linux is free and open-source, that means that by simply changing anything in Linux and redistribute it in your own name! There are several Linux Distributions, commonly called "distros". • Ubuntu Linux • Red Hat Enterprise Linux • Linux Mint • Debian • Fedora Linux is Mainly used in servers. About 90% of the internet is powered by Linux servers. This is because Linux is fast, secure, and free! The main problem of using Windows servers are their cost. This is solved by using Linux servers. The OS that runs in about 80% of the smartphones in the world, Android, is also made from the Linux kernel. Most of the viruses in the world run on Windows, but not on Linux! **Linux Shell or "Terminal"** A shell is a program that receives commands from the user and gives it to the OS to process, and it shows the output. Linux's shell is its main part. Its distros come in GUI (graphical user interface), but basically, Linux has a CLI (command line interface. The basic commands are executed in the shell of Linux. To open the terminal, press Ctrl+Alt+T in Ubuntu, or press Alt+F2, type in gnome-terminal, and press enter. **Linux Commands** The Linux command is a utility of the Linux operating system. All basic and

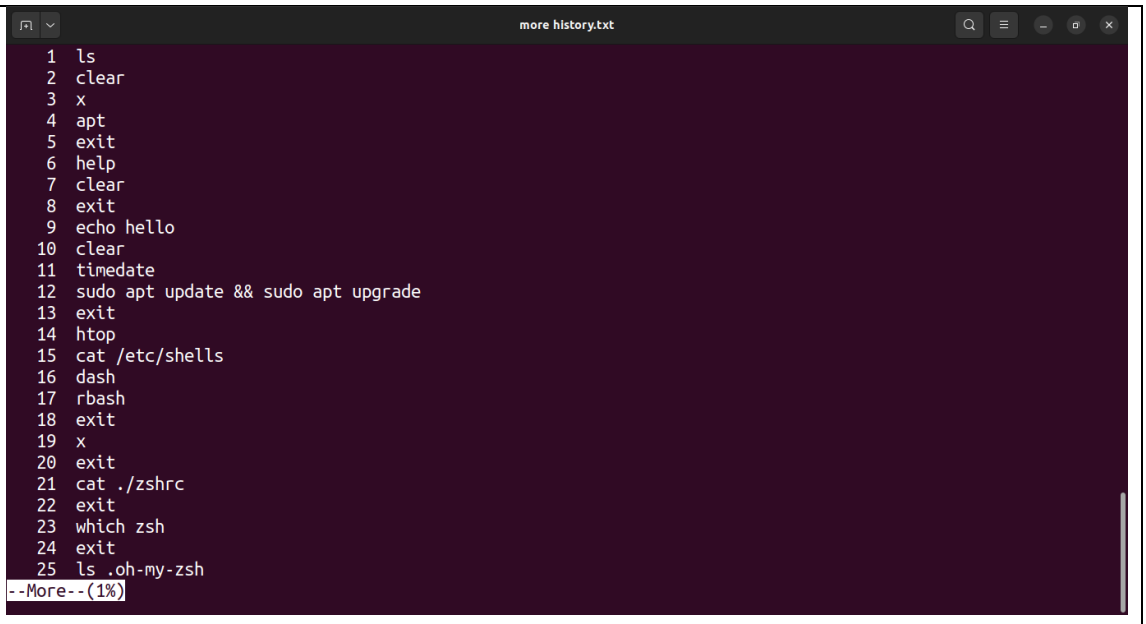
	advanced tasks can be done by executing commands. *Commands in Linux are **case-sensitive***.
Basic Commands	**Following are Linux Basic Commands** • ls • wc • mv • find • mkdir • pwd • cp • more • cd • clear • cat • less • rmdir • man • head • history • rm • chmod • tail • touch
Output	

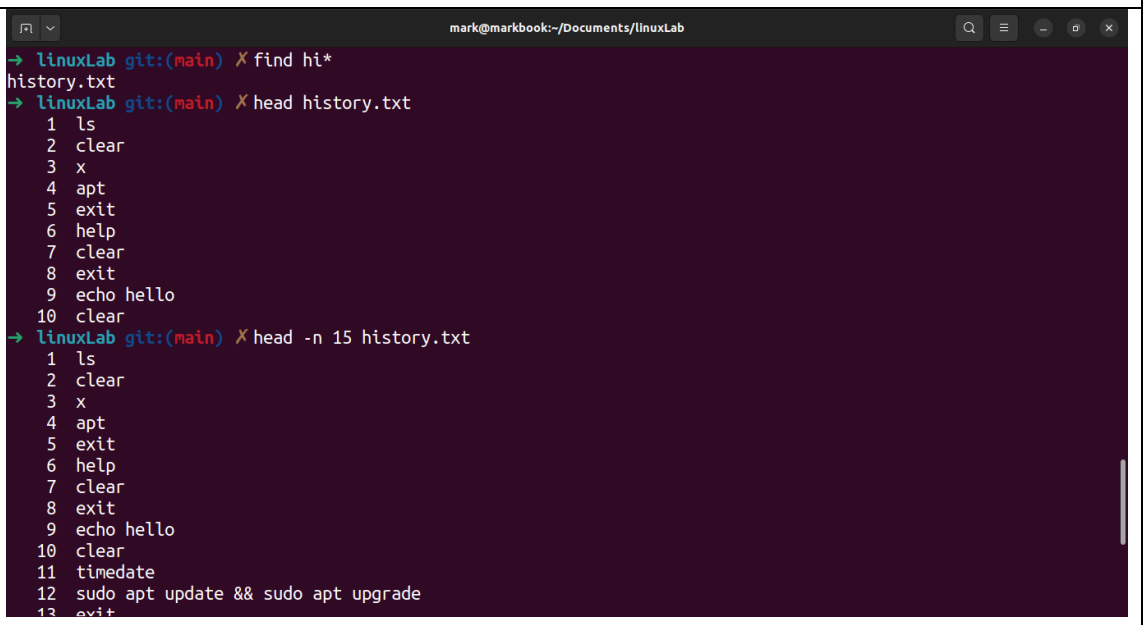

mark@markbook:~/Documents/linuxLab
→ linuxLab git:(main) ✗ ls -l
total 44
-rwxrw-r-- 1 mark mark 1953 Feb 4 23:40 addUserPass.sh
-rwxrwxr-x 1 mark mark 159 Feb 7 07:12 amIRoot.sh
drwxrwxr-x 2 mark mark 4096 Feb 7 21:04 labReports
-rwxrwxr-x 1 mark mark 194 Feb 7 07:12 lastLoginDetails.sh
-rwxrwxr-x 1 mark mark 241 Feb 7 07:12 logCleaner.sh
-rwxrw-r-- 1 mark mark 454 Feb 4 20:28 mkscr.sh
-rwxrwxr-x 1 mark mark 281 Feb 7 07:12 numberOfFiles.sh
drwxrwxr-x 2 mark mark 4096 Feb 7 21:03 Submissions
-rwxrw-r-- 1 mark mark 1059 Feb 4 20:44 SystemConfig.sh
drwxrwxr-x 2 mark mark 4096 Feb 7 21:07 TESTfolder
-rwxrwxr-x 1 mark mark 295 Feb 7 07:12 upgradeAndClean.sh
→ linuxLab git:(main) ✗ rmdir TESTfolder
→ linuxLab git:(main) ✗ ls
addUserPass.sh labReports logCleaner.sh numberOfFiles.sh SystemConfig.sh
amIRoot.sh lastLoginDetails.sh mkscr.sh Submissions upgradeAndClean.sh
→ linuxLab git:(main) ✗ cat > testfile.txt
hello world in linux!!
^Z
[1] + 9350 suspended cat > testfile.txt
→ linuxLab git:(main) ✗ ls
addUserPass.sh labReports logCleaner.sh numberOfFiles.sh SystemConfig.sh upgradeAndClean.sh
amIRoot.sh lastLoginDetails.sh mkscr.sh Submissions testfile.txt
→ linuxLab git:(main) ✗ cat testfile.txt
hello world in linux!!
→ linuxLab git:(main) ✗ rm testfile.txt

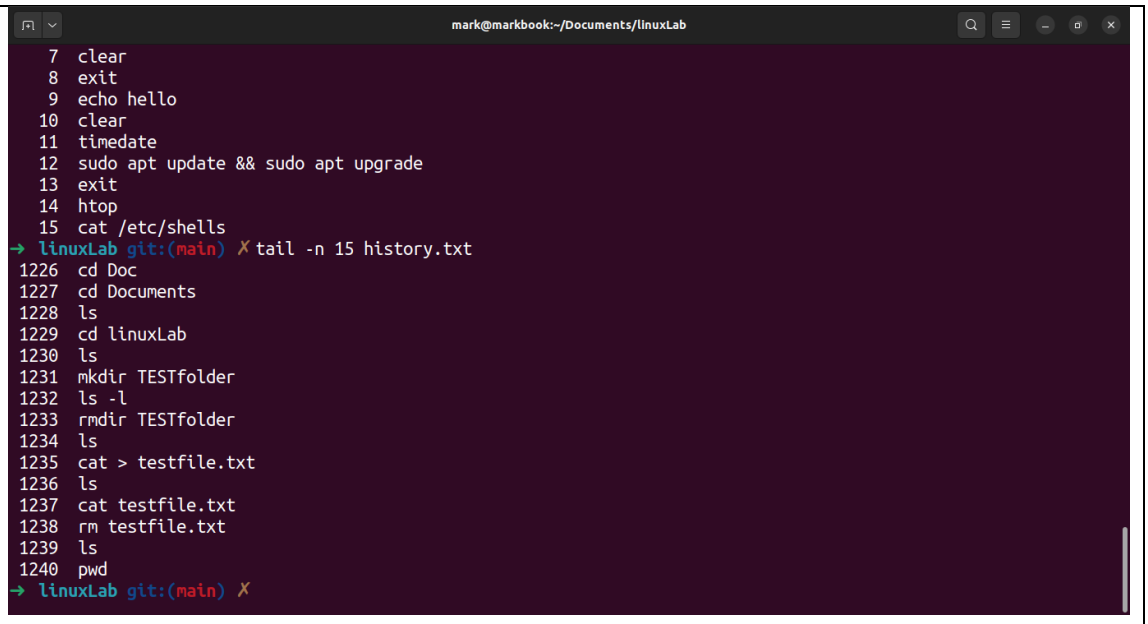

mark@markbook:~/Documents/linuxLab
→ linuxLab git:(main) ✗ rm testfile.txt
→ linuxLab git:(main) ✗ ls
addUserPass.sh labReports logCleaner.sh numberOfFiles.sh SystemConfig.sh
amIRoot.sh lastLoginDetails.sh mkscr.sh Submissions upgradeAndClean.sh
→ linuxLab git:(main) ✗ pwd
/home/mark/Documents/linuxLab
→ linuxLab git:(main) ✗ history > history.txt
→ linuxLab git:(main) ✗ ls -l
total 68
-rwxrw-r-- 1 mark mark 1953 Feb 4 23:40 addUserPass.sh
-rwxrwxr-x 1 mark mark 159 Feb 7 07:12 amIRoot.sh
-rw-rw-r-- 1 mark mark 25903 Feb 7 21:10 history.txt
drwxrwxr-x 2 mark mark 4096 Feb 7 21:04 labReports
-rwxrwxr-x 1 mark mark 194 Feb 7 07:12 lastLoginDetails.sh
-rwxrwxr-x 1 mark mark 241 Feb 7 07:12 logCleaner.sh
-rwxrw-r-- 1 mark mark 454 Feb 4 20:28 mkscr.sh
-rwxrwxr-x 1 mark mark 281 Feb 7 07:12 numberOfFiles.sh
drwxrwxr-x 2 mark mark 4096 Feb 7 21:03 Submissions
-rwxrw-r-- 1 mark mark 1059 Feb 4 20:44 SystemConfig.sh
-rwxrwxr-x 1 mark mark 295 Feb 7 07:12 upgradeAndClean.sh
→ linuxLab git:(main) ✗ chmod ug-w his
chmod: cannot access 'his': No such file or directory
→ linuxLab git:(main) ✗ chmod ug-w history.txt
→ linuxLab git:(main) ✗ ls -l
total 68
-rwxrw-r-- 1 mark mark 1953 Feb 4 23:40 addUserPass.sh


mark@markbook:~/Documents/linuxLab
→ linuxLab git:(main) ✗ ls -l
total 68
-rwxrw-r-- 1 mark mark 1953 Feb 4 23:40 addUserPass.sh
-rwxrwxr-x 1 mark mark   159 Feb 7 07:12 amIRoot.sh
-r--r--r-- 1 mark mark 25903 Feb 7 21:10 history.txt
drwxrwxr-x 2 mark mark 4096 Feb 7 21:04 labReports
-rwxrwxr-x 1 mark mark   194 Feb 7 07:12 lastLoginDetails.sh
-rwxrwxr-x 1 mark mark   241 Feb 7 07:12 logCleaner.sh
-rwxrw-r-- 1 mark mark   454 Feb 4 20:28 mkscr.sh
-rwxrwxr-x 1 mark mark   281 Feb 7 07:12 numberOfFiles.sh
drwxrwxr-x 2 mark mark 4096 Feb 7 21:03 Submissions
-rwxrw-r-- 1 mark mark 1059 Feb 4 20:44 SystemConfig.sh
-rwxrwxr-x 1 mark mark   295 Feb 7 07:12 upgradeAndClean.sh
→ linuxLab git:(main) ✗ chmod +wx history.txt
→ linuxLab git:(main) ✗ ls -l
total 68
-rwxrw-r-- 1 mark mark 1953 Feb 4 23:40 addUserPass.sh
-rwxrwxr-x 1 mark mark   159 Feb 7 07:12 amIRoot.sh
-rwxrwxr-x 1 mark mark 25903 Feb 7 21:10 history.txt
drwxrwxr-x 2 mark mark 4096 Feb 7 21:04 labReports
-rwxrwxr-x 1 mark mark   194 Feb 7 07:12 lastLoginDetails.sh
-rwxrwxr-x 1 mark mark   241 Feb 7 07:12 logCleaner.sh
-rwxrw-r-- 1 mark mark   454 Feb 4 20:28 mkscr.sh
-rwxrwxr-x 1 mark mark   281 Feb 7 07:12 numberOfFiles.sh
drwxrwxr-x 2 mark mark 4096 Feb 7 21:03 Submissions
-rwxrw-r-- 1 mark mark 1059 Feb 4 20:44 SystemConfig.sh

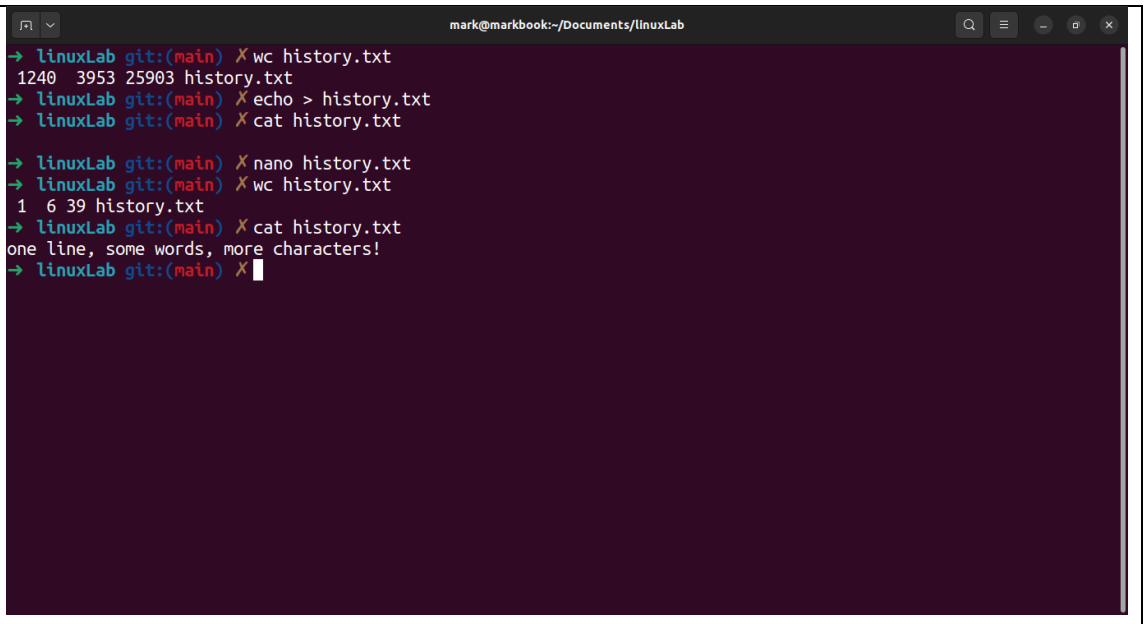

mark@markbook:~/Documents/linuxLab
→ linuxLab git:(main) ✗ more history.txt
1 ls
2 clear
3 x
4 apt
5 exit
6 help
7 clear
8 exit
9 echo hello
10 clear
11 timedate
12 sudo apt update && sudo apt upgrade
13 exit
14 htop
15 cat /etc/shells
16 dash
17 rbash
18 exit
19 x
20 exit
21 cat ./zshrc
22 exit
23 which zsh
24 exit
25 ls .oh-my-zsh
→ linuxLab git:(main) ✗ less history.txt

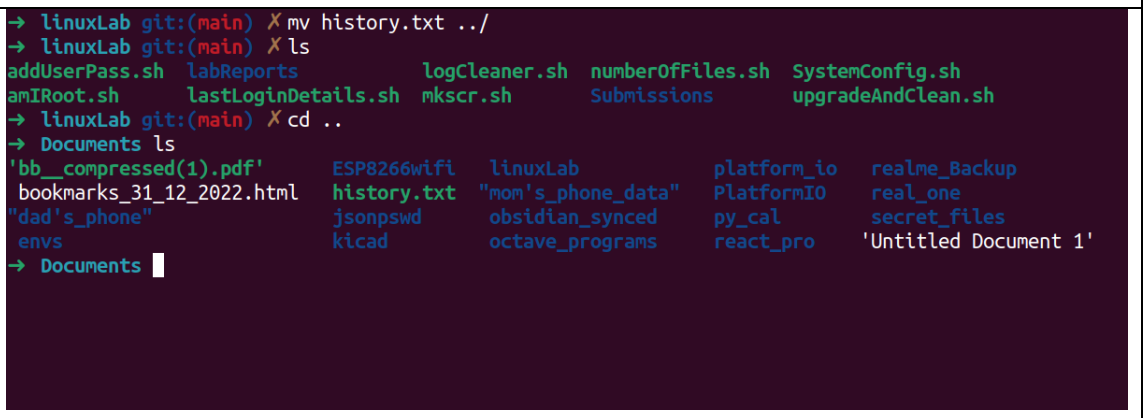

more history.txt
1 ls
2 clear
3 x
4 apt
5 exit
6 help
7 clear
8 exit
9 echo hello
10 clear
11 timedate
12 sudo apt update && sudo apt upgrade
13 exit
14 htop
15 cat /etc/shells
16 dash
17 rbash
18 exit
19 x
20 exit
21 cat ./zshrc
22 exit
23 which zsh
24 exit
25 ls .oh-my-zsh
--More--(1%)


mark@markbook:~/Documents/linuxLab
→ linuxLab git:(main) ✗ find hi*
history.txt
→ linuxLab git:(main) ✗ head history.txt
1 ls
2 clear
3 x
4 apt
5 exit
6 help
7 clear
8 exit
9 echo hello
10 clear
→ linuxLab git:(main) ✗ head -n 15 history.txt
1 ls
2 clear
3 x
4 apt
5 exit
6 help
7 clear
8 exit
9 echo hello
10 clear
11 timedate
12 sudo apt update && sudo apt upgrade


mark@markbook:~/Documents/linuxLab
7 clear
8 exit
9 echo hello
10 clear
11 timedate
12 sudo apt update && sudo apt upgrade
13 exit
14 htop
15 cat /etc/shells
→ linuxLab git:(main) ✗ tail -n 15 history.txt
1226 cd Doc
1227 cd Documents
1228 ls
1229 cd linuxLab
1230 ls
1231 mkdir TESTfolder
1232 ls -l
1233 rmdir TESTfolder
1234 ls
1235 cat > testfile.txt
1236 ls
1237 cat testfile.txt
1238 rm testfile.txt
1239 ls
1240 pwd
→ linuxLab git:(main) ✗

man wc
WC(1) User Commands WC(1)
NAME
wc - print newline, word, and byte counts for each file
SYNOPSIS
wc [OPTION]... [FILE]...
wc [OPTION]... --files0-from=F
DESCRIPTION
Print newline, word, and byte counts for each FILE, and a total line if more than one FILE is specified. A word is a non-zero-length sequence of characters delimited by white space.
With no FILE, or when FILE is -, read standard input.
The options below may be used to select which counts are printed, always in the following order: newline, word, character, byte, maximum line length.
-c, --bytes
print the byte counts
-m, --chars
print the character counts
-l, --lines
Manual page wc(1) line 1 (press h for help or q to quit)





Conclusion	Basic commands were practiced. Linux file structure understood. Different terminals and editors understood.
Signature	

Grade	
Date	