

Task 1: Linux History and Philosophy

Objective: Write a brief explanation of the history of Linux and its philosophy.

Action Items:

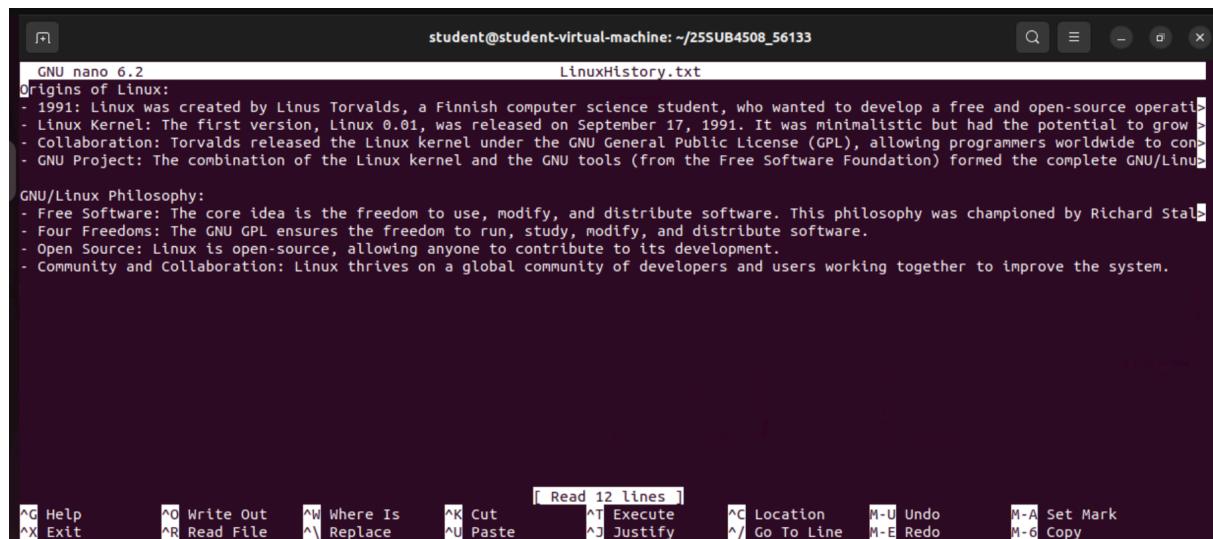
Open a terminal.

1. Use nano to create a .txt file named LinuxHistory.txt.
2. Within the file, summarize the origins of Linux and the principles of the GNU/Linux system.
3. Save and close the file.

1.

```
student@student-virtual-machine:~/25SUB4508_56133$ ll
total 24
drwxrwxr-x  3 student student 4096 Dec 17 14:38 .
drwxr-x--- 23 student student 4096 Dec 17 14:45 ..
dr-xr-xr-x  2 student student 4096 Dec 16 12:53 day_09/
-rw-rw-r--  1 student student   309 Dec 17 12:47 first_nano.cpp
-rw-rw-r--  1 student student     0 Dec 16 15:47 hello.cpp
-rw-rw-r--  1 student student 1148 Dec 17 14:38 LinuxHistory.txt
-rwxr-xr-x  1 student student     0 Dec 16 15:32 test_1.txt*
-rw-rw-r--  1 student student  147 Dec 17 12:50 test_2.txt
student@student-virtual-machine:~/25SUB4508_56133$ nano LinuxHistory.txt
```

2.



3.



Task 2: File Navigation and Directory Structure

Objective: Demonstrate basic file navigation and directory structure understanding.

Action Items:

1. List all files in the home directory using a single command.
2. Display the absolute path of the current working directory.
3. Create a new directory called Practice in the home directory and navigate into it.

1.

```
-rw-rw-r-- 1 student student 147 Dec 17 12:50 test_2.txt
student@student-virtual-machine:~/25SUB4508_56133$ ls -a ~
..          .a.out      .cache     Downloads           minikube-linux-amd64  Public          valgrind
.azule      .azure      .config    .kube             Music            snap          Videos
.bash_history .bash_logout .Desktop   .lessshst        Pictures         .sudo_as_admin_successful .vimrc
.bash_logout .bashrc     .Documents .linux-headers-6.8.0-90-generic .pki            Templates       .vscode
.bashrc      .dotnet     .local     .profile        test.cpp
student@student-virtual-machine:~/25SUB4508_56133$
```

2.

```
student@student-virtual-machine:~/25SUB4508_56133$ pwd
/home/student/25SUB4508_56133
student@student-virtual-machine:~/25SUB4508_56133$ █
```

3.

```
virtual-machine:~/25SUB4508_56133$ mkdir ~/Practice
Show Applications virtual-machine:~/25SUB4508_56133$ cd ~/Practice
student@student-virtual-machine:~/Practice$
```

Task 3: File Management Commands

Objective: Use file management commands to organize files and directories.

Action Items:

1. In the Practice directory, create a new file called sample.txt. Copy sample.txt to a new file called duplicate.txt.
2. Delete duplicate.txt using a command-line command.

1.

```
student@student-virtual-machine:~/255UB4508_56133$ cd ~/Practice
student@student-virtual-machine:~/Practice$ touch sample.txt
student@student-virtual-machine:~/Practice$ nano sample.txt
student@student-virtual-machine:~/Practice$ cp sample.txt duplicateSample.txt
student@student-virtual-machine:~/Practice$ ll
total 16
drwxrwxr-x  2 student student 4096 Dec 17 14:51 .
drwxr-x--- 23 student student 4096 Dec 17 14:45 ../
-rw-rw-r--  1 student student    23 Dec 17 14:51 duplicateSample.txt
-rw-rw-r--  1 student student    23 Dec 17 14:51 sample.txt
```

2.

```
student@student-virtual-machine:~/Practice$ rm duplicateSample.txt
```

References

- Torvalds, L. (1991). Linux: A Portable Operating System Kernel. University of Helsinki.
- Stallman, R. M. (2002). Free Software, Free Society: Selected Essays of Richard M. Stallman. GNU Press.
- Love, R. (2010). Linux Kernel Development (3rd ed.). Addison-Wesley Professional.
- Silberschatz, A., Galvin, P. B., & Gagne, G. (2018). Operating System Concepts (10th ed.). Wiley.
- Shotts, W. E. (2019). The Linux Command Line (2nd ed.). No Starch Press.