Mawlana Bhashani Science and Technology University

Lab-Report

Report No: 02

Course code: ICT-3110

Course title: Operating Systems Lab

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Submitted by

Name: Md Ahadul Haque

ID:IT-18045

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Dept. of ICT

MBSTU.

Submitted To

Nazrul Islam

Assistant Professor

Dept. of ICT

MBSTU.

Experiment no : 02

Experiment Name : Basic Command Of Linux Operating System.

Theory :

Just like Windows, iOS, and Mac OS, Linux is an operating system. An operating system is software that manages all of the hardware resources associated with your desktop or laptop.Linux is a Unix-Like operating system. All the Linux/Unix commands are run in the terminal provided by the Linux system. This terminal is just like the command prompt of Windows OS. Linux/Unix commands are *case-sensitive.* The terminal can be used to accomplish all Administrative tasks. This includes package installation, file manipulation, and user management. Linux terminal is user-interactive. The terminal outputs the results of commands which are specified by the user itself.

15 Commands In Linux Operating System.

1. ls - list information about the content of a directory.

2. cd – change directory and use to browse the file system.

3.mkdir – make directory used to create a new folder.

4.rmdir –remove directory used to delete folders.

5.pwd- Print working directory used to display the location that the terminal is open in.

6. man – Displays manuals for various commands.

7.clear – Clears the terminal of all the output.

8.cp – Copies and pastes files and folders from one location to another.

9. mv – Moves files and folders from one location to another.

10. history – Displays commands run in a chronological order.

11.ps – Process States displays info about all the running processes.

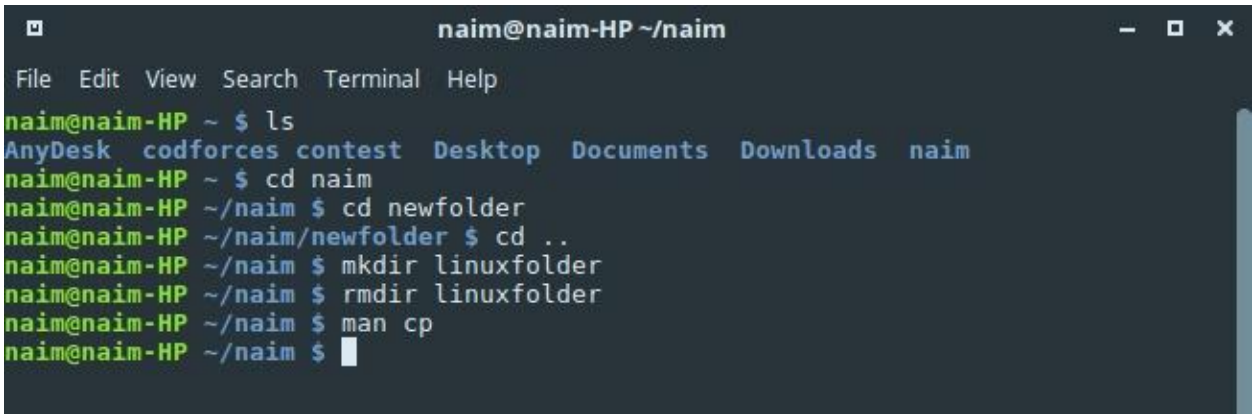
12.kill – Terminates all running process.

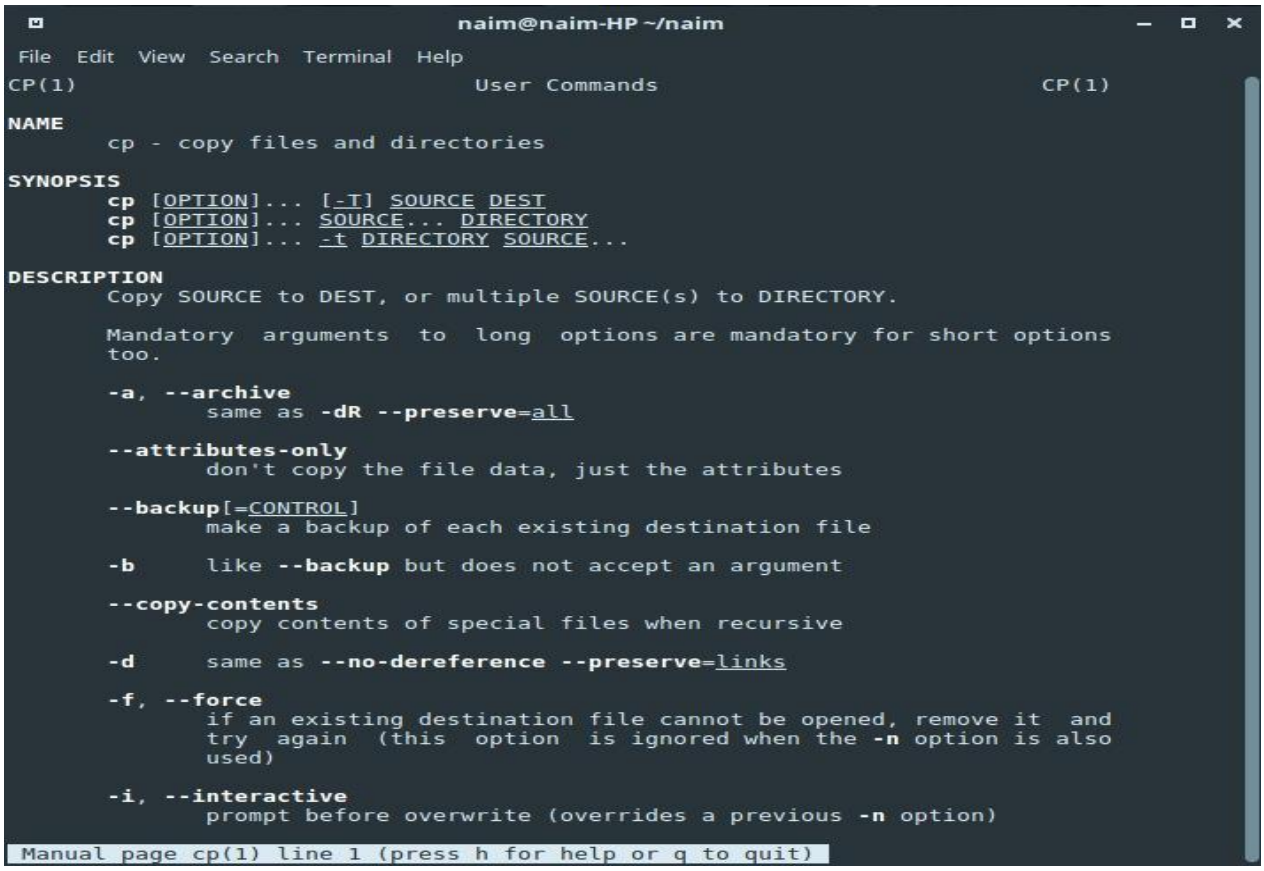
13.apt – Package manager for linux and derivitives.

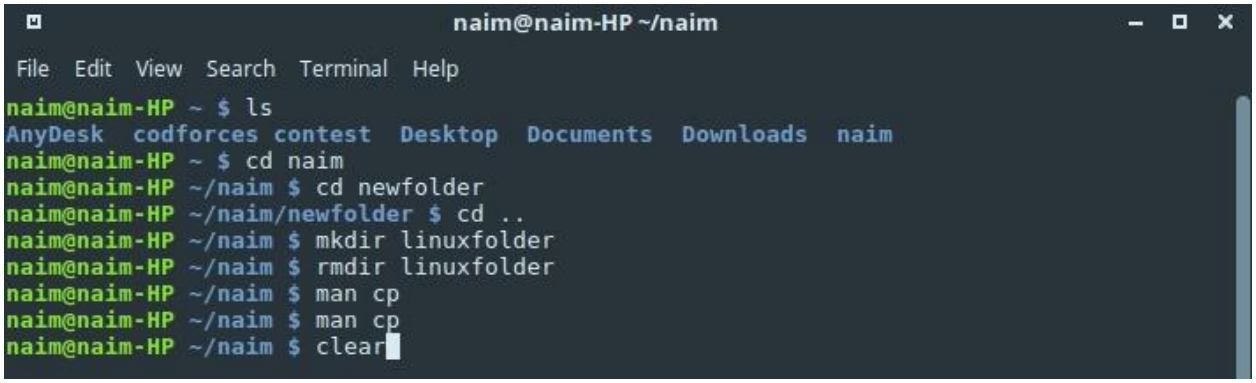
14.passwd – Changes user password.

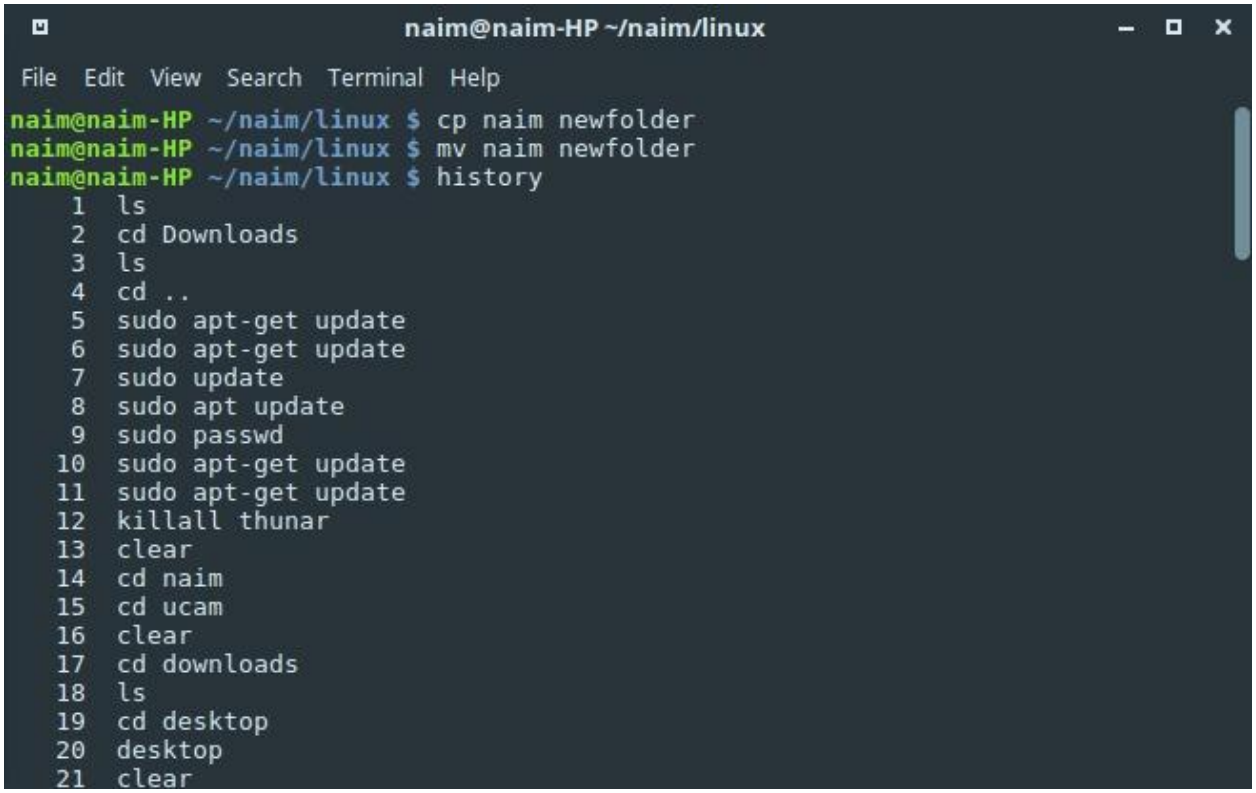
15.shutdown –Turns of the computer various option allow socheduling the shutdown.

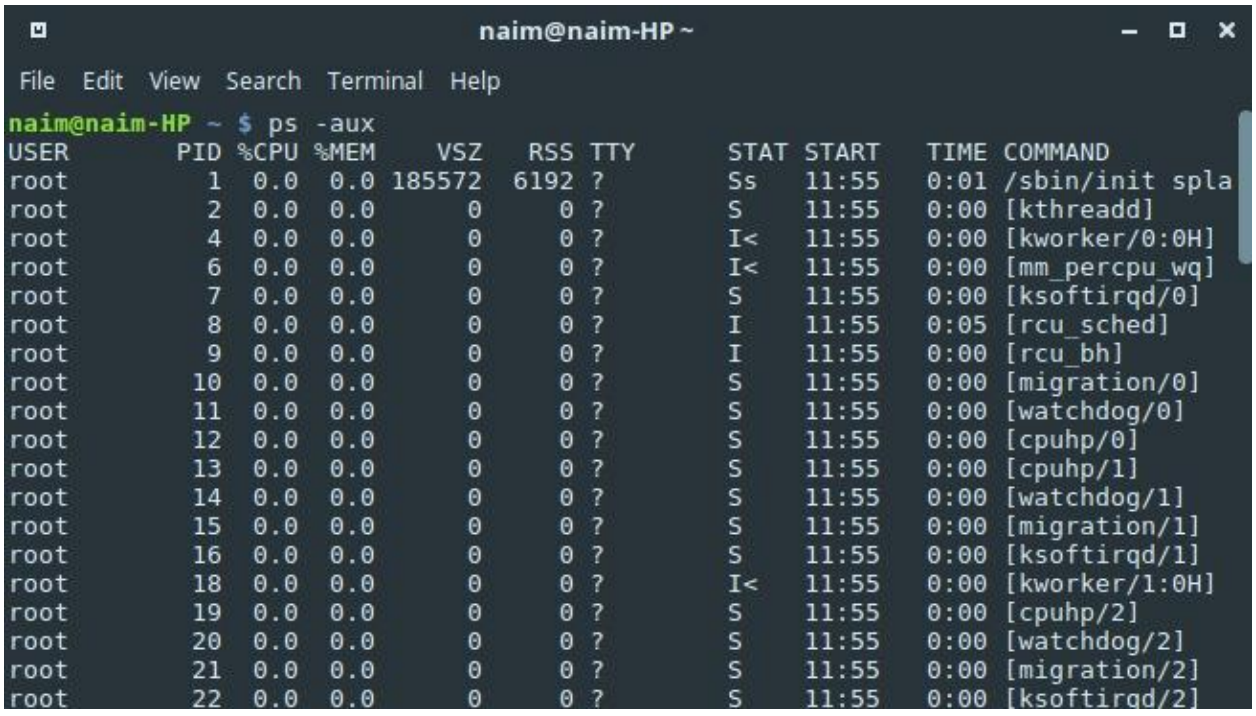
Working Process :

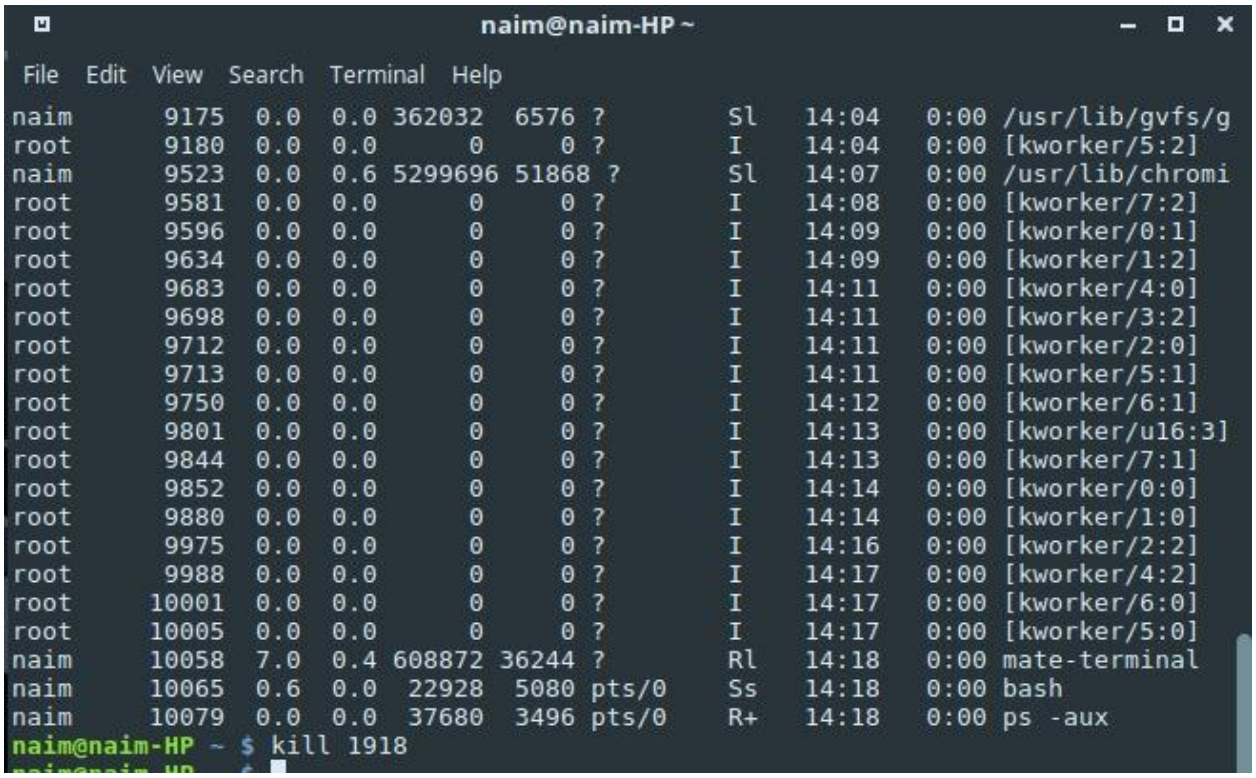


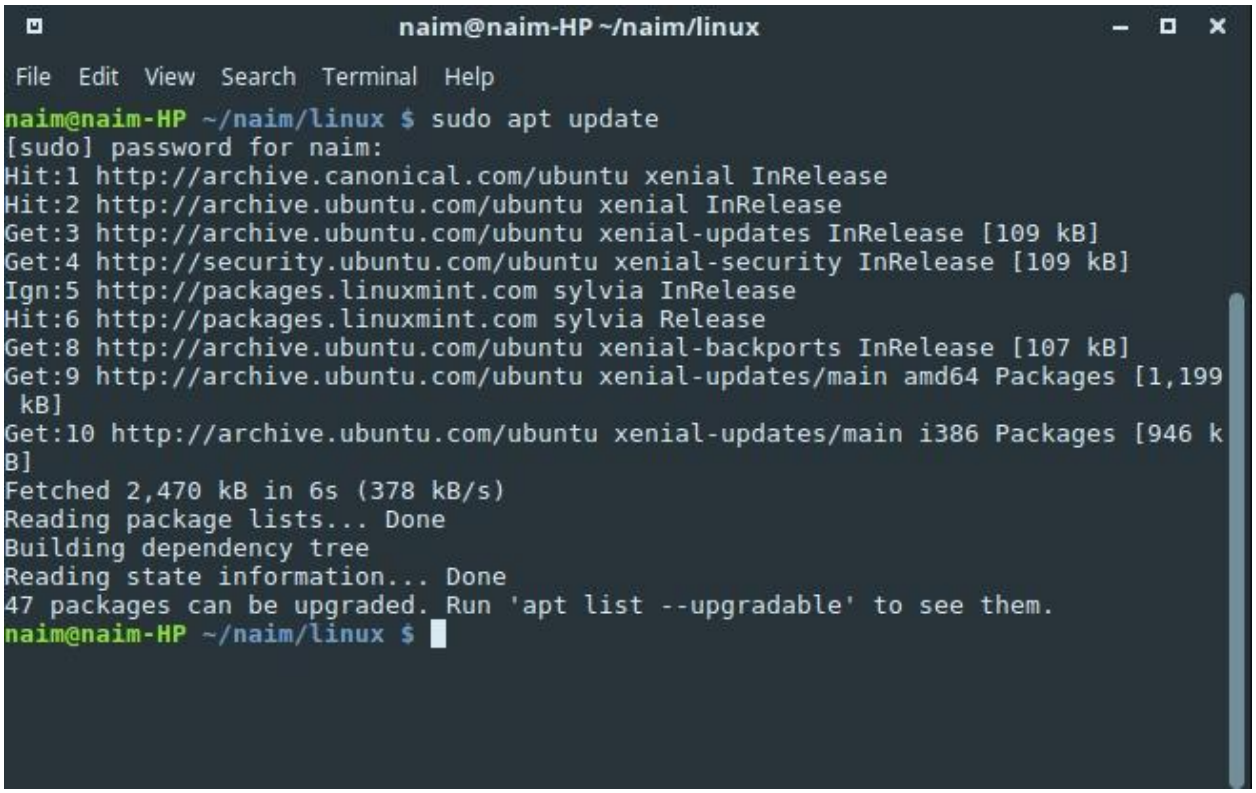

naim@naim-HP ~/naim
File Edit View Search Terminal Help
CP(1) User Commands CP(1)
NAME
cp - copy files and directories
SYNOPSIS
cp [OPTION]... [-T] SOURCE DEST
cp [OPTION]... SOURCE... DIRECTORY
cp [OPTION]... -t DIRECTORY SOURCE...
DESCRIPTION
Copy SOURCE to DEST, or multiple SOURCE(s) to DIRECTORY.
Mandatory arguments to long options are mandatory for short options too.
-a, --archive
same as -dR --preserve=all
--attributes-only
don't copy the file data, just the attributes
--backup[=CONTROL]
make a backup of each existing destination file
-b like --backup but does not accept an argument
--copy-contents
copy contents of special files when recursive
-d same as --no-dereference --preserve=links
-f, --force
if an existing destination file cannot be opened, remove it and try again (this option is ignored when the -n option is also used)
-i, --interactive
prompt before overwrite (overrides a previous -n option)
Manual page cp(1) line 1 (press h for help or q to quit)

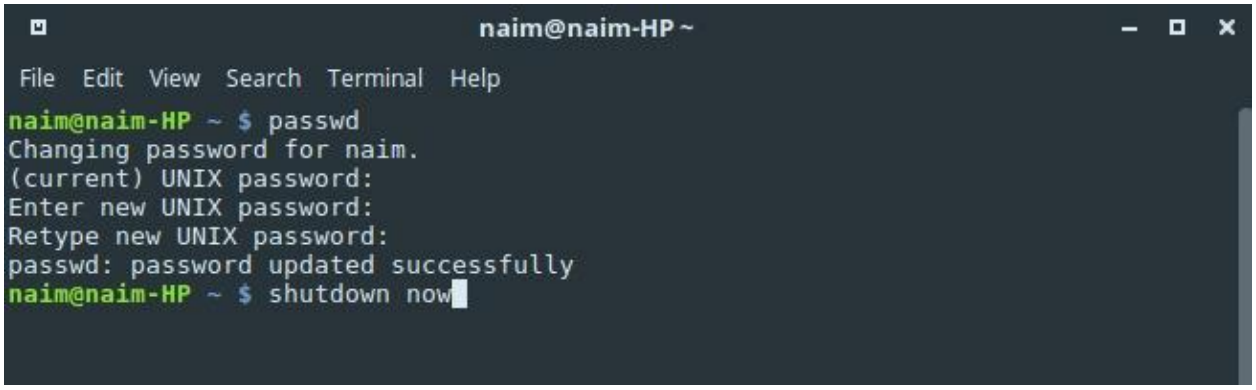

naim@naim-HP ~/naim
File Edit View Search Terminal Help
naim@naim-HP ~ $ ls
AnyDesk codforces contest Desktop Documents Downloads naim
naim@naim-HP ~ $ cd naim
naim@naim-HP ~/naim $ cd newfolder
naim@naim-HP ~/naim/newfolder $ cd ..
naim@naim-HP ~/naim $ mkdir linuxfolder
naim@naim-HP ~/naim $ rmdir linuxfolder
naim@naim-HP ~/naim $ man cp
naim@naim-HP ~/naim $ man cp
naim@naim-HP ~/naim $ clear


naim@naim-HP ~/naim/linux
File Edit View Search Terminal Help
naim@naim-HP ~/naim/linux $ cp naim newfolder
naim@naim-HP ~/naim/linux $ mv naim newfolder
naim@naim-HP ~/naim/linux $ history
1 ls
2 cd Downloads
3 ls
4 cd ..
5 sudo apt-get update
6 sudo apt-get update
7 sudo update
8 sudo apt update
9 sudo passwd
10 sudo apt-get update
11 sudo apt-get update
12 killall thunar
13 clear
14 cd naim
15 cd ucam
16 clear
17 cd downloads
18 ls
19 cd desktop
20 desktop
21 clear


naim@naim-HP ~
File Edit View Search Terminal Help
naim@naim-HP ~ $ ps -aux
USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND
root 1 0.0 0.0 185572 6192 ? Ss 11:55 0:01 /sbin/init spla
root 2 0.0 0.0 0 0 ? S 11:55 0:00 [kthreadd]
root 4 0.0 0.0 0 0 ? I< 11:55 0:00 [kworker/0:0H]
root 6 0.0 0.0 0 0 ? I< 11:55 0:00 [mm_percpu_wq]
root 7 0.0 0.0 0 0 ? S 11:55 0:00 [ksoftirqd/0]
root 8 0.0 0.0 0 0 ? I 11:55 0:05 [rcu_sched]
root 9 0.0 0.0 0 0 ? I 11:55 0:00 [rcu_bh]
root 10 0.0 0.0 0 0 ? S 11:55 0:00 [migration/0]
root 11 0.0 0.0 0 0 ? S 11:55 0:00 [watchdog/0]
root 12 0.0 0.0 0 0 ? S 11:55 0:00 [cpuhp/0]
root 13 0.0 0.0 0 0 ? S 11:55 0:00 [cpuhp/1]
root 14 0.0 0.0 0 0 ? S 11:55 0:00 [watchdog/1]
root 15 0.0 0.0 0 0 ? S 11:55 0:00 [migration/1]
root 16 0.0 0.0 0 0 ? S 11:55 0:00 [ksoftirqd/1]
root 18 0.0 0.0 0 0 ? I< 11:55 0:00 [kworker/1:0H]
root 19 0.0 0.0 0 0 ? S 11:55 0:00 [cpuhp/2]
root 20 0.0 0.0 0 0 ? S 11:55 0:00 [watchdog/2]
root 21 0.0 0.0 0 0 ? S 11:55 0:00 [migration/2]
root 22 0.0 0.0 0 0 ? S 11:55 0:00 [ksoftirqd/2]


naim@naim-HP ~
File Edit View Search Terminal Help
naim 9175 0.0 0.0 362032 6576 ? Sl 14:04 0:00 /usr/lib/gvfs/g
root 9180 0.0 0.0 0 0 ? I 14:04 0:00 [kworker/5:2]
naim 9523 0.0 0.6 5299696 51868 ? Sl 14:07 0:00 /usr/lib/chromi
root 9581 0.0 0.0 0 0 ? I 14:08 0:00 [kworker/7:2]
root 9596 0.0 0.0 0 0 ? I 14:09 0:00 [kworker/0:1]
root 9634 0.0 0.0 0 0 ? I 14:09 0:00 [kworker/1:2]
root 9683 0.0 0.0 0 0 ? I 14:11 0:00 [kworker/4:0]
root 9698 0.0 0.0 0 0 ? I 14:11 0:00 [kworker/3:2]
root 9712 0.0 0.0 0 0 ? I 14:11 0:00 [kworker/2:0]
root 9713 0.0 0.0 0 0 ? I 14:11 0:00 [kworker/5:1]
root 9750 0.0 0.0 0 0 ? I 14:12 0:00 [kworker/6:1]
root 9801 0.0 0.0 0 0 ? I 14:13 0:00 [kworker/u16:3]
root 9844 0.0 0.0 0 0 ? I 14:13 0:00 [kworker/7:1]
root 9852 0.0 0.0 0 0 ? I 14:14 0:00 [kworker/0:0]
root 9880 0.0 0.0 0 0 ? I 14:14 0:00 [kworker/1:0]
root 9975 0.0 0.0 0 0 ? I 14:16 0:00 [kworker/2:2]
root 9988 0.0 0.0 0 0 ? I 14:17 0:00 [kworker/4:2]
root 10001 0.0 0.0 0 0 ? I 14:17 0:00 [kworker/6:0]
root 10005 0.0 0.0 0 0 ? I 14:17 0:00 [kworker/5:0]
naim 10058 7.0 0.4 608872 36244 ? Rl 14:18 0:00 mate-terminal
naim 10065 0.6 0.0 22928 5080 pts/0 Ss 14:18 0:00 bash
naim 10079 0.0 0.0 37680 3496 pts/0 R+ 14:18 0:00 ps -aux
naim@naim-HP ~ $ kill 1918


naim@naim-HP ~/naim/linux
File Edit View Search Terminal Help
naim@naim-HP ~/naim/linux $ sudo apt update
[sudo] password for naim:
Hit:1 http://archive.canonical.com/ubuntu xenial InRelease
Hit:2 http://archive.ubuntu.com/ubuntu xenial InRelease
Get:3 http://archive.ubuntu.com/ubuntu xenial-updates InRelease [109 kB]
Get:4 http://security.ubuntu.com/ubuntu xenial-security InRelease [109 kB]
Ign:5 http://packages.linuxmint.com sylvia InRelease
Hit:6 http://packages.linuxmint.com sylvia Release
Get:8 http://archive.ubuntu.com/ubuntu xenial-backports InRelease [107 kB]
Get:9 http://archive.ubuntu.com/ubuntu xenial-updates/main amd64 Packages [1,199 kB]
Get:10 http://archive.ubuntu.com/ubuntu xenial-updates/main i386 Packages [946 kB]
Fetched 2,470 kB in 6s (378 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
47 packages can be upgraded. Run 'apt list --upgradable' to see them.
naim@naim-HP ~/naim/linux $



Discussion :

Linux has considerable user and community support, so it can quickly find system vulnerabilities and quickly release security patches. Linux has very low hardware requirements. It can run smoothly on computers.Linux is based on the GPL (General Public License), so anyone can use or modify the original code for free. In Linux, we do not need anti-virus software to be installed on our PC. Linux has fewer chances to be affected with virus. That’s why we should change our os environment from windows to linux.