Lab5 | Handling Files Answers to lab

Question 1

1-

```
andro@andro-VirtualBox:~$ cd lab5
andro@andro-VirtualBox:~/lab5$ cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/var/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
systemd-timesync:x:102:104:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:103:106::/nonexistent:/usr/sbin/nologin
syslog:x:104:110::/home/syslog:/usr/sbin/nologin
_apt:x:105:65534::/nonexistent:/usr/sbin/nologin
tss:x:106:111:TPM software stack,,,:/var/lib/tpm:/bin/false
uuidd:x:107:114::/run/uuidd:/usr/sbin/nologin
tcpdump:x:108:115::/nonexistent:/usr/sbin/nologin
avahi-autoipd:x:109:116:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
usbmux:x:110:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
rtkit:x:111:117:RealtimeKit,,,:/proc:/usr/sbin/nologin
dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
cups-pk-helper:x:113:120:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin
speech-dispatcher:x:114:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
avahi:x:115:121:Avahi mDNS daemon,,,:/var/run/avahi-daemon:/usr/sbin/nologin
kernoops:x:116:65534:Kernel Oops Tracking Daemon,,,:/:/usr/sbin/nologin
saned:x:117:123::/var/lib/saned:/usr/sbin/nologin
nm-openvpn:x:118:124:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
hplip:x:119:7:HPLIP system user,,,:/run/hplip:/bin/false
whoopsie:x:120:125::/nonexistent:/bin/false
```

2-

```
andro@andro-VirtualBox:~/lab5$ tac /etc/passwd
vboxadd:x:998:1::/var/run/vboxadd:/bin/false
_flatpak:x:127:135:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
systemd-coredump:x:999:999:systemd Core Dumper:/:/usr/sbin/nologin
andro:x:1000:1000:Andro Ibrahim,,,:/home/andro:/bin/bash
sssd:x:126:131:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin
gdm:x:125:130:Gnome Display Manager:/var/lib/gdm3:/bin/false
gnome-initial-setup:x:124:65534::/run/gnome-initial-setup/:/bin/false
pulse:x:123:128:PulseAudio daemon,,,:/var/run/pulse:/usr/sbin/nologin
geoclue:x:122:127::/var/lib/geoclue:/usr/sbin/nologin
colord:x:121:126:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
whoopsie:x:120:125::/nonexistent:/bin/false
hplip:x:119:7:HPLIP system user,,,:/run/hplip:/bin/false
nm-openvpn:x:118:124:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
saned:x:117:123::/var/lib/saned:/usr/sbin/nologin
kernoops:x:116:65534:Kernel Oops Tracking Daemon,,,:/:/usr/sbin/nologin
avahi:x:115:121:Avahi mDNS daemon,,,:/var/run/avahi-daemon:/usr/sbin/nologin
speech-dispatcher:x:114:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
cups-pk-helper:x:113:120:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin
dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
rtkit:x:111:117:RealtimeKit,,,:/proc:/usr/sbin/nologin
usbmux:x:110:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin
avahi-autoipd:x:109:116:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
tcpdump:x:108:115::/nonexistent:/usr/sbin/nologin
uuidd:x:107:114::/run/uuidd:/usr/sbin/nologin
tss:x:106:111:TPM software stack,,,:/var/lib/tpm:/bin/false
_apt:x:105:65534::/nonexistent:/usr/sbin/nologin
syslog:x:104:110::/home/syslog:/usr/sbin/nologin
messagebus:x:103:106::/nonexistent:/usr/sbin/nologin
systemd-timesync:x:102:104:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
irc:x:39:39:ircd:/var/run/ircd:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
```

3-

```
andro@andro-VirtualBox:~/lab5$ cat -E /etc/passwd
root:x:0:0:root:/root:/bin/bash$
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin$
bin:x:2:2:bin:/bin:/usr/sbin/nologin$
sys:x:3:3:sys:/dev:/usr/sbin/nologin$
sync:x:4:65534:sync:/bin:/bin/sync$
games:x:5:60:games:/usr/games:/usr/sbin/nologin$
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin$
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin$
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin$
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin$
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin$
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin$
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin$
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin$
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin$
irc:x:39:39:ircd:/var/run/ircd:/usr/sbin/nologin$
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin$
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin$
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin$
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin$
systemd-timesync:x:102:104:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin$
messagebus:x:103:106::/nonexistent:/usr/sbin/nologin$
syslog:x:104:110::/home/syslog:/usr/sbin/nologin$
_apt:x:105:65534::/nonexistent:/usr/sbin/nologin$
tss:x:106:111:TPM software stack,,,:/var/lib/tpm:/bin/false$
uuidd:x:107:114::/run/uuidd:/usr/sbin/nologin$
tcpdump:x:108:115::/nonexistent:/usr/sbin/nologin$
avahi-autoipd:x:109:116:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin$
usbmux:x:110:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin$
rtkit:x:111:117:RealtimeKit,,,:/proc:/usr/sbin/nologin$
dnsmasq:x:112:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin$
cups-pk-helper:x:113:120:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin
speech-dispatcher:x:114:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false$
avahi:x:115:121:Avahi mDNS daemon,,,:/var/run/avahi-daemon:/usr/sbin/nologin$
kernoops:x:116:65534:Kernel Oops Tracking Daemon,,,:/:/usr/sbin/nologin$
saned:x:117:123::/var/lib/saned:/usr/sbin/nologin$
nm-openvpn:x:118:124:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin$
hplip:x:119:7:HPLIP system user,,,:/run/hplip:/bin/false$
whoopsie:x:120:125::/nonexistent:/bin/false$
colord:x:121:126:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin$
geoclue:x:122:127::/var/lib/geoclue:/usr/sbin/nologin$
pulse:x:123:128:PulseAudio daemon,,,:/var/run/pulse:/usr/sbin/nologin$
gnome-initial-setup:x:124:65534::/run/gnome-initial-setup/:/bin/false$
```

4-

```
andro@andro-VirtualBox:~/lab5$ head -5 /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
```

5-

```
andro@andro-VirtualBox:~/lab5$ tail -5 /etc/passwd
sssd:x:126:131:SSSD system user,,,:/var/lib/sss:/usr/sbin/nologin
andro:x:1000:1000:Andro Ibrahim,,,:/home/andro:/bin/bash
systemd-coredump:x:999:999:systemd Core Dumper:/:/usr/sbin/nologin
_flatpak:x:127:135:Flatpak system-wide installation helper,,,:/nonexistent:/usr/sbin/nologin
vboxadd:x:998:1::/var/run/vboxadd:/bin/false
andro@andro-VirtualBox:~/lab5$
```

Question 2

```
andro@andro-VirtualBox:~/lab5$ cut -d : -f1 /etc/passwd
root
daemon
bin
sys
sync
games
man
lp
mail
news
uucp
proxy
www-data
backup
list
irc
gnats
nobody
systemd-network
systemd-resolve
systemd-timesync
messagebus
syslog
_apt
tss
uuidd
tcpdump
avahi-autoipd
usbmux
rtkit
dnsmasq
cups-pk-helper
speech-dispatcher
avahi
kernoops
saned
nm-openvpn
hplip
whoopsie
colord
geoclue
pulse
gnome-initial-setup
gdm
```

1-

```
andro@andro-VirtualBox:~/lab5$ Cut -d '=' -f 1 /etc/passwd

Command 'Cut' not found, did you mean:

  command 'nut' from deb nutsqlite (2.0.6-1)
  command 'cut' from deb coreutils (8.30-3ubuntu2)
  command 'lut' from deb tracetuner (3.0.6~beta+dfsg-2build1)

Try: sudo apt install <deb name>

andro@andro-VirtualBox:~/lab5$ ▯
```

2-

Question 3

```
andro@andro-VirtualBox:~/lab5$ wc -l /etc/passwd
49 /etc/passwd
andro@andro-VirtualBox:~/lab5$ ▯
```

1-

```
andro@andro-VirtualBox:~/lab5$ wc -w /etc/passwd
90 /etc/passwd
andro@andro-VirtualBox:~/lab5$ ▯
```

2-

```
andro@andro-VirtualBox:~/lab5$ cat /etc/passwd | grep -c "/bin/bash"
2
andro@andro-VirtualBox:~/lab5$ ▯
```

3-

4-

```
andro@andro-VirtualBox:~/lab5$ cat /etc/passwd | grep -c /sbin/nologin
39
andro@andro-VirtualBox:~/lab5$ ▮
```

5-

Question 4

```
andro@andro-VirtualBox:~/lab5$ ip ad | grep "inet6"
    inet6 ::1/128 scope host
    inet6 fe80::6811:f321:434c:e4a3/64 scope link noprefixroute
```

1-

2-

```
andro@andro-VirtualBox:~/lab5$ ip add | grep -E "inet | inet6"
    inet 127.0.0.1/8 scope host lo
    inet6 ::1/128 scope host
    inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute enp0s3
    inet6 fe80::6811:f321:434c:e4a3/64 scope link noprefixroute
andro@andro-VirtualBox:~/lab5$ █
```

3-

```
andro@andro-VirtualBox:~/lab5$ ip add | grep "inet"
    inet 127.0.0.1/8 scope host lo
    inet6 ::1/128 scope host
    inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute enp0s3
    inet6 fe80::6811:f321:434c:e4a3/64 scope link noprefixroute
andro@andro-VirtualBox:~/lab5$ ip add | grep "inet" head -3
grep: head: No such file or directory
andro@andro-VirtualBox:~/lab5$ ip add | grep "inet" | head -3
    inet 127.0.0.1/8 scope host lo
    inet6 ::1/128 scope host
    inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute enp0s3
andro@andro-VirtualBox:~/lab5$ ip add | grep "inet" | head -3 | tail -1
    inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute enp0s3
andro@andro-VirtualBox:~/lab5$ ▯
```

4-

```
andro@andro-VirtualBox:~/lab5$ ip add | grep "inet"
    inet 127.0.0.1/8 scope host lo
    inet6 ::1/128 scope host
    inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute enp0s3
    inet6 fe80::6811:f321:434c:e4a3/64 scope link noprefixroute
andro@andro-VirtualBox:~/lab5$ ip add | grep "inet" head -3
grep: head: No such file or directory
andro@andro-VirtualBox:~/lab5$ ip add | grep "inet" | head -3
    inet 127.0.0.1/8 scope host lo
    inet6 ::1/128 scope host
    inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute enp0s3
andro@andro-VirtualBox:~/lab5$ ip add | grep "inet" | head -3 | tail -1
    inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute enp0s3
andro@andro-VirtualBox:~/lab5$ ▯
```

Question 5

1 , 2 ,3

```
andro@andro-VirtualBox:~/lab5$ echo "# Information about my pc" > mypc.md
andro@andro-VirtualBox:~/lab5$ ls
lab5.md   mypc.md
andro@andro-VirtualBox:~/lab5$ echo ## CPU Information >> mypc.md

andro@andro-VirtualBox:~/lab5$ echo "## cpu Information" >> mypc.md
andro@andro-VirtualBox:~/lab5$ cat mypc.md
# Information about my pc
## cpu Information
andro@andro-VirtualBox:~/lab5$ lscpu | grep -i "architecture" >> mypc.md
andro@andro-VirtualBox:~/lab5$ lscpu | grep -i "threads" >> mypc.md
andro@andro-VirtualBox:~/lab5$ lspu | grep -1 "cores" >> mypc.md

Command 'lspu' not found, did you mean:

  command 'lsgpu' from deb intel-gpu-tools (1.25-2)
  command 'lssu' from deb nilfs-tools (2.2.8-1)
  command 'lscpu' from deb util-linux (2.34-0.1ubuntu9.1)

Try: sudo apt install <deb name>

andro@andro-VirtualBox:~/lab5$ lscpu |grep -i "cores" >> mypc.md
andro@andro-VirtualBox:~/lab5$ lspcu | grep -i "model name" >> mypc.md

Command 'lspcu' not found, did you mean:

  command 'lspci' from deb pciutils (1:3.6.4-1ubuntu0.20.04.1)
  command 'lscpu' from deb util-linux (2.34-0.1ubuntu9.1)

Try: sudo apt install <deb name>

andro@andro-VirtualBox:~/lab5$ lspcu |grep -i "model name" >> mypc.md

Command 'lspcu' not found, did you mean:

  command 'lspci' from deb pciutils (1:3.6.4-1ubuntu0.20.04.1)
  command 'lscpu' from deb util-linux (2.34-0.1ubuntu9.1)

Try: sudo apt install <deb name>

andro@andro-VirtualBox:~/lab5$ lscpu | grep -i "model name" >> mypc.md
andro@andro-VirtualBox:~/lab5$ lscpu | grep -i "cpu frequency" >> mypc.md
andro@andro-VirtualBox:~/lab5$ lscpu | grep -i "Virtualiation technology supported" >> mypc.md
andro@andro-VirtualBox:~/lab5$
```

4 ,5 ,6

```
andro@andro-VirtualBox:~/lab5$ echo "## RAM Information" >> mypc.md
andro@andro-VirtualBox:~/lab5$ lshw -c memory | grep -i "memory size" >> mypc.md
WARNING: you should run this program as super-user.
WARNING: output may be incomplete or inaccurate, you should run this program as super-user.
andro@andro-VirtualBox:~/lab5$ cat mypc.md
# Information about my pc
## cpu Information
Architecture:                    x86_64
Model name:                      AMD Ryzen 5 4500U with Radeon Graphics
## RAM Information
andro@andro-VirtualBox:~/lab5$ lscpu | grep -i "threads" >> mypc.md
andro@andro-VirtualBox:~/lab5$ cat mypc.md
# Information about my pc
## cpu Information
Architecture:                    x86_64
Model name:                      AMD Ryzen 5 4500U with Radeon Graphics
## RAM Information
andro@andro-VirtualBox:~/lab5$
```