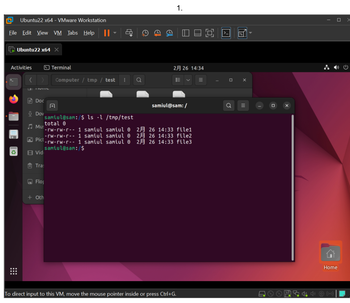
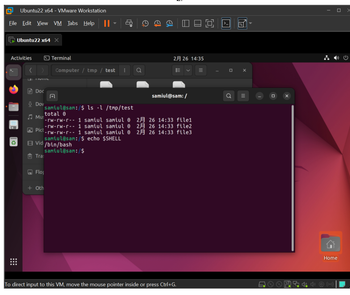
HW02

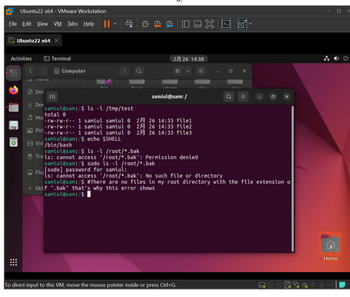
1.



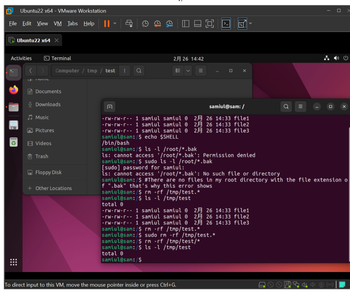
2.



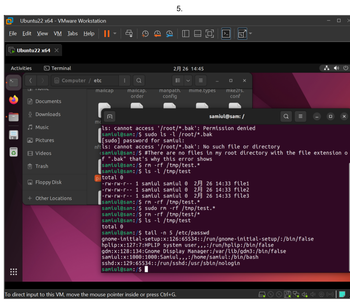
3.



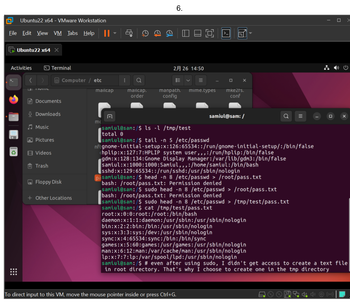
4.



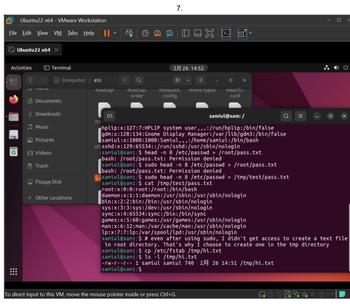
5.



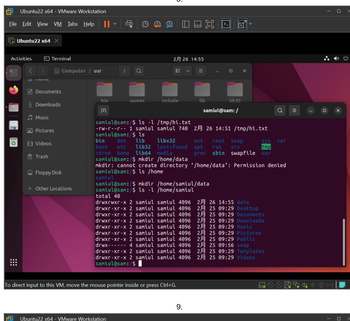
6.



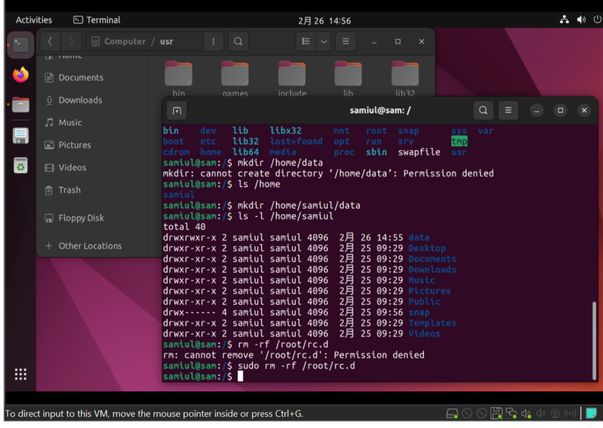
7.



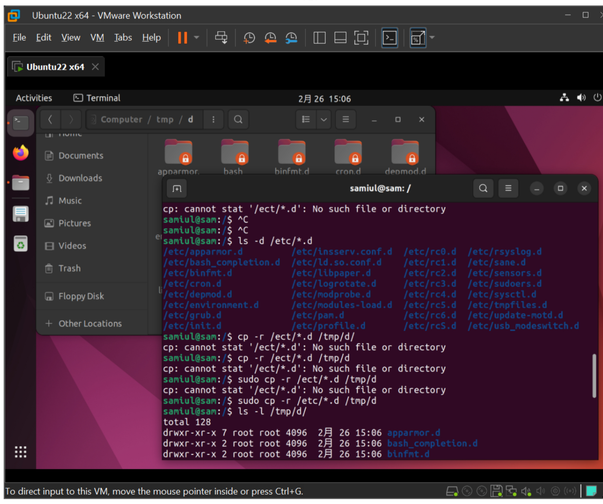
8.



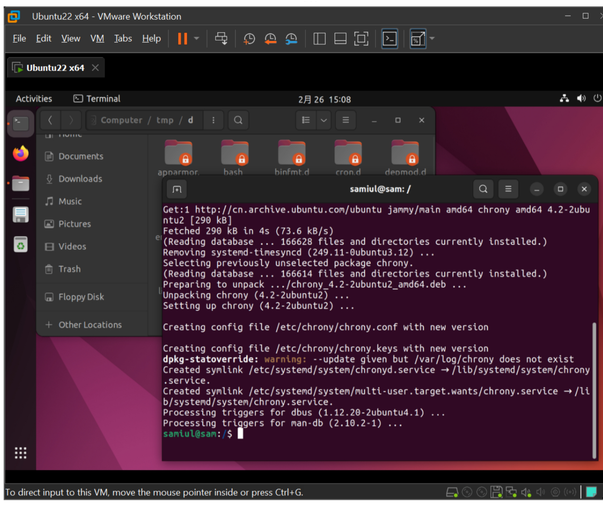
9.


Activities
Terminal
2月 26 14:56
Computer / usr
Documents
Downloads
Music
Pictures
Videos
Trash
Floppy Disk
Other Locations
samiul@sam: /
samiul@sam:/$ mkdir /home/data
mkdir: cannot create directory '/home/data': Permission denied
samiul@sam:/$ ls /home
samiul
samiul@sam:/$ mkdir /home/samiul/data
samiul@sam:/$ ls -l /home/samiul
total 40
drwxrwxr-x 2 samiul samiul 4096 2月 26 14:55 data
drwxr-xr-x 2 samiul samiul 4096 2月 25 09:29 Desktop
drwxr-xr-x 2 samiul samiul 4096 2月 25 09:29 Documents
drwxr-xr-x 2 samiul samiul 4096 2月 25 09:29 Downloads
drwxr-xr-x 2 samiul samiul 4096 2月 25 09:29 Music
drwxr-xr-x 2 samiul samiul 4096 2月 25 09:29 Pictures
drwxr-xr-x 2 samiul samiul 4096 2月 25 09:29 Public
drwx------ 4 samiul samiul 4096 2月 25 09:56 snap
drwxr-xr-x 2 samiul samiul 4096 2月 25 09:29 Templates
drwxr-xr-x 2 samiul samiul 4096 2月 25 09:29 Videos
samiul@sam:/$ rm -rf /root/rc.d
rm: cannot remove '/root/rc.d': Permission denied
samiul@sam:/$ sudo rm -rf /root/rc.d
samiul@sam:/$
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

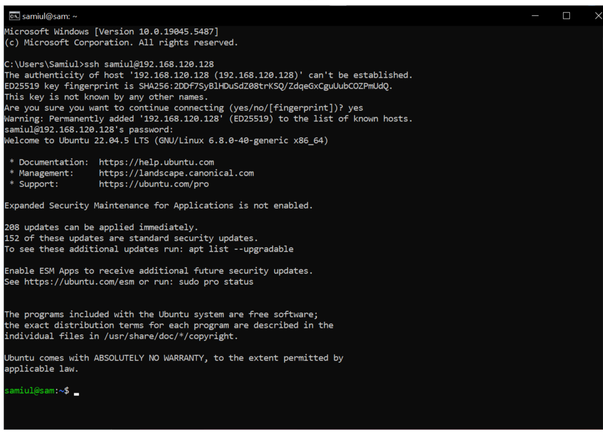
10.


Ubuntu22 x64 - VMware Workstation
File Edit View VM Tabs Help
Ubuntu22 x64
Activities
Terminal
2月 26 15:06
Computer / tmp / d
samiul@sam: /
cp: cannot stat '/etc/*.d': No such file or directory
samiul@sam:/$ ^C
samiul@sam:/$ ^C
samiul@sam:/$ ls -d /etc/*.d
/etc/apparmor.d /etc/insserv.conf.d /etc/rc0.d /etc/rsyslog.d
/etc/bash_completion.d /etc/ld.so.conf.d /etc/rc1.d /etc/sane.d
/etc/binfmt.d /etc/libpaper.d /etc/rc2.d /etc/sensors.d
/etc/cron.d /etc/logrotate.d /etc/rc3.d /etc/sudoers.d
/etc/depmod.d /etc/modprobe.d /etc/rc4.d /etc/sysctl.d
/etc/environment.d /etc/modules-load.d /etc/rc5.d /etc/tmpfiles.d
/etc/grub.d /etc/pam.d /etc/rc6.d /etc/update-motd.d
/etc/init.d /etc/profile.d /etc/rc5.d /etc/usb_modeswitch.d
samiul@sam:/$ cp -r /ect/*.d /tmp/d/
cp: cannot stat '/ect/*.d': No such file or directory
samiul@sam:/$ cp -r /ect/*.d /tmp/d
cp: cannot stat '/ect/*.d': No such file or directory
samiul@sam:/$ sudo cp -r /ect/*.d /tmp/d
cp: cannot stat '/ect/*.d': No such file or directory
samiul@sam:/$ sudo cp -r /etc/*.d /tmp/d
samiul@sam:/$ ls -l /tmp/d/
total 128
drwxr-xr-x 7 root root 4096 2月 26 15:06 apparmor.d
drwxr-xr-x 2 root root 4096 2月 26 15:06 bash_completion.d
drwxr-xr-x 2 root root 4096 2月 26 15:06 binfmt.d
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

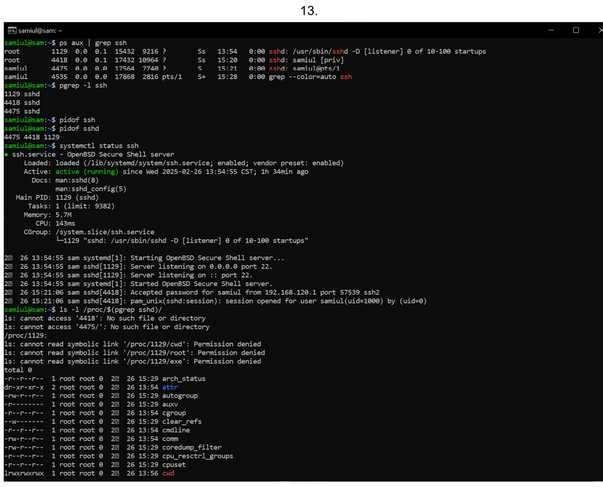
11.


Ubuntu22 x64 - VMware Workstation
File Edit View VM Tabs Help
Ubuntu22 x64
Activities
Terminal
2月 26 15:08
Computer / tmp / d
samiul@sam: /
Get:1 http://cn.archive.ubuntu.com/ubuntu jammy/main amd64 chrony amd64 4.2-2ubu
ntu2 [290 kB]
Fetched 290 kB in 4s (73.6 kB/s)
(Reading database ... 166628 files and directories currently installed.)
Removing systemd-timesyncd (249.11-0ubuntu3.12) ...
Selecting previously unselected package chrony.
(Reading database ... 166614 files and directories currently installed.)
Preparing to unpack .../chrony_4.2-2ubuntu2_amd64.deb ...
Unpacking chrony (4.2-2ubuntu2) ...
Setting up chrony (4.2-2ubuntu2) ...
Creating config file /etc/chrony/chrony.conf with new version
Creating config file /etc/chrony/chrony.keys with new version
dpkg-statoverride: warning: --update given but /var/log/chrony does not exist
Created symlink /etc/systemd/system/chronyd.service → /lib/systemd/system/chrony
.service.
Created symlink /etc/systemd/system/multi-user.target.wants/chrony.service → /li
b/systemd/system/chrony.service.
Processing triggers for dbus (1.12.20-2ubuntu4.1) ...
Processing triggers for man-db (2.10.2-1) ...
samiul@sam:/$
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

12.


samiul@sam: ~
Microsoft Windows [Version 10.0.19045.5487]
(c) Microsoft Corporation. All rights reserved.
C:\Users\Samiul>ssh samiul@192.168.120.128
The authenticity of host '192.168.120.128 (192.168.120.128)' can't be established.
ED25519 key fingerprint is SHA256:2DDf7Sy8lHDuSdZ0BtrKSQ/ZdqeGxCguUubCOZPmUdQ.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '192.168.120.128' (ED25519) to the list of known hosts.
samiul@192.168.120.128's password:
Welcome to Ubuntu 22.04.5 LTS (GNU/Linux 6.8.0-40-generic x86_64)
* Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/pro
Expanded Security Maintenance for Applications is not enabled.
208 updates can be applied immediately.
152 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status
The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.
samiul@sam:~$

13.


samiul@sam: ~
samiul@sam:~$ ps aux | grep ssh
root 1129 0.0 0.1 15432 9216 ? Ss 13:54 0:00 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
root 4418 0.0 0.1 17432 10964 ? Ss 15:20 0:00 sshd: samiul [priv]
samiul 4475 0.0 0.0 17664 7760 ? S 15:21 0:00 sshd: samiul@pts/1
samiul 4535 0.0 0.0 17868 2816 pts/1 S+ 15:28 0:00 grep --color=auto ssh
samiul@sam:~$ pgrep -l ssh
1129 sshd
4418 sshd
4475 sshd
samiul@sam:~$ pidof ssh
samiul@sam:~$ pidof sshd
4475 4418 1129
samiul@sam:~$ systemctl status ssh
● ssh.service - OpenBSD Secure Shell server
Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: enabled)
Active: active (running) since Wed 2025-02-26 13:54:55 CST; 1h 34min ago
Docs: man:sshd(8)
man:sshd_config(5)
Main PID: 1129 (sshd)
Tasks: 1 (limit: 9382)
Memory: 5.7M
CPU: 143ms
CGroup: /system.slice/ssh.service
└─1129 "sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups"
2月 26 13:54:55 sam systemd[1]: Starting OpenBSD Secure Shell server...
2月 26 13:54:55 sam sshd[1129]: Server listening on 0.0.0.0 port 22.
2月 26 13:54:55 sam sshd[1129]: Server listening on :: port 22.
2月 26 13:54:55 sam systemd[1]: Started OpenBSD Secure Shell server.
2月 26 15:21:06 sam sshd[4418]: Accepted password for samiul from 192.168.120.1 port 57539 ssh2
2月 26 15:21:06 sam sshd[4418]: pam_unix(sshd:session): session opened for user samiul(uid=1000) by (uid=0)
samiul@sam:~$ ls -l /proc/$(pgrep sshd)/
ls: cannot access '4418': No such file or directory
ls: cannot access '4475/': No such file or directory
/proc/1129:
ls: cannot read symbolic link '/proc/1129/cwd': Permission denied
ls: cannot read symbolic link '/proc/1129/root': Permission denied
ls: cannot read symbolic link '/proc/1129/exe': Permission denied
total 0
-r--r--r-- 1 root root 0 2月 26 15:29 arch_status
dr-xr-xr-x 2 root root 0 2月 26 13:54 attr
-rw-r--r-- 1 root root 0 2月 26 15:29 autogroup
-r-------- 1 root root 0 2月 26 15:29 auxv
-r--r--r-- 1 root root 0 2月 26 13:54 cgroup
--w------- 1 root root 0 2月 26 15:29 clear_refs
-r--r--r-- 1 root root 0 2月 26 13:54 cmdline
-rw-r--r-- 1 root root 0 2月 26 13:54 comm
-rw-r--r-- 1 root root 0 2月 26 15:29 coredump_filter
-r--r--r-- 1 root root 0 2月 26 15:29 cpu_resctrl_groups
-r--r--r-- 1 root root 0 2月 26 15:29 cpuset
lrwxrwxrwx 1 root root 0 2月 26 13:56 cwd