1)

```
maksud@alam-16201033:~$ egrep -c '(vmx|svm)' /proc/cpuinfo
4
maksud@alam-16201033:~$ arch
x86_64
maksud@alam-16201033:~$ sudo apt -y update
[sudo] password for rony:
Hit:1 http://dl.google.com/linux/chrome/deb stable InRelease
Hit:2 http://ppa.launchpad.net/yannubuntu/boot-repair/ubuntu focal InRelease
Hit:3 http://archive.canonical.com/ubuntu focal InRelease
Hit:4 http://security.ubuntu.com/ubuntu focal-security InRelease
Hit:5 http://bd.archive.ubuntu.com/ubuntu focal InRelease
Hit:6 http://bd.archive.ubuntu.com/ubuntu focal-updates InRelease
Hit:7 http://bd.archive.ubuntu.com/ubuntu focal-backports InRelease
Reading package lists... Done
Building dependency tree
Reading state information... Done
16 packages can be upgraded. Run 'apt list --upgradable' to see them.
maksud@alam-16201033:~$ sudo apt install qemu-kvm libvirt-daemon-system libvirt-clients bridge-utils
Reading package lists... Done
Building dependency tree
Reading state information... Done
bridge-utils is already the newest version (1.6-2ubuntu1).
libvirt-clients is already the newest version (6.0.0-0ubuntu8.1).
libvirt-daemon-system is already the newest version (6.0.0-0ubuntu8.1).
qemu-kvm is already the newest version (1:4.2-3ubuntu6.3).
0 upgraded, 0 newly installed, 0 to remove and 16 not upgraded.
```

egrep -c '(vmx|svm)' /proc/cpuinfo ==is used to check if pc
supports virtualization
sudo apt install qemu-kvm libvirt-daemon-system libvirt-
clients bridge-utils --that command used to install kvm

2)

```
maksud@alam-16201033:~$ sudo cat /etc/group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog,rony
tty:x:5:
disk:x:6:
lp:x:7:
mail:x:8:
news:x:9:
uucp:x:10:
man:x:12:
proxy:x:13:
kmem:x:15:
dialout:x:20:
fax:x:21:
voice:x:22:
cdrom:x:24:rony
floppy:x:25:
tape:x:26:
sudo:x:27:rony
audio:x:29:pulse
dip:x:30:rony
www-data:x:33:
backup:x:34:
operator:x:37:
list:x:38:
irc:x:39:
src:x:40:
gnats:x:41:
shadow:x:42:
utmp:x:43:
video:x:44:
sasl:x:45:
plugdev:x:46:rony
staff:x:50:
games:x:60:
users:x:100:
nogroup:x:65534:
systemd-journal:x:101:
systemd-network:x:102:
systemd-resolve:x:103:
systemd-timesync:x:104:
crontab:x:105:
messagebus:x:106:
input:x:107:
kvm:x:108:
render:x:109:
syslog:x:110:
tss:x:111:
bluetooth:x:112:
ssl-cert:x:113:
uuidd:x:114:
tcpdump:x:115:
avahi-autoipd:x:116:
rtkit:x:117:
ssh:x:118:
netdev:x:119:
lpadmin:x:120:rony
avahi:x:121:
scanner:x:122:saned
saned:x:123:
nm-openvpn:x:124:
whoopsie:x:125:
colord:x:126:
geoclue:x:127:
pulse:x:128:
pulse-access:x:129:
gdm:x:130:
lxd:x:131:rony
rony:x:1000:
sambashare:x:132:rony
systemd-coredump:x:999:
rdma:x:133:
libvirt:x:134:rony
libvirt-qemu:x:64055:libvirt-qemu
libvirt-dnsmasq:x:135:
```

with that command we can see the groups from output.

3)

```
maksud@alam-16201033:~$ virsh -c qemu:///system list
 Id    Name    State
----------------

maksud@alam-16201033:~$ sudo apt install virt-manager
Reading package lists... Done
Building dependency tree
Reading state information... Done
virt-manager is already the newest version (1:2.2.1-3ubuntu2).
0 upgraded, 0 newly installed, 0 to remove and 16 not upgraded.
maksud@alam-16201033:~$ virt-manager
maksud@alam-16201033:~$
```
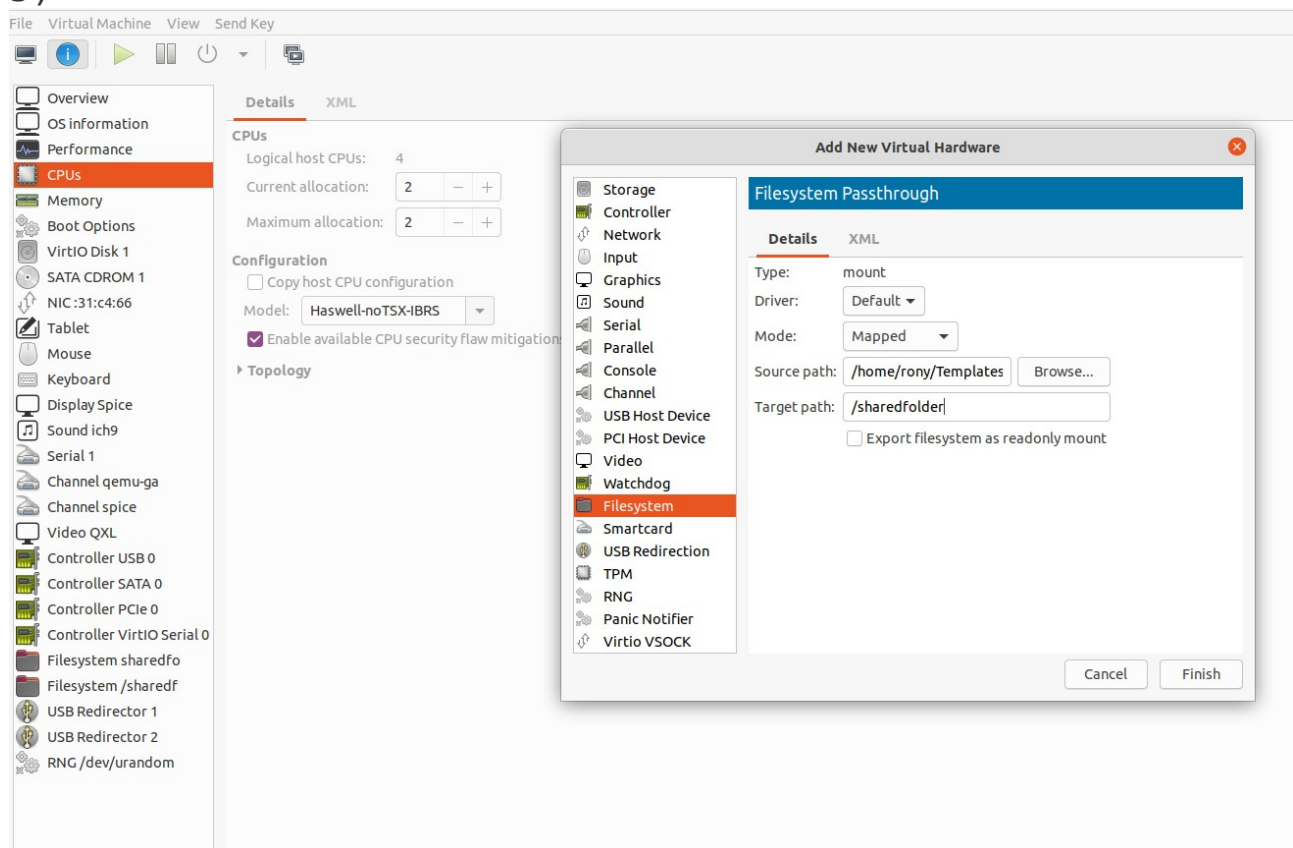
virsh -c qemu:///system list ----is used to verify kvm
installation.
sudo apt-get install virt-manager---- is used to install
virtual manager.
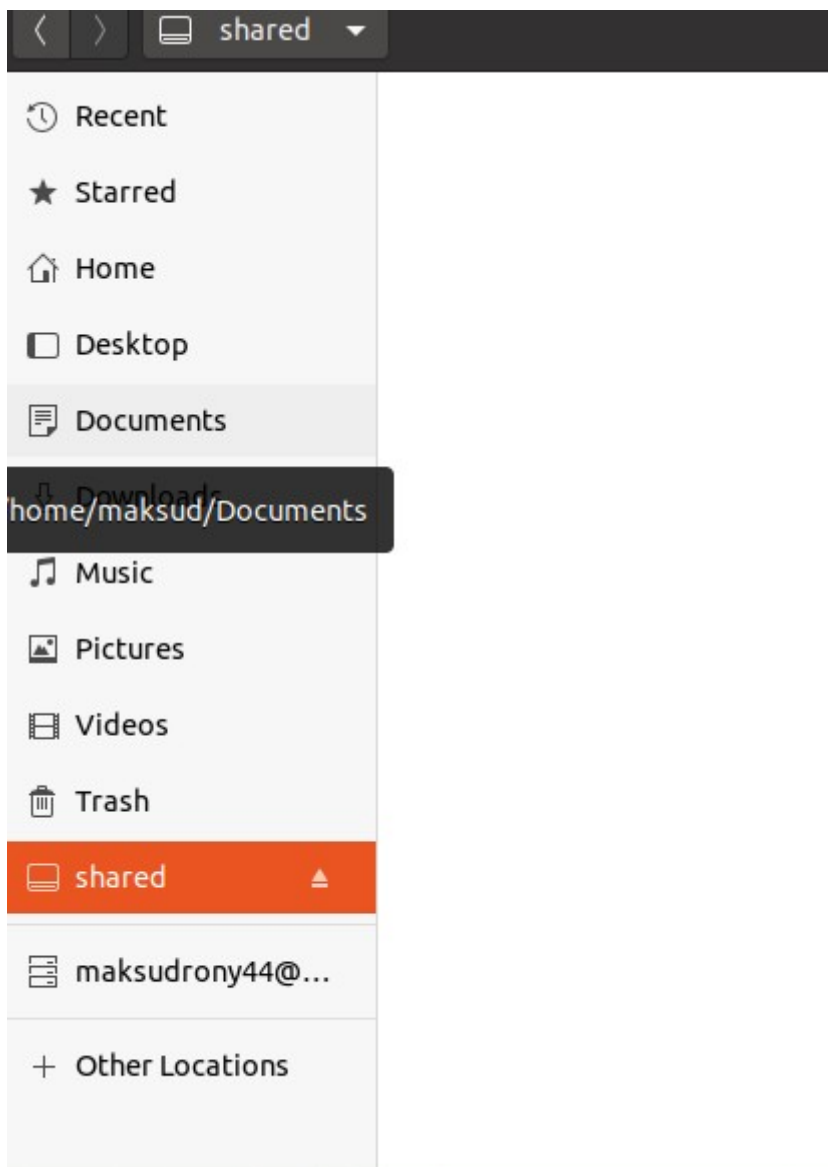Virt-manager ------is used to open virt manager
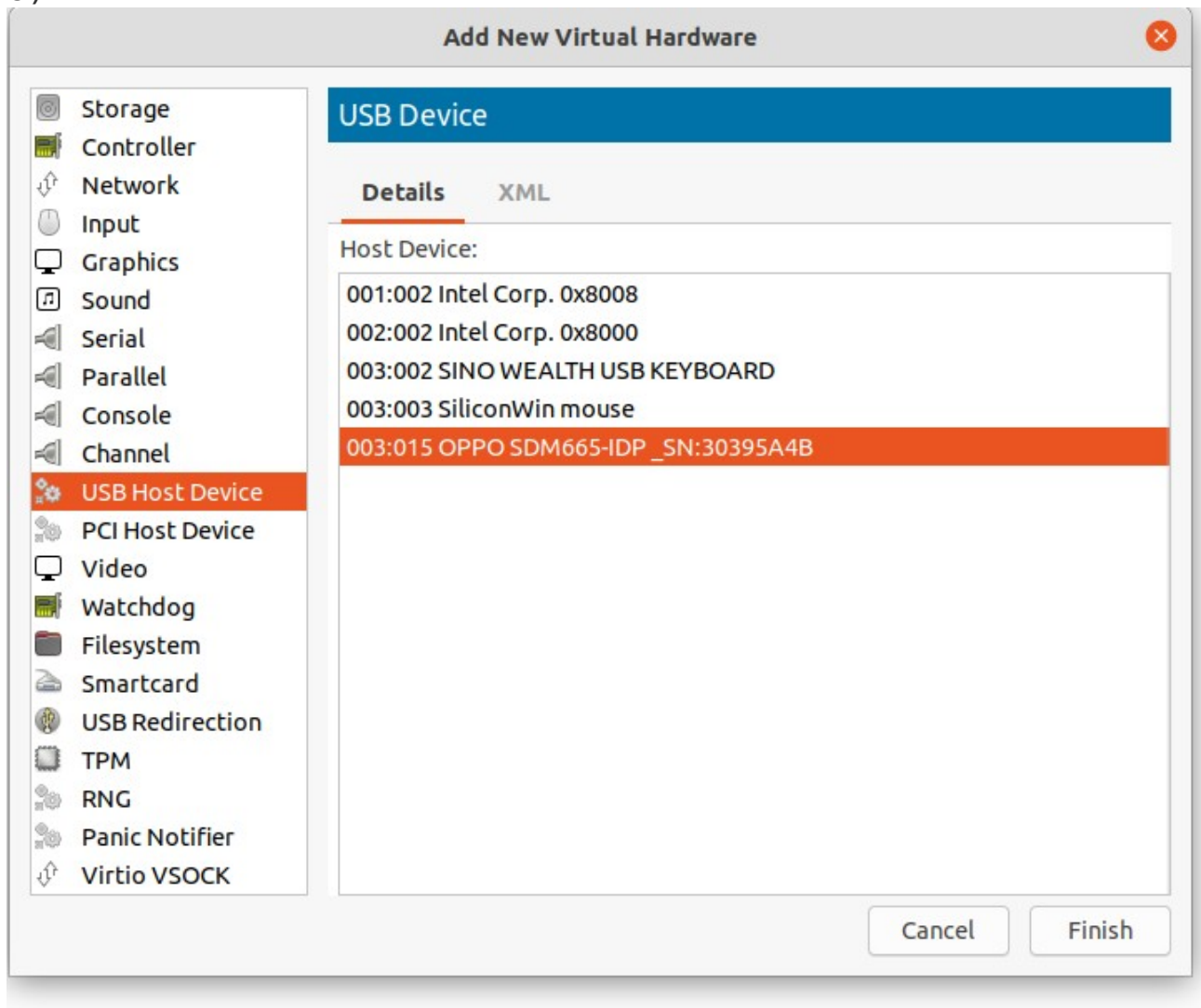
5)

created source path from add hardware option.

```
maksud@alam-16201033:~$ pwd
/home/maksud
maksud@alam-16201033:~$ mkdir ~/shared
mkdir: cannot create directory '/home/maksud/shared': File exists
maksud@alam-16201033:~$ sudo mount -t 9p -o trans=virtio /sharedFolder ~/shared
[sudo] password for maksud:
mount: /home/maksud/shared: special device /sharedFolder does not exist.
maksud@alam-16201033:~$ sudo mount -t 9p -o trans=virtio /sharedfolder ~/shared
maksud@alam-16201033:~$
```

Those commands were used for to make shared folder ubuntu
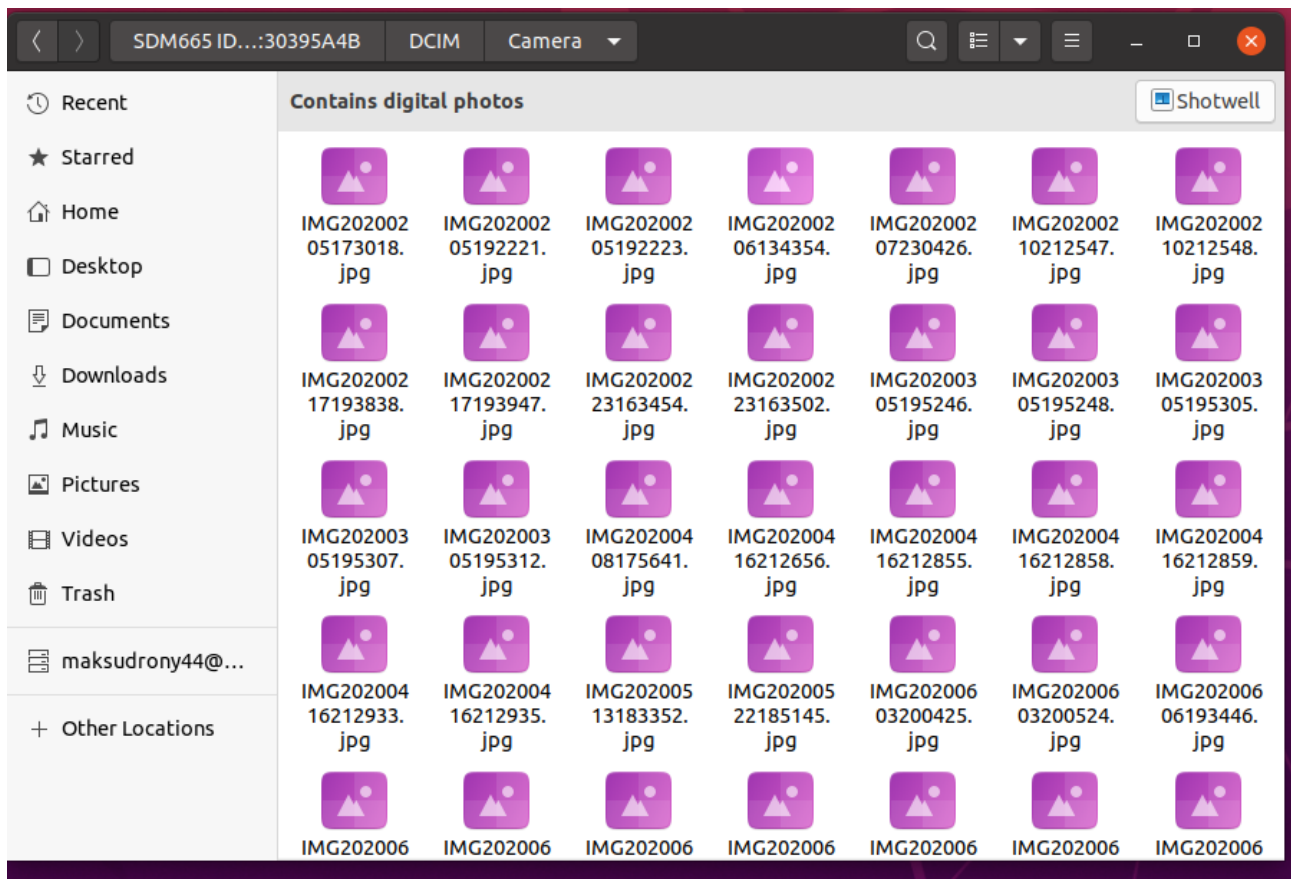and host ubuntu.

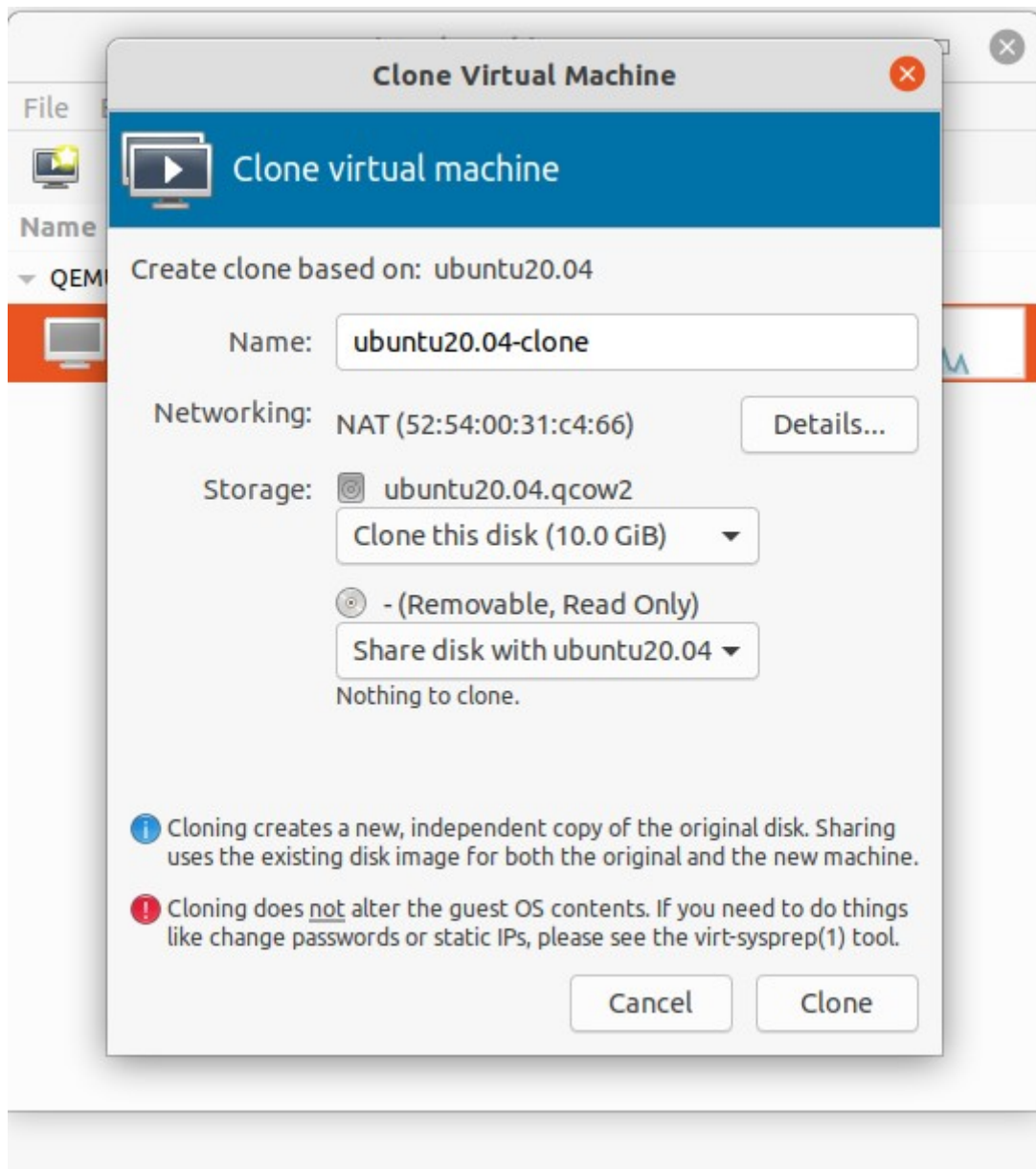here is shared folder between host and guest machine

6)

here at first I connected mobile and pc through usb cable.
Then I did open virt manager then from add software I went
to usb host machince option then I connected the phone
(oppo) .

after the connections this how I could access the phone
files frm guest ubuntu.
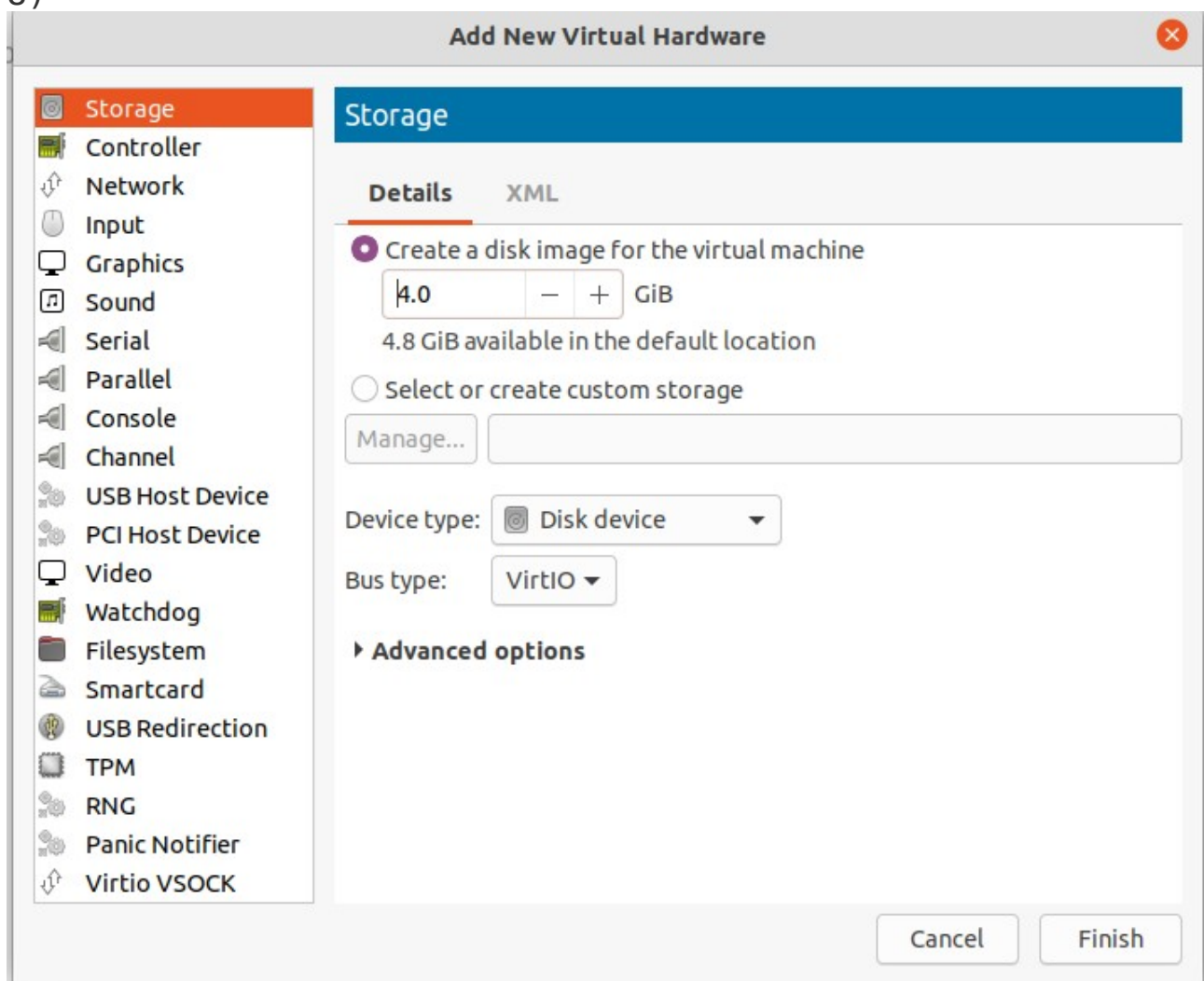
7)

started cloning from guest os.

```
maksud@alam-16201033:~$ virt-clone --original ubuntu20.04 --auto-clone
ERROR    There is not enough free space on the storage pool to create the volume
. (10241 M requested allocation > 9026 M available)
maksud@alam-16201033:~$ virt-clone --original ubuntu20.04 --auto-clone
ERROR    There is not enough free space on the storage pool to create the volume
. (10241 M requested allocation > 4928 M available)
maksud@alam-16201033:~$ virt-clone --original ubuntu20.04 --auto-clone
ERROR    There is not enough free space on the storage pool to create the volume
. (10241 M requested allocation > 4928 M available)
maksud@alam-16201033:~$
```
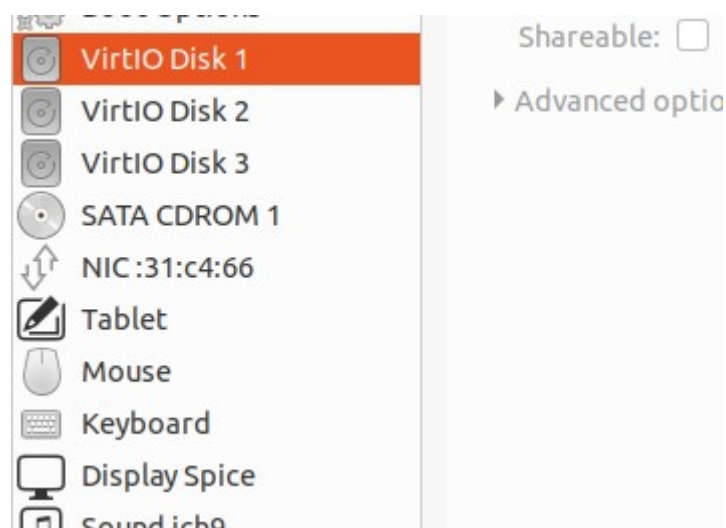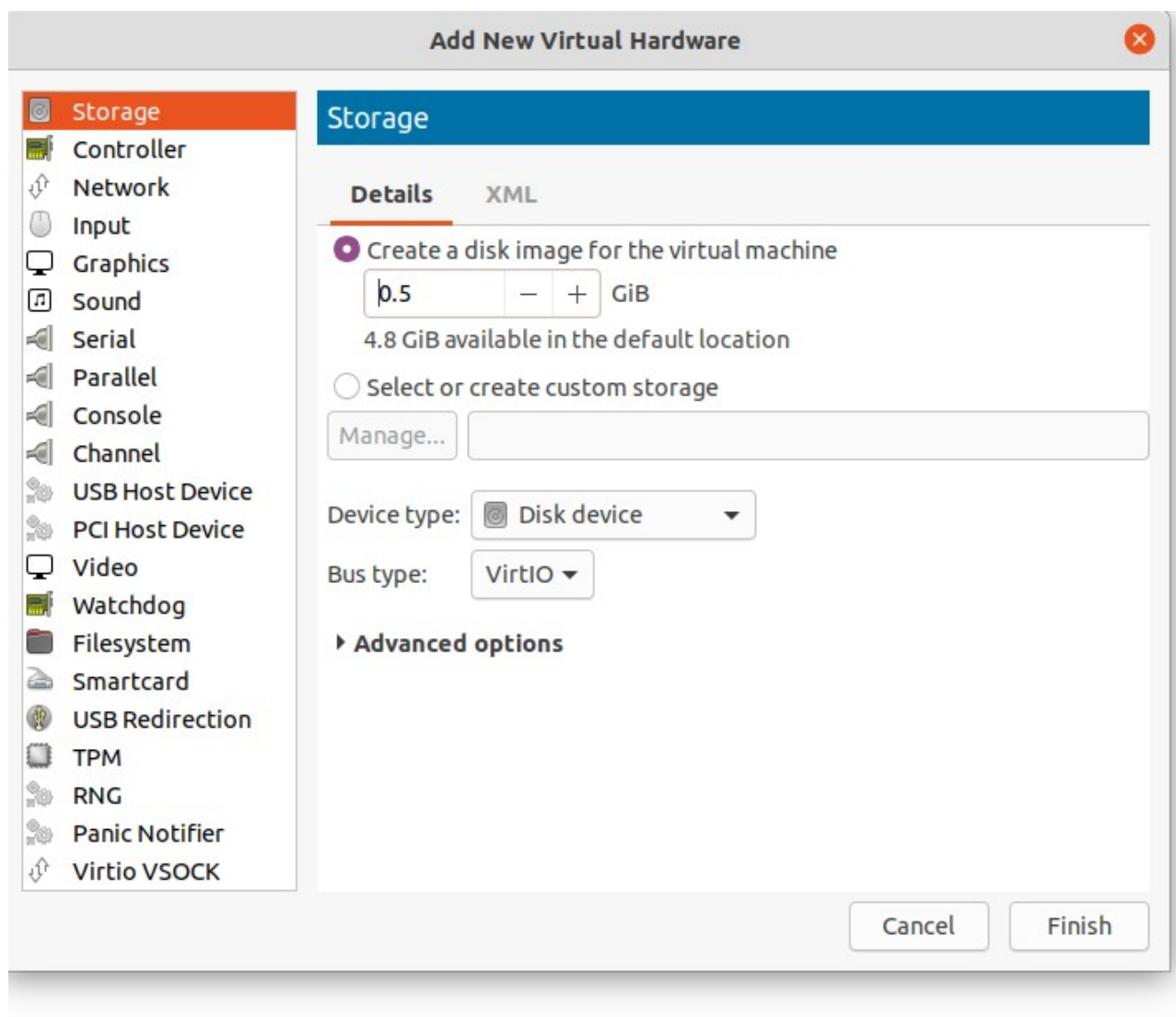
With those command I could clone from that guest vm but
there is no space. I wanted to delete the main vm so that I
can create again . But net speed is so slow and time was so
less thats y I couldnt make it. But I got how to clone from
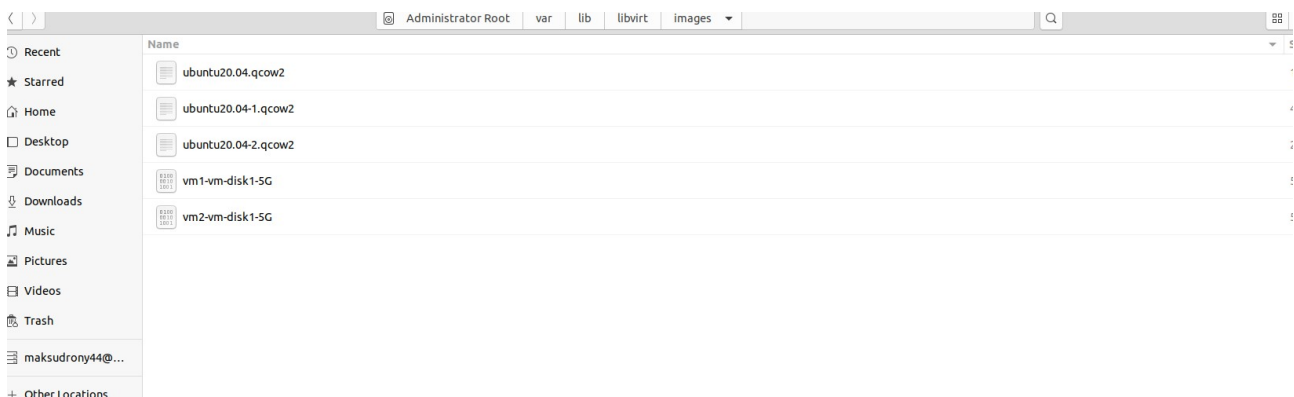from main vm .sorry miss.

8)

hard disks added.

9)

```
maksud@alam-16201033:~$ sudo
usage: sudo -h | -K | -k | -V
usage: sudo -v [-AknS] [-g group] [-h host] [-p prompt] [-u user]
usage: sudo -l [-AknS] [-g group] [-h host] [-p prompt] [-U user] [-u user]
        [command]
usage: sudo [-AbEHknPS] [-r role] [-t type] [-C num] [-g group] [-h host] [-p
        prompt] [-T timeout] [-u user] [VAR=value] [-i|-s] [<command>]
usage: sudo -e [-AknS] [-r role] [-t type] [-C num] [-g group] [-h host] [-p
        prompt] [-T timeout] [-u user] file ...
maksud@alam-16201033:~$ cd /var/lib/libvirt/images/
```

cs *var/*lib/libvirt/images/ -----is used to locate the path
where we gonna add the hard disks

```
maksud@alam-16201033:/var/lib/libvirt/images$ sudo qemu-img create -f ra vm1-vm-
disk1-5G 5G
qemu-img: vm1-vm-disk1-5G: Unknown file format 'ra'
maksud@alam-16201033:/var/lib/libvirt/images$ sudo qemu-img create -f raw vm1-vm
-disk1-5G 5G
Formatting 'vm1-vm-disk1-5G', fmt=raw size=5368709120
maksud@alam-16201033:/var/lib/libvirt/images$ sudo qemu-img create -f raw vm2-vm
-disk1-5G 5G
Formatting 'vm2-vm-disk1-5G', fmt=raw size=5368709120
```

 using those commands 2 hard disks are created.

		Administrator Root	var	lib	libvirt	images ▼		Q		88

Name		
Recent		
★ Starred	ubuntu20.04.qcow2	
⌂ Home	ubuntu20.04-1.qcow2	
☐ Desktop	ubuntu20.04-2.qcow2	
☰ Documents		
⬇ Downloads	vm1-vm-disk1-5G	
♫ Music	vm2-vm-disk1-5G	
▣ Pictures		
⊟ Videos		
🗑 Trash		
☰ maksudrony44@...		
+ Other Locations		

mam couldnt connect the hard disks with clone vm for no
storage miss because cant install clone vm for storage.