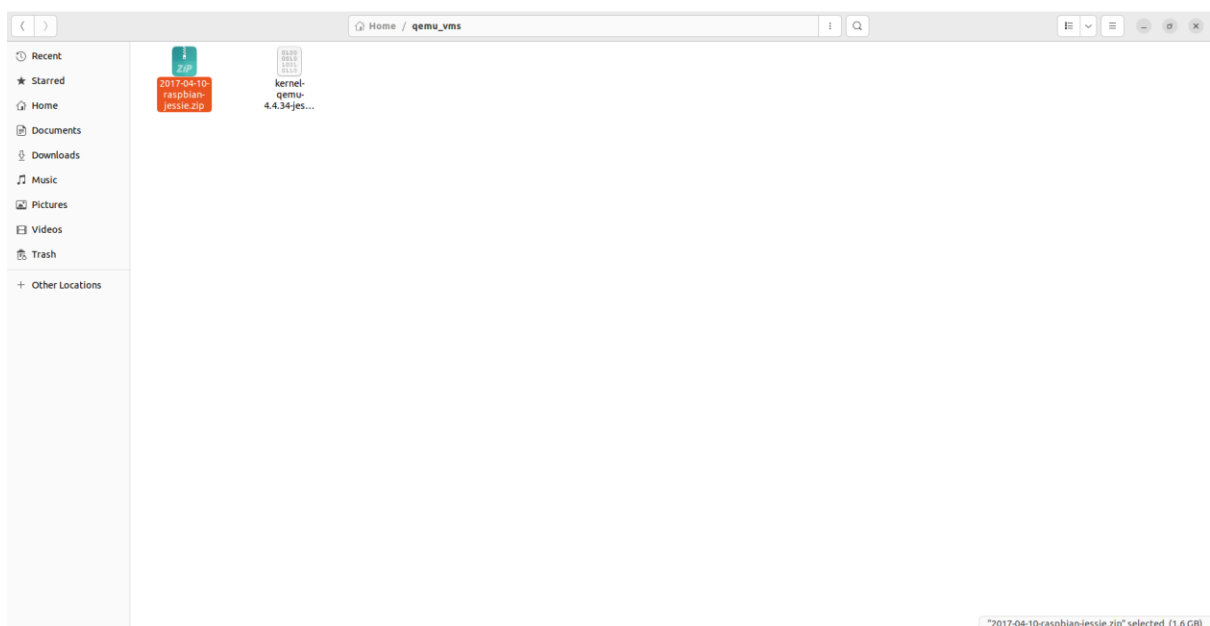


Name: Muhammad Hamza

Roll-no : 21k-3815

Sec : BS-SE-4A

```
devil@Devil: ~  
devil@Devil:~$ mkdir qemu_vms  
devil@Devil:~$ ls  
dead.letter  email      Maildir    Public     snap  
Desktop      index.html Music       qemu_vms   Templates  
Documents    k213815 shareFolder os_lab     sharefolder1 test_message  
Downloads    linux-6.1.12.tar.xz Pictures    sharefolder2 Videos  
devil@Devil:~$
```



```
devil@Devil: ~  
Setting up libsd12-2.0-0:amd64 (2.0.20+dfsg-2ubuntu1.22.04.1) ...  
Setting up libpmem1:amd64 (1.11.1-3build1) ...  
Setting up qemu-system-common (1:6.2+dfsg-2ubuntu6.8) ...  
Created symlink /etc/systemd/system/multi-user.target.wants/qemu-kvm.service → /  
lib/systemd/system/qemu-kvm.service.  
Setting up qemu-system-mips (1:6.2+dfsg-2ubuntu6.8) ...  
Setting up qemu-system-sparc (1:6.2+dfsg-2ubuntu6.8) ...  
Setting up qemu-system-x86 (1:6.2+dfsg-2ubuntu6.8) ...  
Setting up qemu-system-ppc (1:6.2+dfsg-2ubuntu6.8) ...  
Setting up qemu-system-misc (1:6.2+dfsg-2ubuntu6.8) ...  
Setting up libpmemobj1:amd64 (1.11.1-3build1) ...  
Setting up libdecor-0-plugin-1-cairo:amd64 (0.1.0-3build1) ...  
Setting up librbd1 (17.2.5-0ubuntu0.22.04.2) ...  
Setting up qemu-system-arm (1:6.2+dfsg-2ubuntu6.8) ...  
Setting up qemu-system-s390x (1:6.2+dfsg-2ubuntu6.8) ...  
Setting up qemu-block-extra (1:6.2+dfsg-2ubuntu6.8) ...  
Created symlink /etc/systemd/system/multi-user.target.wants/run-qemu.mount → /li  
b/systemd/system/run-qemu.mount.  
Setting up qemu-system-gui (1:6.2+dfsg-2ubuntu6.8) ...  
Setting up qemu-system (1:6.2+dfsg-2ubuntu6.8) ...  
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...  
Processing triggers for man-db (2.10.2-1) ...  
Processing triggers for hicolor-icon-theme (0.17-2) ...  
devil@Devil:~$
```

```
devil@Devil: ~/qemu_vms  
Setting up librbd1 (17.2.5-0ubuntu0.22.04.2) ...  
Setting up qemu-system-arm (1:6.2+dfsg-2ubuntu6.8) ...  
Setting up qemu-system-s390x (1:6.2+dfsg-2ubuntu6.8) ...  
Setting up qemu-block-extra (1:6.2+dfsg-2ubuntu6.8) ...  
Created symlink /etc/systemd/system/multi-user.target.wants/run-qemu.mount → /li  
b/systemd/system/run-qemu.mount.  
Setting up qemu-system-gui (1:6.2+dfsg-2ubuntu6.8) ...  
Setting up qemu-system (1:6.2+dfsg-2ubuntu6.8) ...  
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...  
Processing triggers for man-db (2.10.2-1) ...  
Processing triggers for hicolor-icon-theme (0.17-2) ...  
devil@Devil:~$ cd qemu_vms  
devil@Devil:~/qemu_vms$ fdisk -l 2017-04-10-raspbian-jessie.img  
Disk 2017-04-10-raspbian-jessie.img: 2.33 GiB, 2502157824 bytes, 4887027 sectors  
Units: sectors of 1 * 512 = 512 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disklabel type: dos  
Disk identifier: 0x402e4a57  
  
Device Boot Start End Sectors Size Id Type  
2017-04-10-raspbian-jessie.img1 8192 92159 83968 41M c W95 FAT32 (L  
2017-04-10-raspbian-jessie.img2 92160 8369151 8276992 3.9G 83 Linux  
devil@Devil:~/qemu_vms$
```

```
devil@Devil: ~/qemu_vms
devil@Devil:~/qemu_vms$ sudo mount -v -o offset=47185920 -t ext4 2017-04-10-raspbian-jessie.img /mnt/Raspbian
mount: /dev/loop13 mounted on /mnt/Raspbian.
devil@Devil:~/qemu_vms$ sudo nano /mnt/Raspbian/etc/id.so.preload
devil@Devil:~/qemu_vms$ sudo nano /mnt/Raspbian/etc/id.so.preload
devil@Devil:~/qemu_vms$ sudo nano /mnt/Raspbian/etc/id.so.preload
devil@Devil:~/qemu_vms$ ls
2017-04-10-raspbian-jessie.img  kernel-qemu-4.4.34-jessie
2017-04-10-raspbian-jessie.zip
devil@Devil:~/qemu_vms$ ls -la
total 5716960
drwxrwxr-x  2 devil devil    4096 18:39 30 اپریل .
drwxrwx---+ 29 devil devil    4096 18:29 30 اپریل ..
-rw-r--r--  1 devil devil 4285005824 10-04-2017 18:48 30 اپریل -raspbian-jessie
.img
-rw-rw-r--  1 devil devil 1566114915 10-04-2017 18:36 30 اپریل -raspbian-jessie
.zip
-rw-rw-r--  1 devil devil    3024048 18:20 30 اپریل kernel-qemu-4.4.34-jessie
devil@Devil:~/qemu_vms$ ls -a
. 2017-04-10-raspbian-jessie.img kernel-qemu-4.4.34-jessie
.. 2017-04-10-raspbian-jessie.zip
devil@Devil:~/qemu_vms$ sudo nano /mnt/raspbian/etc/fstab
devil@Devil:~/qemu_vms$ sudo nano /mnt/Raspbian/etc/fstab
devil@Devil:~/qemu_vms$
```

```
devil@Devil: ~/qemu_vms
GNU nano 6.2 /mnt/raspbian/etc/ld.so.preload
#/usr/lib/arm-linux-gnueabi/libc.so
Read 1 line
^G Help      ^O Write Out ^W Where Is  ^K Cut      ^T Execute  ^C Location
^X Exit      ^R Read File ^\ Replace  ^U Paste    ^J Justify  ^_ Go To Line
```

QEMU

Machine View



```
systemd[1]: Mounted Debug File System.
systemd[1]: Mounting POSIX Message Queue File System...
           Mounting POSIX Message Queue File System...
systemd[1]: Starting Load Kernel Modules...
           Starting Load Kernel Modules...
systemd[1]: Starting system-autologin.slice.
[ OK ] Created slice system-autologin.slice.
systemd[1]: Created slice system-autologin.slice.
systemd[1]: Started File System Check on Root Device.
systemd[1]: Starting Slices.
[ OK ] Reached target Slices.
systemd[1]: Reached target Slices.
[ OK ] Started Increase datagram queue length.
systemd[1]: Started Increase datagram queue length.
[ OK ] Started Create Static Device Nodes in /dev.
systemd[1]: Started Create Static Device Nodes in /dev.
[ OK ] Mounted POSIX Message Queue File System.
systemd[1]: Mounted POSIX Message Queue File System.
systemd[1]: systemd-modules-load.service: main process exited, code=exited, status=1/FAILURE
[FAILED] Failed to start Load Kernel Modules.
See 'systemctl status systemd-modules-load.service' for details.
systemd[1]: Failed to start Load Kernel Modules.
systemd[1]: Unit systemd-modules-load.service entered failed state.
```

```
devil@Devil: ~  
rmi176 -m 256 -M versatilepb -serial stdio -append "root=/dev/sda2 rootfstype=ext4 rw" -hda qemu_vms/2017-04-10-raspbian-jessie.img -net nic -net user,hostfwd=tcp::5022-:22 -no-reboot  
WARNING: Image format was not specified for 'qemu_vms/2017-04-10-raspbian-jessie.img' and probing guessed raw.  
Automatically detecting the format is dangerous for raw images, write operations on block 0 will be restricted.  
Specify the 'raw' format explicitly to remove the restrictions.  
qemu-system-arm: unable to find CPU model 'arm1176'  
devil@Devil:~$ qemu-system-arm -kernel qemu_vms/kernel-qemu-4.4.34-jessie -cpu arm1176 -m 256 -M versatilepb -serial stdio -append "root=/dev/sda2 rootfstype=ext4 rw" -hda qemu_vms/2017-04-10-raspbian-jessie.img -net nic -net user,hostfwd=tcp::5022-:22 -no-reboot  
WARNING: Image format was not specified for 'qemu_vms/2017-04-10-raspbian-jessie.img' and probing guessed raw.  
Automatically detecting the format is dangerous for raw images, write operations on block 0 will be restricted.  
Specify the 'raw' format explicitly to remove the restrictions.  
pulseaudio: set_sink_input_volume() failed  
pulseaudio: Reason: Invalid argument  
pulseaudio: set_sink_input_mute() failed  
pulseaudio: Reason: Invalid argument  
Uncompressing Linux... done, booting the kernel.
```

