PRACTICAL 2

Aim: Installation and configuration of virtualization using KVM

STEPS:

1. First, update the repositories using command - sudo apt-get update

```
krutika@desk:~$ sudo apt-get update
```

```
krutika@desk:~$ egrep -c '(vmx|svm)' /proc/cpuinfo
2
krutika@desk:~$ cat /proc/cpuinfo
processor       : 0
vendor_id       : AuthenticAMD
cpu family      : 22
model           : 48
model name      : AMD E2-6110 APU with AMD Radeon R2 Graphics
stepping        : 1
microcode       : 0x7030106
cpu MHz         : 1497.192
cache size      : 2048 KB
physical id     : 0
siblings        : 1
core id         : 0
cpu cores       : 1
apicid          : 0
initial apicid  : 0
fpu             : yes
fpu_exception   : yes
cpuid level     : 13
wp              : yes
```

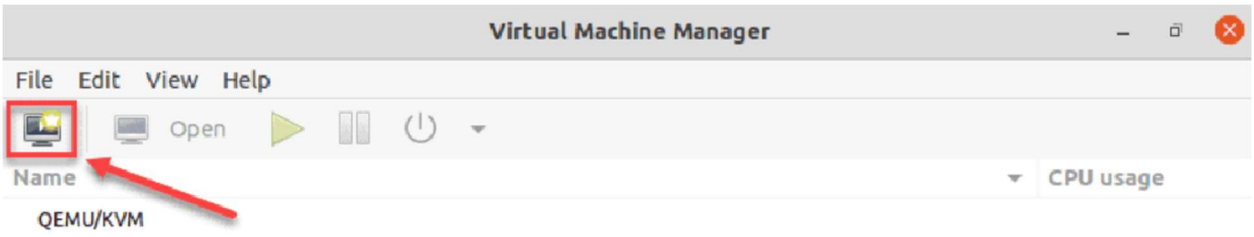
2. Then, install essential KVM packages with the command –
   sudo apt-get install qemu-kvm libvirt-daemon-system libvirt-clients bridge-utils

```
krutika@desk:~$ sudo apt-get install qemu-kvm libvirt-daemon-system libvirt-clie
nts bridge-utils
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  cpu-checker dmeventd ibverbs-providers ipxe-qemu
  ipxe-qemu-256k-compat-efi-roms libaio1 libcacard0 libdevmapper-event1.02.1
  libfdt1 libibverbs1 libiscsi7 liblvm2cmd2.03 libnss-mymachines libpmem1
  librados2 librbd1 librdmacm1 libreadline5 libslirp0 libspice-server1
  libusbredirparser1 libvirglrenderer1 libvirt-daemon
  libvirt-daemon-driver-qemu libvirt-daemon-driver-storage-rbd
  libvirt-daemon-system-systemd libvirt0 libxml2-utils lvm2 msr-tools ovmf
  qemu-block-extra qemu-system-common qemu-system-data qemu-system-gui
  qemu-system-x86 qemu-utils seabios sharutils systemd-container
  thin-provisioning-tools
Suggested packages:
  ifupdown libvirt-daemon-driver-lxc libvirt-daemon-driver-vbox
  libvirt-daemon-driver-xen libvirt-daemon-driver-storage-gluster
  libvirt-daemon-driver-storage-zfs numad auditd nfs-common open-iscsi
  pm-utils radvd systemtap zfsutils samba vde2 debootstrap sharutils-doc
  bsd-mailx | mailx
The following NEW packages will be installed:
```

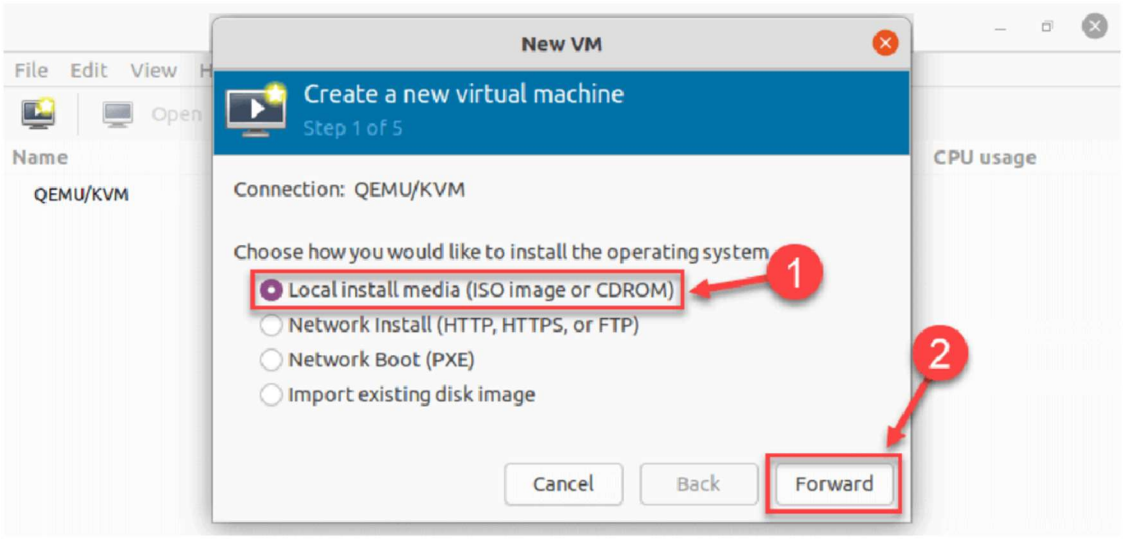
3. To install virt-manager, a tool for creating and managing VMs:

   sudo apt-get install virt-manager

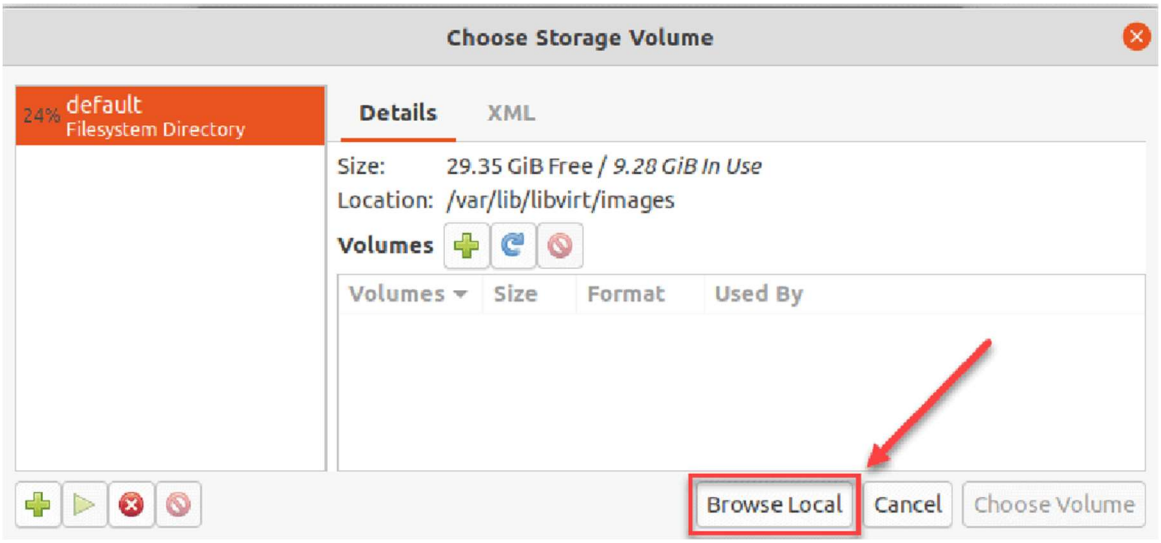
4. Start virt-manager with: sudo virt-manager
5. In the first window, click the computer icon in the upper-left corner.



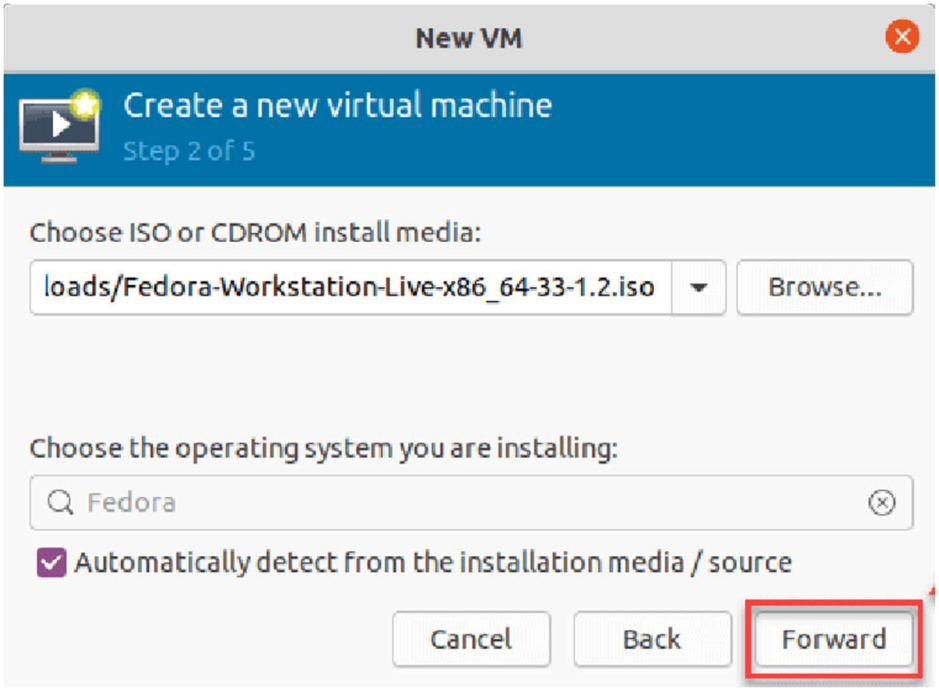
6. In the dialogue box that opens, select the option to install the VM using an ISO image. Then click Forward



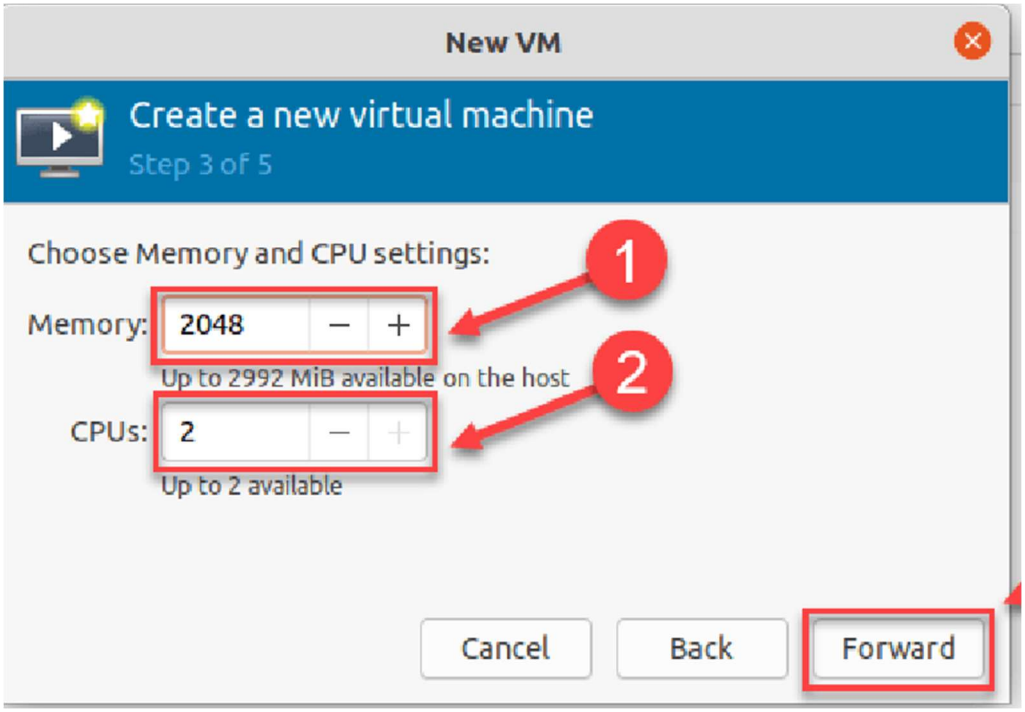
7. In the next dialogue, click Browse Local and navigate to the path where you stored the ISO you wish to install.



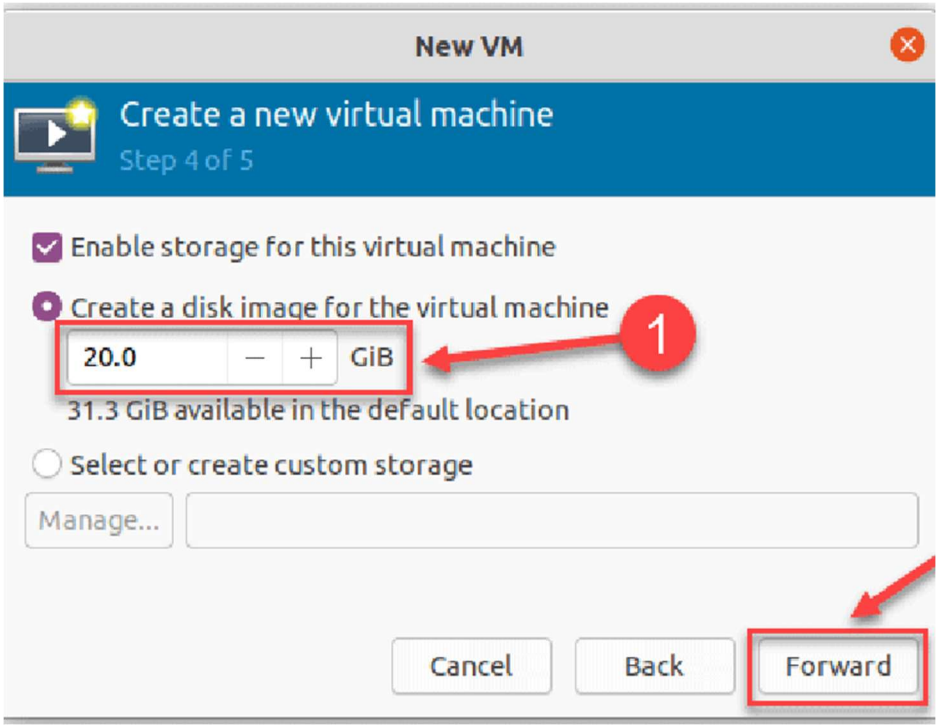
8. The ISO you chose in the previous window populates the field in Step 2. Proceed to Step 3 by clicking Forward.



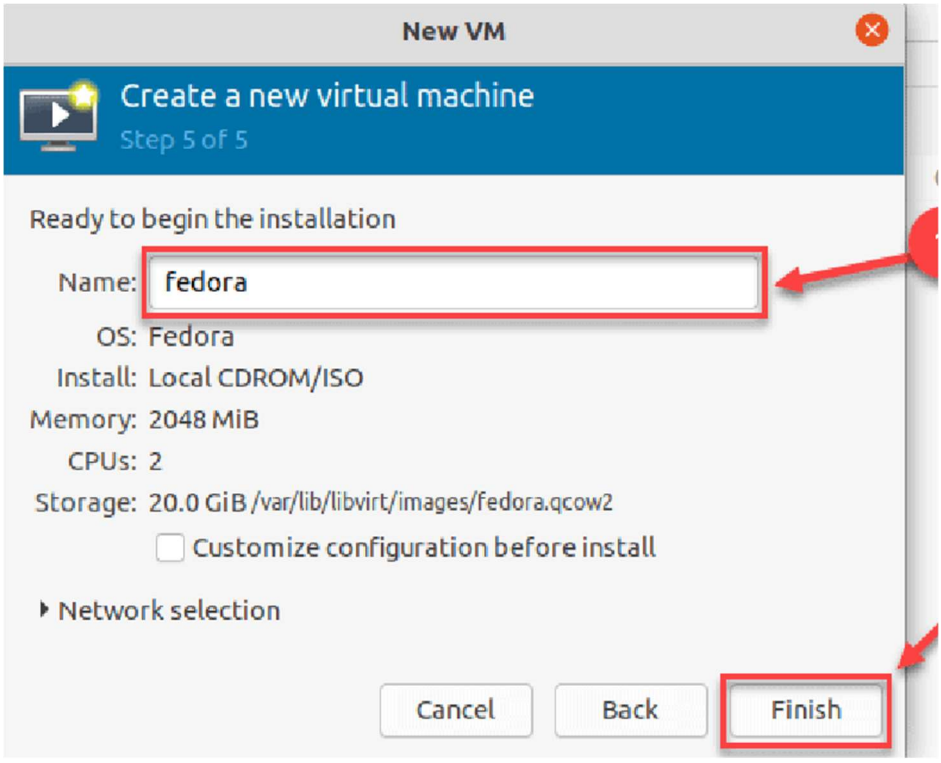
9. Enter the amount of RAM and the number of CPUs you wish to allocate to the VM and proceed to the next step.



10. Allocate hard disk space to the VM. Click Forward to go to the last step.



11. Specify the name for your VM and click Finish to complete the setup.



12. The VM starts automatically, prompting you to start installing the OS that's on the ISO file.