

Ex No : 8	Implementation of Virtualization using KVM
Date: 06/03/23	

Aim :

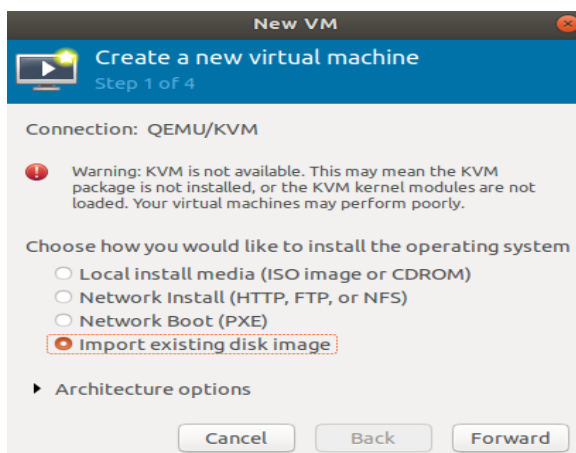
To install and configure a kernel based virtual machine .

Procedure:

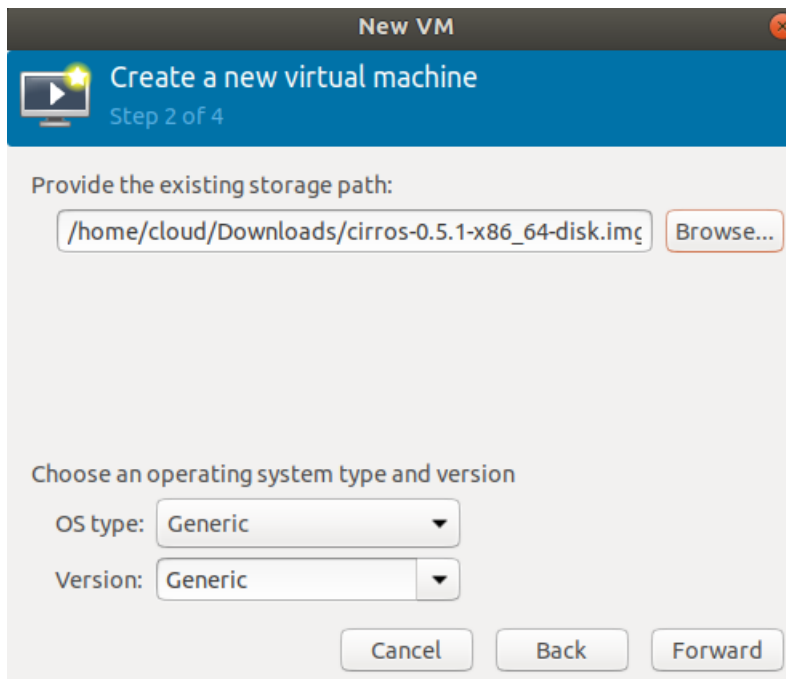
- 1) Download virtual box and install it in your system,
- 2) And then create a ubuntu based virtual machine in that virtual box
- 3) Power on that virtual machine
- 4) In that VM , Open Terminal
- 5) Initially , check whether your CPU supports virtualization.
- 6) After that install all the necessary packages for the KVM.
- 7) After installation , virtual machine manager will be created.
- 8) In that create a Cirros based VM
- 9) After creation finally open that VM

Screenshots:

```
hari@hari-VirtualBox:~$ grep -Eoc '(vmx|svm)' /proc/cpuinfo
4
hari@hari-VirtualBox:~$ sudo apt install qemu-kvm libvirt-bin bridge-utils virt
inst virt-manager
Reading package lists... Done
Building dependency tree
Reading state information... Done
bridge-utils is already the newest version (1.5-15ubuntu1).
libvirt-bin is already the newest version (4.0.0-1ubuntu8.21).
qemu-kvm is already the newest version (1:2.11+dfsg-1ubuntu7.41).
virt-manager is already the newest version (1:1.5.1-0ubuntu1.2).
virtinst is already the newest version (1:1.5.1-0ubuntu1.2).
0 upgraded, 0 newly installed, 0 to remove and 280 not upgraded.
hari@hari-VirtualBox:~$ S
```

Launch VM from existing disk

Selecting Image from Local Disk.



New VM

Create a new virtual machine
Step 2 of 4

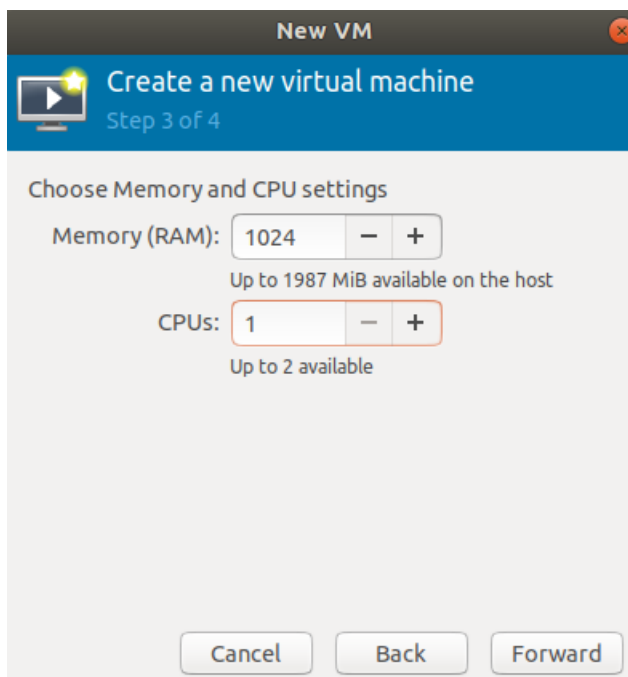
Provide the existing storage path:

Choose an operating system type and version

OS type:

Version:

Choosing Memory and CPU



New VM

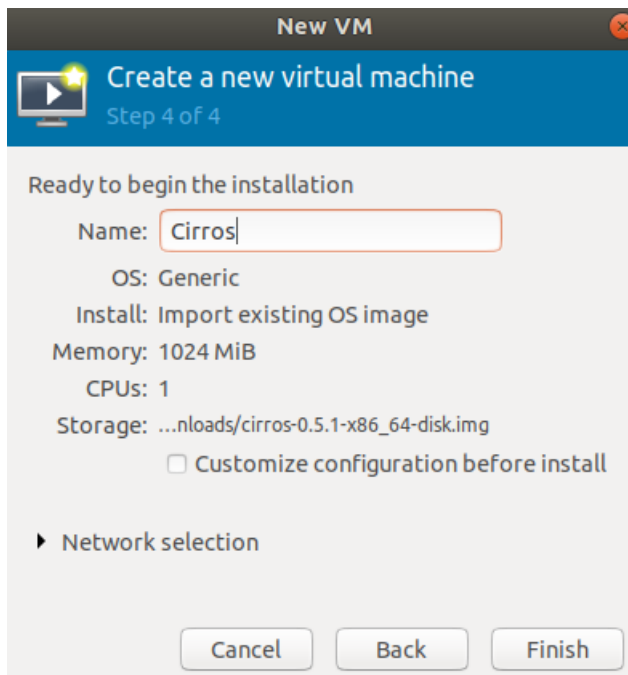
Create a new virtual machine
Step 3 of 4

Choose Memory and CPU settings

Memory (RAM):
Up to 1987 MiB available on the host

CPUs:
Up to 2 available

Name the Virtual Machine

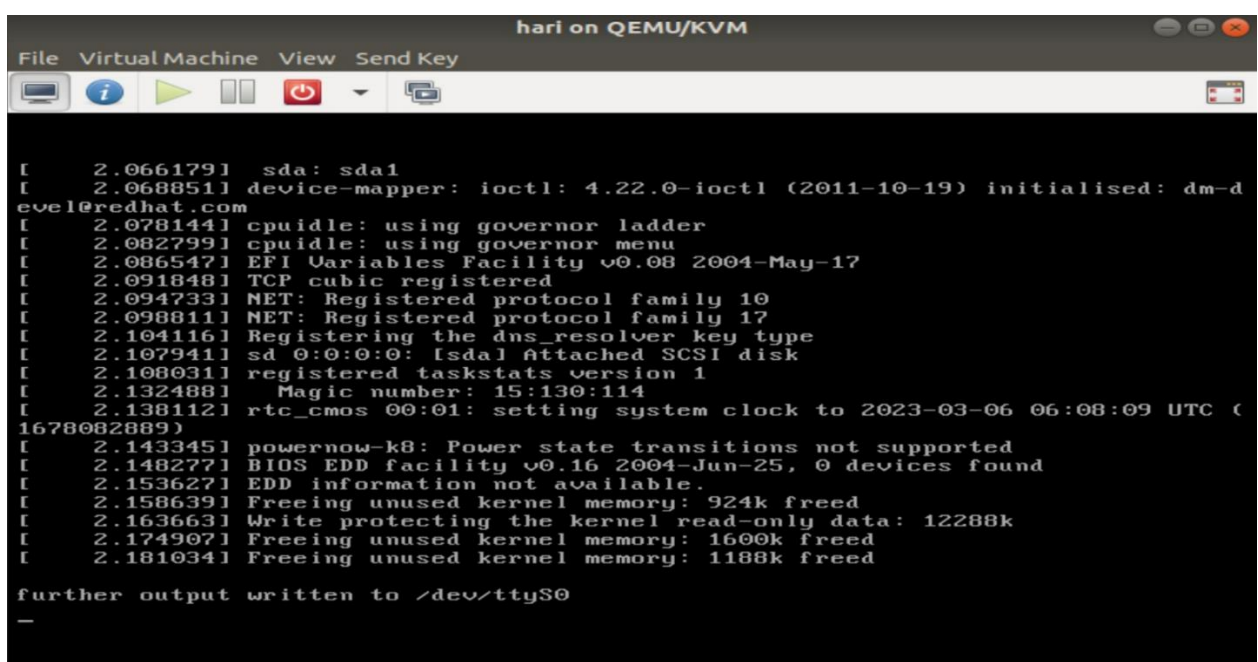
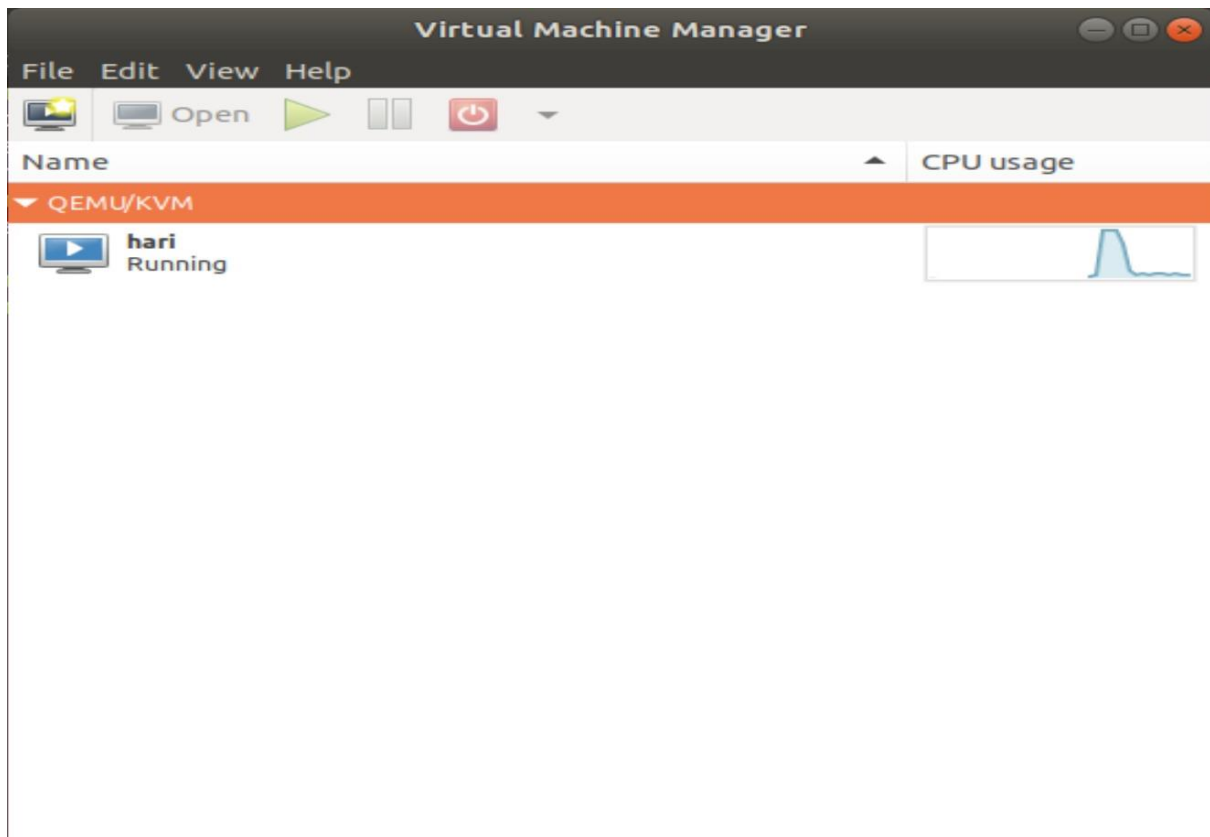


Booted VM

```
login as 'cirros' user. default password: 'cubswin:)' . use 'sudo' for root.
cirros login: cirros
Password:
Login incorrect
cirros login: 'cirros'
Password:
Login incorrect
cirros login: cirros
Password:
$ _
```

Oracle VirtualBox Installation

```
root@openstack:~# apt-get install virtualbox
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  dkms libgsoap-2.8.60 libvncserver1 virtualbox-dkms virtualbox-qt
Suggested packages:
  menu vde2 virtualbox-guest-additions-iso
The following packages will be REMOVED:
  virtualbox-6.1
The following NEW packages will be installed:
  dkms libgsoap-2.8.60 libvncserver1 virtualbox virtualbox-dkms virtualbox-qt
0 upgraded, 6 newly installed, 1 to remove and 235 not upgraded.
Need to get 27.0 MB of archives.
After this operation, 97.4 MB disk space will be freed.
Do you want to continue? [Y/n] y
Get:1 http://in.archive.ubuntu.com/ubuntu bionic-updates/main amd64 dkms all 2.3-3ubuntu9.7 [68.1 kB]
Get:2 http://in.archive.ubuntu.com/ubuntu bionic/universe amd64 libgsoap-2.8.60 amd64 2.8.60-2build1 [22
2 kB]
Get:3 http://in.archive.ubuntu.com/ubuntu bionic-updates/main amd64 libvncserver1 amd64 0.9.11+dfsg-1ubu
ntu1.3 [125 kB]
Get:4 http://in.archive.ubuntu.com/ubuntu bionic-updates/multiverse amd64 virtualbox-dkms all 5.2.42-dfs
g-0~ubuntu1.18.04.1 [664 kB]
Get:5 http://in.archive.ubuntu.com/ubuntu bionic-updates/multiverse amd64 virtualbox amd64 5.2.42-dfsg-0
~ubuntu1.18.04.1 [17.3 MB]
Get:6 http://in.archive.ubuntu.com/ubuntu bionic-updates/multiverse amd64 virtualbox-qt amd64 5.2.42-dfs
g-0~ubuntu1.18.04.1 [8,603 kB]
Fetched 27.0 MB in 14s (1,947 kB/s)
(Reading database ... 149100 files and directories currently installed.)
Removing virtualbox-6.1 (6.1.12-139181-Ubuntu-bionic) ...
Selecting previously unselected package dkms.
```



Result:

Hence , kvm has been installed and configured successfully.