ORACLE

Manage KVM Virtual Machines with Virt-Manager on OCI

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Sharath Kumar
EMEA Senior Cloud Specialist Engineer

What is Virt-manager?

Virt-manager, short for Virtual Machine Manager, is a graphical user interface application used for managing virtual machines through libvirt. To put this in other words, Virt-manager is a graphical front-end for libvirt

Even though it is mainly created for KVM guests, it also can manage XEN and LXC containers as well. It has an embedded VNC and SPICE client viewer application to view the full screen console of a running VM.

The virt-manager application is useful for managing KVM guests hosted in Linux systems that have graphical desktop environments.

Virtual Machine Manager allows the users to:

- create, edit, start, suspend, resume and stop VMs,
- view and control each VM's console,
- view all running VMs and hosts,
- view the performance and utilization statistics of each VM,
- view the live performance and resource utilization statistics of VMs and hosts,
- manage KVM, Xen or QEMU virtual machines, running either locally or remotely,
- manage LXC containers etc.

Install Virt-Manager in Linux

Assume already have installed KVM on your Linux system. If you haven't installed it. Refer the following guides:

On Oracle Linux , RHEL, CentOS, :

$ **sudo dnf install virt-manager**

Start and enable libvirtd service

Make sure libvirtd service is enabled and running using command:

$ **sudo systemctl status libvirtd**

If it is not started, run the following commands to enable and start libvirtd service:

$ **sudo systemctl enable libvirtd**

$ **sudo systemctl start libvirtd**

Add user to libvirt group

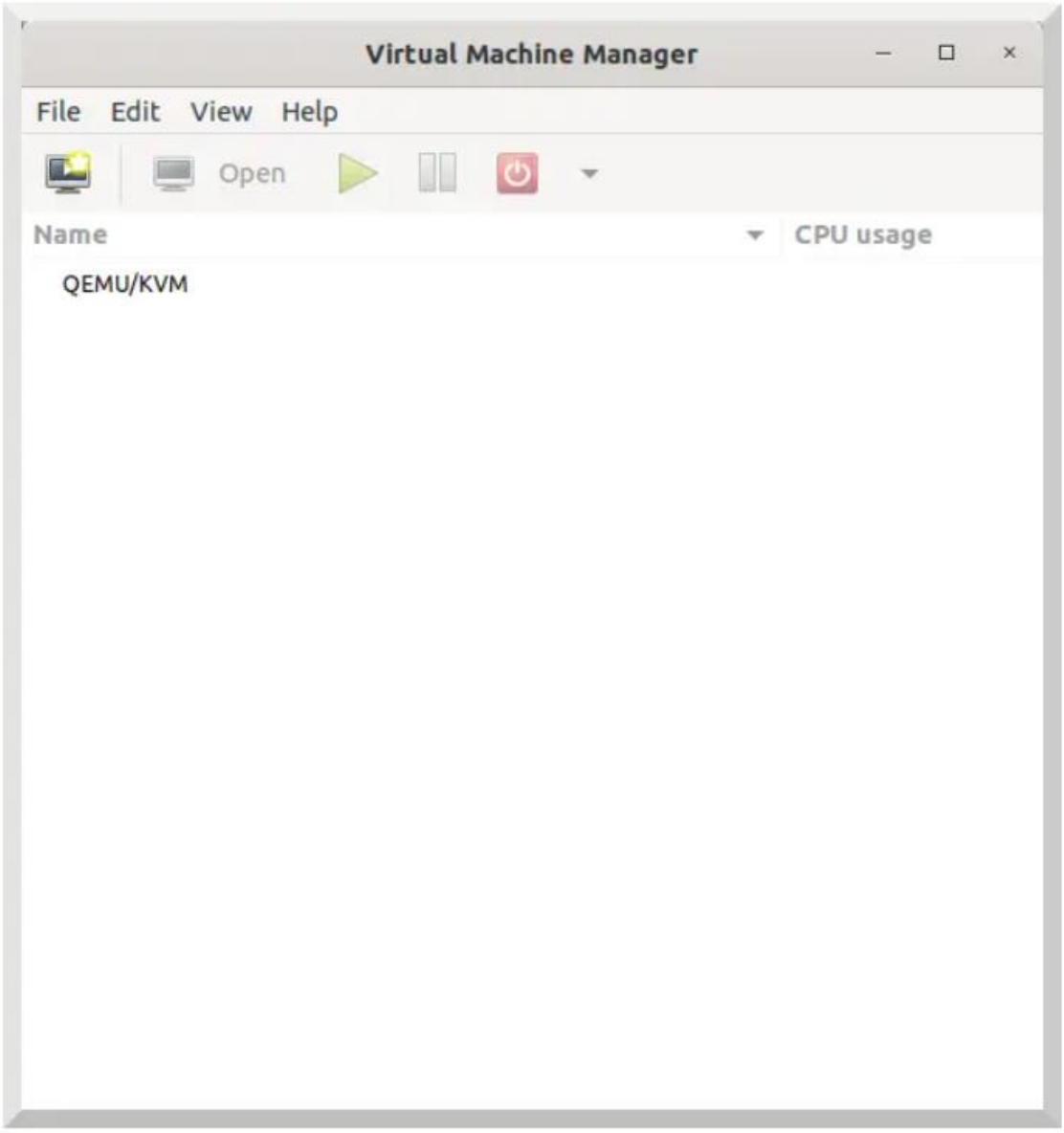
Every time you launch Virt-manager, you will be asked to enter the sudo password of your user. To avoid this, add your user to the libvirt group using command:

$ sudo usermod -a -G libvirt $(whoami)

Log out and log back in to apply the changes.

Manage KVM Virtual Machines with Virt-Manager

Once Virt-manager is installed, launch it from Dash or menu. The default interface of Virt-manager should look like below:



Create a new virtual machine

Go to File -> **New Virtual Machine** from Virt-manager main window. Choose how would you like to install the guest OS.

You will be given four choices as listed below:

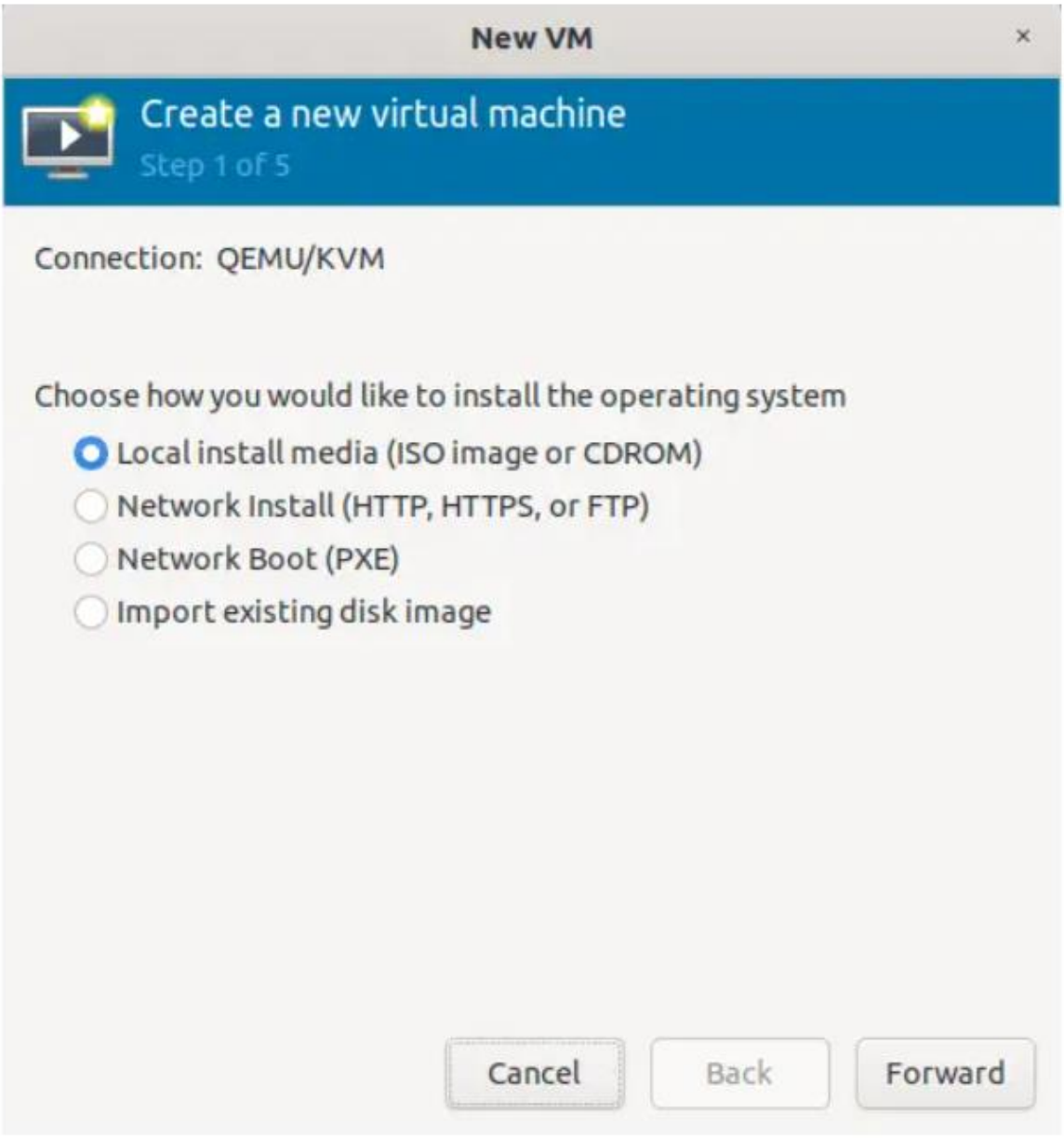
Local install media (e.g. ISO or CDROM),

Network install such as HTTP, HTTPS, or FTP,

Network Boot (e.g., PXE),

Import existing disk image.

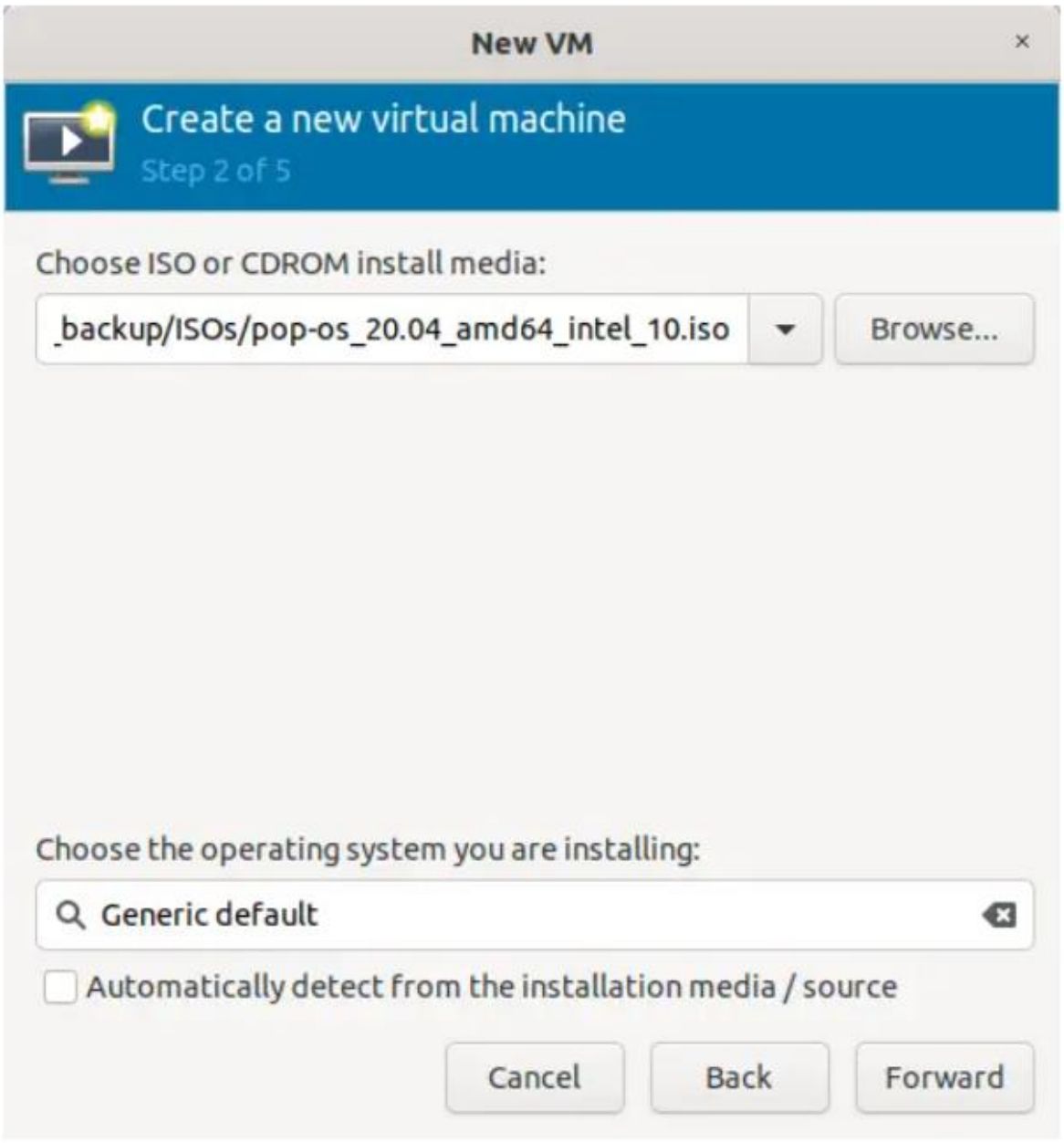
We go with "Local install media" option. Click Forward to continue:



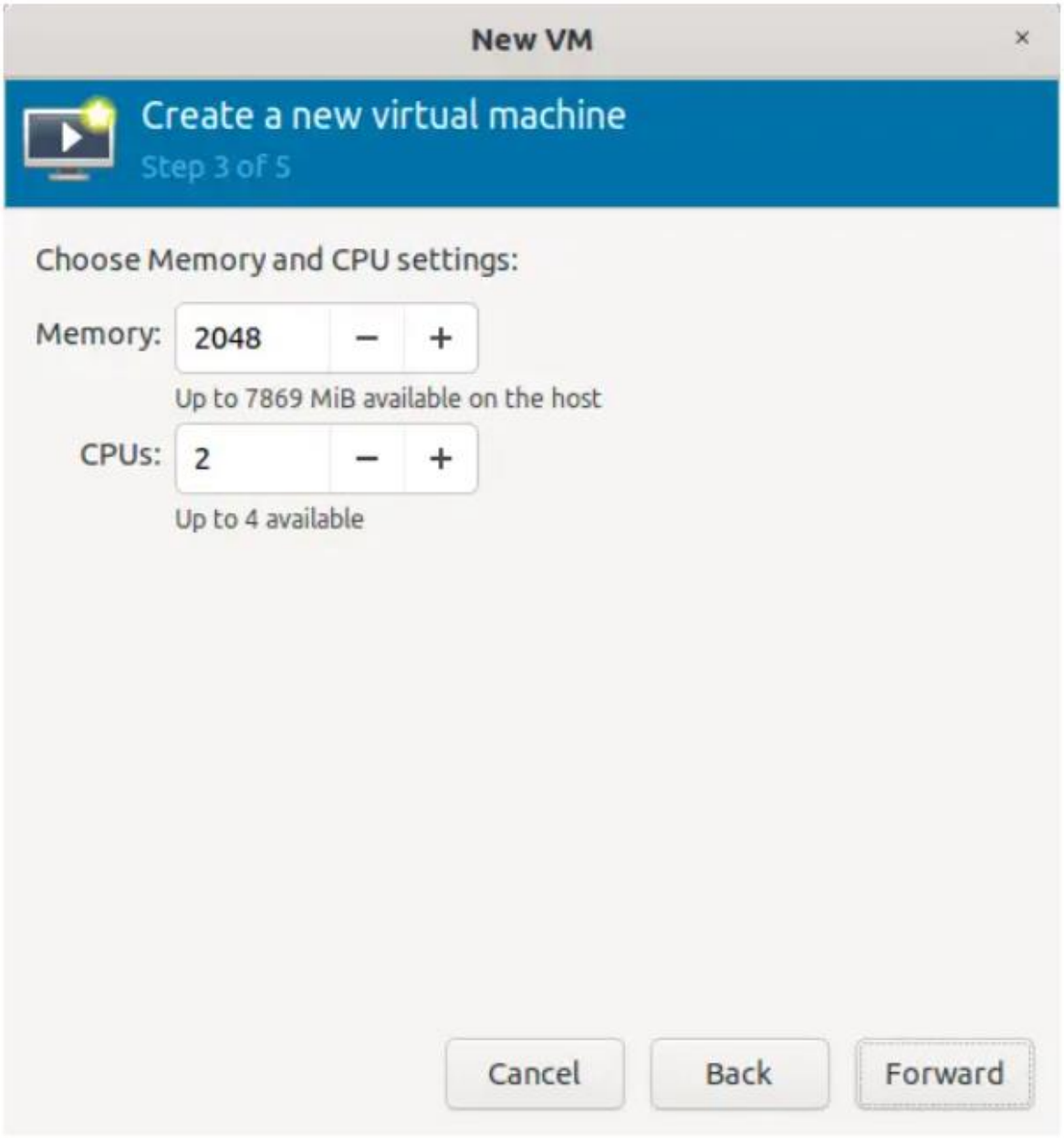
Choose the ISO file location of the OS. If you have the physical CD/DVD medium, choose it instead. You operating system type will automatically be selected depending on the installation medium you choose.

If Virt-manager can't detect the OS type, uncheck the option that says, "**Automatically detect from the installation media / source**" and select "Generic default" as your OS type.

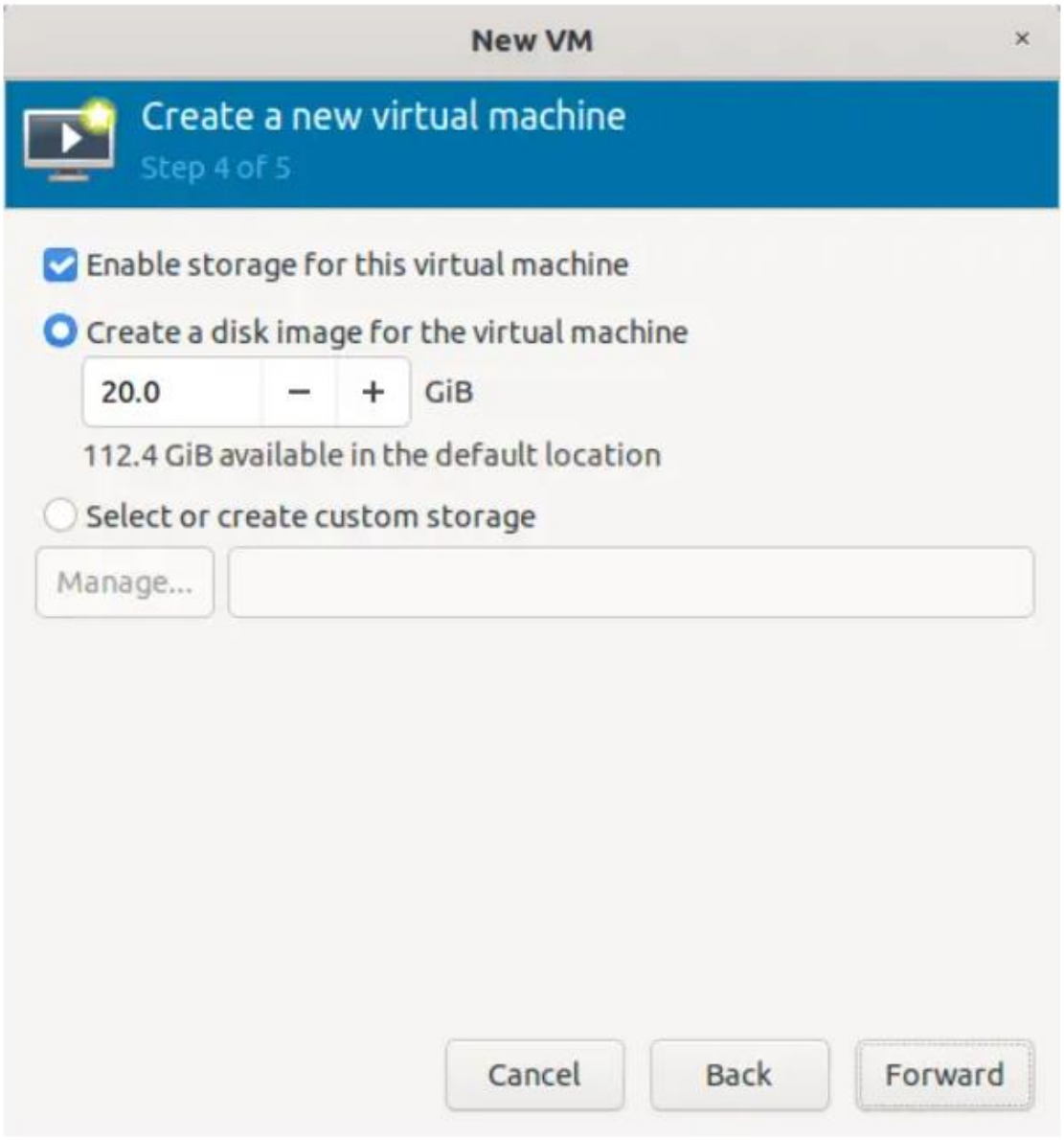
Here, we have selected POP_OS! 20.04 ISO file, but Virt-manager could not detect the OS type, so we chose Generic default.



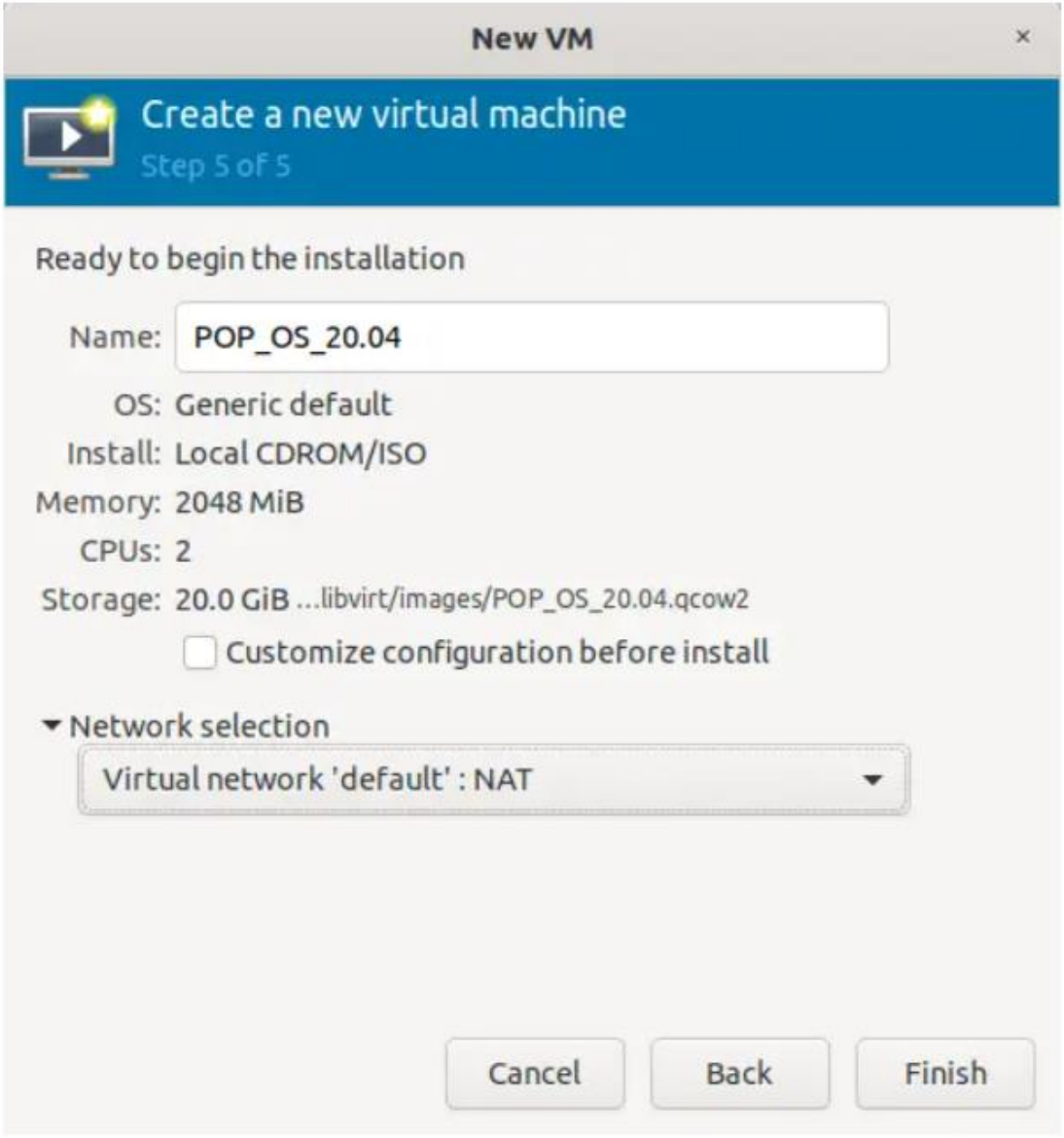
Choose memory size and number of cores for virtual CPU:



Choose the disk size for the Kvm guest:



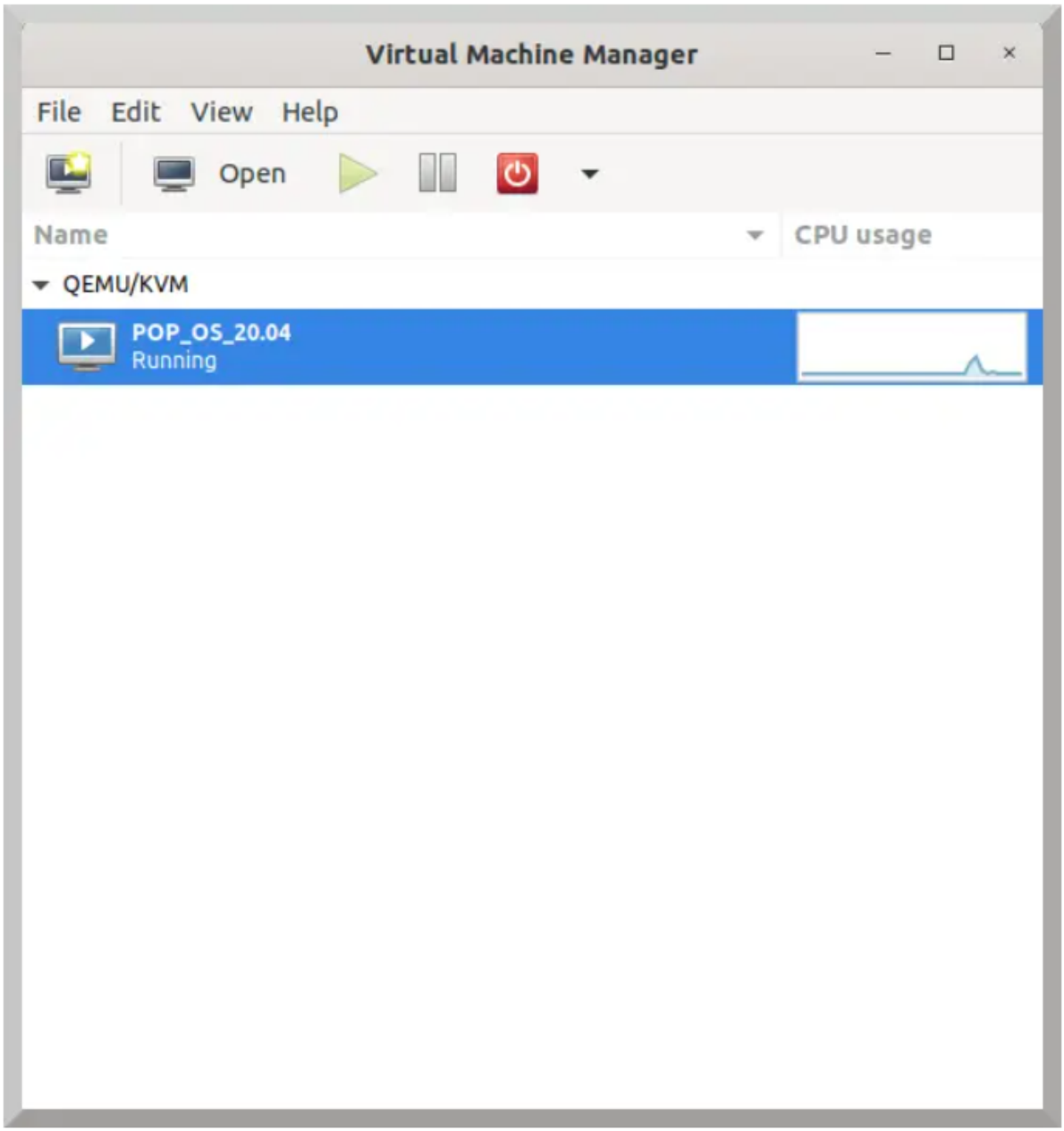
Enter the name for your Kvm guest. The name should not contain any blank spaces. Click Finish to create the virtual machine.



Once the Virtual machine is created, you will be automatically taken to the virtual machine's graphical console window.

View all running kvm guests and their resource usage

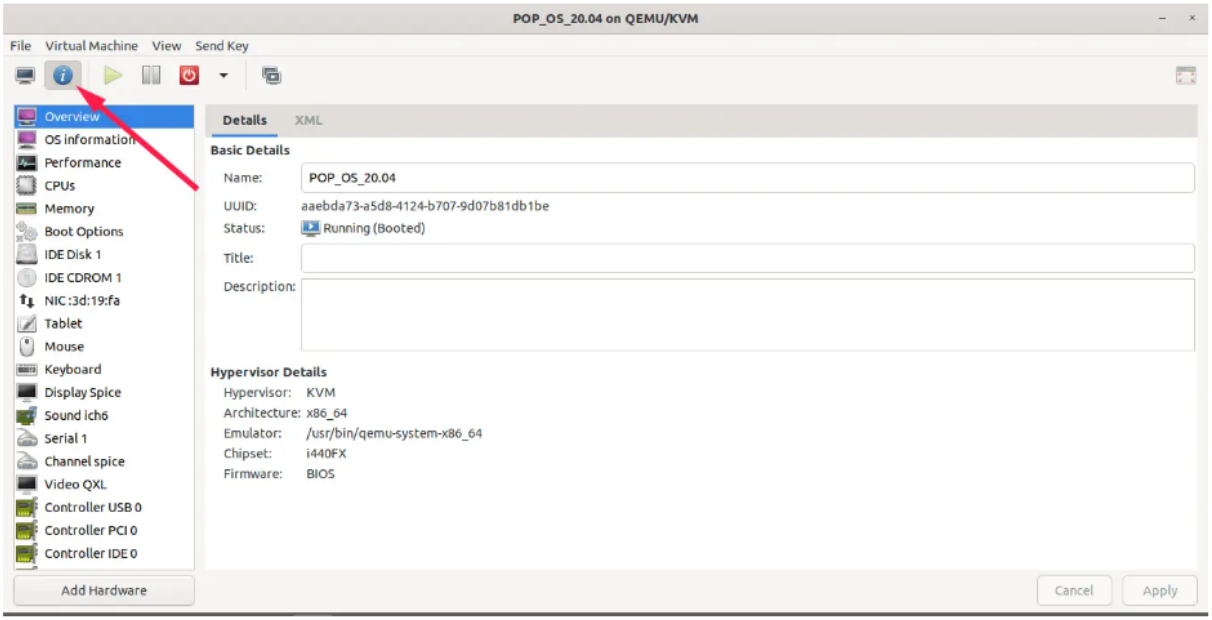
The Virt-manager main window shows all running kvm guests and resource utilization by the guests.



From here, you can start, pause, save the current state of a VM, restart and shutdown VMs.

View Kvm virtual machine details:

The virtual hardware details window shows the information about all hardware resources configured to the kvm guest.



In this window, you can,

- view running guest OS details,
- view the Hypervisor details,
- view guest operating system's type,
- view resource utilization by CPU, memory, disk and network,
- view number of vCPUs,
- view allocated memory size,
- view boot options,
- view virtual disk and cdrom details,
- view network settings,
- view keyboard and mouse settings,
- view display card details,
- view sound card details,
- view information of all other hardware attached to the guest machine,
- add a new virtual hardware,
- modify the parameters of a virtual hardware, remove virtual hardware etc.

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