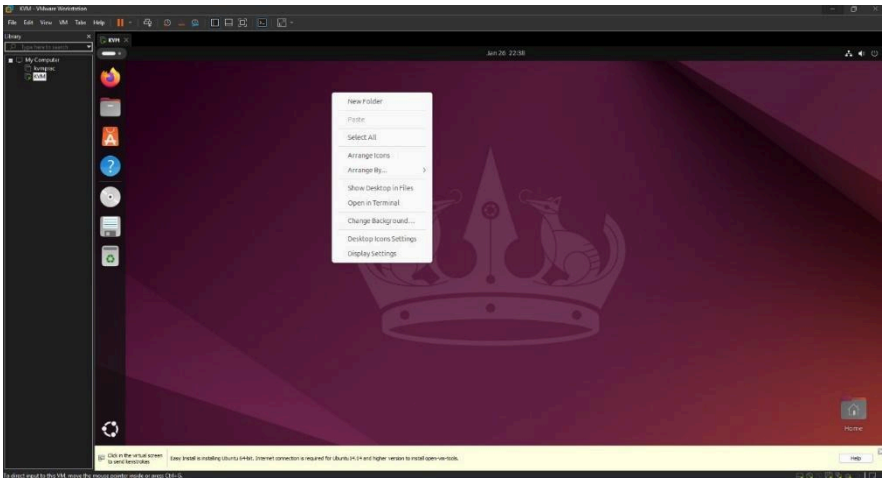
II) KVM Setup Steps: Open Terminal



1. Update the System

sudo apt update && sudo apt upgrade -y

2. Check if Virtualization is Enabled:
sudo grep -c "svm\|vmx" /proc/cpuinfo

3. Verify KVM Virtualization

Check if KVM virtualization is enabled by running command:
kvm-ok

If the kvm-ok command is not found, install the CPU checker tool:

sudo apt install cpu-checker

then type kvm-ok

Output should include:

INFO: /dev/kvm exists

KVM acceleration can be used.

4. Install KVM and Required Packages

sudo apt install qemu-kvm virt-manager libvirt-daemon-system libvirt-clients bridge-utils -y

5. Enable the Virtualization Daemon

Start and enable the libvirt daemon:

sudo systemctl enable libvirtd

sudo systemctl start libvirtd

6. Check the Status of the Libvirt Daemon

Verify that the daemon is running:

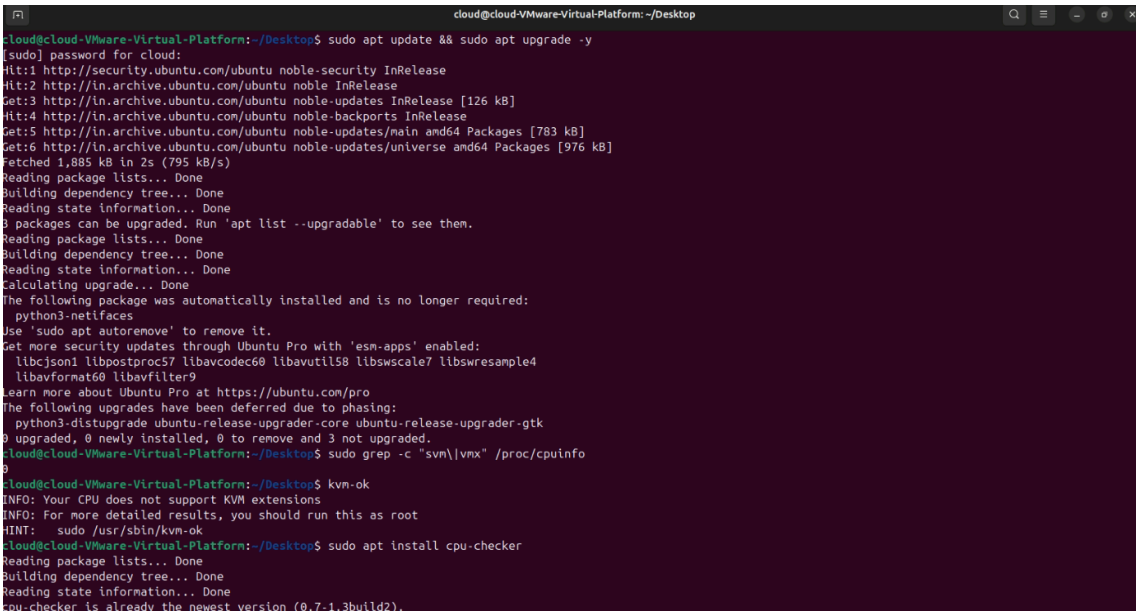
sudo systemctl status libvirtd

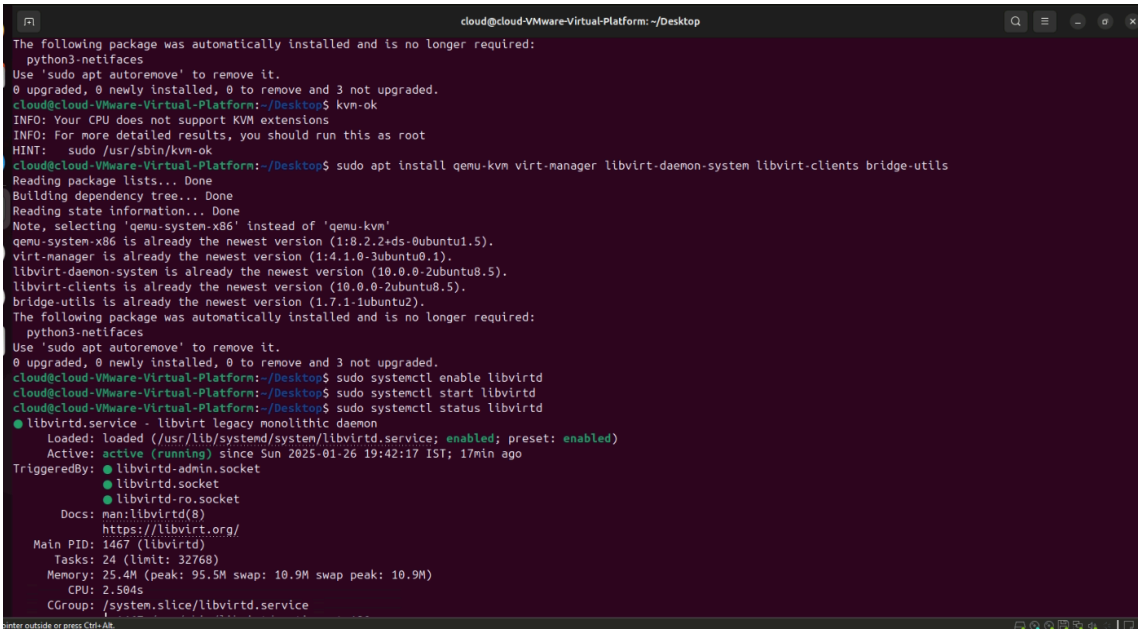
7. Add Your User to KVM and Libvirt Groups

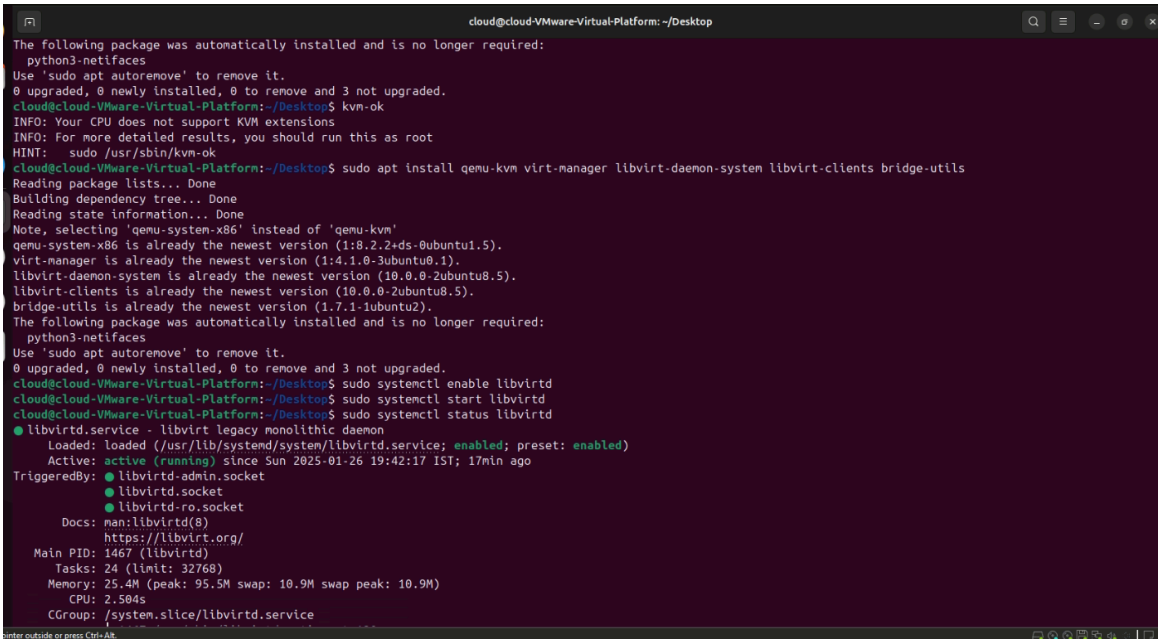
Replace your-username with your actual username and run the following commands:

sudo usermod -aG kvm your-username

sudo usermod -aG libvirt your-username







8. Log Out and Re-login

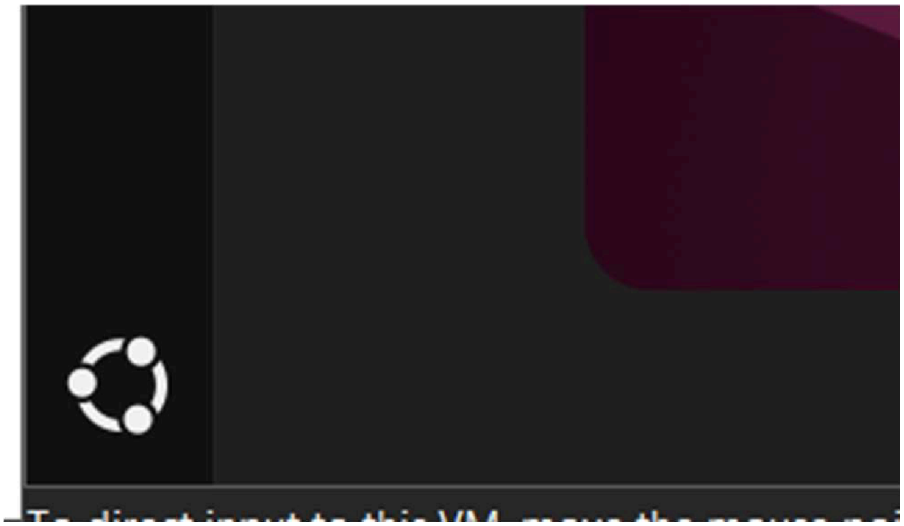
Log out from your system and log back in to apply group changes.

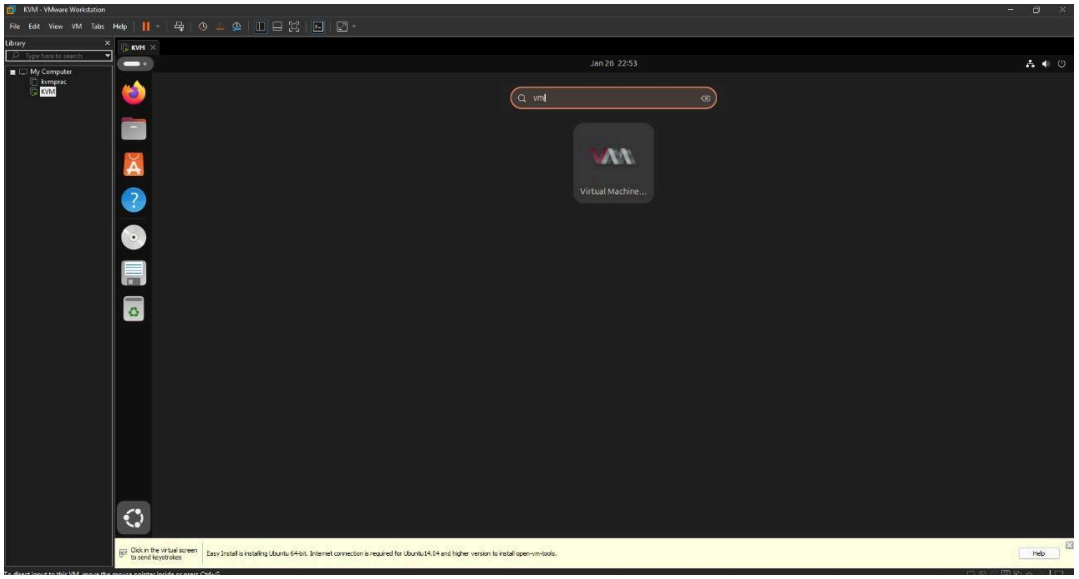
9. Run KVM Virtual Machine Manager

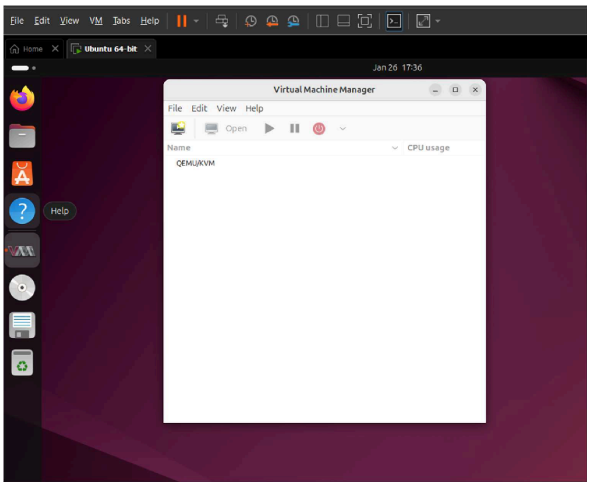
Search for "Virtual Machine Manager" in your system applications and launch it.

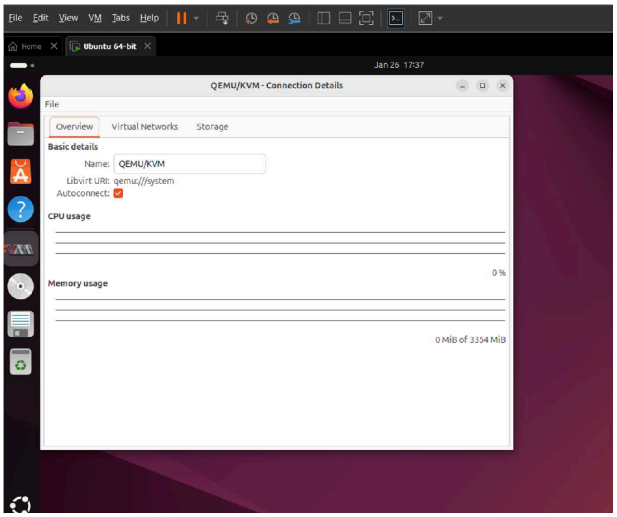
10. Prepare to Create Virtual Machines

In Virtual Machine Manager, click Create a New Virtual Machine to begin setting up virtual environments.

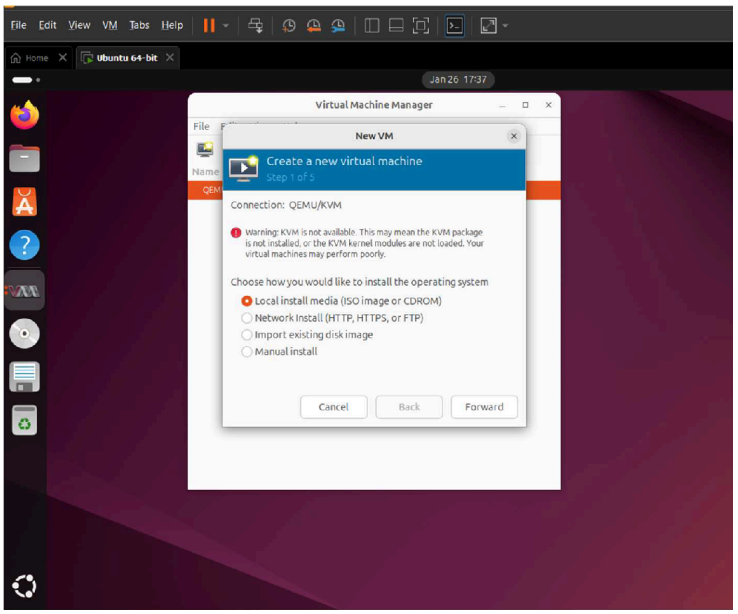



KVM - VMware Workstation
File Edit View VM Tabs Help
Library
My Computer
kvmprac
KVM
KVM
Jan 26 22:53
vmi
Virtual Machine...
Click in the virtual screen to send keystrokes
Easy Install is installing Ubuntu 64-bit. Internet connection is required for Ubuntu 14.04 and higher version to install open-vm-tools.
Help

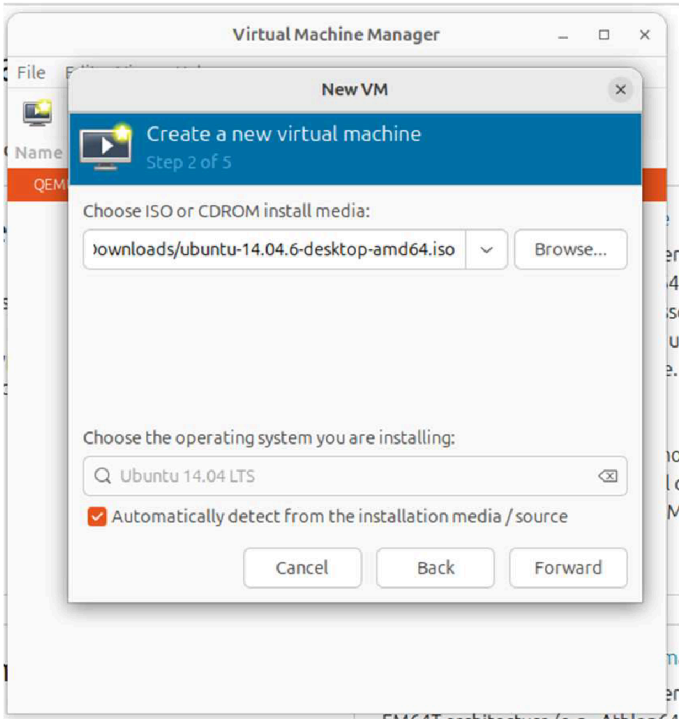

File Edit View VM Tabs Help
Home
Ubuntu 64-bit
Jan 26 17:36
Virtual Machine Manager
File Edit View Help
Open
Name
CPU usage
QEMU/KVM
Help


File Edit View VM Tabs Help
Home
Ubuntu 64-bit
Jan 26 17:37
QEMU/KVM - Connection Details
File
Overview
Virtual Networks
Storage
Basic details
Name: QEMU/KVM
Libvirt URI: qemu:///system
Autoconnect:
CPU usage
0 %
Memory usage
0 MiB of 3354 MiB

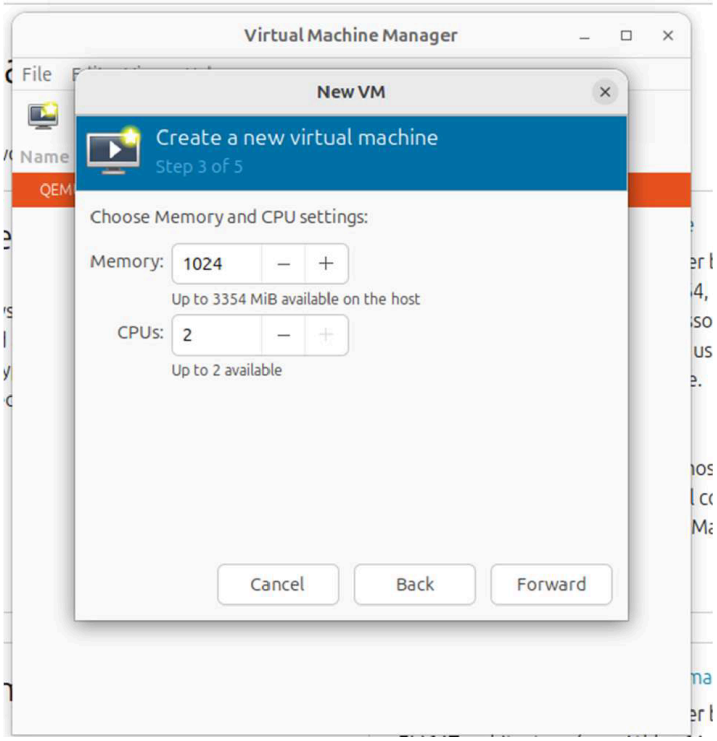
Now we can create new virtual machine from File>Create New Virtual Machine



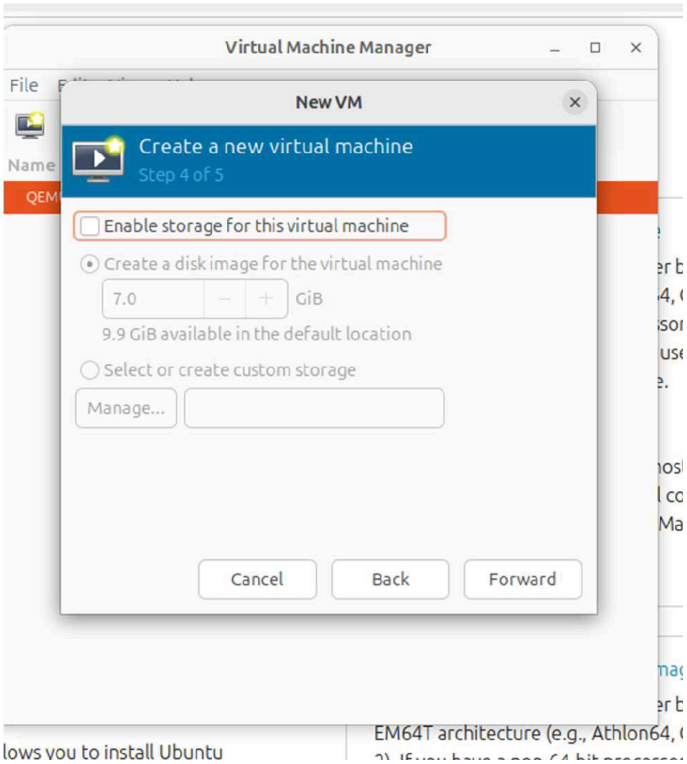
Then ,Select the os to install (eg/:windows, ubuntu etc)

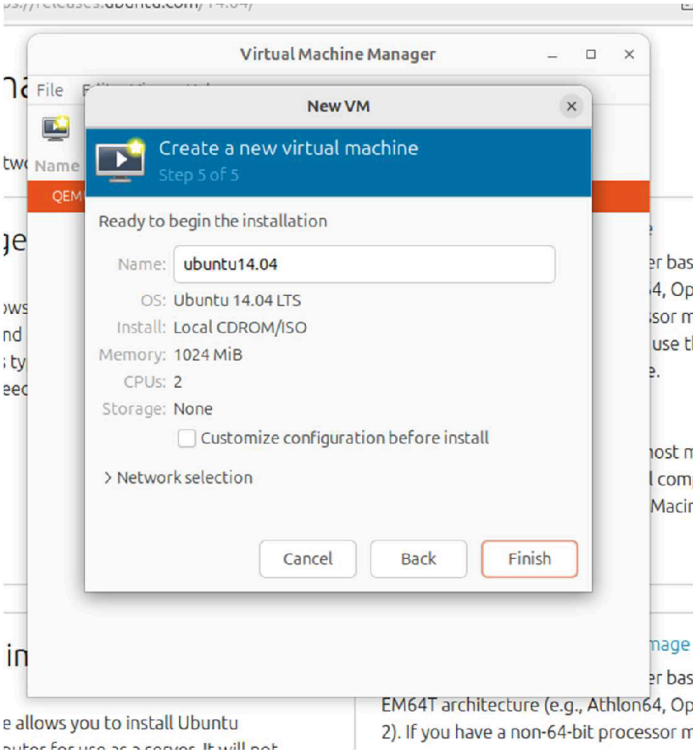


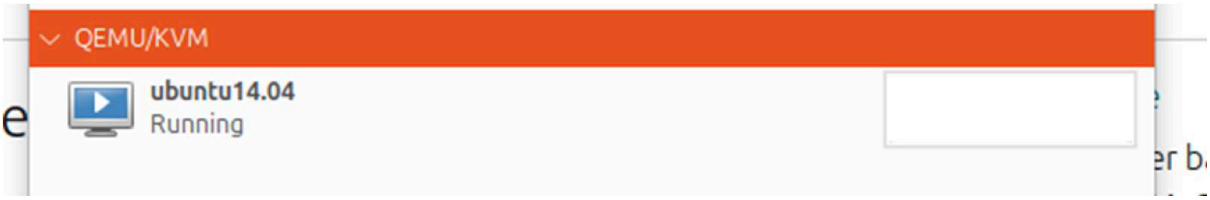
Then

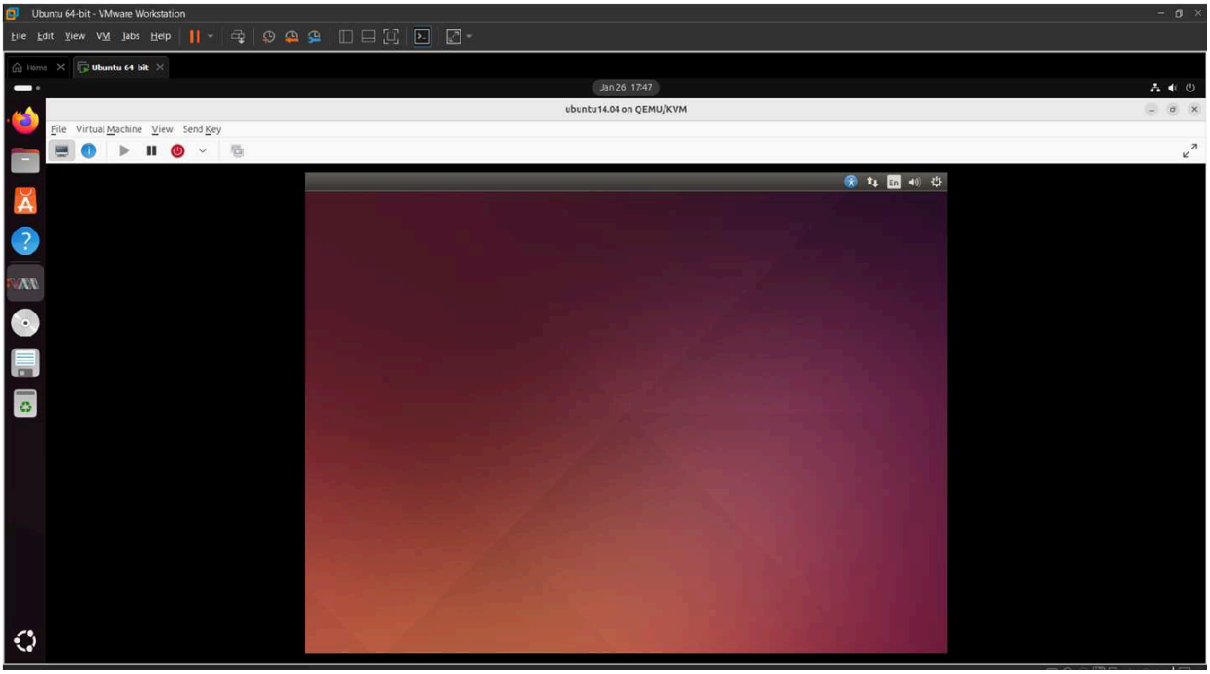

Virtual Machine Manager
File
Name
QEM
New VM
Create a new virtual machine
Step 3 of 5
Choose Memory and CPU settings:
Memory:
1024
Up to 3354 MiB available on the host
CPUs:
2
Up to 2 available
Cancel
Back
Forward

Then


Virtual Machine Manager
File
Name
QEM
New VM
Create a new virtual machine
Step 4 of 5
Enable storage for this virtual machine
Create a disk image for the virtual machine
7.0
GiB
9.9 GiB available in the default location
Select or create custom storage
Manage...
Cancel
Back
Forward
lows you to install Ubuntu
EM64T architecture (e.g., Athlon64,


Virtual Machine Manager
File
New VM
Create a new virtual machine
Step 5 of 5
Ready to begin the installation
Name: ubuntu14.04
OS: Ubuntu 14.04 LTS
Install: Local CDROM/ISO
Memory: 1024 MiB
CPUs: 2
Storage: None
Customize configuration before install
Network selection
Cancel
Back
Finish


QEMU/KVM
ubuntu14.04
Running


Ubuntu 64-bit - VMware Workstation
File Edit View VM Tabs Help
Ubuntu 64 bit
Jan 26 17:47
ubuntu14.04 on QEMU/KVM
File Virtual Machine View Send Key