**Practical No : 2**

**Aim** : Installation and Configuration of Virtualization using KVM.

Theory :

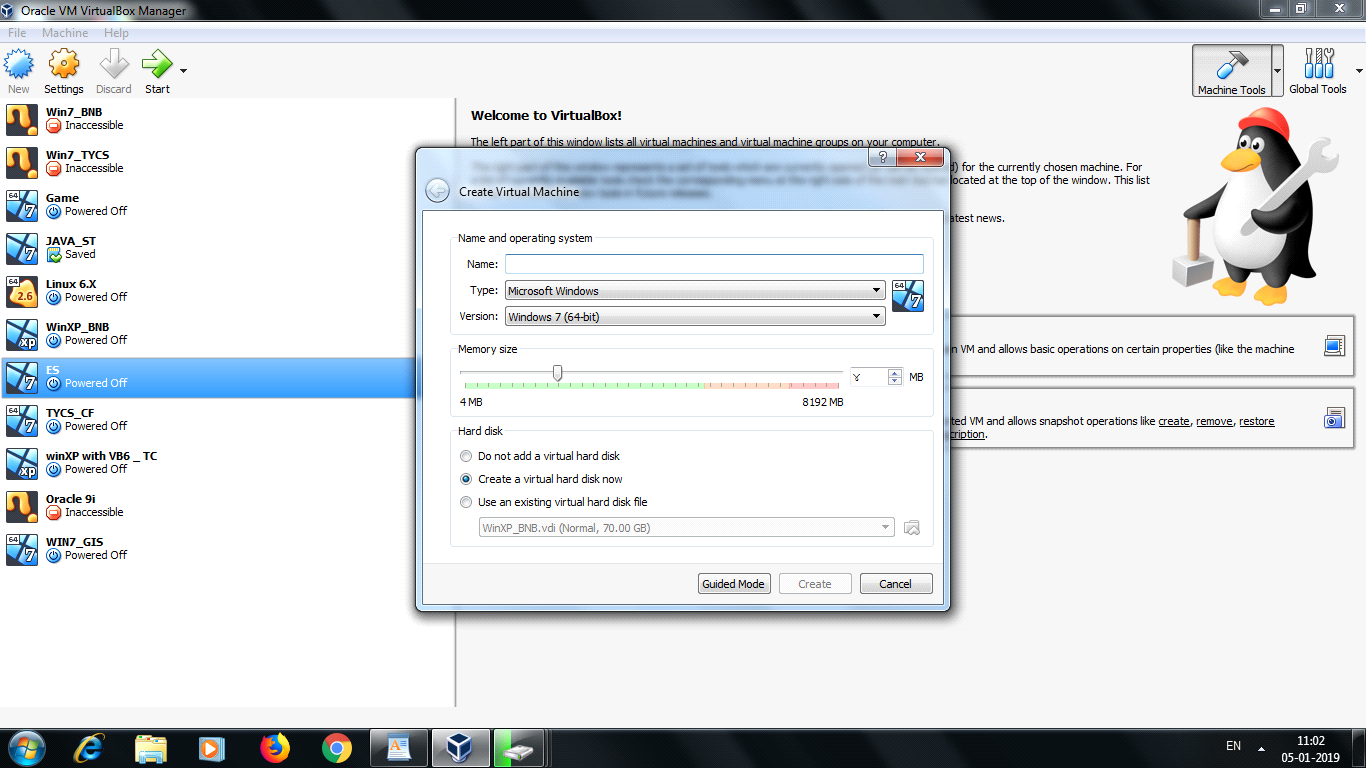
* KVM (for Kernel-based Virtual Machine) is a full virtualization solution for Linux on x86 hardware containing virtualization extensions (Intel VT or AMD-V). It consists of a loadable kernel module,.
* kvm. that provides the core virtualization infrastructure and a processor specific module, kvm-intel. or kvm-amd.
* Using KVM, one can run multiple virtual machines running unmodified Linux or Windows images. Each virtual machine has private virtualized hardware: a network card, disk, graphics adapter, etc.
* KVM is open source software. The kernel component of KVM is included in mainline Linux, as of 2.6.20. The user space component of KVM is included in mainline QEMU, as of 1.3.

Prerequisite: 1.Virtual Box/Virtual Machine

2. Ubuntu iso file

Steps: Installation of Ubuntu Virtual Box

Step 1:Start the virtualBox and Click on New



Step 2: Now Give the name as Cloud\_Computing

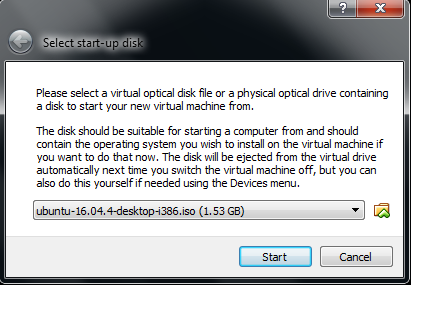
Select type Linux

Version Ubuntu(32bit)/Ubuntu64(bit)

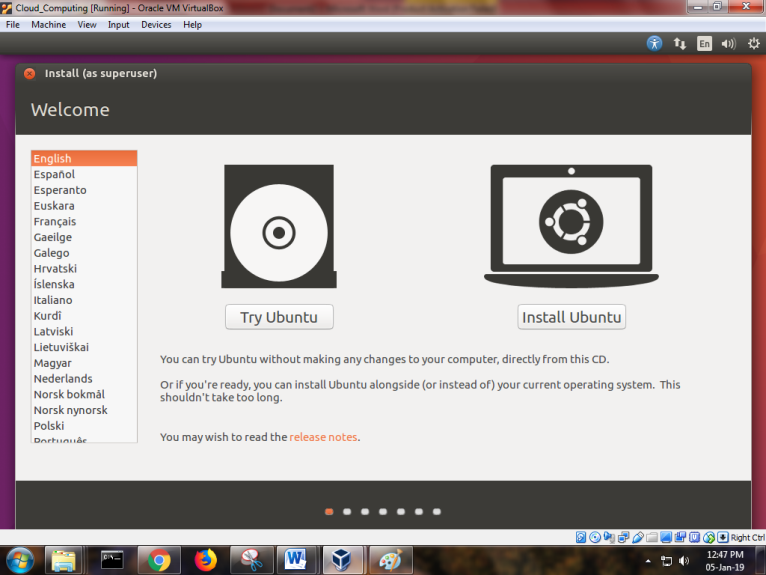
And Select Virtual HardDisk

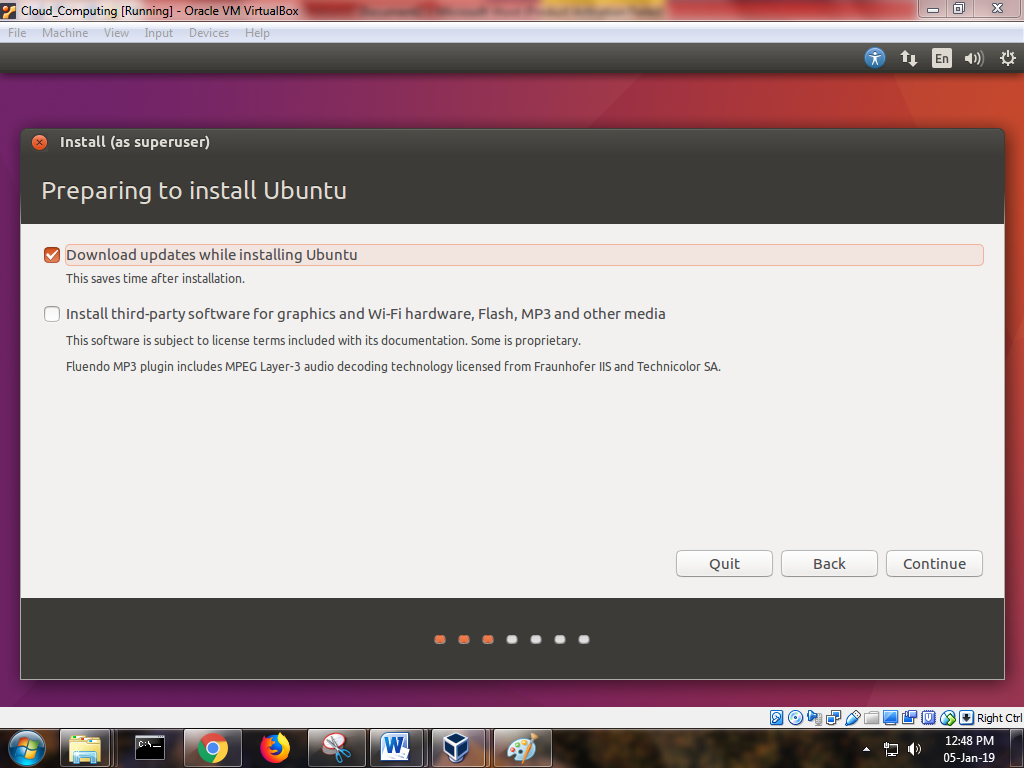
And Click on Create button

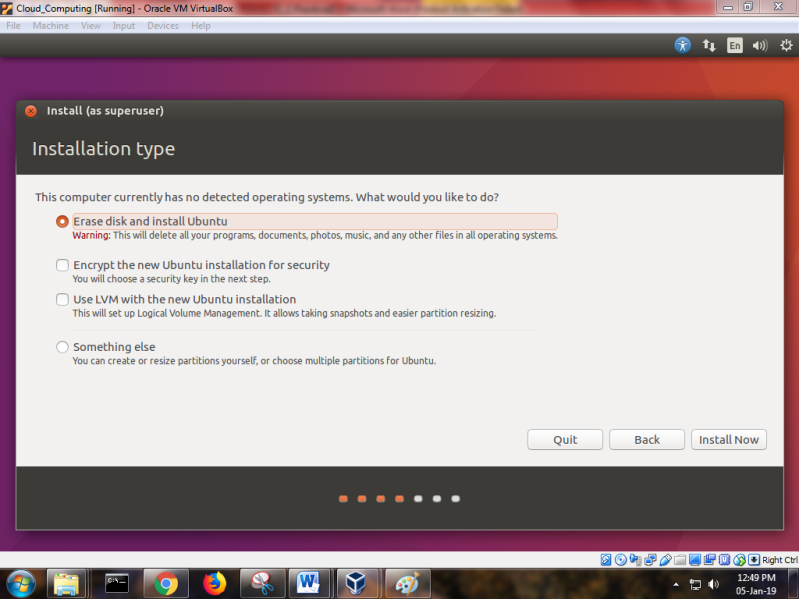
Step 3: Now start the Virual Machine and Select the Ubuntu iso file and click on start

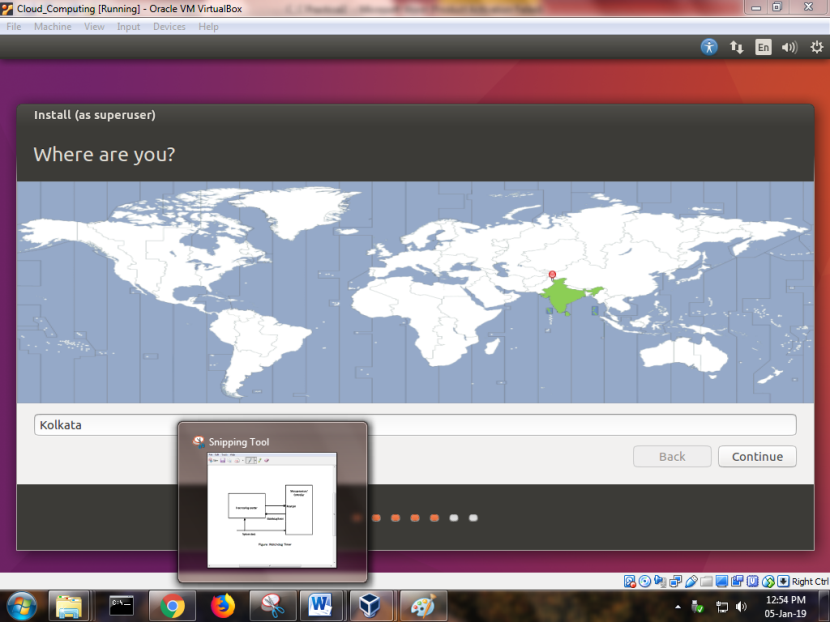


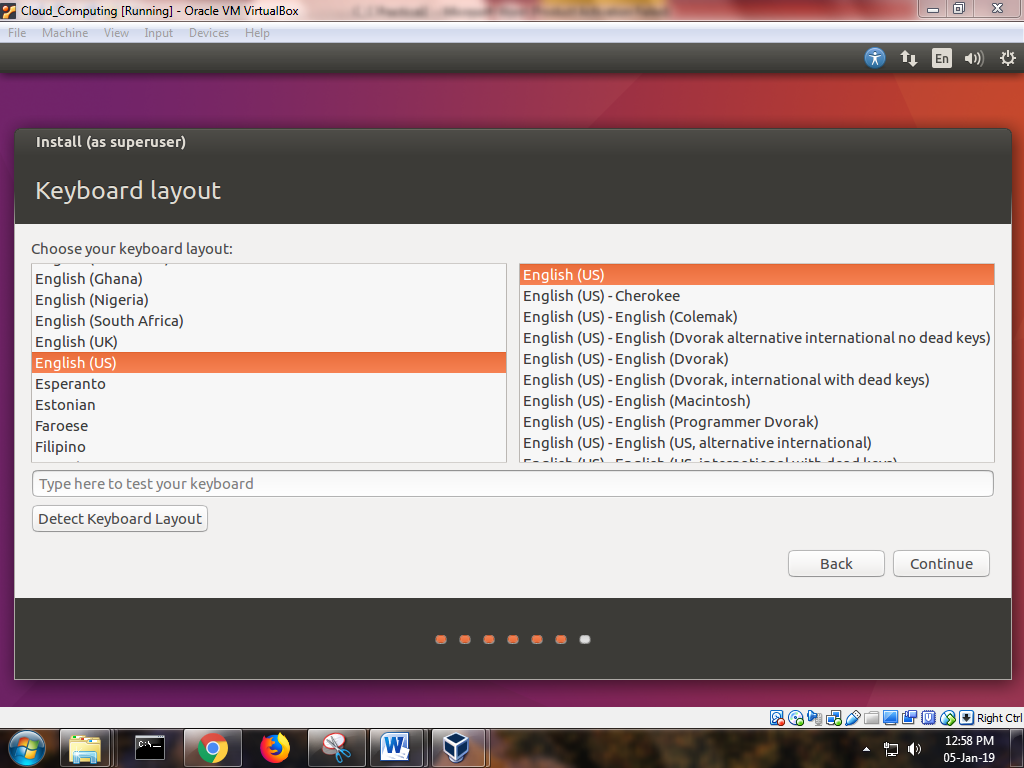
Now see the below ScreenShots for installation

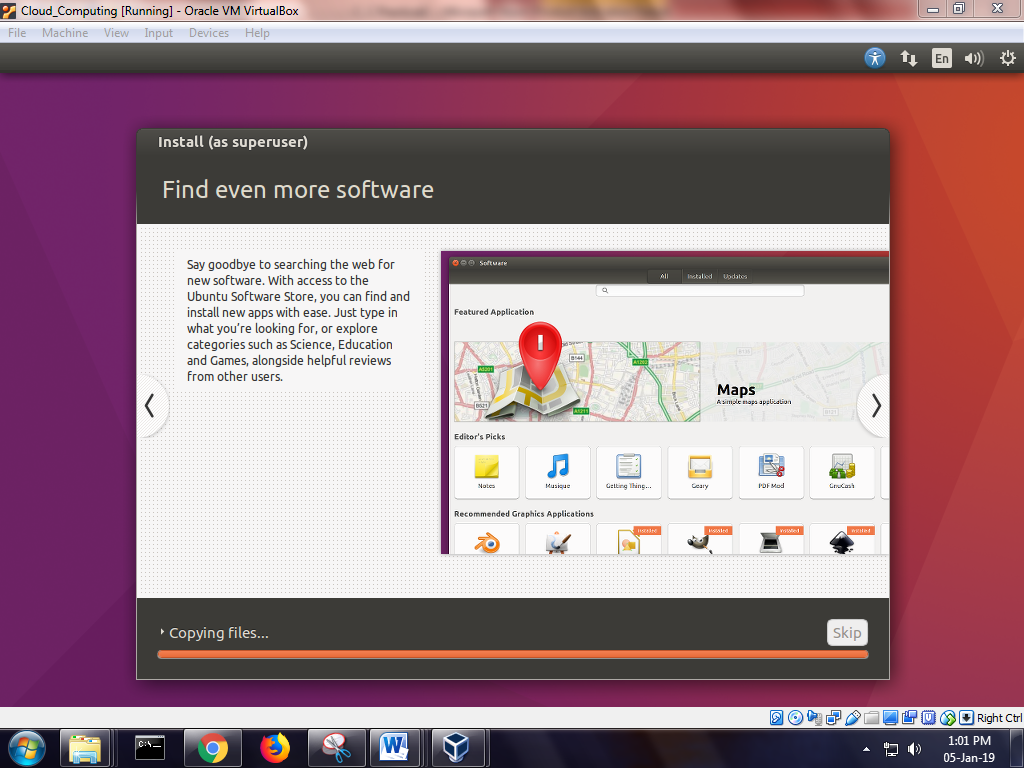


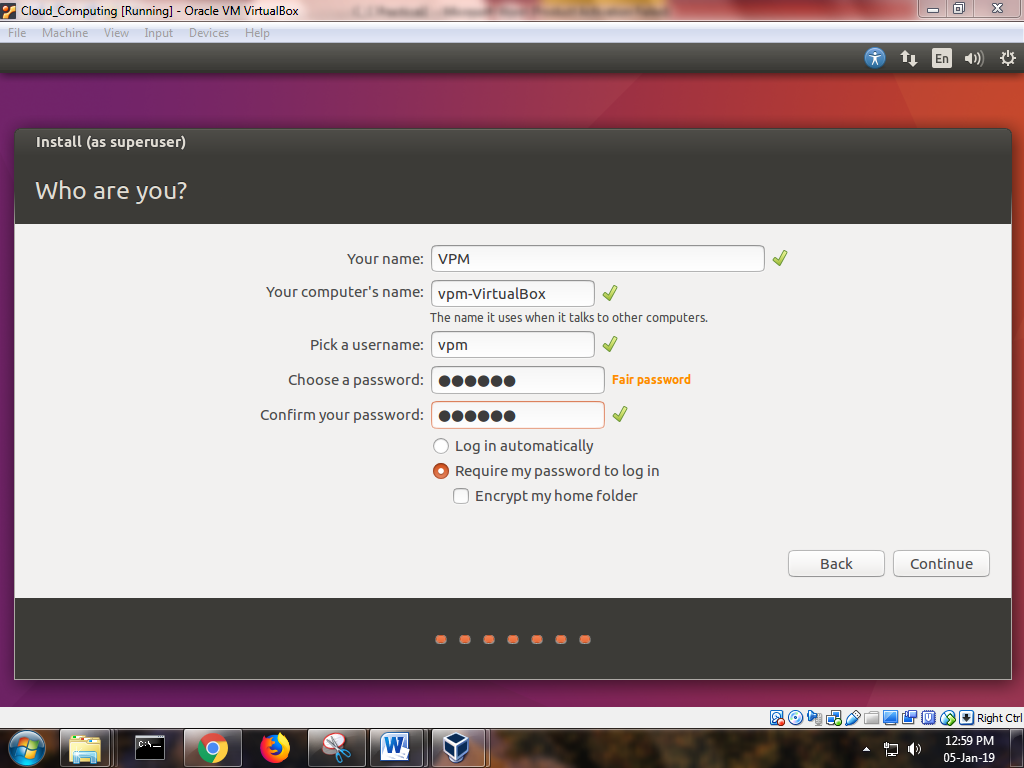


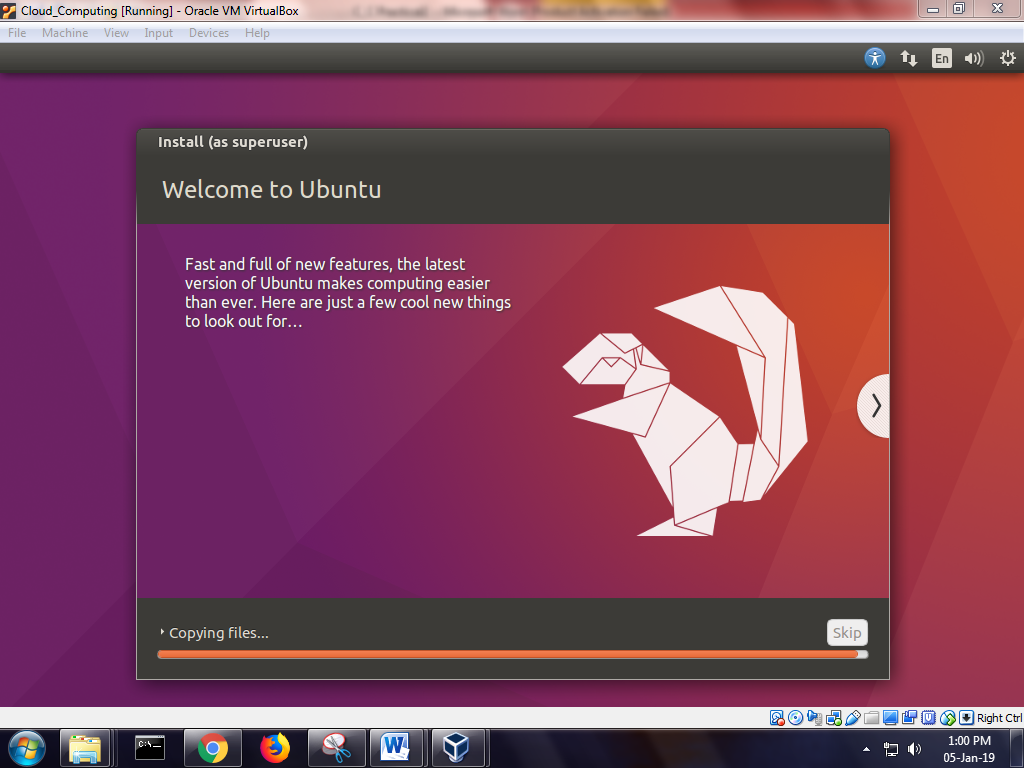


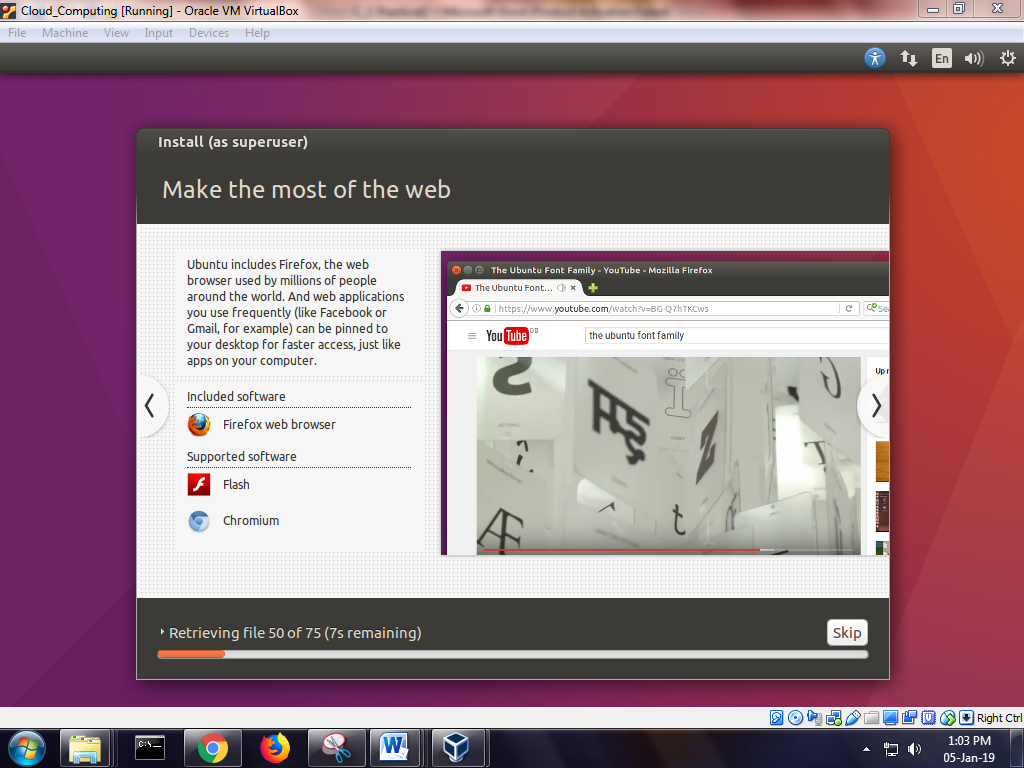


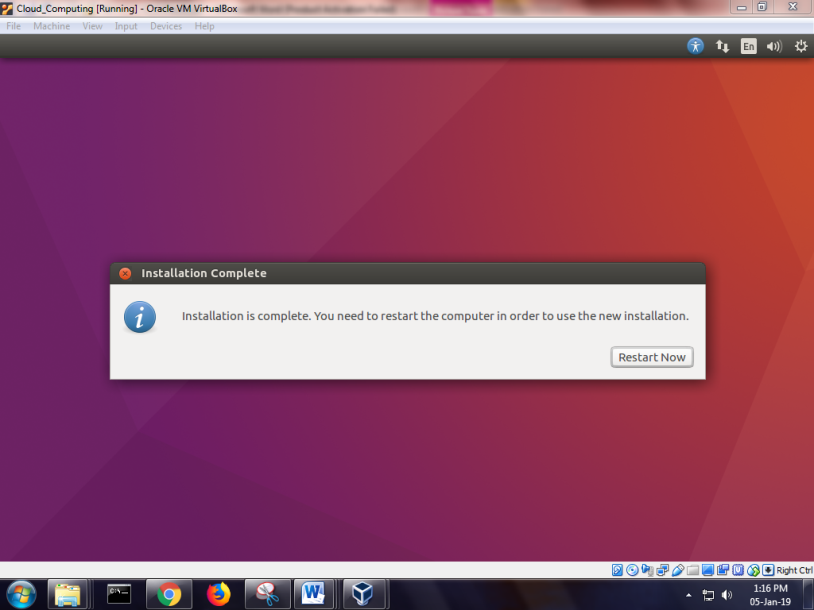






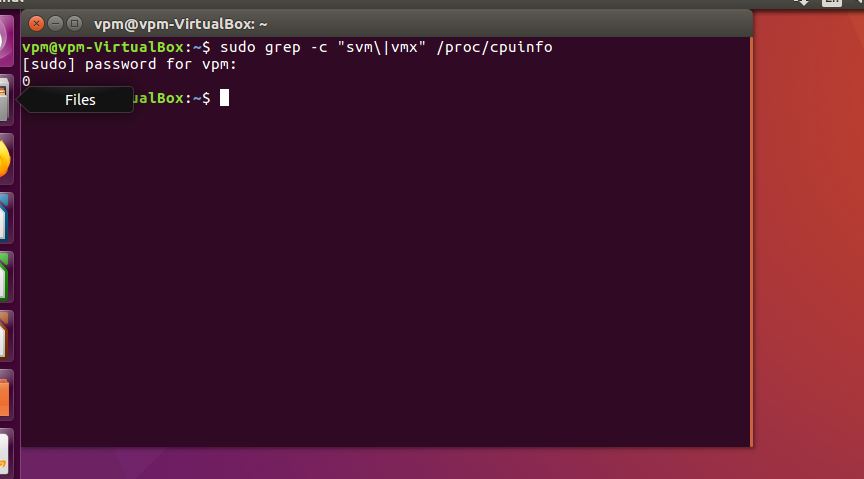




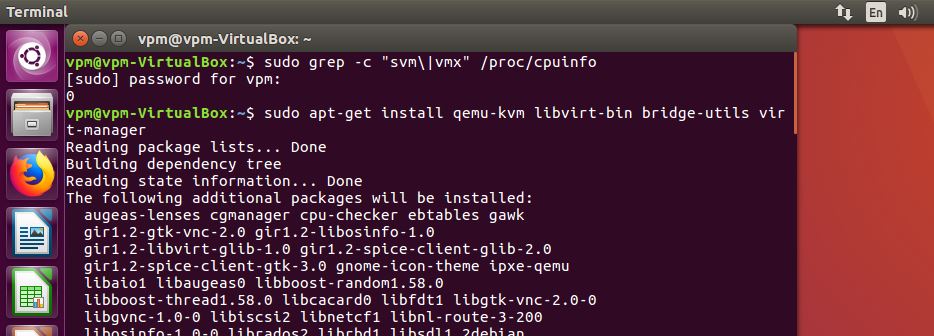


Step4 : Now open the terminal and perform the following command

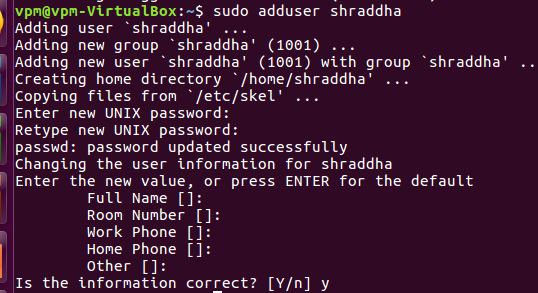
sudogrep -c "svm\|vmx" /proc/cpuinfo



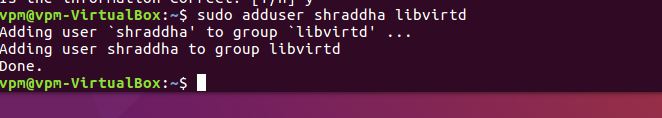
sudo apt-get install qemu-kvmlibvirt-bin bridge-utilsvirt-manager



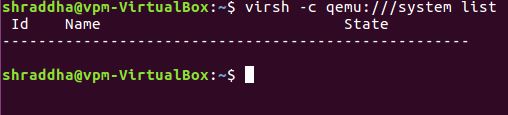
Sudo adduser shraddha



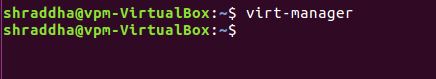
Sudo adduser shraddha libvirtd

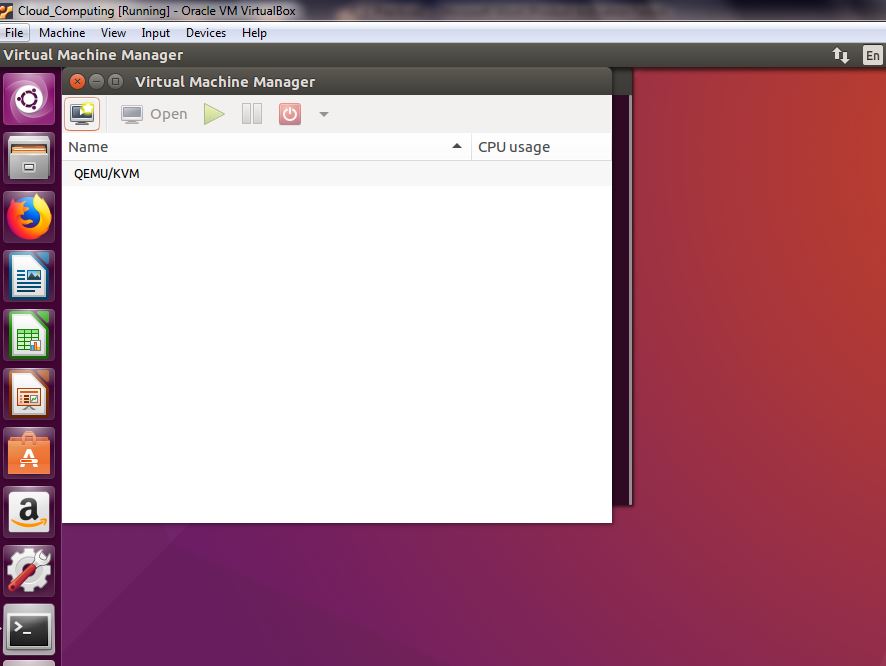


virsh -c qemu:///system list

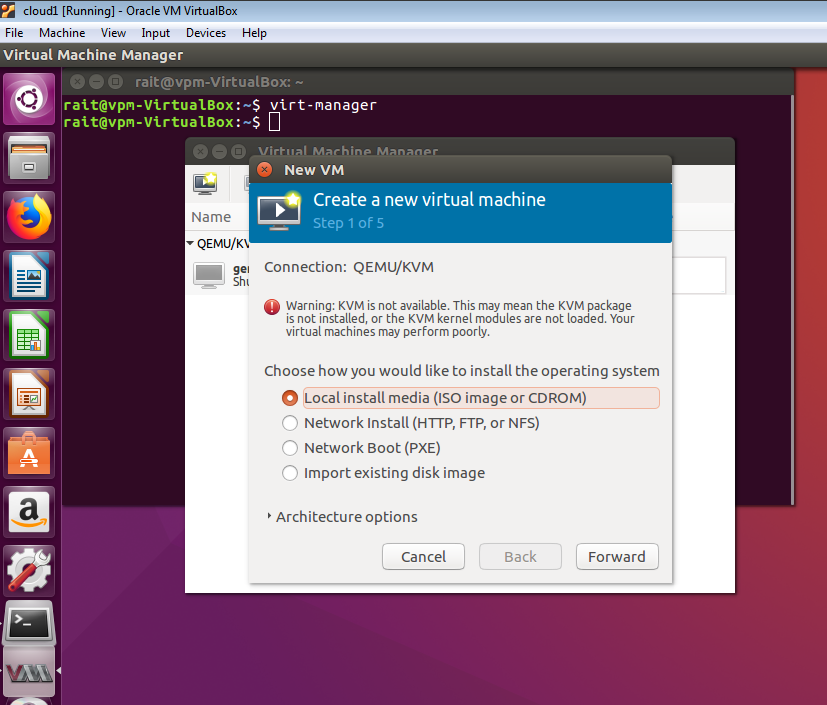


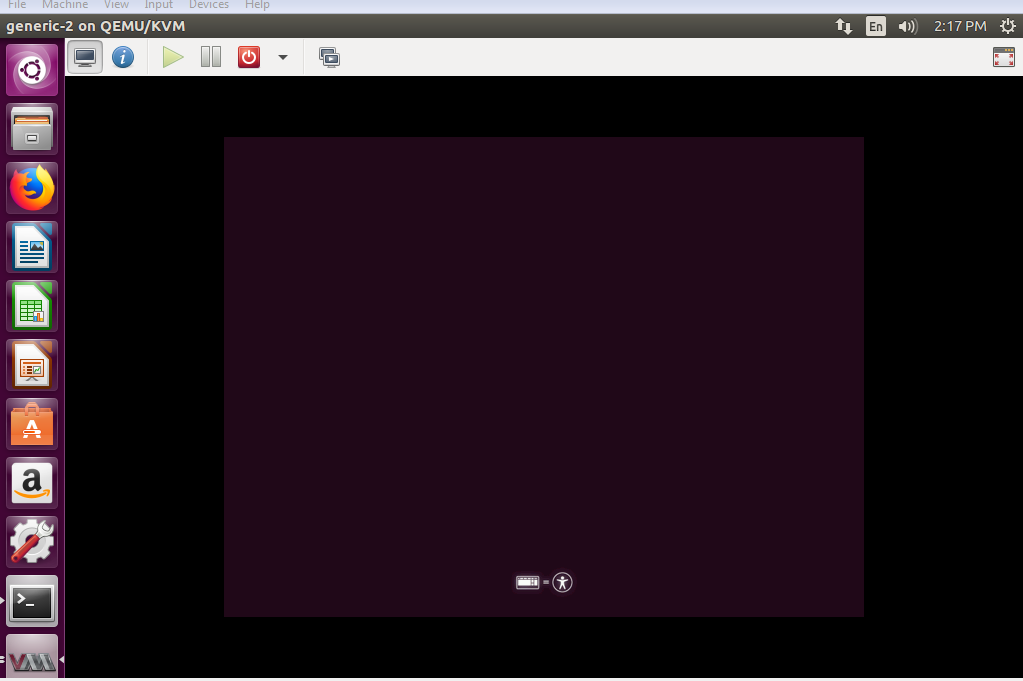
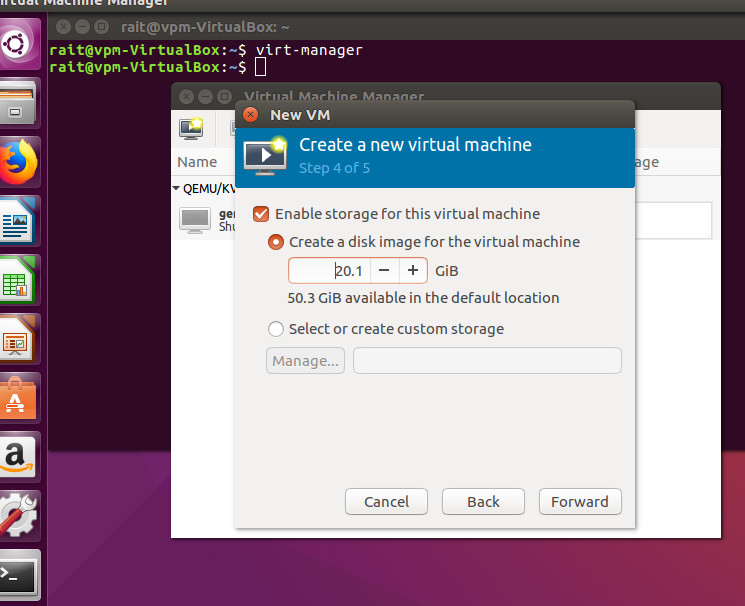
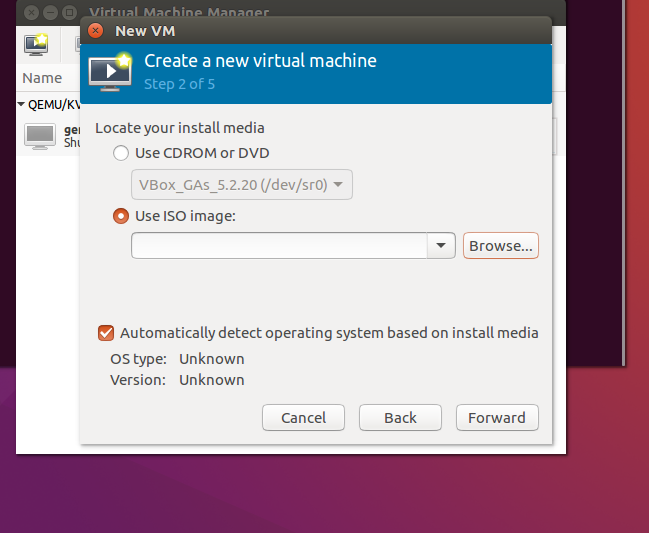
Virt-manager

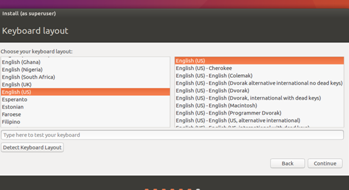




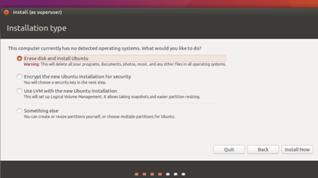
Click on new virtual machine in qemu and perform the following step

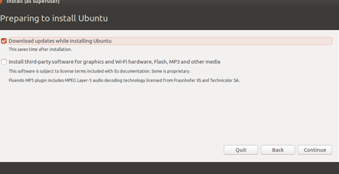




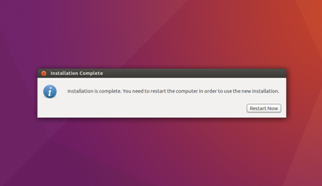












After that you will get final output

