

EX.NO:1

DATE:

CLOUD COMPUTING EXPERIMENTS

INSTALLATION OF VIRTUAL MACHINE.

AIM:

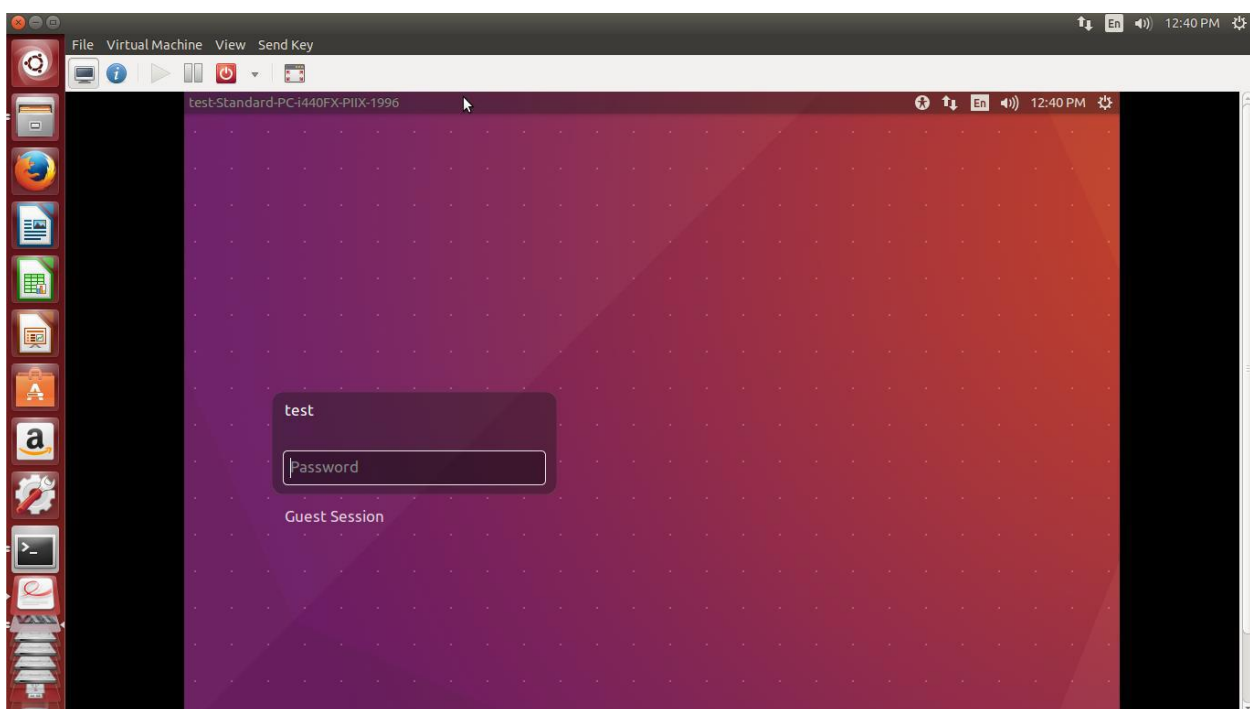
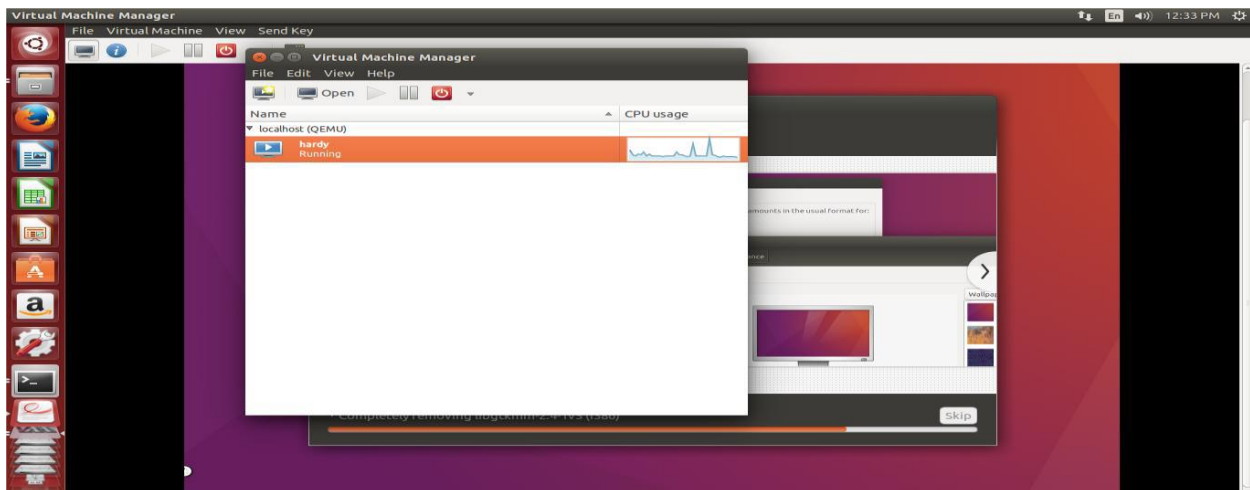
To find procedure to run the virtual machine of different configuration. Check how many virtual machines can be utilized at particular time.

KVM:

In computing, virtualization refers to the act of creating a virtual (rather than actual) version of something, including virtual computer hardware platforms, operating systems, storage devices, and computer network resources. Kernel-based Virtual Machine (KVM) is a virtualization infrastructure for the Linux kernel that turns it into a hypervisor.

PROCEDURE :

```
$ lsb_release -a
$ uname -a
$ free -m
$ df -h
$ date
$ egrep -c
$ cat /proc/cpuinfo
$ top
$ sudo apt-cache search qemu_kvm
$ sudo apt-get update
$ sudo apt-get install qemu-kvm
$ sudo apt-get install libvirt-bin
$ sudo apt-get install bridge-utils
$ sudo apt-get install virt-manager
$ sudo apt-get install qemu-system
$ sudo nano /etc/libvirt/libvirtd.conf
    Remove # in listen_addr
    Add listen_addr="0.0.0.0"
    unix_sock_rw_perm="0777"
    Uncomment unix_sock_dir="/var/run/libvirt"
    ctrl x, press y and enter
$ sudo /etc/init.d/libvirt-bin status
$ virsh -c qemu:///system list
$ virsh
virh # node info
virh # list
virh # exit
$ virt-install --connect qemu:///system -n hardy -r 512 -f hardy1.qcow2 -s 12 -c ubuntu-14.04.2-server-
amd64.iso --vnc --noautoconsole --os-type linux --os-variant ubuntuHardy
$ sudo virt-manager
```



To install windows:

```
$ virt-install --name myWin7 --ram 512 --disk path=/tmp/win7.img, size=10 --network network:default --vnc --os-variant vista --cdrom windows.XP.Professional.SP3.July.2010.iso
```

OPEN STACK INSTALLATION

```
$ sudo adduser stack
$ sudo -i
$ echo "stack ALL=(ALL) NOPASSWD=ALL" >> /etc/sudoers
$ cat /etc/sudoers
$ exit
$ sudo apt-get install git sudo
$ exit
    logout-> login as stack user
```

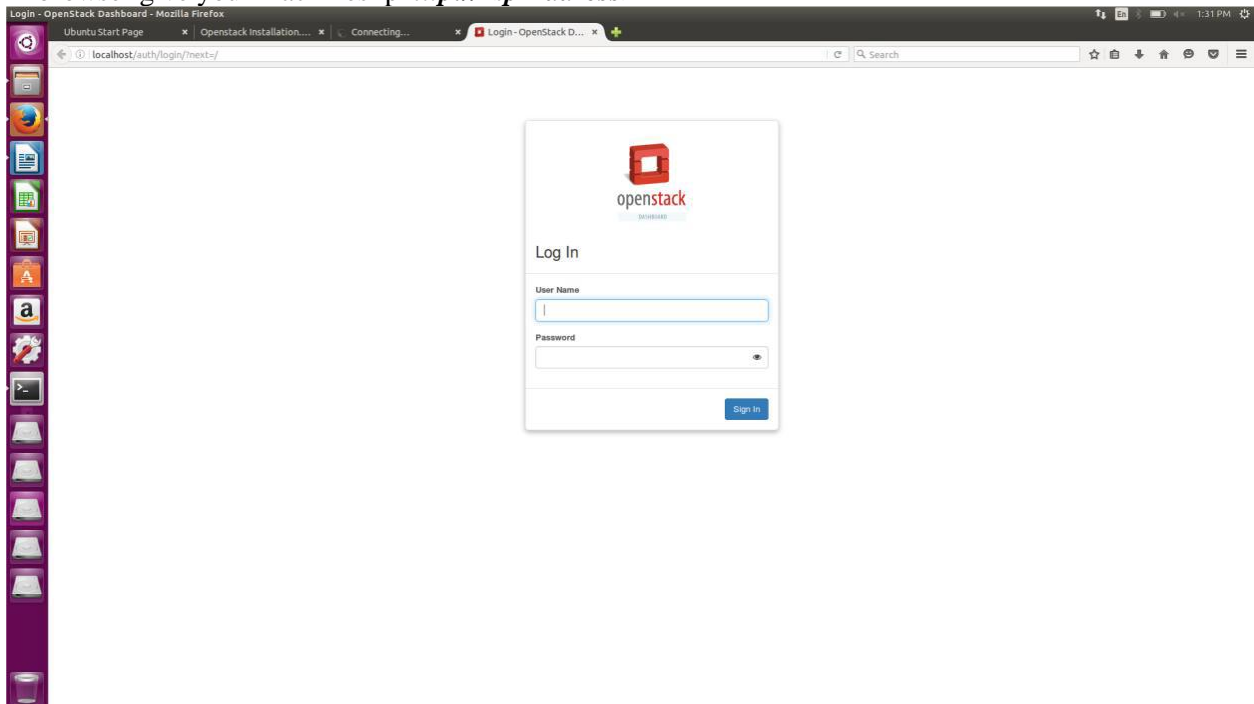
```

$ git clone https://git.openstack.org/openstack-dev/devstack -b stable/newton
$ cd devstack
$ sudo nano stackrc
    Add below line
    GIT_BASE=${GIT_BASE:-https://git.openstack.org}
$ sudo nano stack.sh
    Add below line after umask 022
    FORCE=yes
    ctrl x, press y and enter
$ cd samples
$ sudo nano local.conf
    Paste the following contents after the line "[[local|localrc]]".

FLOATING_RANGE=192.168.0.0/24
FIXED_RANGE=117.239.243.178/24
FIXED_NETWORK_SIZE=256
FLAT_INTERFACE=eth1
ADMIN_PASSWORD=root
DATABASE_PASSWORD=root
RABBIT_PASSWORD=root
SERVICE_PASSWORD=root
SERVICE_TOKEN=root
    ctrl x, press y and enter
$ cd ..
$ ./stack.sh

```

In browser give your machines ip *http://<ip Address>*



Result:

Thus the procedure to run the virtual machine of different configuration was executed successfully.