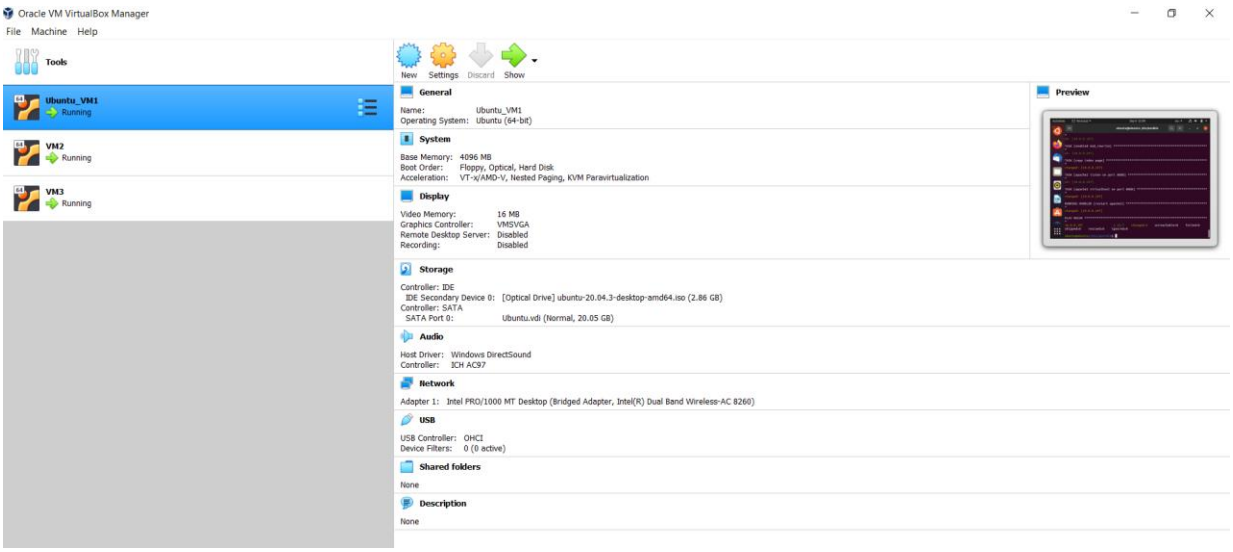
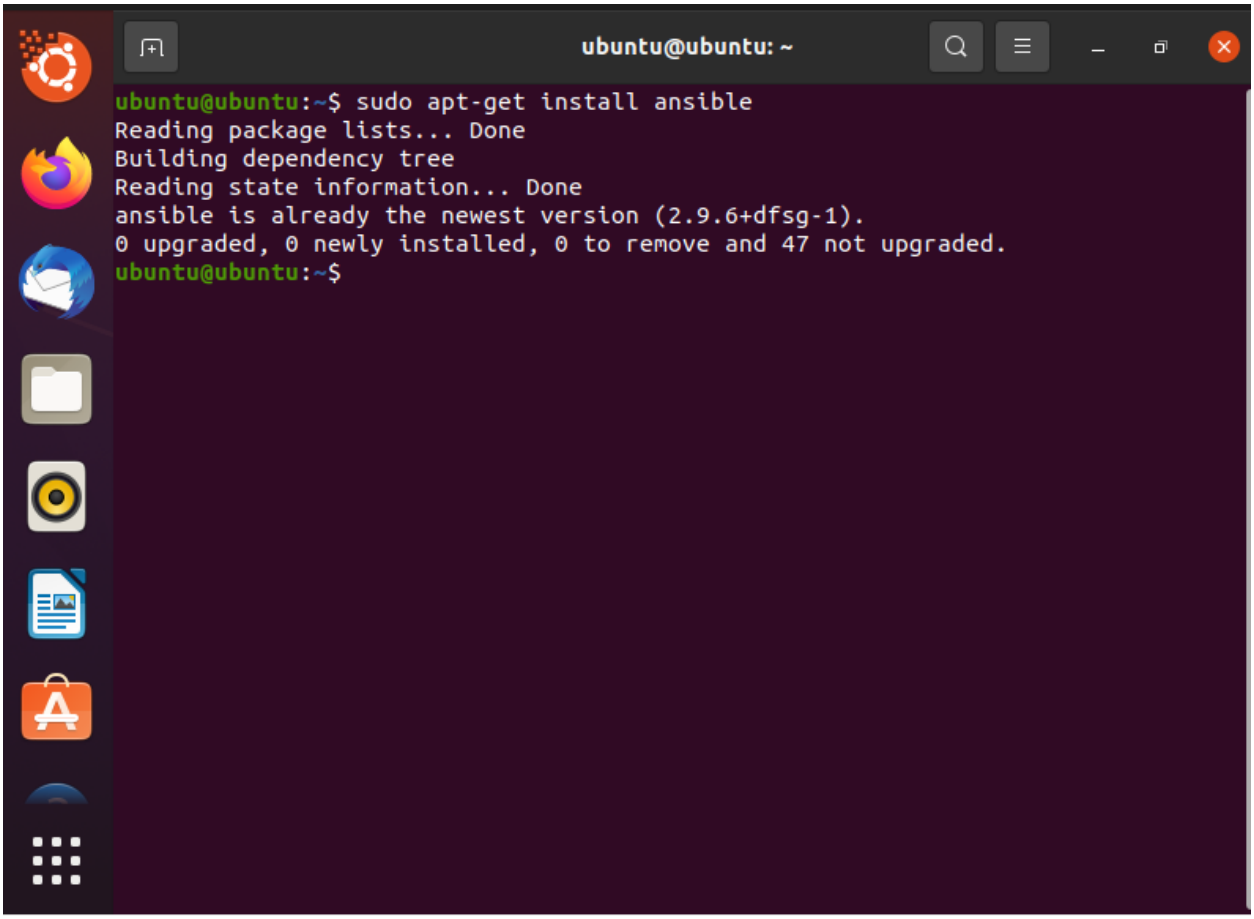
ASSIGNMENT 1: ANSIBLE

GitHub Repo: https://github.com/charucheema/CMPE272_AssignmentOne_Ansible

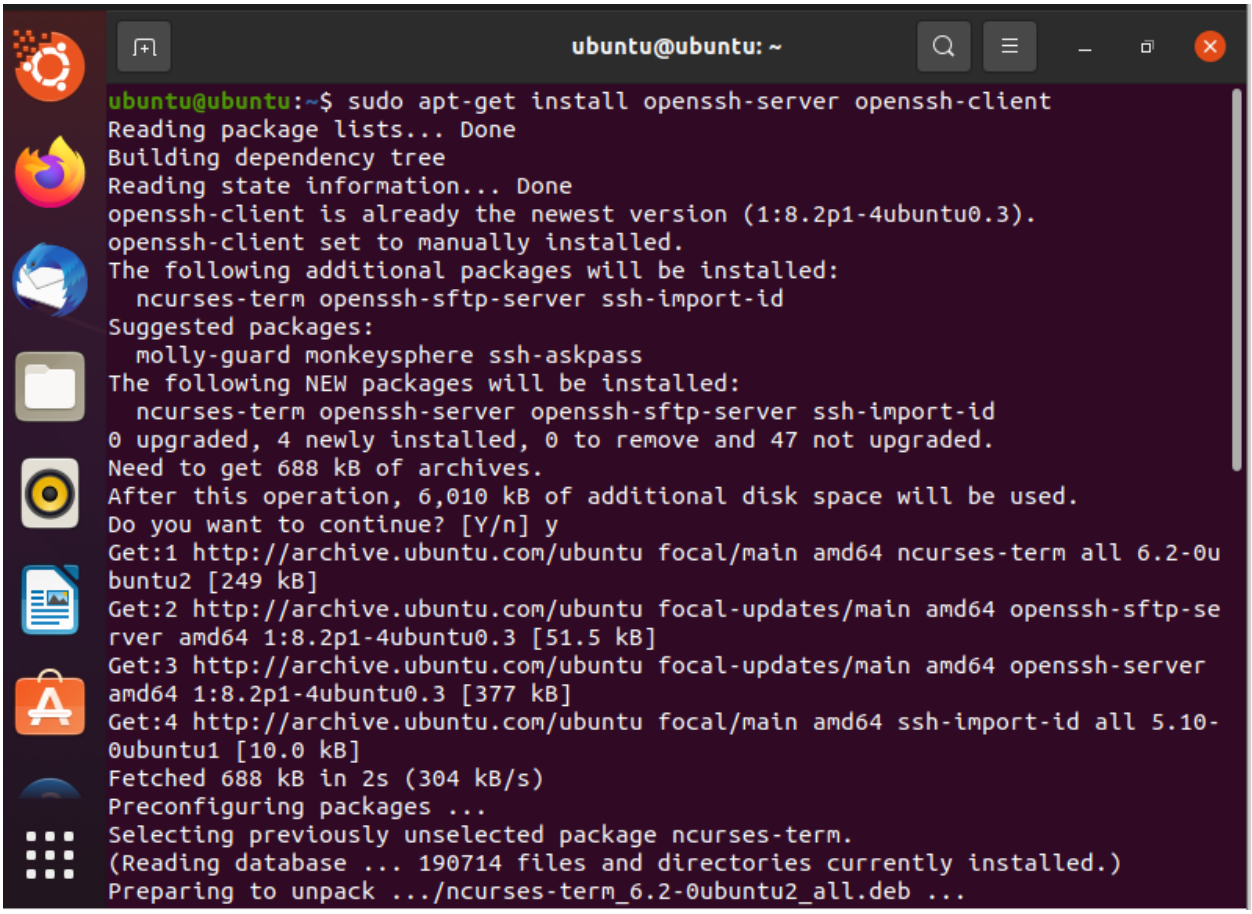
1. Provision 3 VMs: Ubuntu_VM1, will be acting as primary/deployer VM in this exercise and rest two VMs are going to be client VMs on which webservers will be deployed.



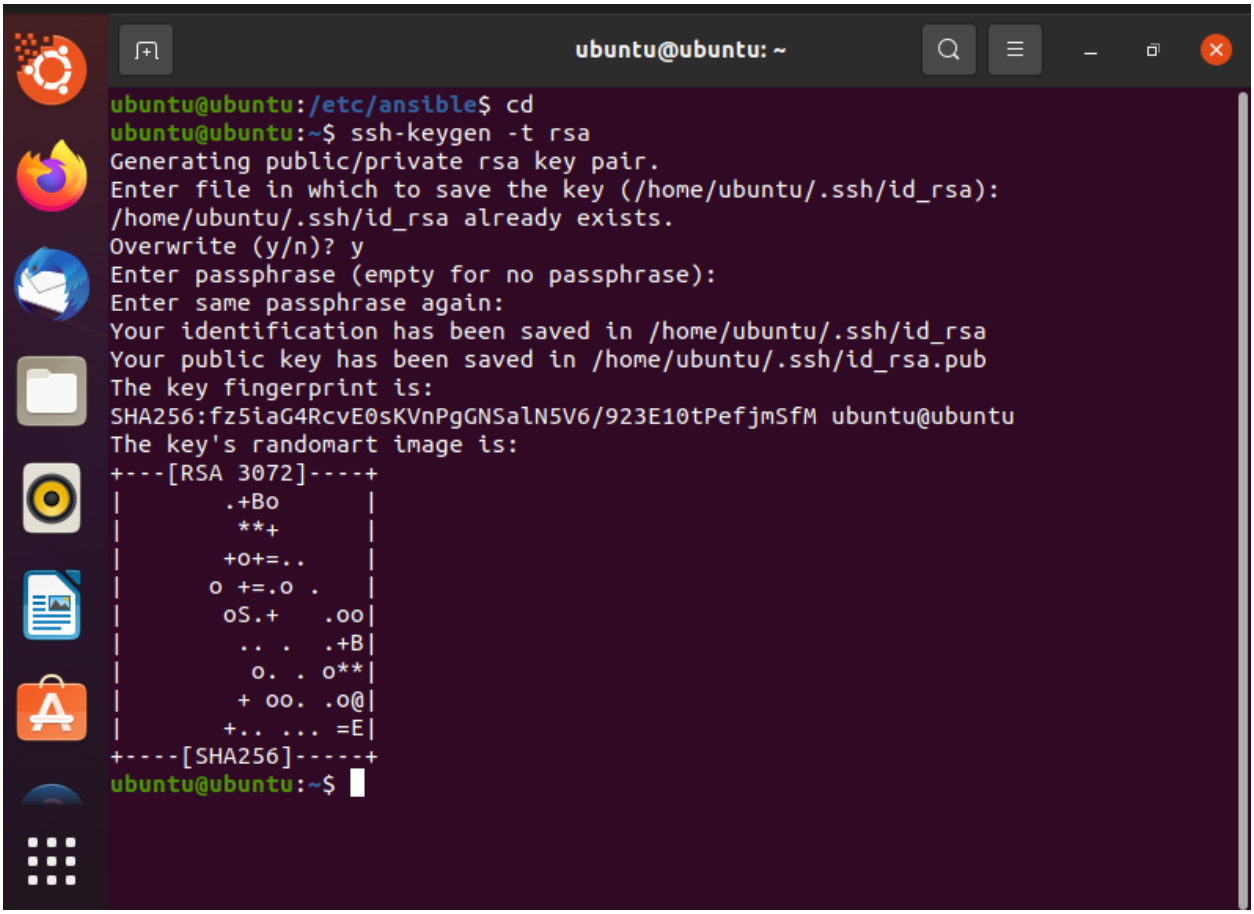
2. Install Ansible on primary VM.



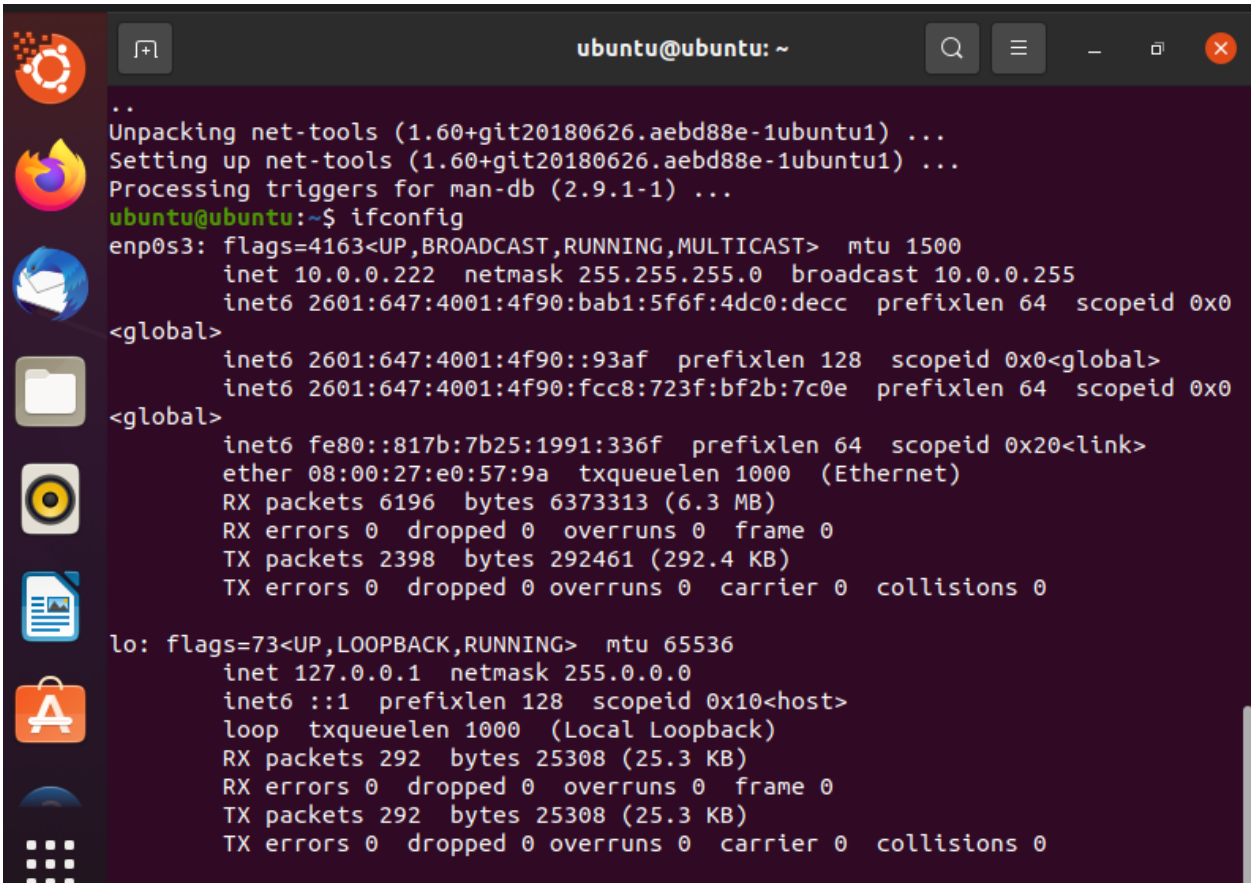
3. Install openssh server and client on all VMs.

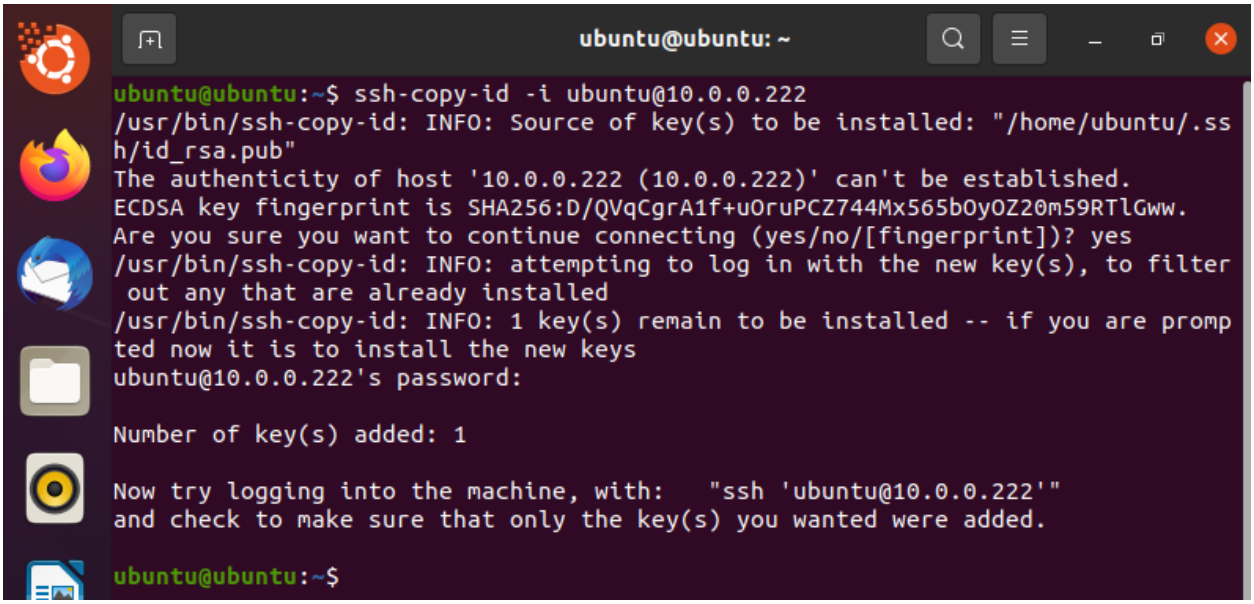


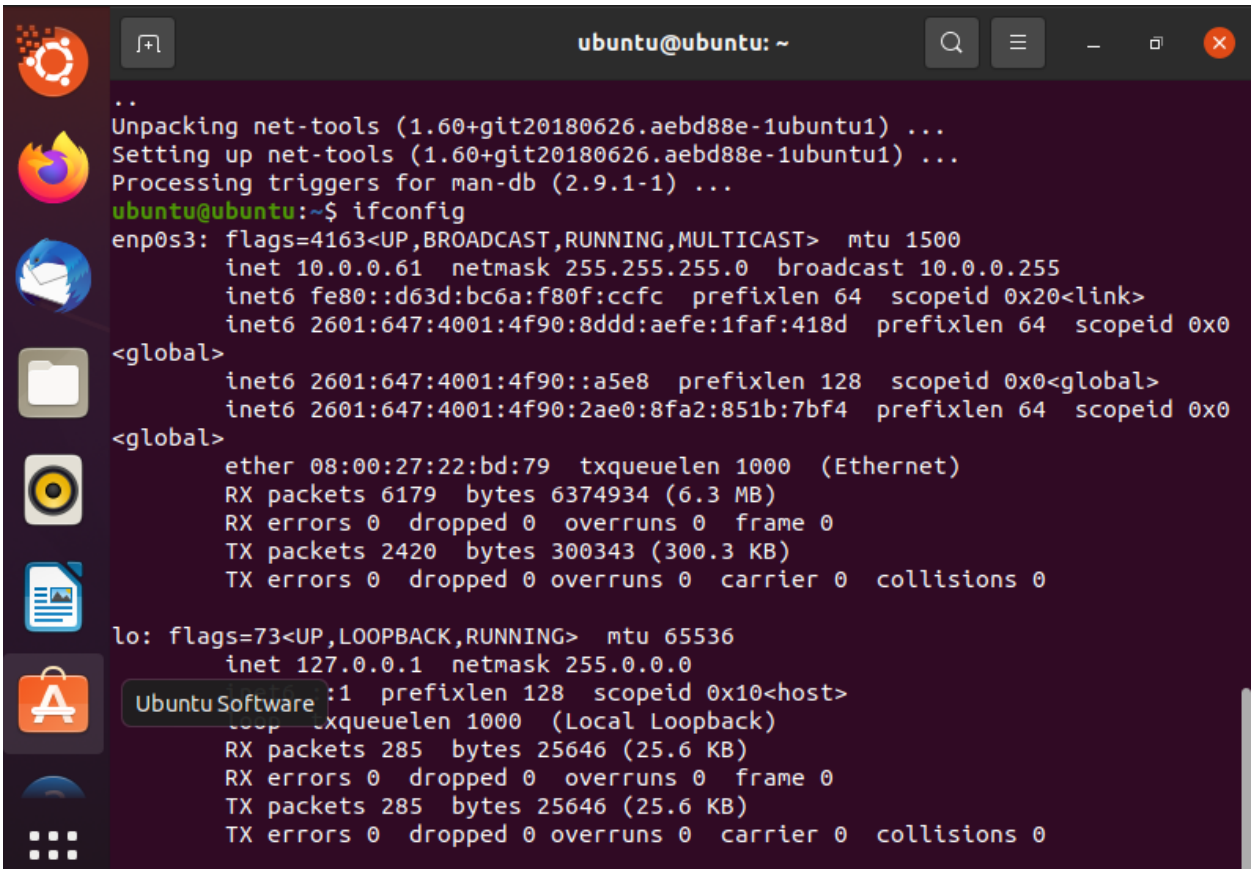
4. Generate keys on primary VM.

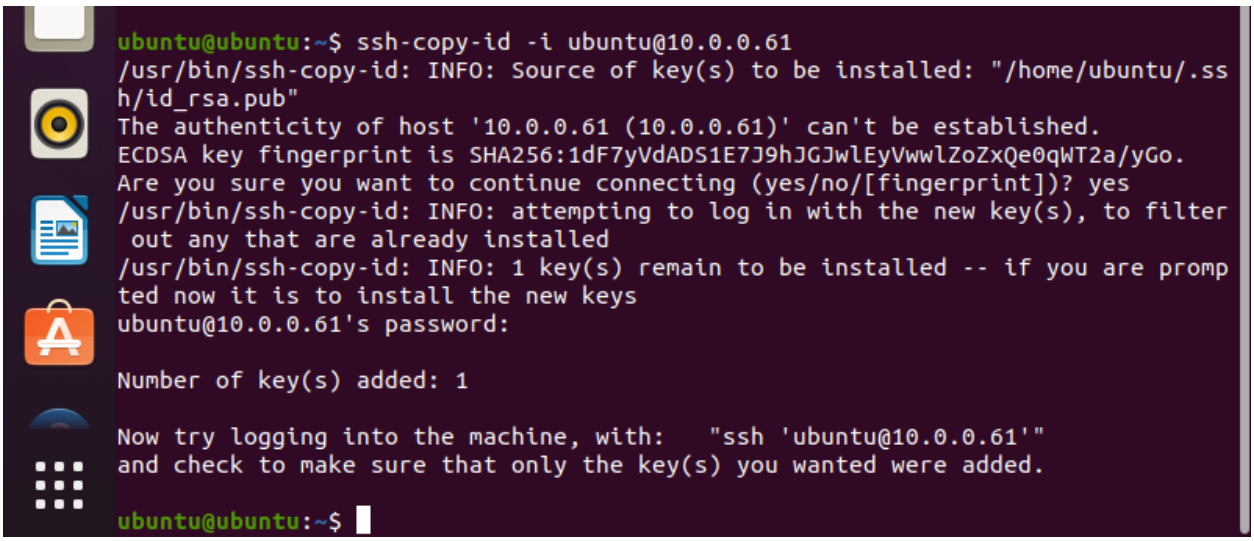


5. Determine IPs of client machines (VM2 and VM3) using ifconfig command and copy primary machine's ssh key into client machine's authorized keys.

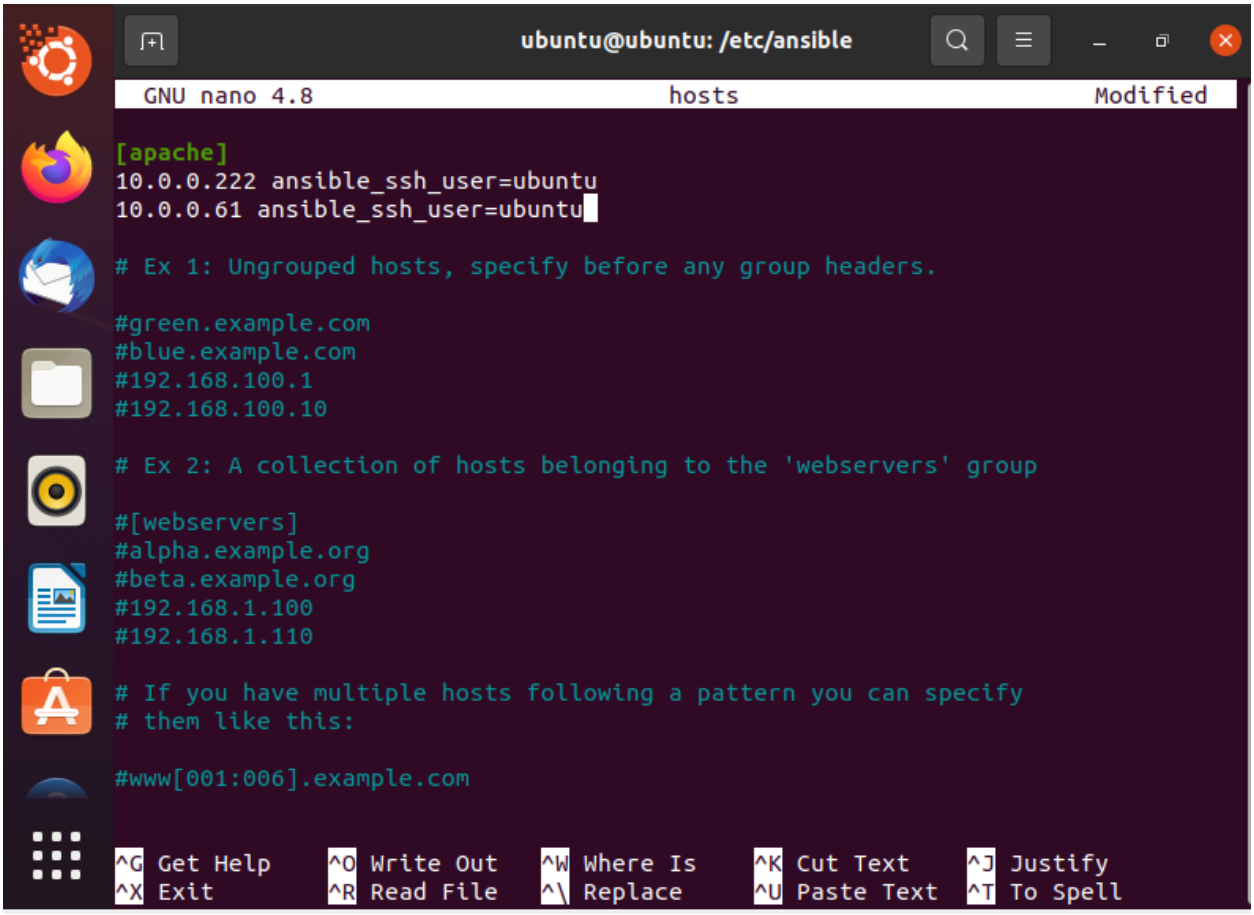




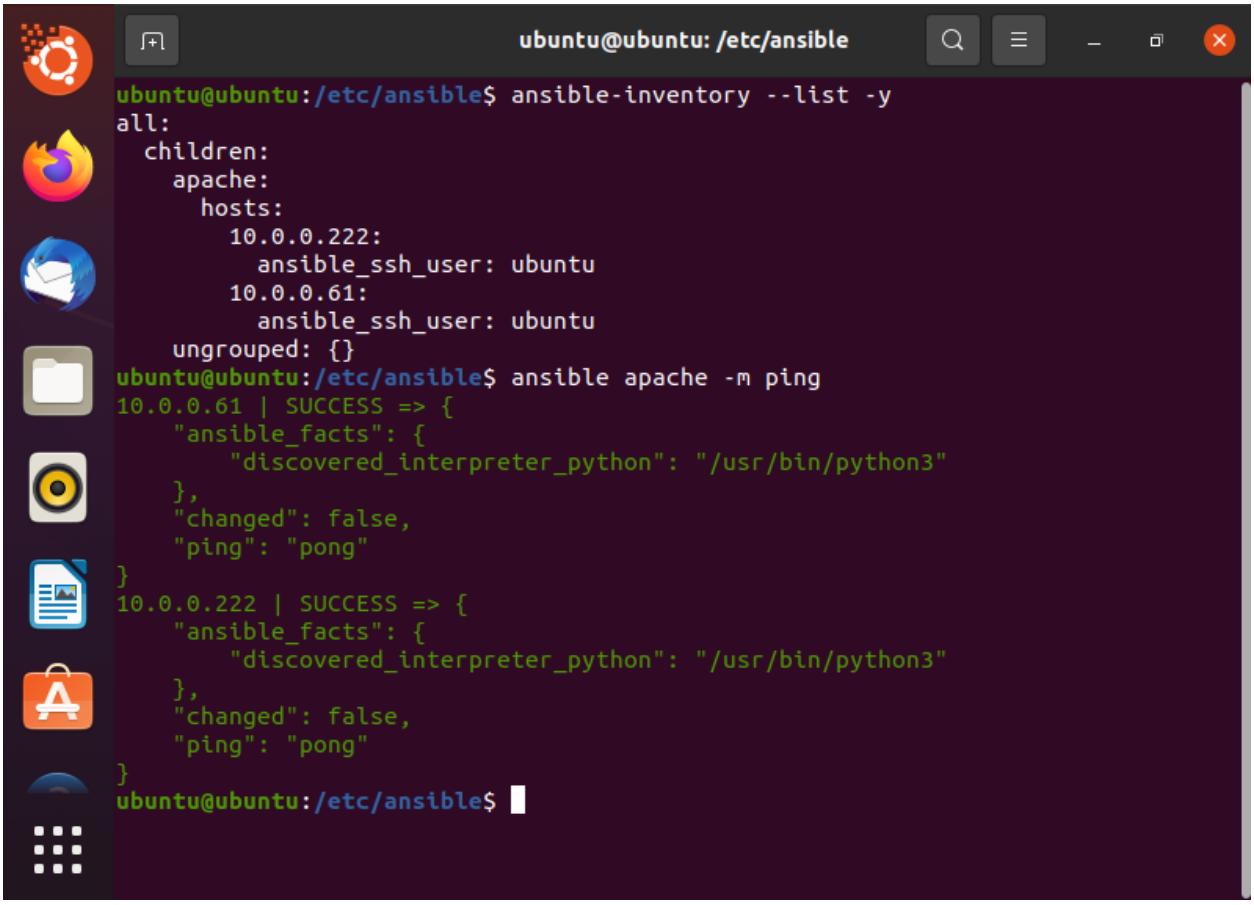

ubuntu@ubuntu: ~
..
Unpacking net-tools (1.60+git20180626.aebd88e-1ubuntu1) ...
Setting up net-tools (1.60+git20180626.aebd88e-1ubuntu1) ...
Processing triggers for man-db (2.9.1-1) ...
ubuntu@ubuntu:~$ ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
inet 10.0.0.61 netmask 255.255.255.0 broadcast 10.0.0.255
inet6 fe80::d63d:bc6a:f80f:ccfc prefixlen 64 scopeid 0x20<link>
inet6 2601:647:4001:4f90:8ddd:aefe:1faf:418d prefixlen 64 scopeid 0x0
<global>
inet6 2601:647:4001:4f90::a5e8 prefixlen 128 scopeid 0x0<global>
inet6 2601:647:4001:4f90:2ae0:8fa2:851b:7bf4 prefixlen 64 scopeid 0x0
<global>
ether 08:00:27:22:bd:79 txqueuelen 1000 (Ethernet)
RX packets 6179 bytes 6374934 (6.3 MB)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 2420 bytes 300343 (300.3 KB)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
inet 127.0.0.1 netmask 255.0.0.0
Ubuntu Software
RX packets 285 bytes 25646 (25.6 KB)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 285 bytes 25646 (25.6 KB)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0


ubuntu@ubuntu:~$ ssh-copy-id -i ubuntu@10.0.0.61
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/home/ubuntu/.ssh/id_rsa.pub"
The authenticity of host '10.0.0.61 (10.0.0.61)' can't be established.
ECDSA key fingerprint is SHA256:1dF7yVdADS1E7J9hJGJwlEyVwwlZoZxQe0qWT2a/yGo.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now it is to install the new keys
ubuntu@10.0.0.61's password:
Number of key(s) added: 1
Now try logging into the machine, with: "ssh 'ubuntu@10.0.0.61'"
and check to make sure that only the key(s) you wanted were added.
ubuntu@ubuntu:~$

6. Update the hosts file in /etc/ansible directory to specify our client VMs IP address as part of a new group '[apache]' (Since I have used Apache webserver as part of this assignment).

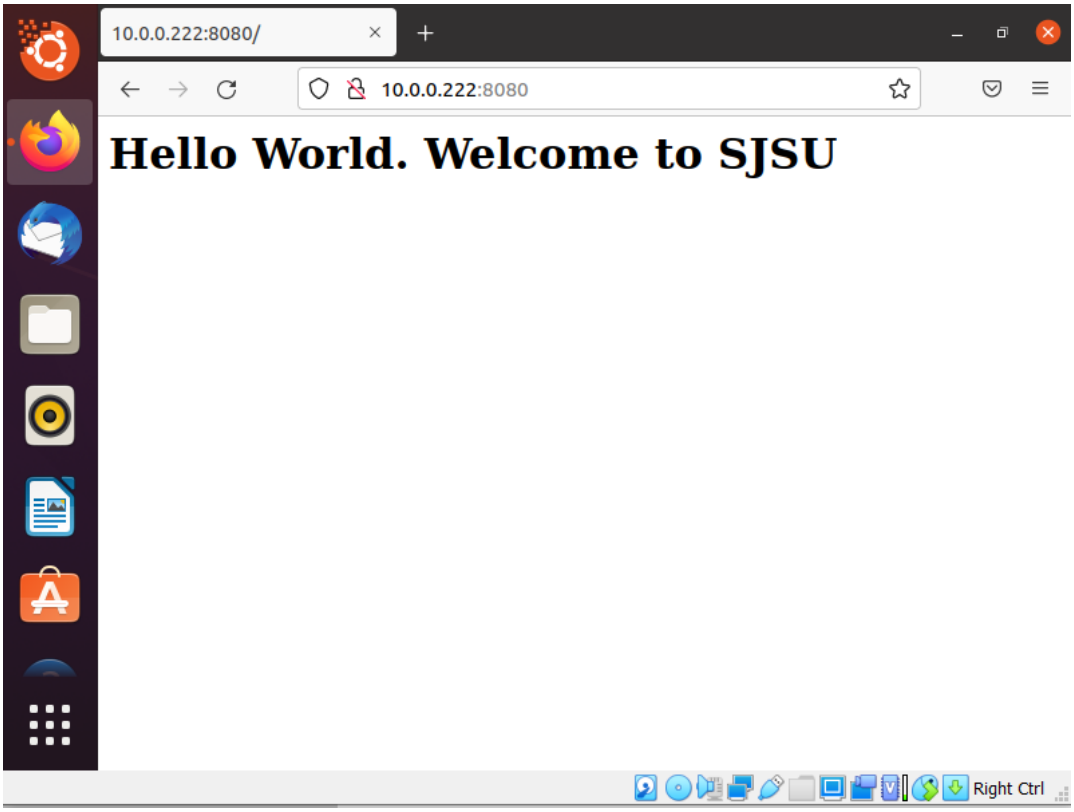


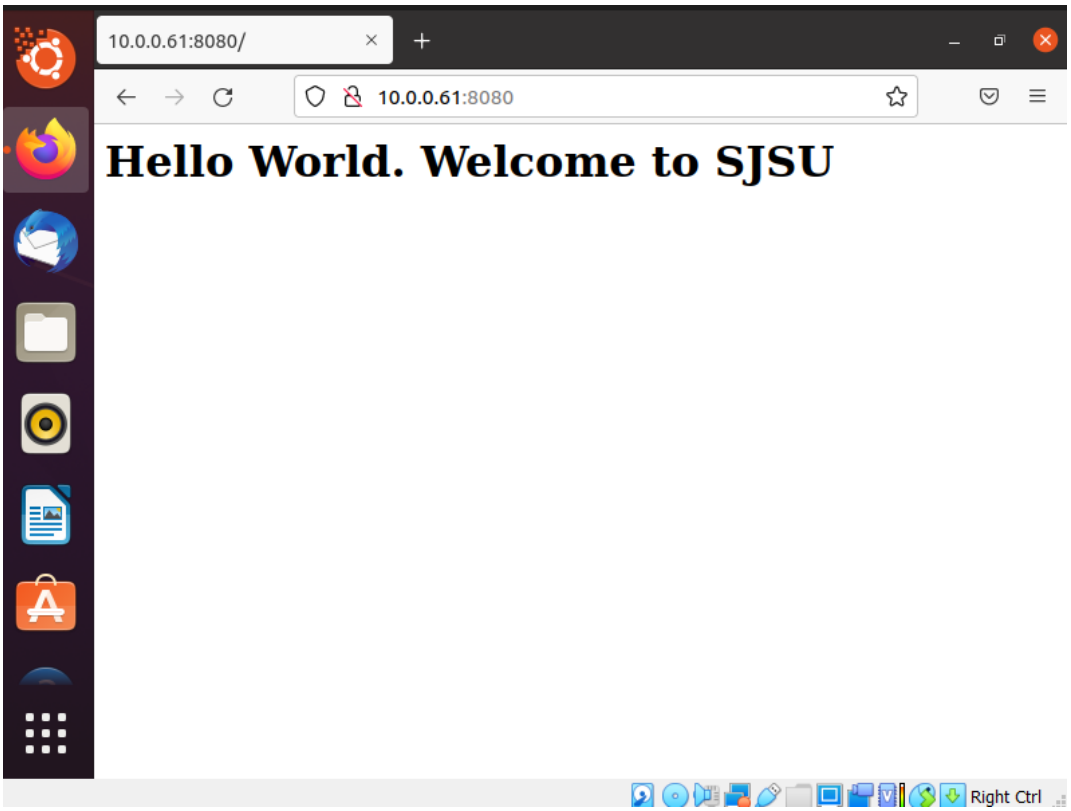
7. Verify that ansible inventory is updated to reflect newly added server group and make sure that all the host in '[apache]' group are pingable.



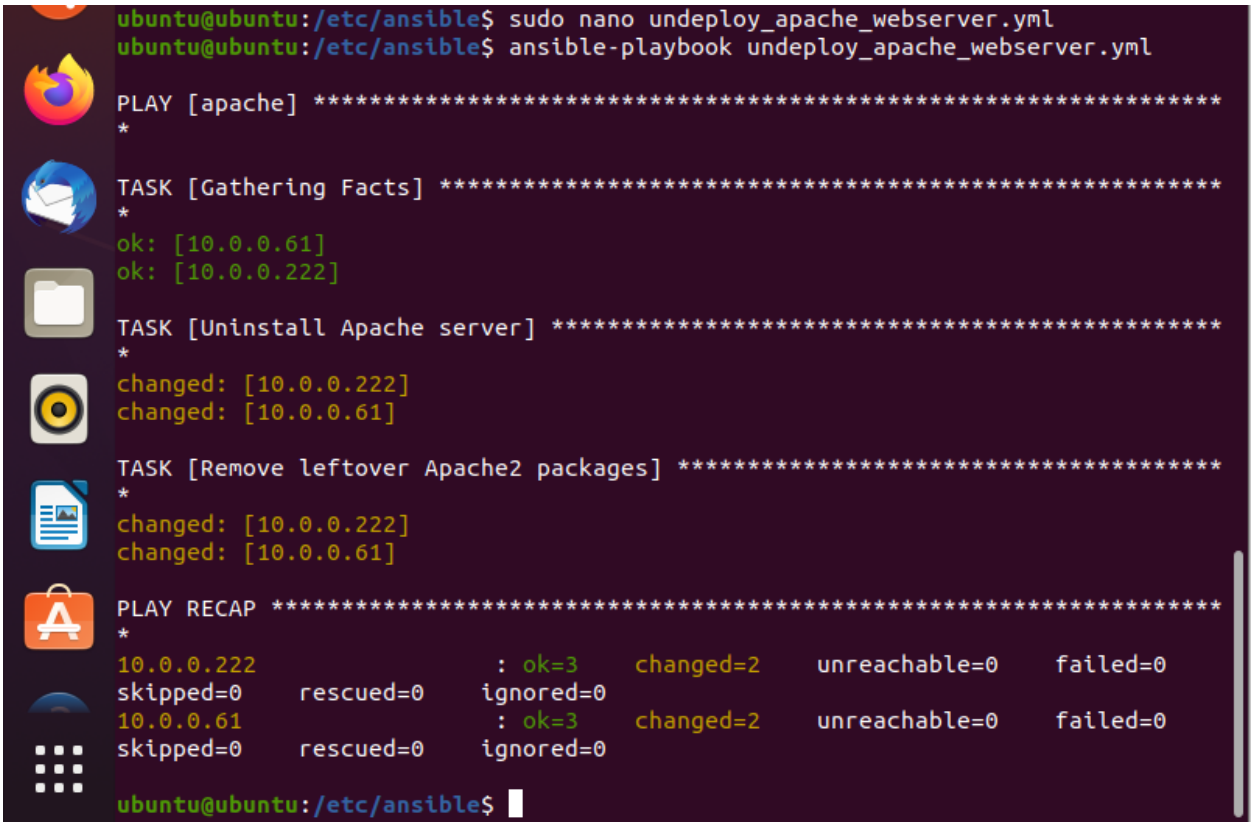
8. Deploy Apache webserver on both client machines by means of the curated playbook “deploy_apache_webserver.yml” (https://github.com/charucheema/CMPE272_AssignmentOne_Ansible/blob/main/deploy_apache_webserver.yml).

9. Verify that deployed webservers are up and running.





10. Un-deploy Apache server from client VMs by means of second curated playbook “undeploy_apache_webser.yml” (https://github.com/charucheema/CMPE272_AssignmentOne_Ansible/blob/main/undeploy_apache_webserver.yml).



11. Verify that webserver are not responding anymore.