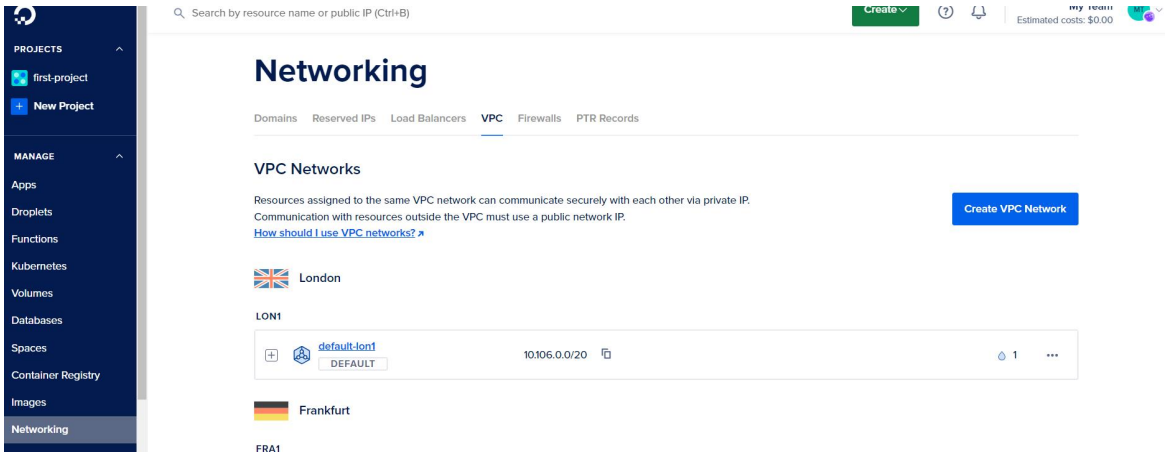
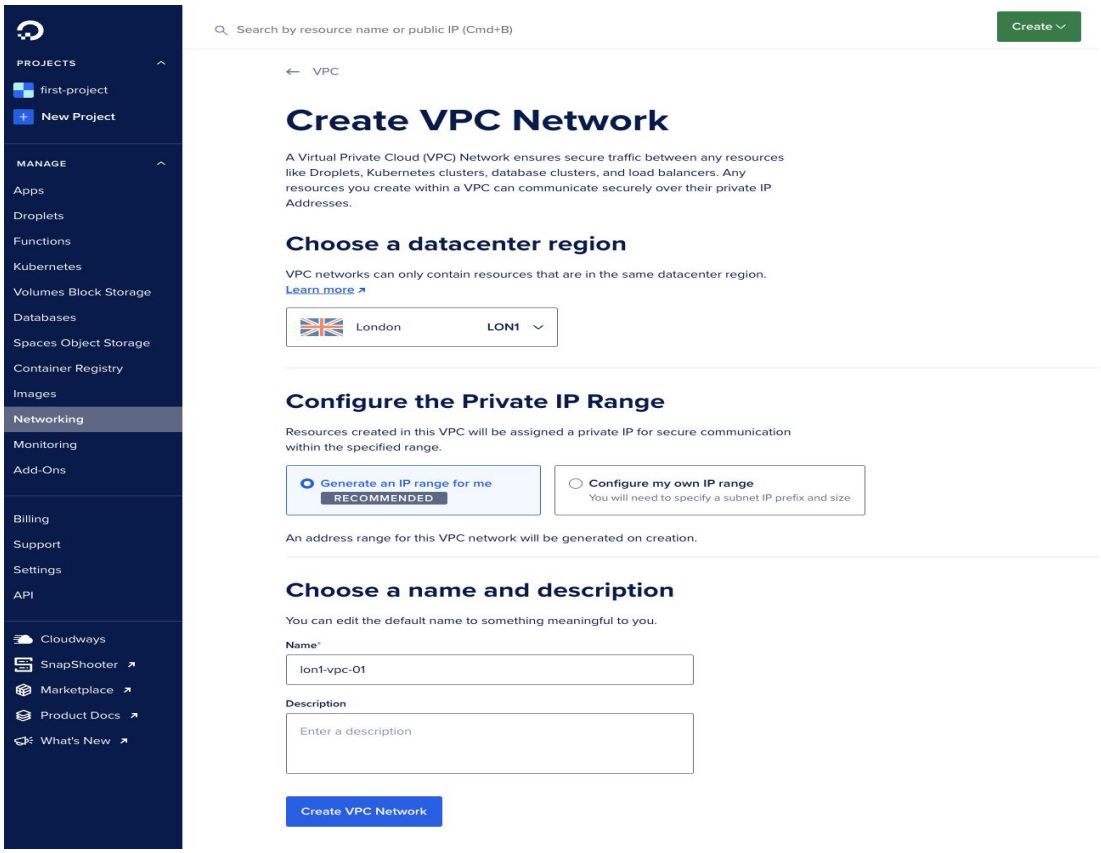
DigitalOcean Node Setup procedure

Log on to your digitalocean console.

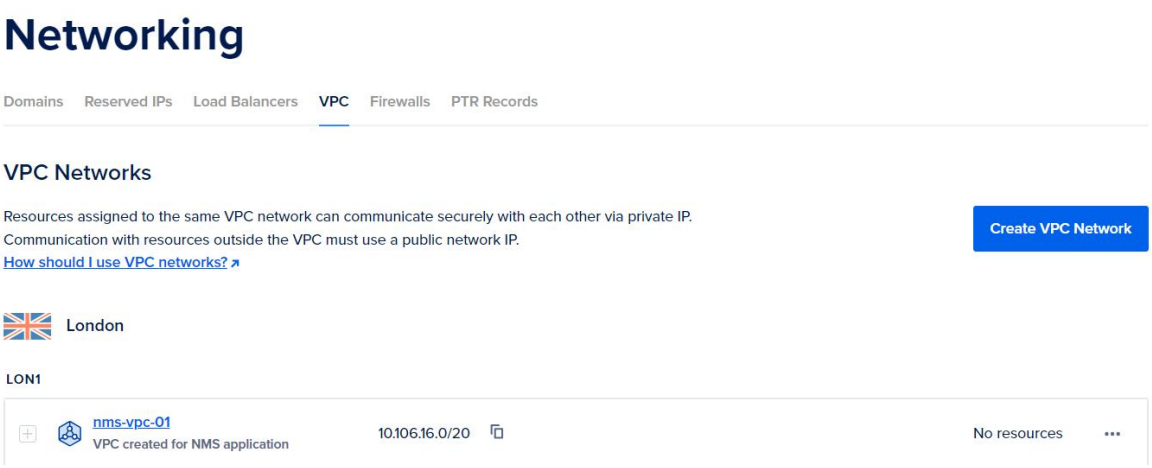
Click on MANAGE->Networking and Select VPC , click on Create VPC Network



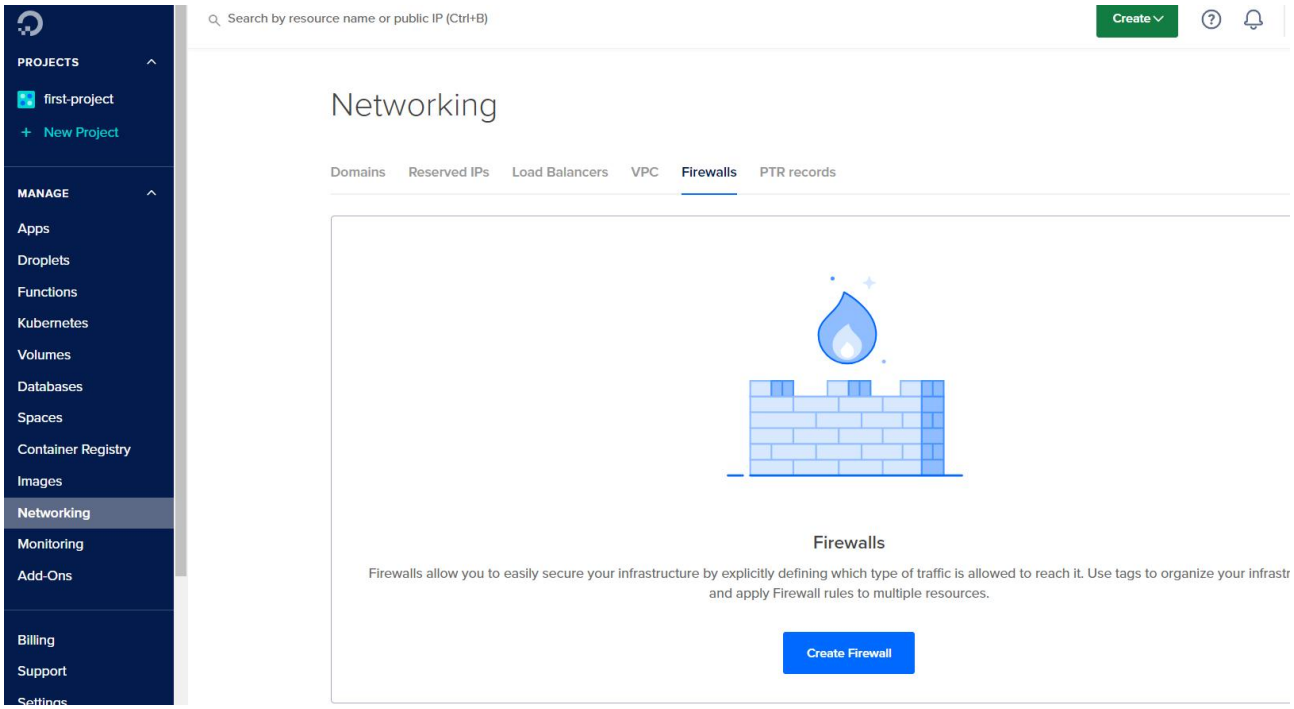
Select London Region



Choose a name and description. Click on “Create VPC Network”. VPC is created now.



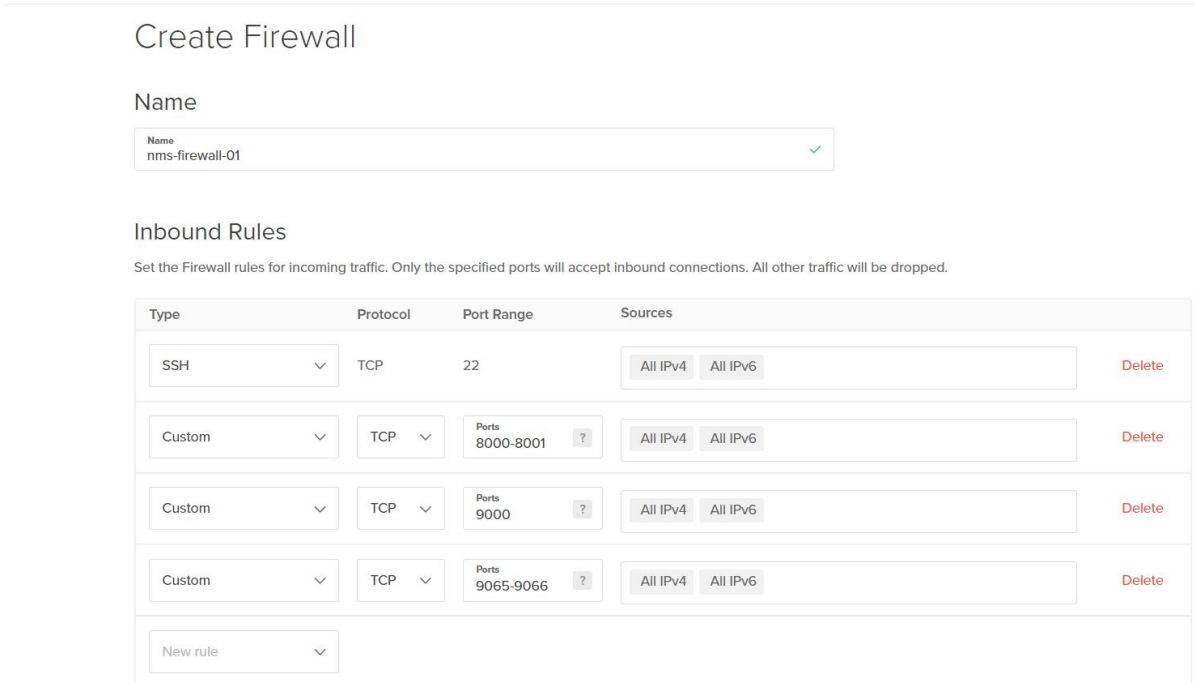
Staying in “Networking”, click on Firewalls to create Firewall rules



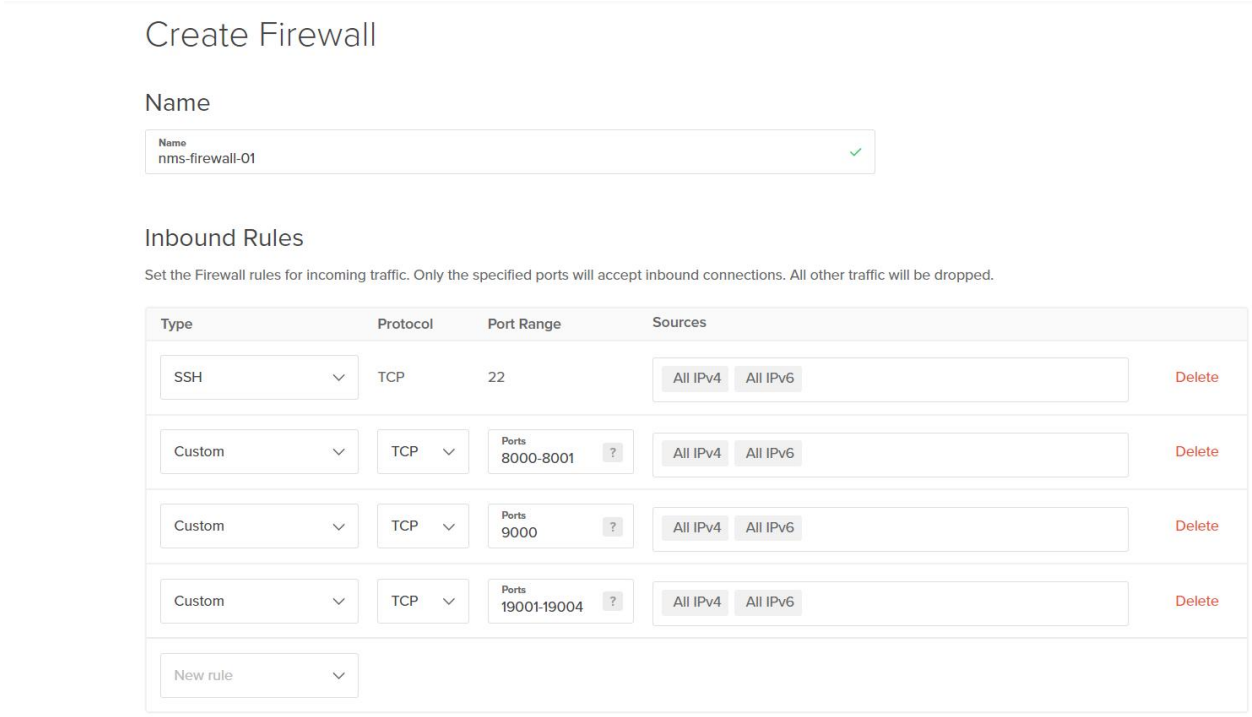
Click on Create Firewall

Give a name for the Firewall Rule

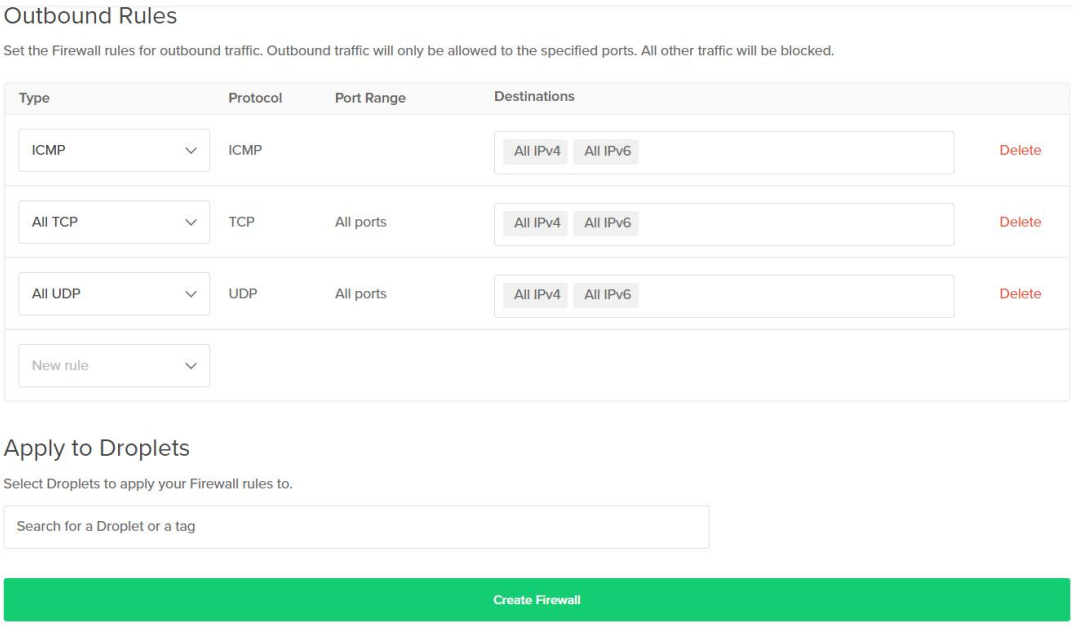
Add inbound Rules as shown below for a **Guardian Node**



or add inbound Rules as shown below for a **Master node**



for both Guardian or Master Nodes, please keep the default values in the Outbound rules



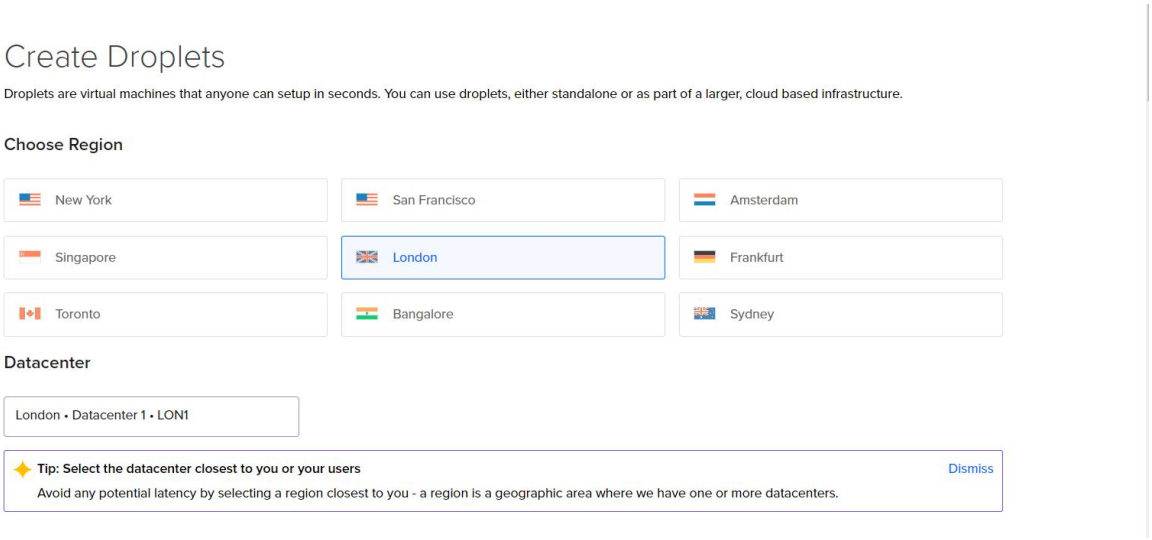
Click on Create Firewall

Your Firewall should now have been created and shown in the list.

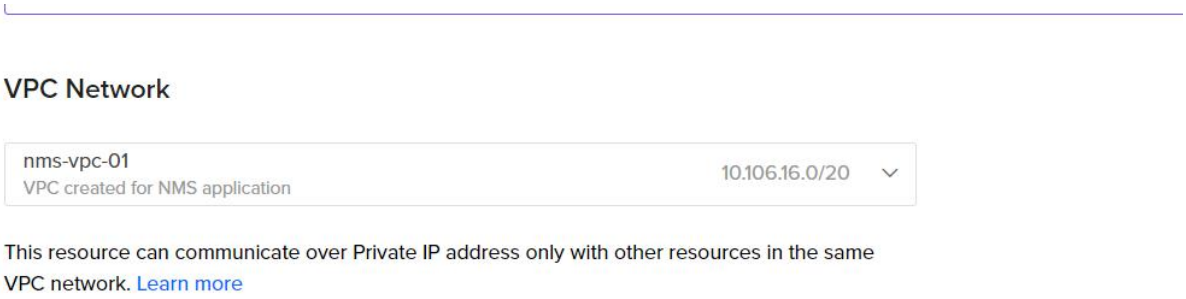
Click on MANAGE->DROPLETS in the navigation bar.

Click on CREATE droplet

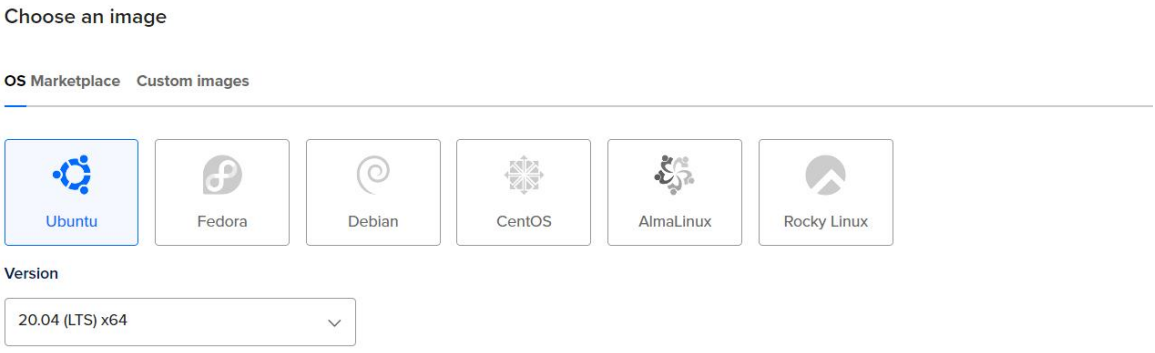
Now select the London region.



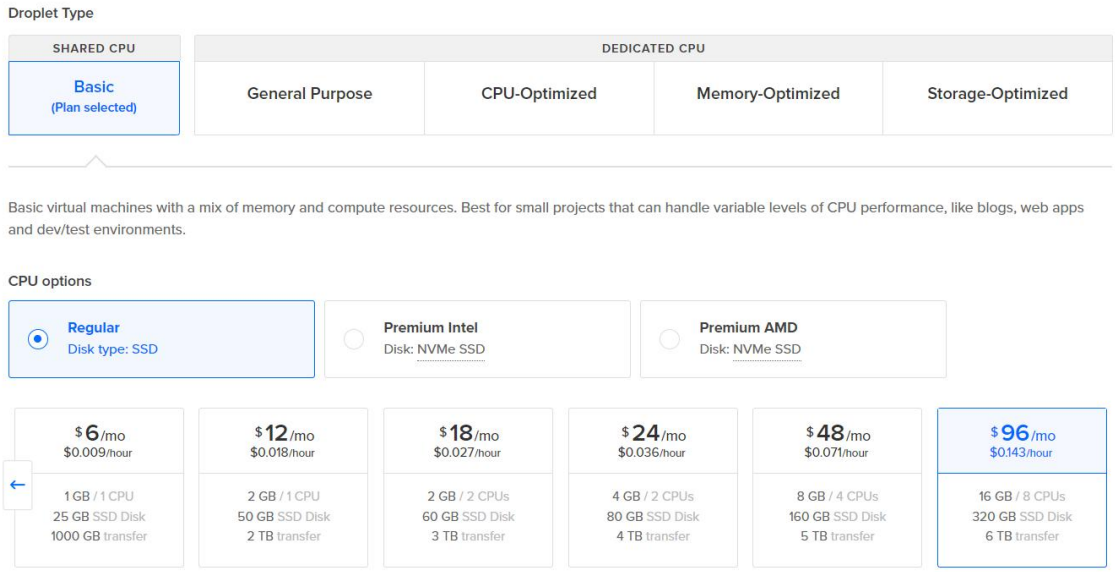
In the “VPC Network” dropdown, chose the VPC created in the previous step



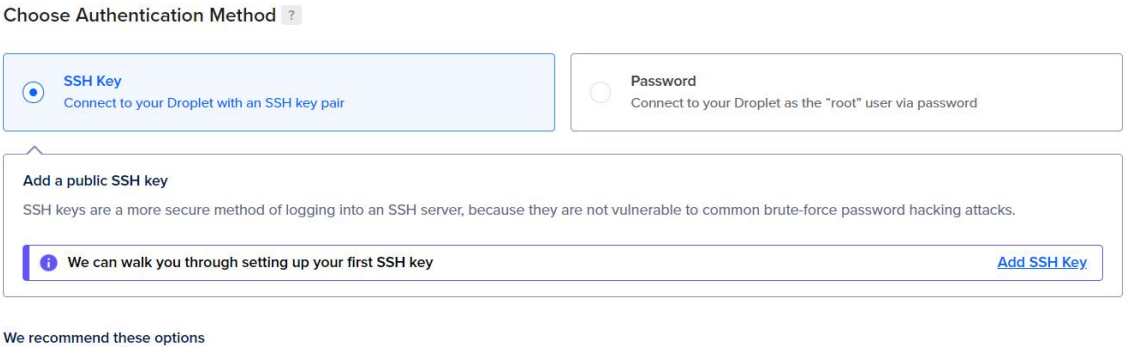
Now choose “Ubuntu” and “**Version 20.04 (LTS) x64**” as shown below



Now choose the options as shown below (8Cpu and 16GB Ram)



Choose “SSH Key” as the Authentication method



Click on “**Add SSH Key**” or “**New SSH Key**” and follow the instructions given under “**Create a new key pair, if needed**”

Create a new key pair

When on a MAC / Linux

Note:

ssh-keygen -f alkimi_key

Note: If you want to protect the key, choose a passphrase when prompted.(This is optional)

This will create the keys

```
Last login: Thu Oct 19 13:40:56 on console
bhargav@Bhargavs-MacBook-Pro ~ % ssh-keygen -f alkimi_key
Generating public/private rsa key pair.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in alkimi_key.
Your public key has been saved in alkimi_key.pub.
The key fingerprint is:
SHA256:EFDuinExlvS6sTKQLTu+0U9Um4bubsXnE5yZytlHnyQ bhargav@Bhargavs-MacBook-Pro.local
The key's randomart image is:
+---[RSA 3072]----+
|     ooo         |
|    . + .        |
|     = +.        |
|  o . =o.o       |
| + o +oo+S +     |
|  +.+o=.o B E .  |
|o.+.+oo * o + .  |
|...o+. + + . o   |
|  o. o+    o     |
+----[SHA256]-----+
bhargav@Bhargavs-MacBook-Pro ~ % ls -ltr alkimi*
-rw-------  1 bhargav  staff  2622  1 Nov 13:06 alkimi_key
-rw-r--r--  1 bhargav  staff   588  1 Nov 13:06 alkimi_key.pub
bhargav@Bhargavs-MacBook-Pro ~ %
```

On Windows 10 or above

Open the command line by typing “cmd” in the “search” bar in windows left hand bottom side.

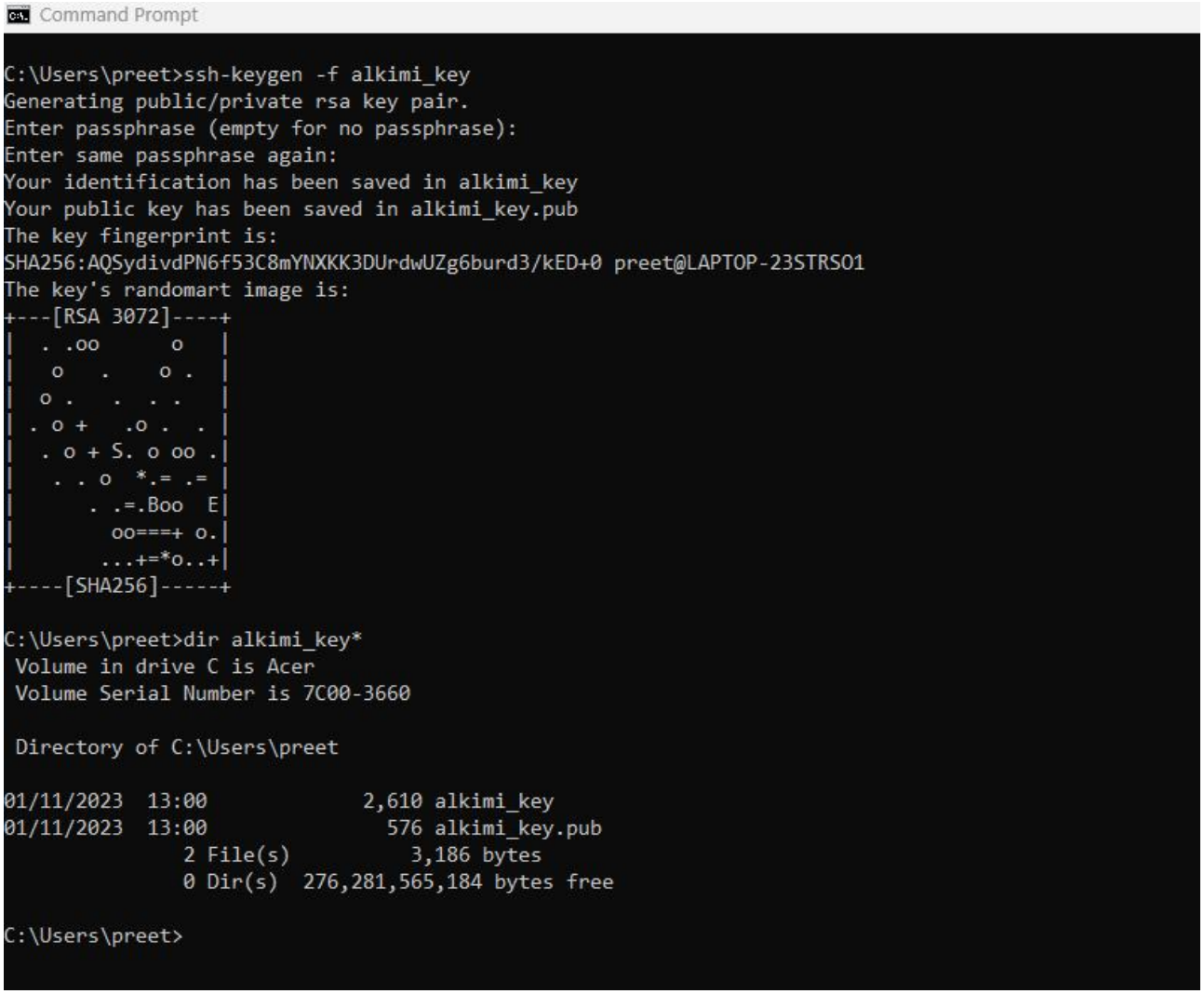
ssh-keygen -f alkimi_key

Note: If you want to protect the key, choose a passphrase when prompted.(This is optional)

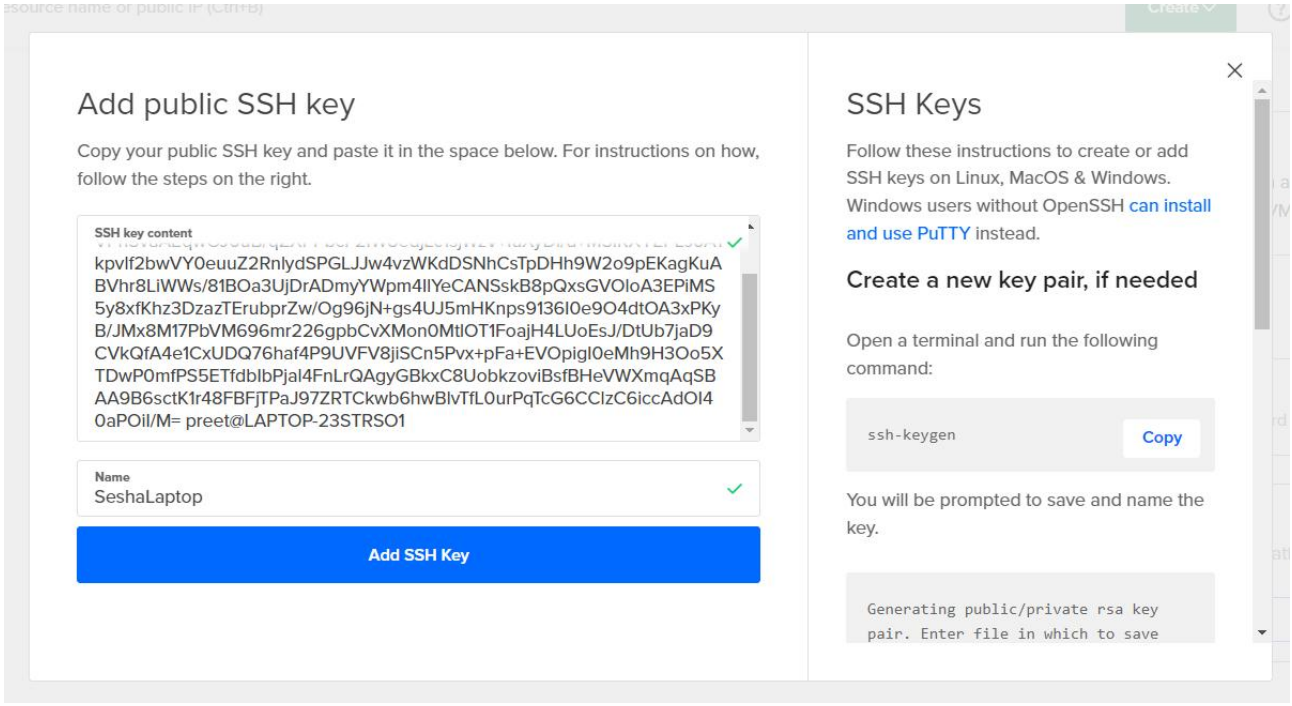
This will create the keys

alkimi_key - private key file

alkimi_key.pub - public key file

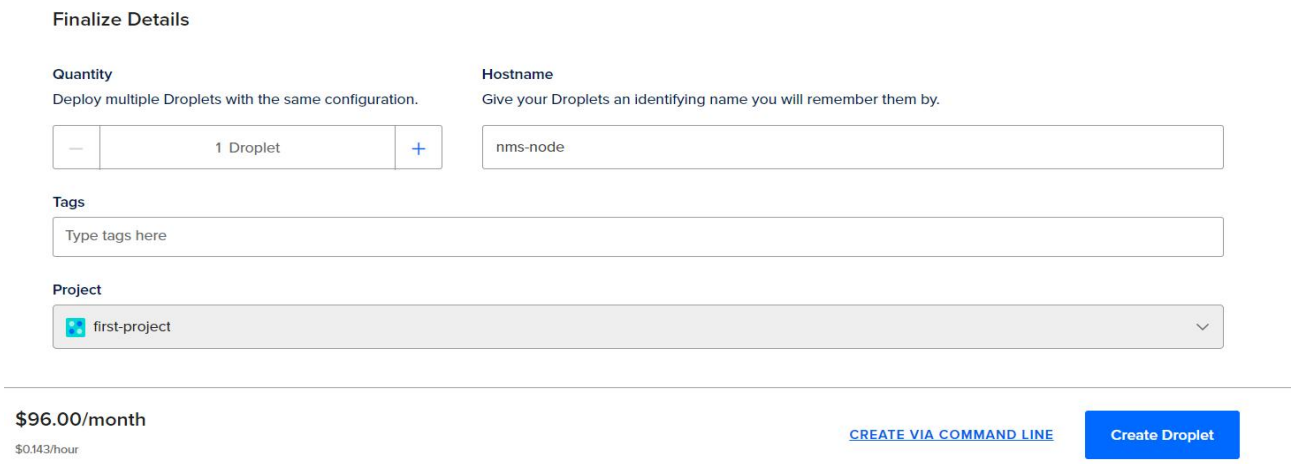


Copy the contents of the file alkimi_key.pub.
Paste your SSH key and give it a name

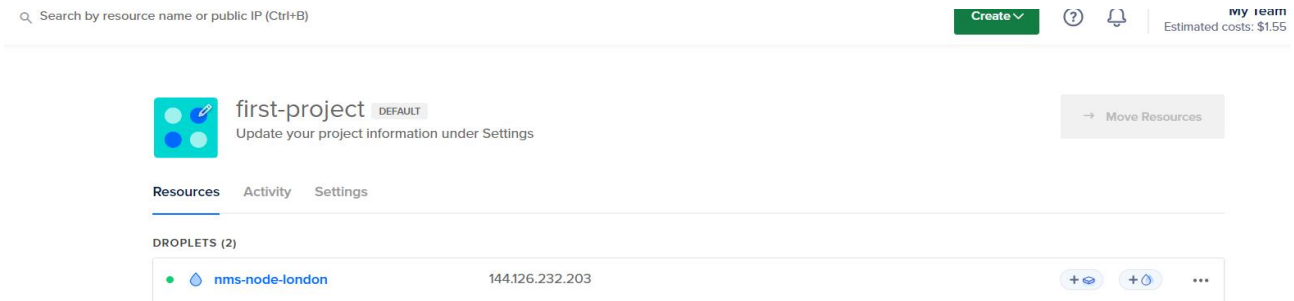


Ignore any additional options.

Under Finalise Details, enter your preferred Hostname



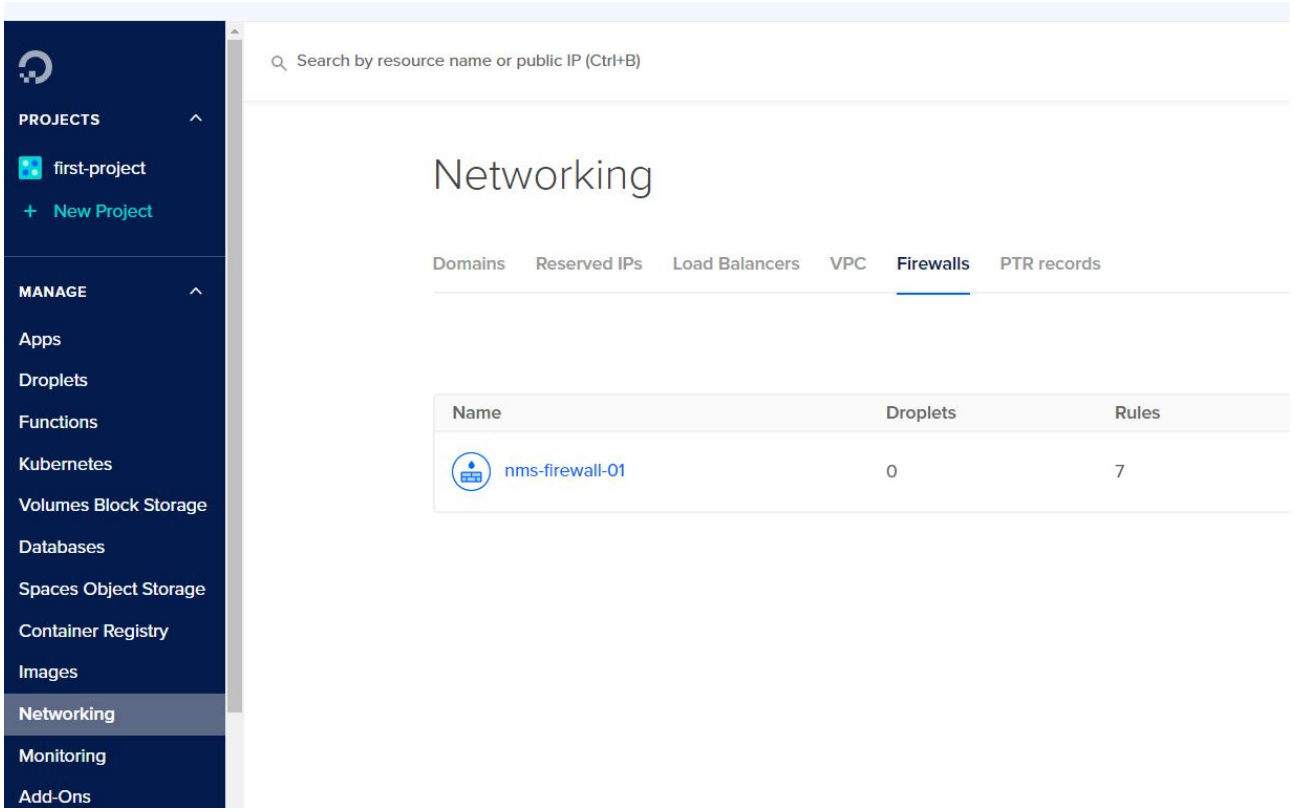
Now click on Create Droplet.



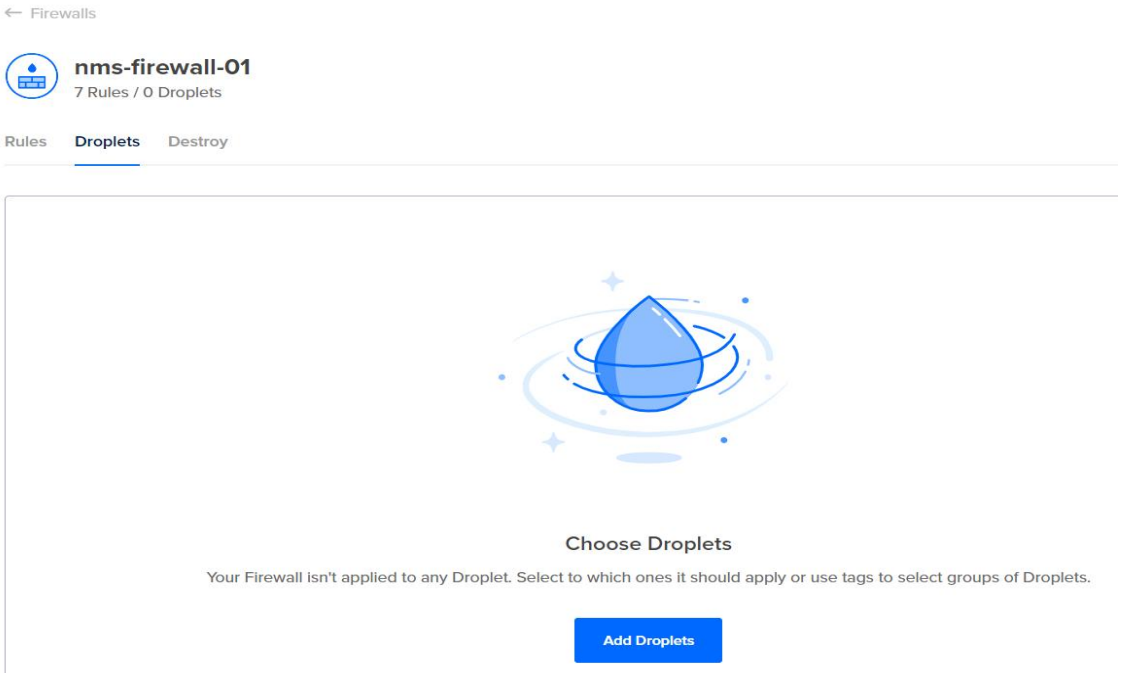
Droplet is now created.

Add Droplet to Firewall rules.

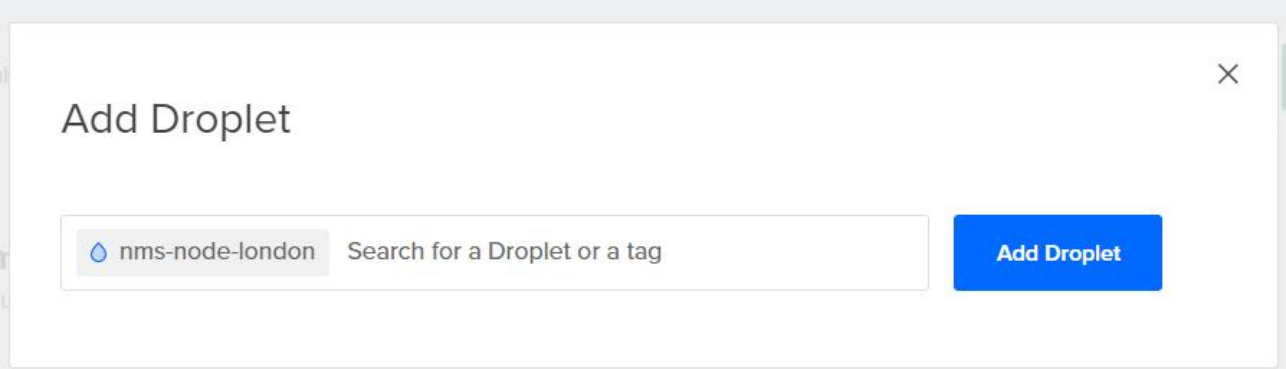
Click on MANAGE->Networking and Select Firewall , which shows the firewall created earlier



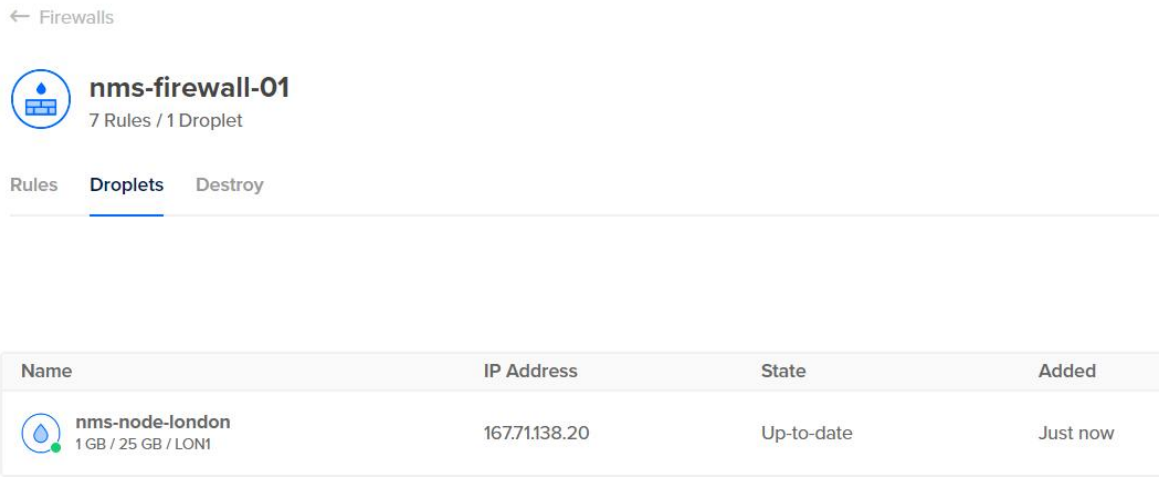
Click on Firewall name and click on Droplets as shown below



Click on Add Droplets



Enter the droplet name created earlier as shown above and click on Add Droplet

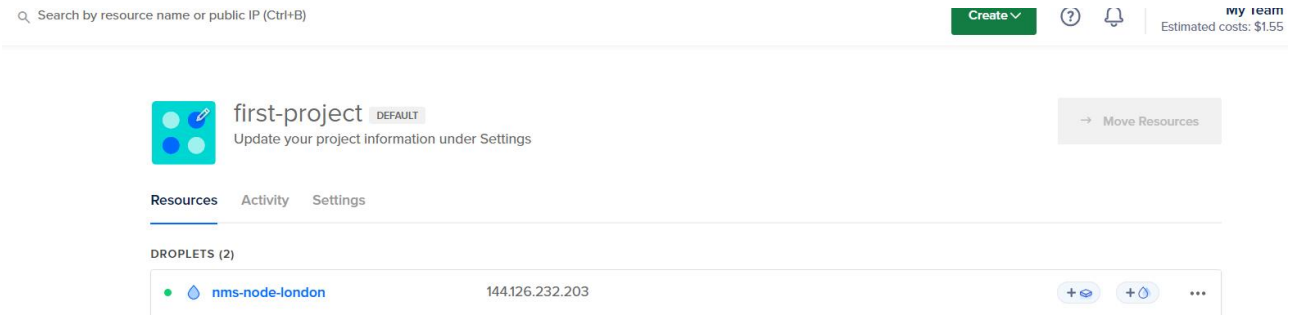


Droplet is now added to the firewall.

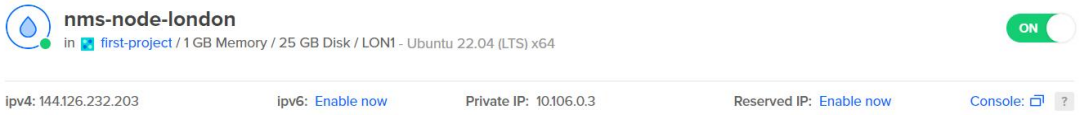
Now follow instructions to setup NMS.

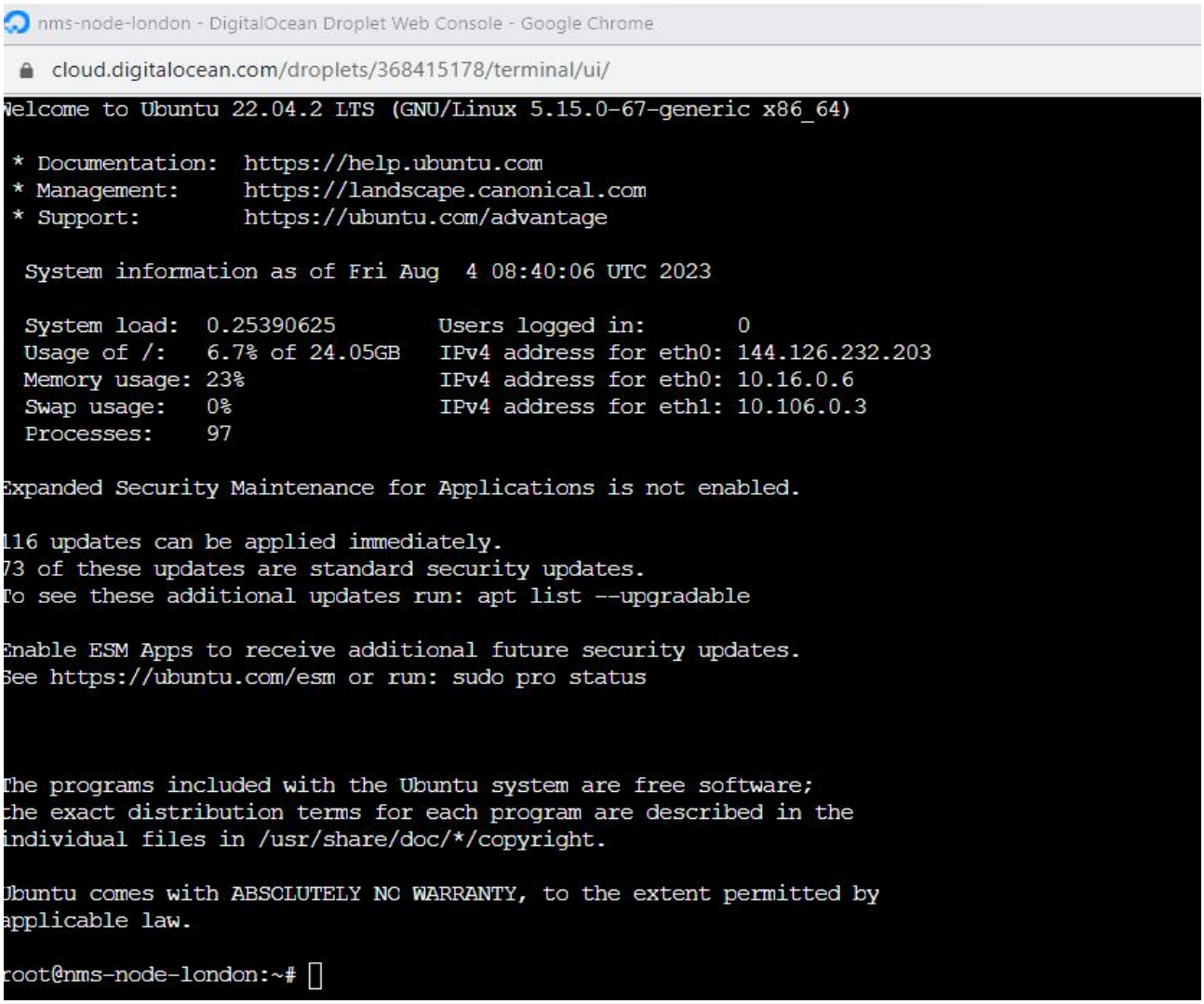
NMS Install Procedure (DigitalOcean).

Click on Droplet from droplet dashboard.



Now Click on “Console” at the top right to logon to droplet.





Now run commands:

useradd -m ubuntu -s /bin/bash

usermod -aG sudo ubuntu

echo "ubuntu ALL=(ALL) NOPASSWD:ALL" >> /etc/sudoers

sudo su - ubuntu

```
root@nms-node:~# useradd -m ubuntu -s /bin/bash
root@nms-node:~# usermod -aG sudo ubuntu
root@nms-node:~# echo "ubuntu ALL=(ALL) NOPASSWD:ALL" >> /etc/sudoers
root@nms-node:~# sudo su - ubuntu
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@nms-node:~$
```

sudo apt-get update

```
root@nms-node-london:~# sudo apt-get update
Hit:1 http://mirrors.digitalocean.com/ubuntu jammy InRelease
Hit:2 https://repos-droplet.digitalocean.com/apt/droplet-agent main InRelease
Hit:3 http://mirrors.digitalocean.com/ubuntu jammy-updates InRelease
Hit:4 http://mirrors.digitalocean.com/ubuntu jammy-backports InRelease
Hit:5 http://security.ubuntu.com/ubuntu jammy-security InRelease
Reading package lists... Done
root@nms-node-london:~#
```

Now run command

sudo **apt-get upgrade -y**

Simply hit **Enter** to confirm (OK) in case any dialog box appears, do not change any options.

```
Processing triggers for initramfs-tools (0.136ubuntu6.7) ...
update-initramfs: Generating /boot/initrd.img-5.4.0-122-generic
Processing triggers for libc-bin (2.31-0ubuntu9.12) ...
Processing triggers for rsyslog (8.2001.0-1ubuntu1.3) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for plymouth-theme-ubuntu-text (0.9.4git20200323-0ubuntu6.2) ...
update-initramfs: deferring update (trigger activated)
Processing triggers for install-info (6.7.0.dfsg.2-5) ...
Processing triggers for ca-certificates (20230311ubuntu0.20.04.1) ...
Updating certificates in /etc/ssl/certs...
0 added, 0 removed; done.
Running hooks in /etc/ca-certificates/update.d...
done.
Processing triggers for initramfs-tools (0.136ubuntu6.7) ...
update-initramfs: Generating /boot/initrd.img-5.4.0-122-generic
ubuntu@NPTestHost:~$
```

Now run command

sudo apt-get install git -y

```
root@nms-node-london:~# sudo apt-get install git -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Suggested packages:
  git-daemon-run | git-daemon-sysvinit git-doc git-email git-gui gitk gitweb git-cvs git-mediawiki git-svn
The following packages will be upgraded:
  git
1 upgraded, 0 newly installed, 0 to remove and 121 not upgraded.
Need to get 3166 kB of archives.
After this operation, 123 kB of additional disk space will be used.
Get:1 http://mirrors.digitalocean.com/ubuntu jammy-updates/main amd64 git amd64 1:2.34.1-1ubuntu1.9 [3166 kB]
Fetched 3166 kB in 0s (22.7 MB/s)
(Reading database ... 64224 files and directories currently installed.)
Preparing to unpack .../git_1%3a2.34.1-1ubuntu1.9_amd64.deb ...
Unpacking git (1:2.34.1-1ubuntu1.9) over (1:2.34.1-1ubuntu1.8) ...
Setting up git (1:2.34.1-1ubuntu1.9) ...
Scanning processes...
Scanning candidates...
Scanning linux images...

Running kernel seems to be up-to-date.

Restarting services...
 systemctl restart packagekit.service
Service restarts being deferred:
 systemctl restart unattended-upgrades.service

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
root@nms-node-london:~#
```

Simply hit **Enter** to confirm (OK) in case any dialog box appears, do not change any options.