

1. Add one more slave to the setup
2. Add a condition, if Apache is already installed on the slaves, install NGINX The result should be 3rd slave with NGINX installed.

NEW INSTANCE : Slave4 newly launched

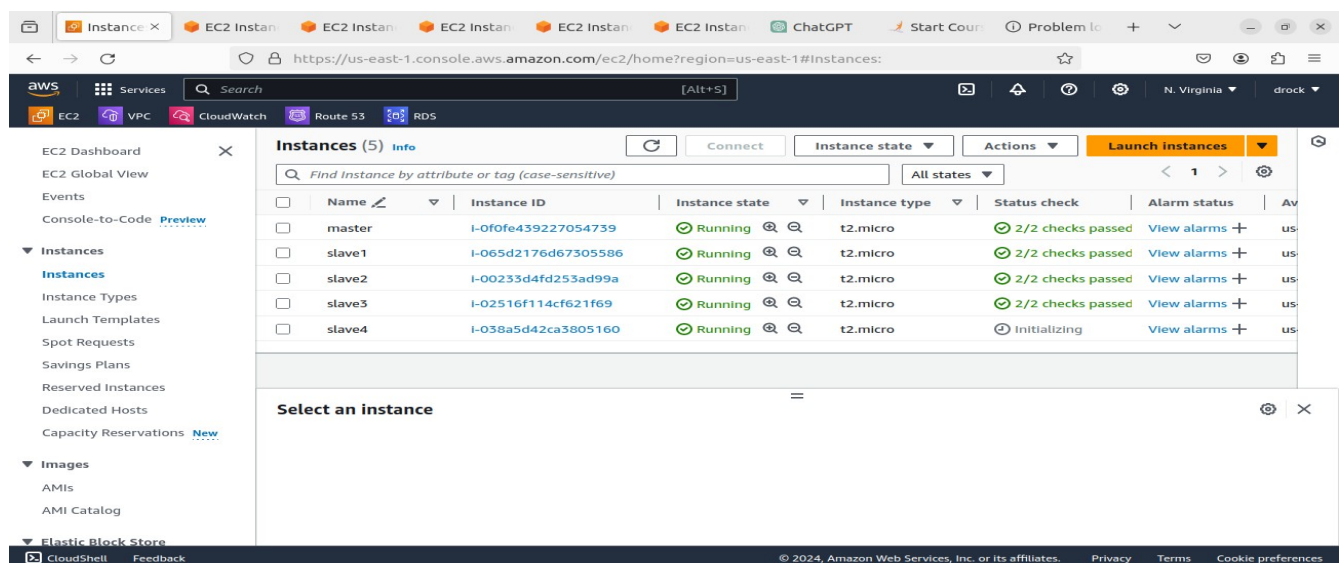
sudo apt update

Download and install the Puppet repository package:

wget <https://apt.puppetlabs.com/puppet-release-bionic.deb>

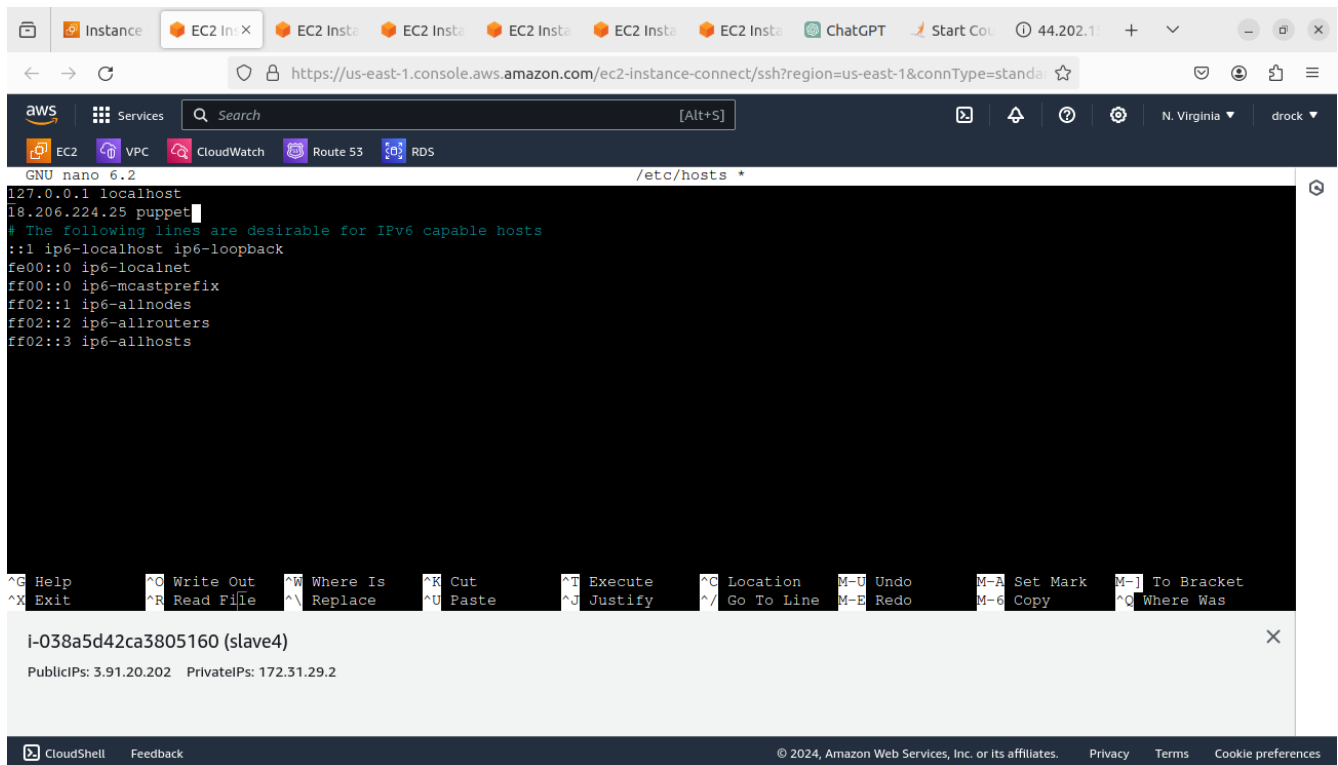
sudo dpkg -i puppet-release-bionic.deb

Install Puppet: sudo apt install puppet



sudo nano /etc/hosts

masterip puppet



The screenshot shows an AWS CloudShell terminal window. At the top, there's a navigation bar with 'Instance' and 'EC2 Instance' tabs. The address bar shows the URL: `https://us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=us-east-1&connType=standard`. The terminal itself is running GNU nano 6.2 and is editing the `/etc/hosts` file. The content of the file is as follows:

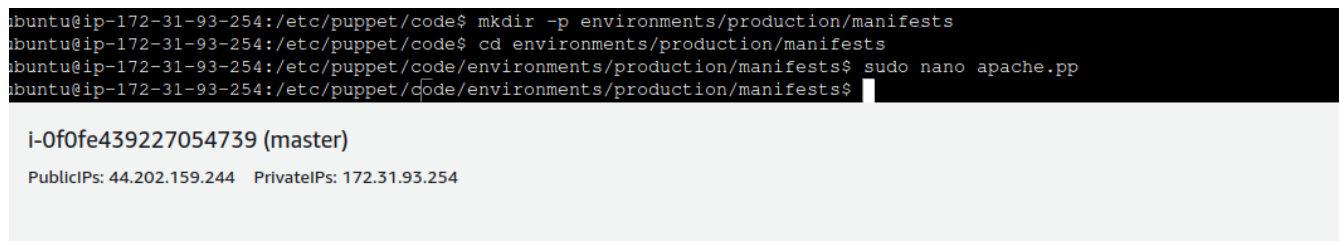
```
127.0.0.1 localhost
18.206.224.25 puppet
# The following lines are desirable for IPv6 capable hosts
::1 ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
ff02::3 ip6-allhosts
```

Below the terminal, a metadata box shows the instance ID `i-038a5d42ca3805160 (slave4)` and its IP addresses: `PublicIPs: 3.91.20.202` and `PrivateIPs: 172.31.29.2`. The bottom of the window has a footer with 'CloudShell', 'Feedback', and copyright information for Amazon Web Services, Inc. or its affiliates.

Start and enable the Puppet service:

```
sudo systemctl start puppet
sudo systemctl enable puppet
```

THE MANIFEST



The screenshot shows an AWS CloudShell terminal window. The terminal is running on an instance with ID `i-0f0fe439227054739 (master)` and IP addresses `PublicIPs: 44.202.159.244` and `PrivateIPs: 172.31.93.254`. The terminal output shows the following commands and their results:

```
ubuntu@ip-172-31-93-254:/etc/puppet/code$ mkdir -p environments/production/manifests
ubuntu@ip-172-31-93-254:/etc/puppet/code$ cd environments/production/manifests
ubuntu@ip-172-31-93-254:/etc/puppet/code/environments/production/manifests$ sudo nano apache.pp
ubuntu@ip-172-31-93-254:/etc/puppet/code/environments/production/manifests$
```

```
if Package['apache2'] {
  package { 'nginx':
    ensure => installed,
  }

  service { 'nginx':
    ensure => running,
    enable => true,
  }
}
```

```
GNU nano 6.2 apache.pp *
if Package['apache2'] {
  package { 'nginx':
    ensure => installed,
  }

  service { 'nginx':
    ensure => running,
    enable => true,
  }
}
```

i-0f0fe439227054739 (master)
PublicIPs: 44.202.159.244 PrivateIPs: 172.31.93.254

On Master.

```
sudo puppet cert list
```

```
sudo puppet cert sign ip-172-31-93-207.ec2.internal
```

```
sudo systemctl restart puppet-master
```

```
ubuntu@ip-172-31-93-254:~$ sudo puppet cert list
Warning: `puppet cert` is deprecated and will be removed in a future release.
(location: /usr/lib/ruby/vendor_ruby/puppet/application.rb:370:in `run')
"ip-172-31-29-2.ec2.internal" (SHA256) D3:DA:22:77:9C:03:97:3F:D3:51:22:F1:67:26:3F:A0:23:D8:F0:AE:77:18:40:42:FE:00
ubuntu@ip-172-31-93-254:~$ sudo puppet cert sign ip-172-31-29-2.ec2.internal
Warning: `puppet cert` is deprecated and will be removed in a future release.
(location: /usr/lib/ruby/vendor_ruby/puppet/application.rb:370:in `run')
Signing Certificate Request for:
"ip-172-31-29-2.ec2.internal" (SHA256) D3:DA:22:77:9C:03:97:3F:D3:51:22:F1:67:26:3F:A0:23:D8:F0:AE:77:18:40:42:FE:00
Notice: Signed certificate request for ip-172-31-29-2.ec2.internal
Notice: Removing file Puppet::SSL::CertificateRequest ip-172-31-29-2.ec2.internal at '/var/lib/puppet/ssl/ca/requests/
internal.pem'
ubuntu@ip-172-31-93-254:~$
```

i-0f0fe439227054739 (master)
PublicIPs: 44.202.159.244 PrivateIPs: 172.31.93.254

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.