

Set B Question 1

CLASSMATE
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SET-B

Q1) Working of Puppet

① What is puppet

- Puppet is a Configuration Management (CM) tool.
- It is also used as a deployment tool.
- It implements infrastructure as code.
- Ensures all systems are configured to the desired states.
- Automatically deploys software on the system.
- Policies and configuration are written as code.

② How puppet works?

- Puppet works on Pull Based CM tool.
- In this type of CM tool, the nodes pull the configuration information from the server.
- A small software (called agent or client or slave) is installed on every node.
- Now, the agent or slave will:
 - i) get the configuration from the server at regular intervals.
 - ii) compare the configuration received from the server with the current configuration of the node.
 - iii) if there is any mismatch, take the steps required to match the configuration of the node with the configuration received from the server.
- iv) This means that, it's always the agent/client/slave that initiates communication, not the main server/master.
- v) Chef & Puppet work on this ~~CM~~ configuration.

Puppet Architecture

- Puppet uses master-slave or client-server architecture.
- Puppet client and server are interconnected by SSH, which is a secure socket shell. It is a model-driven system.
- Here,
the client is referred to Puppet agent/slave.
and the server is referred to Puppet master.
- Puppet master handles all the configuration related processes in the form of puppet codes. It is a Linux based system in which puppet master software is installed.
- Puppet Agents/ Slaves are the real working systems and are used by the Client. It is installed on the client machine and maintained and managed by the puppet master.

The agent machine can be configured on any OS, such as Windows, Linux, Solaris, or Mac OS.
- Config Repository is the storage area where all the servers and nodes related configurations are stored, and we can pull these configurations as per requirements.

Figure 1

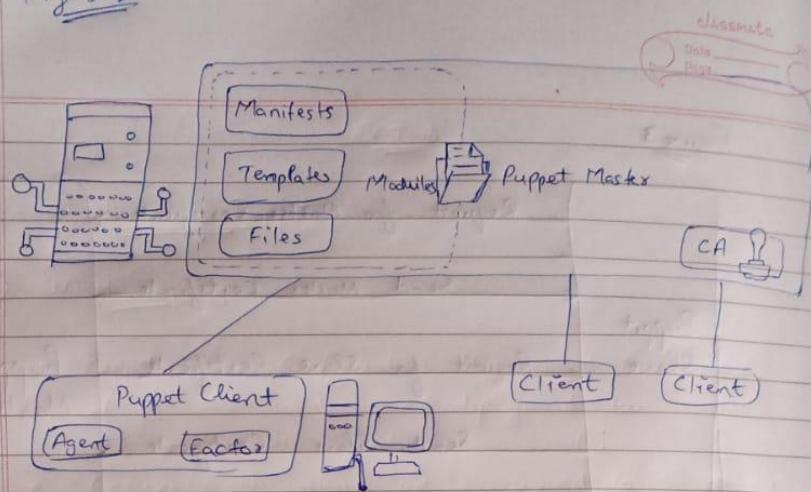
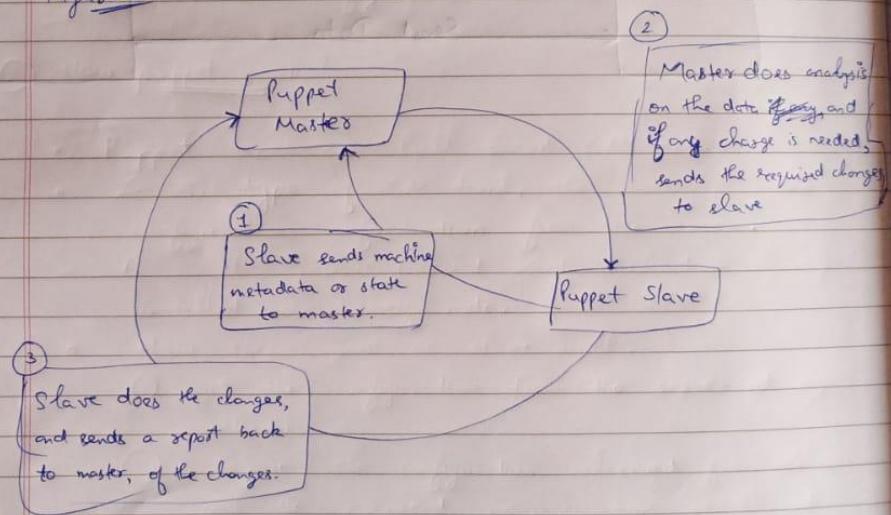
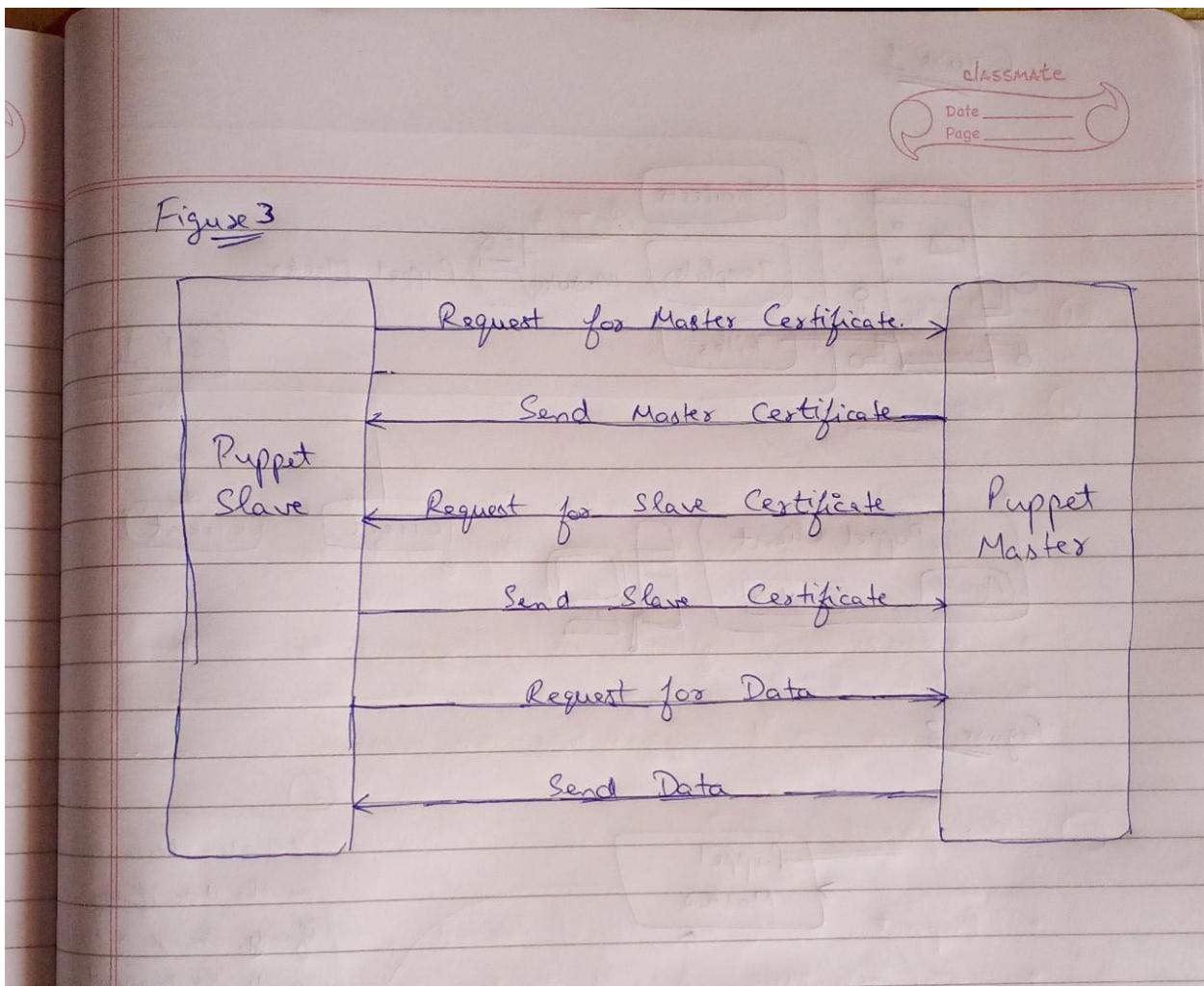


Figure 2





Question 2 Configuration of Master

- Update servers

```

ubuntu@ip-172-31-9-174:~$ sudo apt-get update
Get:1 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Hit:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [114 kB]
Get:4 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [295 kB]
Get:5 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [99.8 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
Get:7 http://security.ubuntu.com/ubuntu jammy-security/main Translation-en [69.1 kB]
Get:8 http://security.ubuntu.com/ubuntu jammy-security/main amd64 c-n-f Metadata [3924 B]
Get:9 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [274 kB]
Get:10 http://security.ubuntu.com/ubuntu jammy-security/restricted Translation-en [42.3 kB]
Get:11 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 c-n-f Metadata [524 B]
Get:12 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [121 kB]
Get:13 http://security.ubuntu.com/ubuntu jammy-security/universe Translation-en [102 kB]

```

Page 1 of 1 0 words English (United States) Text Predictions: On Accessibility: Unavailable Focus 16:04 AAPL ENG 07-09-2022

- sudo apt-get install wget

A screenshot of a Microsoft Word document window. The title bar says "Document1 - Compatibility Mode - Word". The main content area displays the terminal output of the command "sudo apt-get install wget". The output shows the download of several files from "ap-south-1.ec2.archive.ubuntu.com" and the successful installation of the "wget" package. The Word ribbon is visible at the top, and the taskbar at the bottom shows various open applications like File Explorer, Edge, and VS Code.

```

Get:36 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [1432 B]
Get:37 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [272 B]
Get:38 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:39 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [6724 B]
Get:40 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [9216 B]
Get:41 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [352 B]
Get:42 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [116 B]
Fetched 23.0 MB in 6s (4160 kB/s)
Reading package lists... Done
ubuntu@ip-172-31-9-174:~$ sudo apt-get install wget
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
wget is already the newest version (1.21.2-2ubuntul).
wget set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 77 not upgraded.
ubuntu@ip-172-31-9-174:~$ 
```

- sudo nano /etc/hosts

A screenshot of a Microsoft Word document window, identical to the previous one, showing the terminal output of "sudo nano /etc/hosts". The output is the same as the previous command, indicating wget is already the newest version. The Word interface and taskbar are visible.

```

Get:36 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [1432 B]
Get:37 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [272 B]
Get:38 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:39 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [6724 B]
Get:40 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [9216 B]
Get:41 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [352 B]
Get:42 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [116 B]
Fetched 23.0 MB in 6s (4160 kB/s)
Reading package lists... Done
ubuntu@ip-172-31-9-174:~$ sudo apt-get install wget
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
wget is already the newest version (1.21.2-2ubuntul).
wget set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 77 not upgraded.
ubuntu@ip-172-31-9-174:~$ sudo nano /etc/host: 
```

- <public ip of master> puppet

```
ubuntu@ip-172-31-9-174: ~
# 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
```

The context menu for the terminal window includes options: File Name to Write: /etc/hosts, G Help, M-DOS Format, M-A Append, M-B Backup File, C Cancel, M-M Mac Format, M-P Prepend, and I Browse.

Instance: i-0274fca4774d9fc3 (master)

Details | Security | Network

Instance ID: i-0274fca4774d9fc3 (master) | Private IPv4 addresses: 172.31.9.174
IPv6 address: - | Instance state: Running | Public IPv4 DNS: ec2-65-0-108-211.ap-south-1.compute.amazonaws.com | Open address

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- Download files (Debian package)

```
ubuntu@ip-172-31-9-174: ~
Get:37 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [272 B]
Get:38 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:39 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [6724 B]
Get:40 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [9216 B]
Get:41 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [352 B]
Get:42 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [116 B]
Fetched 23.0 kB in 6s (4160 kB/s)
Reading package lists... Done
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
wget is already the newest version (1.21.2-2ubuntu1).
wget set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 77 not upgraded.
ubuntu@ip-172-31-9-174:~$ sudo apt-get install wget
ubuntu@ip-172-31-9-174:~$ wget https://apt.puppetlabs.com/puppet-release-bionic.deb
```

Instance: i-0274fca4774d9fc3 (master)

Details | Security | Network

Instance ID: i-0274fca4774d9fc3 (master) | Private IPv4 addresses: 172.31.9.174
IPv6 address: - | Instance state: Running | Public IPv4 DNS: ec2-65-0-108-211.ap-south-1.compute.amazonaws.com | Open address

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- Unzip the file

```

ubuntu@ip-172-31-9-174:~$ wget https://apt.puppetlabs.com/puppet-release-bionic.deb
2022-09-07 10:40:24-- https://apt.puppetlabs.com/puppet-release-bionic.deb
Resolving apt.puppetlabs.com (apt.puppetlabs.com)... 108.159.80.88, 108.159.80.20, 108.159.80.32, ...
Connecting to apt.puppetlabs.com (apt.puppetlabs.com)|108.159.80.88|:443...
HTTP request sent, awaiting response... 200 OK
Length: 11736 (11K) [application/x-debian-package]
Saving to: 'puppet-release-bionic.deb'

2022-09-07 10:40:24 (179 MB/s) - 'puppet-release-bionic.deb' saved [11736/11736]

ubuntu@ip-172-31-9-174:~$ sudo dpkg -i puppet-release-bionic.deb

```

Instance: i-0274fca4774d9fc3 (master)

Details	Security	Network																
Instance summary <table border="1"> <tr> <td>Instance ID</td> <td>i-0274fca4774d9fc3 (master)</td> <td>Private IPv4 addresses</td> <td>172.31.9.174</td> </tr> <tr> <td>IPv6 address</td> <td>-</td> <td>Public IPv4 DNS</td> <td>ec2-65-0-108-211.ap-south-1.compute.amazonaws.com open address</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>			Instance ID	i-0274fca4774d9fc3 (master)	Private IPv4 addresses	172.31.9.174	IPv6 address	-	Public IPv4 DNS	ec2-65-0-108-211.ap-south-1.compute.amazonaws.com open address								
Instance ID	i-0274fca4774d9fc3 (master)	Private IPv4 addresses	172.31.9.174															
IPv6 address	-	Public IPv4 DNS	ec2-65-0-108-211.ap-south-1.compute.amazonaws.com open address															

- Install puppet master

```

ubuntu@ip-172-31-9-174:~$ sudo apt-get install puppet-master
Reading previously unselected package puppet-release.
(Reading database ... 63612 files and directories currently installed.)
Preparing to unpack puppet-release-bionic.deb ...
Unpacking puppet-release (1.0.0-14+bionic) ...
Setting up puppet-release (1.0.0-14+bionic) ...
ubuntu@ip-172-31-9-174:~$ sudo apt-get install puppet-master

```

Instance: i-0274fca4774d9fc3 (master)

Details	Security	Network																
Instance summary <table border="1"> <tr> <td>Instance ID</td> <td>i-0274fca4774d9fc3 (master)</td> <td>Private IPv4 addresses</td> <td>172.31.9.174</td> </tr> <tr> <td>IPv6 address</td> <td>-</td> <td>Public IPv4 DNS</td> <td>ec2-65-0-108-211.ap-south-1.compute.amazonaws.com open address</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>			Instance ID	i-0274fca4774d9fc3 (master)	Private IPv4 addresses	172.31.9.174	IPv6 address	-	Public IPv4 DNS	ec2-65-0-108-211.ap-south-1.compute.amazonaws.com open address								
Instance ID	i-0274fca4774d9fc3 (master)	Private IPv4 addresses	172.31.9.174															
IPv6 address	-	Public IPv4 DNS	ec2-65-0-108-211.ap-south-1.compute.amazonaws.com open address															

- Check puppet master policy

Instances (1/5) Info

```
ubuntu@ip-172-31-9-174:~$ apt policy puppet-master
Setting up ruby-sorted-set (1.0.0-3) ...
Setting up puppet (5.5.22-4ubuntu0.2) ...
puppet.service is a disabled or a static unit, not starting it.
Created symlink /etc/systemd/system/puppetmaster.service --> /lib/systemd/system/puppet-master.service.
Created symlink /etc/systemd/system/multi-user.target.wants/puppet-master.service.
Processing triggers for libc-bin (2.35-0ubuntu3) ...
Processing triggers for man-db (2.10.2-1) ...
Scanning processes...
Scanning linux images...
Running kernel seems to be up-to-date.
No services need to be restarted.
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.
ubuntu@ip-172-31-9-174:~$ apt policy puppet-master
```

Instance: i-0274fca4774d9fc3 (master)

Details	Security	Network
Instance summary Instance ID: i-0274fca4774d9fc3 (master) IPv6 address: - Instance state: Running	Private IPv4 addresses: 172.31.9.174 Public IPv4 DNS: ec2-65-0-108-211.ap-south-1.compute.amazonaws.com	© 2022, Amazon Internet Services Private Ltd. or its affiliates. Privacy Terms Cookie preferences

- Check the puppet master active status

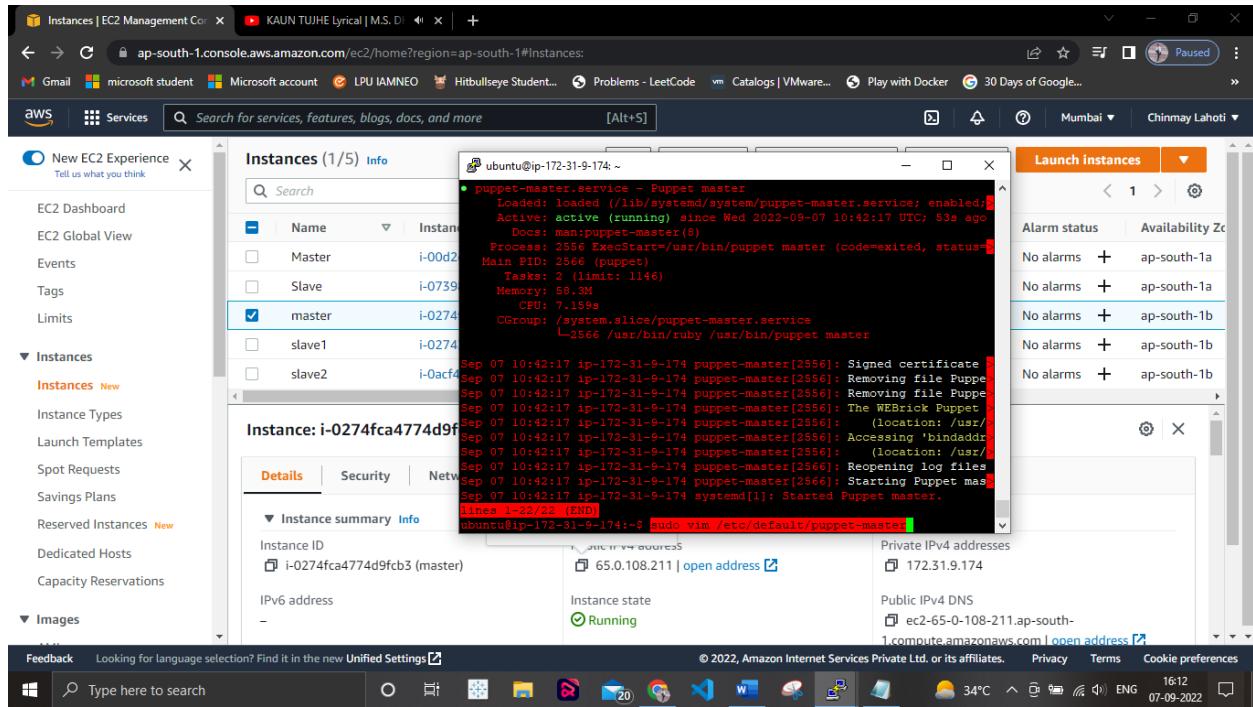
Instances (1/5) Info

```
ubuntu@ip-172-31-9-174:~$ sudo systemctl status puppet-master.service
Running kernel seems to be up-to-date.
No services need to be restarted.
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.
ubuntu@ip-172-31-9-174:~$ sudo systemctl status puppet-master.service
ubuntu@ip-172-31-9-174:~$ puppet master --status
  * [ok] puppetmaster[running]
    puppet: puppetmaster[running]
      puppet: puppetmaster[running]
        puppet: puppetmaster[running]
          puppet: puppetmaster[running]
            puppet: puppetmaster[running]
              puppet: puppetmaster[running]
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                                                                                      puppet: puppetmaster[running]
                                                                                      puppet: puppetmaster[running]
```

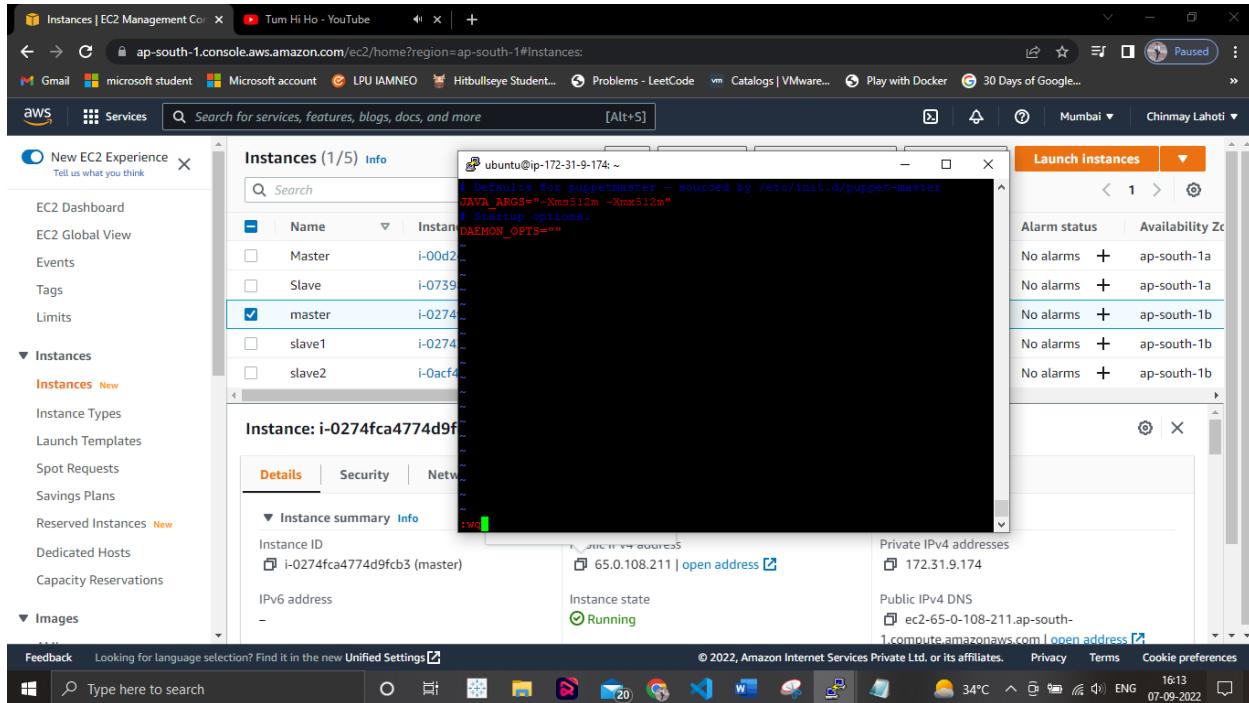
Instance: i-0274fca4774d9fc3 (master)

Details	Security	Network
Instance summary Instance ID: i-0274fca4774d9fc3 (master) IPv6 address: - Instance state: Running	Private IPv4 addresses: 172.31.9.174 Public IPv4 DNS: ec2-65-0-108-211.ap-south-1.compute.amazonaws.com	© 2022, Amazon Internet Services Private Ltd. or its affiliates. Privacy Terms Cookie preferences

- Go to file to change args



- Change java args for primary memory



- Restart Puppet master

The screenshot shows the AWS Management Console with the EC2 Instances page open. A terminal window is active on instance i-0274fca4774d9fc3 (master). The command 'sudo systemctl restart puppet-master.service' is being typed and executed.

```

ubuntu@ip-172-31-9-174:~$ sudo systemctl restart puppet-master.service
[...]

```

- Open port to communicate with slave

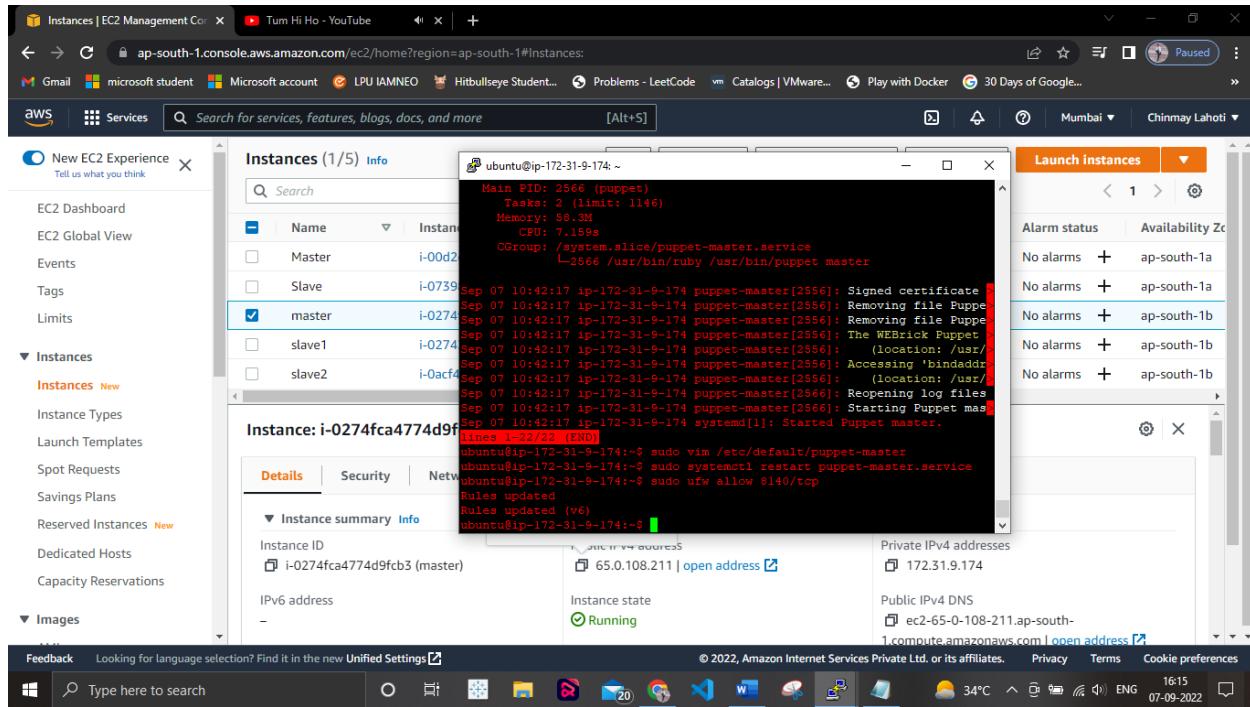
The screenshot shows the AWS Management Console with the EC2 Instances page open. A terminal window is active on instance i-0274fca4774d9fc3 (master). The command 'sudo ufw allow 3140/tcp' is being typed and executed.

```

ubuntu@ip-172-31-9-174:~$ sudo ufw allow 3140/tcp
[...]

```

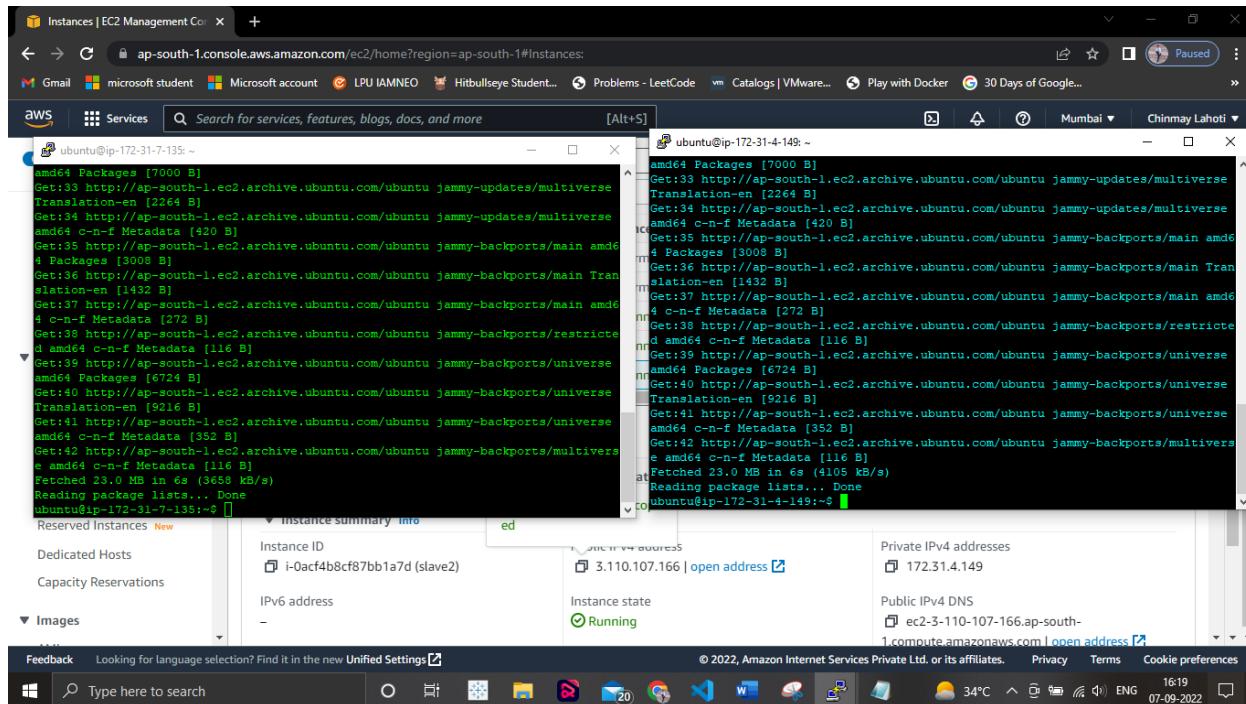
- Configuration of the master is done.



Slave Configuration

Slave1 = Green Color

- sudo apt-get update



Slave2 = Blue Color

- sudo apt-get install wget

Instances | EC2 Management Con... +

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Instances:

Gmail Microsoft student Microsoft account LPU IAMNEO Hitbullseye Student... Problems - LeetCode Catalogs | VMware... Play with Docker 30 Days of Google...

aws Services Search for services, features, blogs, docs, and more [Alt+S]

ubuntu@ip-172-31-7-135:~

```
Get:36 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [2264 B]
Get:34 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [420 B]
Get:35 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [3008 B]
Get:36 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [1432 B]
Get:37 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [272 B]
Get:38 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:39 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [6724 B]
Get:40 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [9216 B]
Get:41 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [352 B]
Get:42 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/multivers e amd64 c-n-f Metadata [116 B]
Fetched 23.0 MB in 6s (3658 kB/s)
Reading package lists... Done
ubuntu@ip-172-31-7-135:~$ sudo apt-get install wget
```

sudo apt-get install wget

Reserved Instances New

Dedicated Hosts

Capacity Reservations

Images

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Ubuntu 22.04 LTS | open address 3.110.107.166 | open address Instance state Running Private IPv4 addresses 172.31.4.149 Public IPv4 DNS ec2-3-110-107-166.ap-south-1.compute.amazonaws.com | open address

34°C 16:20 07-09-2022

sudo nano /etc/hosts

Instances | EC2 Management Con... +

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Instances:

Gmail Microsoft student Microsoft account LPU IAMNEO Hitbullseye Student... Problems - LeetCode Catalogs | VMware... Play with Docker 30 Days of Google...

aws Services Search for services, features, blogs, docs, and more [Alt+S]

ubuntu@ip-172-31-4-149:~

```
Get:36 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [1432 B]
Get:37 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [272 B]
Get:38 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:39 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [6724 B]
Get:40 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [9216 B]
Get:41 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [352 B]
Get:42 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/multivers e amd64 c-n-f Metadata [116 B]
Fetched 23.0 MB in 6s (4105 kB/s)
Reading package lists... Done
ubuntu@ip-172-31-4-149:~$ sudo apt-get install wget
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
wget is already the newest version (1.21.2-2ubuntu1).
wget set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 77 not upgraded.
ubuntu@ip-172-31-4-149:~$ sudo nano /etc/hosts
```

sudo nano /etc/hosts

Reserved Instances New

Dedicated Hosts

Capacity Reservations

Images

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Ubuntu 22.04 LTS | open address 65.0.108.211 | open address Instance state Running Private IPv4 addresses 172.31.9.174 Public IPv4 DNS ec2-65-0-108-211.ap-south-1.compute.amazonaws.com | open address

34°C 16:21 07-09-2022

<public ip of master> puppet

```

ubuntu@ip-172-31-4-149:~$ cat /etc/hosts
127.0.0.1 localhost
65.0.108.211 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

ubuntu@ip-172-31-4-149:~$ nano /etc/hosts

```

File Name to Write: /etc/hosts

Help M-D DOS Format M-A Append M-B Backup File
Cancel M-M Mac Format M-P Prepend M-Browse ed

Instance ID: i-0274fca4774d9fc3 (master)

IPv6 address: -

Instance state: Running

Private IPv4 addresses: 172.31.9.174

Public IPv4 DNS: ec2-65-0-108-211.ap-south-1.compute.amazonaws.com

Feedback Looking for language selection? Find it in the new Unified Settings.

Type here to search

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

```

ubuntu@ip-172-31-4-149:~$ wget https://apt.puppetlabs.com/puppet-release-bionic.deb

```

ubuntu@ip-172-31-4-149:~\$ Get:37 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 Metadata [272 B]
Get:38 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:39 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [6724 B]
Get:40 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [9216 B]
Get:41 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [352 B]
Get:42 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/multiverse amd64 c-n-f Metadata [116 B]
Fetched 23.0 Mb in 6s (3658 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
wget is already the newest version (1.21.2-2ubuntul).
wget set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 77 not upgraded.
ubuntu@ip-172-31-4-149:~\$ sudo apt-get install wget
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
wget is already the newest version (1.21.2-2ubuntul).
wget set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 77 not upgraded.
ubuntu@ip-172-31-4-149:~\$ sudo nano /etc/hosts
ubuntu@ip-172-31-4-149:~\$ wget https://apt.puppetlabs.com/puppet-release-bionic.deb

ubuntu@ip-172-31-4-149:~\$

File Name to Write: /etc/hosts

Help M-D DOS Format M-A Append M-B Backup File
Cancel M-M Mac Format M-P Prepend M-Browse ed

Instance ID: i-0274fca4774d9fc3 (master)

IPv6 address: -

Instance state: Running

Private IPv4 addresses: 172.31.9.174

Public IPv4 DNS: ec2-65-0-108-211.ap-south-1.compute.amazonaws.com

Feedback Looking for language selection? Find it in the new Unified Settings.

Type here to search

sudo dpkg -i puppet-release-bionic.deb

Instances | EC2 Management Con +

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Instances:

Gmail Microsoft student Microsoft account LPU IAMNEO Hitbullseye Student... Problems - LeetCode Catalogs | VMware... Play with Docker 30 Days of Google...

aws Services Search for services, features, blogs, docs, and more [Alt+S]

ubuntu@ip-172-31-7-135:~

```
ubuntu@ip-172-31-7-135:~$ sudo apt-get install wget
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
wget is already the newest version (1.21.2-2ubuntul).
wget set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 77 not upgraded.
ubuntu@ip-172-31-7-135:~$ sudo nano /etc/hosts
ubuntu@ip-172-31-7-135:~$ wget https://apt.puppetlabs.com/puppet-release-bionic.deb
--2022-09-07 10:54:47-- https://apt.puppetlabs.com/puppet-release-bionic.deb
Resolving apt.puppetlabs.com (apt.puppetlabs.com)... 108.159.80.39, 108.159.80.8
, 108.159.80.20, ...
Connecting to apt.puppetlabs.com (apt.puppetlabs.com)|108.159.80.39|:443...
HTTP request sent, awaiting response... 200 OK
Length: 11736 (11K) [application/x-debian-package]
Saving to: 'puppet-release-bionic.deb'

puppet-release-bion 100%[=====] 11.46K --.-KB/s in 0s

2022-09-07 10:54:47 (356 MB/s) - 'puppet-release-bionic.deb' saved [11736/11736]

ubuntu@ip-172-31-7-135:~$ sudo dpkg -i puppet-release-bionic.deb
```

Reserved Instances New

Dedicated Hosts

Capacity Reservations

Images

Feedback Looking for language selection? Find it in the new Unified Settings

Type here to search

Instance ID: i-0274fca4774d9fc3 (master)

IPv6 address: -

Instance state: Running

Private IPv4 addresses: 65.0.108.211 | open address 172.31.9.174

Public IPv4 DNS: ec2-65-0-108-211.ap-south-1.compute.amazonaws.com | open address

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ENG 16:23 07-09-2022

sudo apt-get install puppet

Instances | EC2 Management Con +

ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Instances:

Gmail Microsoft student Microsoft account LPU IAMNEO Hitbullseye Student... Problems - LeetCode Catalogs | VMware... Play with Docker 30 Days of Google...

aws Services Search for services, features, blogs, docs, and more [Alt+S]

ubuntu@ip-172-31-7-135:~

```
0 upgraded, 0 newly installed, 0 to remove and 77 not upgraded.
ubuntu@ip-172-31-7-135:~$ sudo nano /etc/hosts
ubuntu@ip-172-31-7-135:~$ wget https://apt.puppetlabs.com/puppet-release-bionic.deb
--2022-09-07 10:54:49-- https://apt.puppetlabs.com/puppet-release-bionic.deb
Resolving apt.puppetlabs.com (apt.puppetlabs.com)... 108.159.80.39, 108.159.80.8
, 108.159.80.20, ...
Connecting to apt.puppetlabs.com (apt.puppetlabs.com)|108.159.80.39|:443...
HTTP request sent, awaiting response... 200 OK
Length: 11736 (11K) [application/x-debian-package]
Saving to: 'puppet-release-bionic.deb'

puppet-release-bion 100%[=====] 11.46K --.-KB/s in 0s

2022-09-07 10:54:49 (308 MB/s) - 'puppet-release-bionic.deb' saved [11736/11736]

ubuntu@ip-172-31-7-135:~$ sudo dpkg -i puppet-release-bionic.deb
Selecting previously unselected package puppet-release.
(Reading database ... 63612 files and directories currently installed.)
Preparing to unpack puppet-release-bionic.deb ...
Unpacking puppet-release (1.0.0-14bionic) ...
Setting up puppet-release (1.0.0-14bionic) ...
ubuntu@ip-172-31-7-135:~$ sudo apt-get install puppet
```

Reserved Instances New

Dedicated Hosts

Capacity Reservations

Images

Feedback Looking for language selection? Find it in the new Unified Settings

Type here to search

Instance ID: i-0274fca4774d9fc3 (master)

IPv6 address: -

Instance state: Running

Private IPv4 addresses: 65.0.108.211 | open address 172.31.9.174

Public IPv4 DNS: ec2-65-0-108-211.ap-south-1.compute.amazonaws.com | open address

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ENG 16:24 07-09-2022

sudo systemctl start puppet

```
sudo systemctl enable puppet
```

The screenshot shows a terminal window within the AWS Management Console. The terminal output displays the results of a Puppet agent run on an EC2 instance. It includes logs for various system packages like ruby-selinux, ruby-auges, ruby-rbtree, ruby-shadow, hiera, puppet, and puppet triggers. It also shows that the kernel is up-to-date and no services need restarting. The terminal then runs the command `sudo systemctl start puppet`, followed by `sudo systemctl enable puppet`. Below the terminal, the AWS CloudWatch Metrics interface is visible, showing metrics for Reserved Instances, Dedicated Hosts, Capacity Reservations, and Images. A specific metric for an instance named "i-0274fcfa4774d9fcf3 (master)" is selected, displaying its Instance ID, IPv6 address (empty), and Instance state as "Running". The private IPv4 address is listed as 172.31.9.174, and the public IPv4 DNS is ec2-65-0-108-211.ap-south-1.compute.amazonaws.com.

```
ubuntu@ip-172-31-7-135:~ Setting up ruby-selinux:amd64 (3.3-1build2) ... Setting up ruby-auges (1:0.5.0-3build9) ... Setting up ruby-rbtree (0.4.4-1build2) ... Setting up ruby-shadow (2.5.0-gh-1build2) ... Setting up hiera (3.2.0-2.1) ... Setting up ruby-sorted-set (1.0.3-3) ... Setting up puppet (5.5.22-4ubuntu0.2) ... puppet.service is a disabled or a static unit, not starting it. Processing triggers for libc-bin (2.35-0ubuntu3) ... Processing triggers for man-db (2.10.2-1) ... Scanning processes... Scanning linux images... Running kernel seems to be up-to-date. No services need to be restarted. 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. ubuntu@ip-172-31-7-135:~$ sudo systemctl start puppet ubuntu@ip-172-31-7-135:~$ sudo systemctl enable puppet
```

Reserved Instances	New
Dedicated Hosts	
Capacity Reservations	
Images	

Instance summary

Instance ID	IPv6 address	Instance state	Private IPv4 addresses	Public IPv4 DNS
i-0274fcfa4774d9fcf3 (master)	-	Running	65.0.108.211 open address	ec2-65-0-108-211.ap-south-1.compute.amazonaws.com open address

Feedback Looking for language selection? Find it in the new Unified Settings

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Type here to search

16:26 34°C ENG 07-09-2022

Configuration of the slave is done.

On Master

Need to check the certificate request

```

Tasks: 2 (limit: 1146)
Memory: 58.3M
CPU: 7.159s
CGroup: /system.slice/puppet-master.service
└─2566 /usr/bin/ruby /usr/bin/puppet master

Sep 07 10:42:17 ip-172-31-9-174 puppet-master[2566]: Signed certificate
Sep 07 10:42:17 ip-172-31-9-174 puppet-master[2566]: Removing file Puppet
Sep 07 10:42:17 ip-172-31-9-174 puppet-master[2566]: Removing file Puppet
Sep 07 10:42:17 ip-172-31-9-174 puppet-master[2566]: The WEBrick Puppet
Sep 07 10:42:17 ip-172-31-9-174 puppet-master[2566]: (location: /usr/
Sep 07 10:42:17 ip-172-31-9-174 puppet-master[2566]: Accessing 'bindaddr'
Sep 07 10:42:17 ip-172-31-9-174 puppet-master[2566]: (location: /usr/
Sep 07 10:42:17 ip-172-31-9-174 puppet-master[2566]: Reopening log files
Sep 07 10:42:17 ip-172-31-9-174 puppet-master[2566]: Starting Puppet mas
Sep 07 10:42:17 ip-172-31-9-174 systemd[1]: Started Puppet master.

lines 1-22/22 (END)
ubuntu@ip-172-31-9-174:~$ sudo vim /etc/default/puppet-master
ubuntu@ip-172-31-9-174:~$ sudo systemctl restart puppet-master.service
ubuntu@ip-172-31-9-174:~$ sudo ufw allow 8140/tcp
Rules updated (v6)
ubuntu@ip-172-31-9-174:~$ sudo puppet cert list

```

If there is any certificate then sign them.

```

ubuntu@ip-172-31-9-174:~$ sudo puppet cert sign --all
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-172-31-4-149.ap-south-1.compute.internal" (SHA256) DE:2E:94:4F:D0:1
  A:98:42:1F:36:05:20:DA:5D:AE:Ae:07:48:A5:E6:1B:85:Ea:13:eB:26:B0:96:3C:11:T
  :75:42
  Notice: Signed certificate request for ip-172-31-4-149.ap-south-1.compute
  .internal
  Notice: Removing file Puppet::SSL::CertificateRequest ip-172-31-4-149.ap-
  south-1.compute.internal at '/var/lib/puppet/ssl/ca/requests/ip-172-31-4-149.ap-
  south-1.compute.internal.pem'
  Signing Certificate Request for:
  "ip-172-31-7-135.ap-south-1.compute.internal" (SHA256) 21:8:FA:4B:21:4
  0:E2:09:51:28:D7:84:D9:97:59:CA:0A:10:98:53:B9:EC:6E:77:17:FC:E9:35:0A:60
  :15:3:DB
  Notice: Signed certificate request for ip-172-31-7-135.ap-south-1.compute
  .internal
  Notice: Removing file Puppet::SSL::CertificateRequest ip-172-31-7-135.ap-
  south-1.compute.internal at '/var/lib/puppet/ssl/ca/requests/ip-172-31-7-135.ap-
  south-1.compute.internal.pem'
  ubuntu@ip-172-31-9-174:~$ 

```