

Installation of Puppet in AWS environment:

1) Create 2 Ubuntu VM and add puppetmaster server's public ip as "puppet" in hosts file on both master and slave.

Sample:

```
root@ip-172-31-41-62:/tmp# cat /etc/hosts
```

```
127.0.0.1 localhost
```

```
18.223.121.167 puppet
```

```
On Master :
sudo apt-get update
sudo apt-get install wget
wget https://apt.puppetlabs.com/puppet-release-bionic.deb
sudo dpkg -i puppet-release-bionic.deb
sudo apt-get install puppetmaster
apt policy puppetmaster
sudo systemctl status puppet-master.service
vim /etc/default/puppet-master
|-- JAVA_ARGS="-Xms512m -Xmx512m"
sudo systemctl restart puppet-master.service

sudo ufw allow 8140/tcp

//Change Code
```

```
//Puppet Agent
sudo apt-get update
sudo apt-get install wget
wget https://apt.puppetlabs.com/puppet-release-bionic.deb
sudo dpkg -i puppet-release-bionic.deb
sudo apt-get install puppet

sudo systemctl start puppet
```

On puppetmaster server execute given below command to check the status of certificates

```
#puppet cert list -> This should show the certificate request from slave
```

```

//On Puppet Master

sudo puppet cert sign --all

//On Puppet Agent

sudo puppet agent --test

```

Please make sure that on host file of puppet agent we have master server IP with name puppet.

On puppet master please perform given below task.

```

vim /etc/default/puppet-master
-- JAVA_ARGS="-Xms512m -Xmx512m"
sudo systemctl restart puppet-master.service

sudo ufw allow 8140/tcp

//Change Code
sudo mkdir -p /etc/puppet/code/environments/production/manifests/
sudo nano /etc/puppet/code/environments/production/manifests/site.pp
file {'/tmp/it_works.txt':
    ensure => present,
    mode   => '0644',
    content => "It works on ${ipaddress_eth0}!\n",
}

```

Creating sample manifest by creating /etc/puppet/code/environments/production/manifest/

LAB:

Create manifest file and execute them.

Demo –1: Configuring Agents using Manifests•Edit the Default Manifest(site.pp) inside the /etc/puppetlabs/code/environments/production/manifests/site.pp

Syntax: vi /etc/puppetlabs/code/environments/production/manifests/site.pp

Steps:

- 1) vi /etc/puppetlabs/code/environments/production/manifests/site.pp•Write the changes you want in the agent nodes and save the file

2) `package {'git':ensure => present}exec {'apt-update':command => '/usr/bin/apt-get update'}`•Now on the agent node pull the catalog by using test command syntax:

3) `/opt/puppetlabs/bin/puppet agent -t`

Lab2:

Create puppet module

1)create module folder

```
#mkdir /var/tmp/module
```

```
Cd /var/tmp/module
```

```
#/opt/puppetlabs/bin/puppet module generate edu-apache2
```

Please answer all questions:

4)Go to module folder and edit init.pp file

Paste given below info

```
class apache2{exec {'apt-update':command => '/usr/bin/apt-get update'}package
{'default-jdk':ensure => present}package {'apache2':ensure => present,require =>
Exec['apt-update']}exec {'apache_full_access':command => "/usr/sbin/ufw allow 'Apache
Full'"}file {'/var/www/html/index.html':mode => '0644',content =>
"<html><head><title>Demo Tutorial</title></head><body>This is the Module
Demo</body></head>"}}
```

5)Now build the module

```
#/opt/puppetlabs/bin/puppet module build apache2
```

6) After building, install the module on the master machineSyntax: `/opt/puppetlabs/bin/puppet module install <path to tar.gz build file>`

7) Now, add the module to the site.ppfile in the default manifest folder

On the puppet agent test the catalog•Run the puppet agent test command to pull the catalogSyntax:

```
/opt/puppetlabs/bin/puppet agent -t
```

