



Parshvanath Charitable Trust's
A. P. SHAH INSTITUTE OF TECHNOLOGY
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(Religious Jain Minority)

Department of Information Technology

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Semester: V

Class / Branch: IT

Subject: DevOps Lab

Name of Instructor: Prof. Sonal Jain

Name of Student: Soham Dalvi

Student ID: 21104010

Date of Performance: 5/10/23

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Experiment No. 10

Aim: To install and Configure Pull based Software Configuration Management and provisioning tools using Puppet

Select the OS

The screenshot shows the AWS Management Console interface for selecting an Amazon Machine Image (AMI). The top navigation bar includes the AWS logo, a search bar, and user information. The left sidebar shows the 'Services' menu. The main content area is titled 'Step 1: Choose an Amazon Machine Image (AMI)'. It displays a list of AMIs with search filters. The 'Ubuntu Server 18.04 LTS (HVM), SSD Volume Type' is selected. The 'Select' button is highlighted.

OS	AMI ID	Architecture	Platform	Root Device Type	Root Device Size (GB)	Root Device Encrypted	Root Device Mapping	Root Device Virtualization Type	Root Device Encrypted	Root Device Mapping
Ubuntu Server 20.04 LTS (HVM), SSD Volume Type	ami-00e67e2c2625c3d07	x86_64	Linux	SSD	8	Yes	ami-00e67e2c2625c3d07	Linux	Yes	ami-00e67e2c2625c3d07
Ubuntu Server 20.04 LTS (HVM), SSD Volume Type	ami-00e67e2c2625c3d07	x86_64	Linux	SSD	8	Yes	ami-00e67e2c2625c3d07	Linux	Yes	ami-00e67e2c2625c3d07
Ubuntu Server 18.04 LTS (HVM), SSD Volume Type	ami-0747d3cabc04e712a	x86_64	Linux	SSD	8	Yes	ami-0747d3cabc04e712a	Linux	Yes	ami-0747d3cabc04e712a
Ubuntu Server 18.04 LTS (HVM), SSD Volume Type	ami-0747d3cabc04e712a	x86_64	Linux	SSD	8	Yes	ami-0747d3cabc04e712a	Linux	Yes	ami-0747d3cabc04e712a
Microsoft Windows Server 2019 Base	ami-0f18c1e30b535109	x86_64	Windows	SSD	8	Yes	ami-0f18c1e30b535109	Windows	Yes	ami-0f18c1e30b535109

Select 4 GB RAM and click on next

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate one that scales for your applications. Learn more about instance types and how they can meet your computing needs.

Filter by: All instance families | Current generation | Show/Hide Columns

Currently selected: t2.medium (2 vCPUs, 2.0 GHz, ~4 GB memory, EBS only)

	Family	Type	vCPUs	Memory (GB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
	t2	t2.nano	1	0.5	EBS only	—	Low to Moderate	Yes
	t2	t2.micro	1	1	EBS only	—	Low to Moderate	Yes
	t2	t2.small	1	2	EBS only	—	Low to Moderate	Yes
	t2	t2.medium	2	4	EBS only	—	Low to Moderate	Yes
	t2	t2.large	2	8	EBS only	—	Low to Moderate	Yes

Cancel Previous **Review and Launch** Next: Configure Instance Details

Feedback | English (US)

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Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances: 1 Launch into Auto Scaling Group

Purchasing option: ☐ Request Spot instances

Network: vpc-50965c7b6cd743c7 (default) Create new VPC

Subnet: No preference (default subnet in any Availability Zone) Create new subnet

Auto-assign Public IP: ☐ Use subnet setting (Enable)

Placement group: ☐ Add instance to placement group

Capacity Reservation: Open

Domain join directory: No directory Create new directory

IAM role: None Create new IAM role

Cancel Previous **Review and Launch** Next: Add Storage

Services

[victor.luvr162344@puppet.com](#)
9587-3126-7548
US - Virginia
Support

1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. [Learn more about storage options in Amazon EC2.](#)

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encryption
Root	/dev/xvda1	snap-04753662b6c4f88049	8	General Purpose SSD (SSD)	160 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

[Add New Volume](#)

Free tier eligible customers can get up to 30 GiB of EBS General Purpose (SSD) or Magnetic storage. [Learn more about free usage tier eligibility and usage restrictions.](#)

[Cancel](#)
[Previous](#)
[Review and Launch](#)
[Next: Add Tags](#)

Feedback
English (US)
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Give name as puppet master

Services

[victor.luvr162344@puppet.com](#)
9587-3126-7548
US - Virginia
Support

1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review

Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver. A copy of a tag can be applied to volumes, instances or both. Tags will be applied to all instances and volumes. [Learn more about tagging your Amazon EC2 resources.](#)

Key	Value	Instances	Volumes	Network Interfaces
name	puppet master	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

[Add another tag](#) (Up to 50 tags maximum)

[Cancel](#)
[Previous](#)
[Review and Launch](#)
[Next: Configure Security Group](#)

Feedback
English (US)
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Open port 8140 for all by adding entry and click on review and launch

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more about Amazon EC2 security groups.](#)

Assign a security group: ☒ Create a new security group ☐ Select an existing security group

Security group name:

Description:

Type	Protocol	Port Range	Source	Description
SSH	TCP	22	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop
Custom TCP	TCP	8140	Custom 0.0.0.0/0	e.g. SSH for Admin Desktop

[Add Rule](#)

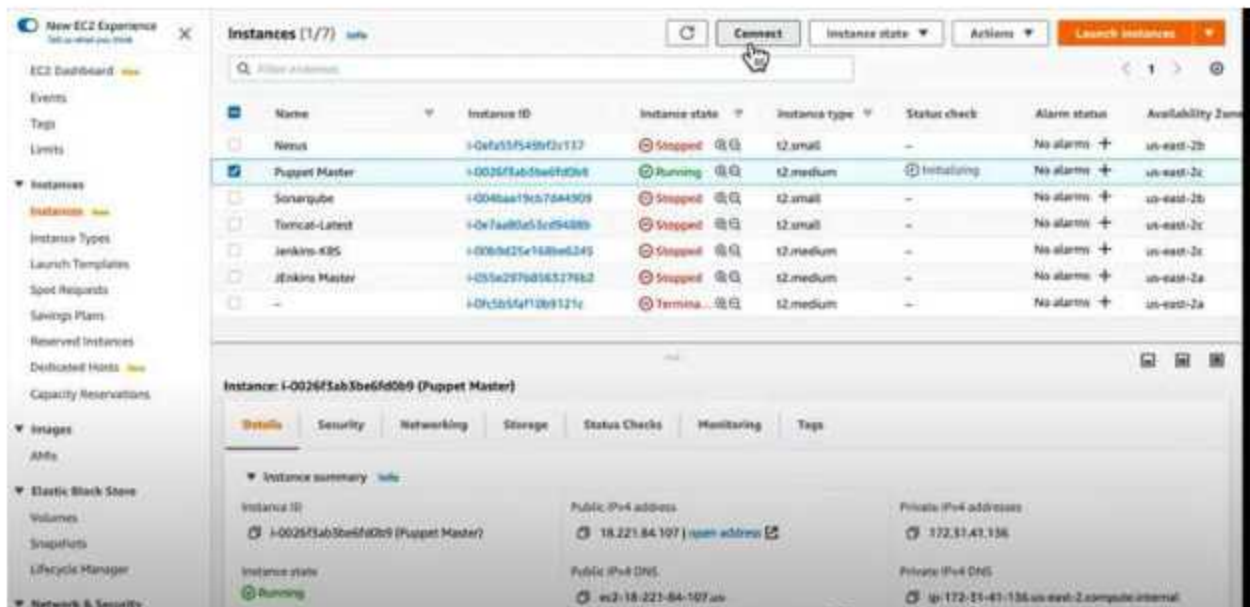
Warning
Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend writing security group rules to allow access from known IP addresses only.

[Cancel](#) [Previous](#) [Review and Launch](#)

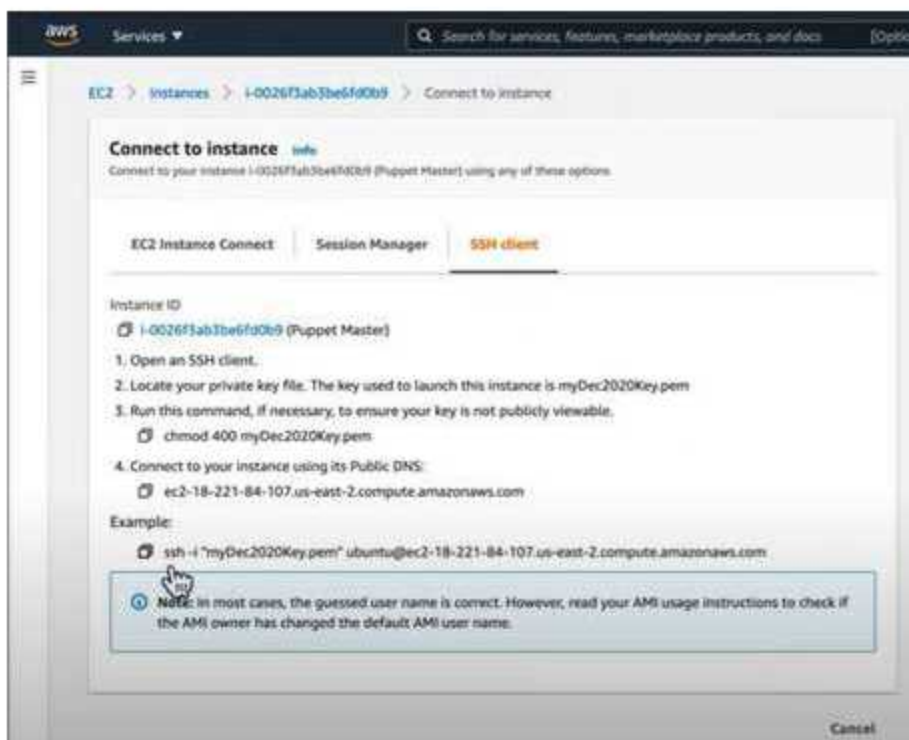


```
ddd_v1_w_e4Vd_532454@runweb38247:~$  
ddd_v1_w_e4Vd_532454@runweb38247:~$ ls  
ddd_v1_w_e4Vd_532454@runweb38247:~$
```

Now your instance is up and running, select your instance and click on connect



Copy the ssh command and paste it on terminal



OUTPUT:

EC2 > Security Groups > Create security group

Create security group [Info](#)

A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To create a new security group, complete the fields below.

Basic details

Security group name [Info](#)

PuppetSD

Name cannot be edited after creation.

Description [Info](#)

Exp7d

VPC [Info](#)

vpc-015515b153c414171 X

Inbound rules [Info](#)

Type [Info](#)

Protocol [Info](#)

Port range [Info](#)

Source [Info](#)

Description - optional [Info](#)

All traffic ▼

All

All

Anywh... ▼

Delete

X

All traffic ▼

All

All

Anywh... ▼

Delete

X

All traffic ▼

All


All

My IP ▼








Delete

X

Add rule

 Services

Search [Alt+S]

 N. Virginia   

New EC2 Experience
Tell us what you think

EC2 Dashboard

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Events

Instances

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

Images

AMIs

AMI Catalog

Security group [\(sg-0e728dac040396486 | PuppetSD\)](#) was created successfully







Details

EC2 > [Security Groups](#) > sg-0e728dac040396486 - PuppetSD

sg-0e728dac040396486 - PuppetSD

Actions

Details

Security group name	Security group ID	Description	VPC ID
 PuppetSD	 sg-0e728dac040396486	 Exp10	 vpc-015515b153c414171 
Owner	Inbound rules count	Outbound rules count	
 258978217732	3 Permission entries	1 Permission entry	

Inbound rules

Outbound rules

Tags

[EC2](#) > [Instances](#) > Launch an instance

Launch an instance [Info](#)

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags [Info](#)

Name

[Add additional tags](#)

▼ Application and OS Images (Amazon Machine Image) [Info](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs If you don't see what you are looking for below

▼ Summary

Number of instances [Info](#)

When launching more than 1 instance, consider [EC2 Auto Scaling](#).

Software image (AMI)

Canonical, Ubuntu, 22.04 LTS, ...[read more](#)
ami-053b0e53c279acc50

Virtual server type (instance type)

t2.micro


Firewall (security group)


New security group


Storage (volumes)


1 volume(s) - 8 GiB


Quick Start


Amazon Linux



macOS


Ubuntu


Windows


Red Hat


SUSE Linux



[Browse more AMIs](#)
including AMIs from
AWS, Marketplace and
the Community

Amazon Machine Image (AMI)

Ubuntu Server 22.04 LTS (HVM), SSD Volume Type

Free tier eligible ▼

ami-053b0d53c279acc90 (64-bit (x86)) / ami-0a0c8eebcd6dcbd0 (64-bit (Arm))

Virtualization: hvm ENA enabled: true Root device type: ebs

Description

Canonical, Ubuntu, 22.04 LTS, amd64 jammy image build on 2023-05-16

Architecture

64-bit (x86) ▼

AMI ID

ami-053b0d53c279acc90

Verified provider

▼ Instance type [Info](#)

Instance type

t2.micro

Free tier eligible

Family: t2 1 vCPU 1 GiB Memory Current generation: true

On-Demand Windows base pricing: 0.0162 USD per Hour

On-Demand SUSE base pricing: 0.0116 USD per Hour

On-Demand RHEL base pricing: 0.0716 USD per Hour

On-Demand Linux base pricing: 0.0116 USD per Hour

☒ All generations

[Compare instance types](#)

[Additional costs apply for AMIs with pre-installed software](#)

▼ Key pair (login) [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - *required*

Puppet_Keypair

 [Create new key pair](#)

▼ Network settings [Info](#)

[Edit](#)

Network [Info](#)

vpc-015515b153c414171

Subnet [Info](#)

No preference (Default subnet in any availability zone)

Auto-assign public IP [Info](#)

Enable

Firewall (security groups) [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

☐ Create security group

☒ Select existing security group

Common security groups [Info](#)

Select security groups

PuppetSD sg-0e728dac040396486 X

VPC: vpc-015515b153c414171

 [Compare security group rules](#)

Security groups that you add or remove here will be added to or removed from all your network interfaces.

```
apsit@apsit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ cd Downloads
apsit@apsit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Downloads$ chmod 400 Puppet_Keypair.pem
apsit@apsit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Downloads$ ssh -i "Puppet_Keypair.pem" ubuntu@ec2-34-205-76-207.compute-1.amazonaws.com
The authenticity of host 'ec2-34-205-76-207.compute-1.amazonaws.com (34.205.76.207)' can't be established.
ED25519 key fingerprint is SHA256:CV/xj74Ro8PazM4K75LGw2bID0FNdZnPrKLQqQpYh0M.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-34-205-76-207.compute-1.amazonaws.com' (ED25519) to the list of known hosts.
Welcome to Ubuntu 22.04.2 LTS (GNU/Linux 5.19.0-1025-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Thu Oct  5 09:19:10 UTC 2023

System load:  0.015625      Processes:            100
Usage of /:   20.6% of 7.57GB Users logged in:      0
Memory usage: 24%          IPv4 address for eth0: 172.31.85.250
Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-85-250:~$
```

```
apsit@apsit-HP-Pro-Tower-280-G9-PCI-Desktop-PC: ~/Downloads$ chmod 400 Puppet_Keypair.pem
apsit@apsit-HP-Pro-Tower-280-G9-PCI-Desktop-PC: ~/Downloads$ ssh -i "Puppet_Keypair.pem" ubuntu@ec2-44-204-89-9.compute-1.amazonaws.com
The authenticity of host 'ec2-44-204-89-9.compute-1.amazonaws.com (44.204.89.9)' can't be established.
ED25519 key fingerprint is SHA256:/H59s1F+DECSS2EOPFAkVBPMKV0qbA9F69k0ob4cqLY.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-44-204-89-9.compute-1.amazonaws.com' (ED25519) to the list of known hosts.
Welcome to Ubuntu 22.04.2 LTS (GNU/Linux 5.19.0-1025-aws x86_64)
```

```
* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:        https://ubuntu.com/advantage
```

System information as of Thu Oct 5 09:22:53 UTC 2023

```
System load: 0.0          Processes:            95
Usage of /: 29.6% of 7.57GB Users logged in:      0
Memory usage: 23%         IPv4 address for eth0: 172.31.84.85
Swap usage: 0%
```

* Ubuntu Pro delivers the most comprehensive open source security and compliance features.

<https://ubuntu.com/aws/pro>

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See <https://ubuntu.com/esm> or run: `sudo pro status`

The list of available updates is more than a week old.
To check for new updates run: `sudo apt update`

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in `/usr/share/doc/*/copyright`.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

```
ubuntu@ip-172-31-84-85:~$
```

```
GNU nano 6.2 /etc/hosts
127.0.0.1 localhost
172.31.85.250 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-172-31-85-250:~$ curl -O https://apt.puppetlabs.com/puppet6-release-bionic.deb
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left   Speed
100 11704  100 11704    0     0  126k      0 --:--:-- --:--:-- --:--:-- 128k
ubuntu@ip-172-31-85-250:~$ sudo dpkg -i puppet6-release-bionic.deb
Selecting previously unselected package puppet6-release.
(Reading database ... 64295 files and directories currently installed.)
Preparing to unpack puppet6-release-bionic.deb ...
Unpacking puppet6-release (6.0.0-23bionic) ...
Setting up puppet6-release (6.0.0-23bionic) ...
ubuntu@ip-172-31-85-250:~$ sudo apt-get update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [109 kB]
Get:4 http://apt.puppetlabs.com bionic InRelease [157 kB]
```



```

ubuntu@ip-172-31-85-250:~$ sudo apt-get install puppetserver -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  ca-certificates-java fontconfig-config fonts-dejavu-core java-common libavahi-client3 libavahi-common-data libavahi-common3 libcups2 libfontconfig1 libjpeg-turbo8 libjpeg8
  liblcms2-2 libpcsclite1 libx16 libxrender1 libxtst6 net-tools openjdk-8-jre-headless puppet-agent x11-common
Suggested packages:
  default-jre cups-common liblcms2-utils pcscd libnss-mdns fonts-dejavu-extra fonts-nanum fonts-ipafont-gothic fonts-ipafont-mincho fonts-wqy-microhei fonts-wqy-zenhei
  fonts-indic
The following NEW packages will be installed:
  ca-certificates-java fontconfig-config fonts-dejavu-core java-common libavahi-client3 libavahi-common-data libavahi-common3 libcups2 libfontconfig1 libjpeg-turbo8 libjpeg8
  liblcms2-2 libpcsclite1 libx16 libxrender1 libxtst6 net-tools openjdk-8-jre-headless puppet-agent puppetserver x11-common
0 upgraded, 21 newly installed, 0 to remove and 129 not upgraded.
Need to get 149 MB of archives.
After this operation, 359 MB of additional disk space will be used.
Get:1 http://apt.puppetlabs.com bionic/puppet6 amd64 puppet-agent amd64 6.28.0-1bionic [37.7 MB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 java-common all 0.72build2 [6782 B]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libavahi-common-data amd64 0.8-Subuntu5.1 [23.5 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libavahi-common3 amd64 0.8-Subuntu5.1 [23.7 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libavahi-client3 amd64 0.8-Subuntu5.1 [28.0 kB]

```

```

GNU nano 6.2 /etc/default/puppetserver
#####
# Init settings for puppetserver
#####

# Location of your Java binary (version 8)
JAVA_BIN="/usr/bin/java"

# Modify this if you'd like to change the memory allocation, enable JMX, etc
JAVA_ARGS="-Xms512m -Xmx512m -Djruby.logger.class=com.puppetlabs.jruby_utils.jruby.Slf4jLogger"

```

```

ubuntu@ip-172-31-85-250:~$ sudo ufw allow 8140
Rules updated
Rules updated (v6)
ubuntu@ip-172-31-85-250:~$ sudo systemctl enable puppetserver.service
Synchronizing state of puppetserver.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable puppetserver
Created symlink /etc/systemd/system/multi-user.target.wants/puppetserver.service → /lib/systemd/system/puppetserver.service.
ubuntu@ip-172-31-85-250:~$ sudo systemctl start puppetserver.service
ubuntu@ip-172-31-85-250:~$ sudo systemctl status puppetserver.service
● puppetserver.service - puppetserver Service
   Loaded: loaded (/lib/systemd/system/puppetserver.service; enabled; vendor preset: enabled)
   Active: active (running) since Thu 2023-10-05 09:51:13 UTC; 1min 19s ago
     Process: 3927 ExecStart=/opt/puppetlabs/server/apps/puppetserver/bin/puppetserver start (code=exited, status=0/SUCCESS)
    Main PID: 3952 (java)
      Tasks: 39 (limit: 4915)
     Memory: 566.1M
        CPU: 40.743s
    CGroup: /system.slice/puppetserver.service
            └─3952 /usr/bin/java -Xms512m -Xmx512m -Djruby.logger.class=com.puppetlabs.jruby_utils.jruby.Slf4jLogger "-XX:OnOutOfMemoryError=kill -9 %p" -XX:ErrorFile=/var/log/

Oct 05 09:50:31 ip-172-31-85-250 systemd[1]: Starting puppetserver Service...
Oct 05 09:51:13 ip-172-31-85-250 systemd[1]: Started puppetserver Service.
(lines 1-13/13) (END)

```

```

GNU nano 6.2
127.0.0.1 localhost
172.31.85.250 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-172-31-84-85:~$ sudo nano /etc/hosts
ubuntu@ip-172-31-84-85:~$ curl -O https://apt.puppetlabs.com/puppet6-release-bionic.deb
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left   Speed
100 11704  100 11704    0     0  121k      0 --:--:-- --:--:-- --:--:-- 121k
ubuntu@ip-172-31-84-85:~$ sudo dpkg -i puppet6-release-bionic.deb
Selecting previously unselected package puppet6-release.
(Reading database ... 64295 files and directories currently installed.)
Preparing to unpack puppet6-release-bionic.deb ...
Unpacking puppet6-release (6.0.0-23bionic) ...
Setting up puppet6-release (6.0.0-23bionic) ...
ubuntu@ip-172-31-84-85:~$ sudo apt-get update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [109 kB]
Get:4 http://apt.puppetlabs.com bionic InRelease [157 kB]
Get:5 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
```



```
ubuntu@ip-172-31-84-85:~$ sudo apt-get install puppet-agent -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  puppet-agent
0 upgraded, 1 newly installed, 0 to remove and 129 not upgraded.
Need to get 37.7 MB of archives.
After this operation, 141 MB of additional disk space will be used.
Get:1 http://apt.puppetlabs.com bionic/puppet6 amd64 puppet-agent amd64 6.28.0-1bionic [37.7 MB]
Fetched 37.7 MB in 1s (59.1 MB/s)
Selecting previously unselected package puppet-agent.
(Reading database ... 64300 files and directories currently installed.)
Preparing to unpack .../puppet-agent_6.28.0-1bionic_amd64.deb ...
Unpacking puppet-agent (6.28.0-1bionic) ...
Setting up puppet-agent (6.28.0-1bionic) ...
Created symlink /etc/systemd/system/multi-user.target.wants/puppet.service → /lib/systemd/system/puppet.service.
Created symlink /etc/systemd/system/multi-user.target.wants/pxp-agent.service → /lib/systemd/system/pxp-agent.service.
Removed /etc/systemd/system/multi-user.target.wants/pxp-agent.service.
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...
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-172-31-84-85:~$
```

```
ubuntu@ip-172-31-84-85:~$ sudo systemctl enable puppet
ubuntu@ip-172-31-84-85:~$ sudo systemctl restart puppet
ubuntu@ip-172-31-84-85:~$ sudo systemctl status puppet
● puppet.service - Puppet agent
   Loaded: loaded (/lib/systemd/system/puppet.service; enabled; vendor preset: enabled)
   Active: active (running) since Thu 2023-10-05 09:58:07 UTC; 14s ago
     Main PID: 2286 (puppet)
        Tasks: 2 (limit: 1141)
      Memory: 64.9M
         CPU: 3.535s
       CGroup: /system.slice/puppet.service
              └─2286 /opt/puppetlabs/puppet/bin/ruby /opt/puppetlabs/puppet/bin/puppet agent --no-daemonize

Oct 05 09:58:07 ip-172-31-84-85 systemd[1]: Started Puppet agent.
Oct 05 09:58:09 ip-172-31-84-85 puppet-agent[2286]: Starting Puppet client version 6.28.0
ubuntu@ip-172-31-84-85:~$
```

Conclusion: Hence we have learnt to install and Configure Pull based Software Configuration Management and provisioning tools using Puppet.