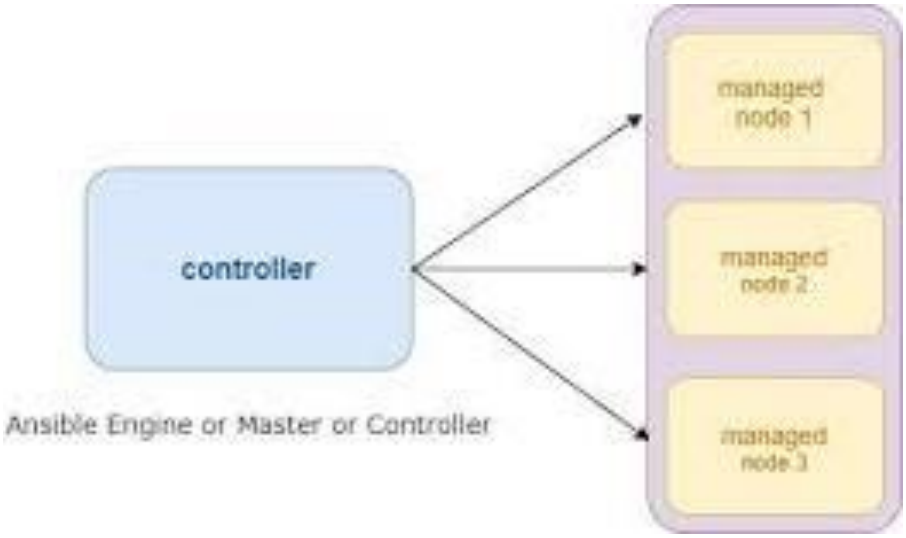
INSTALLATION

❖ ANSIBLE INSTALLATION:

- Ansible is an **agentless automation tool** that you install on a single host (**control node**).
- Control node can manage an entire fleet of machines and other devices (**managed nodes**) remotely with **SSH, PowerShell** remoting, and numerous other transports, all from a simple command-line interface with no databases or daemons required.



➢ CONTROL NODE REQUIREMENTS:

- UNIX-like machine with **Python 3.9** or newer installed.
- Windows under a Windows Subsystem for Linux (WSL) distribution.

➢ MANAGED NODE REQUIREMENTS:

- Does not require Ansible to be installed, but requires Python 2.7, or 3.5 - 3.11 to run Ansible **library code.**
- The managed node also needs a **user account** that can SSH to the node with an interactive **POSIX shell.**

❖ ANSIBLE SET-UP ON AWS EC2:

STEP 1: LAUNCHING 3 INSTANCES WITH BOOT STRAPPING

```
#!/bin/bash
yum update -y
yum install vim net-tools -y
```

STEP 2: SETTING HOSTNAMES: (SETUP FOR ALL INSTANCES)

```
#hostname Control-Node (Master)
#hostname Node1
#hostname Node2
#vi /etc/hostname : Adding hostnames for permanent
#bash  [ Update hostnames ]
```

STEP 3: RESOLVING IP TO HOSTNAMES:

```
#vi /etc/hosts
10.10.10.50  Control-Node
10.10.10.51  Node1
10.10.10.52  Node2
```

STEP 4: CREATING A NORMAL USER & UPDATE A PASSWORD:

```
#useradd ram
#passwd ram
```

STEP 5: SETTINGUP SUDO PRIVILEGES:

```
#visudo   (or)  #vim /etc/sudoers
ram   ALL=(ALL)   NOPASSWD: ALL
```

STEP 6: CHANGING SSH CONFIGURATION:

#vim /etc/ssh/sshd_config

PasswordAuthentication yes

#systemctl restart sshd

STEP 7: SETTINGUP PASSWORDLESS LOGIN FOR USER RAM:

#su – ram (from master)

$ssh-keygen

$cd ~/.ssh

$ls

$ssh-copy-id ram@Node1

$ssh-copy-id ram@Node2

STEP 8: CONNECTION TEST WITHOUT PASSWORD:

$ssh ram@Node1

$ssh ram@Node2

STEP 9: SETTING UP A EPEL REPOSITORY FOR INSTALLING ANSIBLE:

NOTE: OPTIONAL STEP FOR SOME LINUX DISTRIBUTORS:

#yum install https://dl.fedoraproject.org/pub/epel/epel-release-latest-8.noarch.rpm

(or)

#dnf install https://dl.fedoraproject.org/pub/epel/epel-release-latest-9.noarch.rpm

NOTE: https://fedoraproject.org/wiki/EPEL

STEP 10: INSTALLING ANSIBLE ON MASTER / CONTROL NODE:

#yum update -y

#yum repolist

#yum install ansible -y

#ansible --version

STEP 11: CREATE AN INVENTORY FILE:

#cd /etc/ansible

#ll

create a file with name hosts

#touch hosts

#chmod 777 hosts

#vim /etc/ansible/hosts

[webservers]

Node1

Node2

STEP 12: NOW LOGIN WITH NORMAL USER RAM AND RUN ANSIBLE CMDS:

TESTING ANSIBLE COMMANDS:

$ansible --version

$ansible -m command -a "date" webservers

m: Module

a: Argument

$ansible -m command -a "logname" webservers