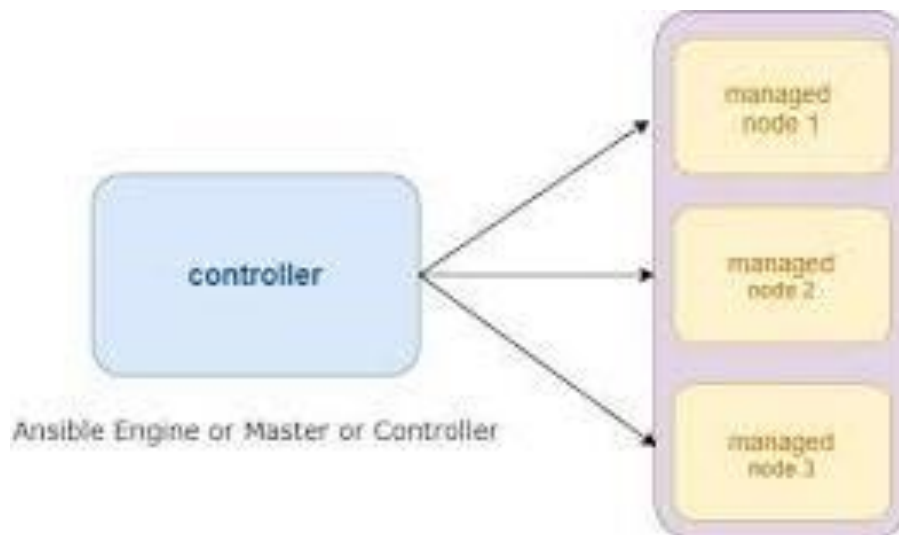


## ➤ ANSIBLE INSTALLATION:

- 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 (RHEL9):

### Launching 3 Instances with boot strapping

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

### Setting Hostnames: (Setup For All Instances)

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

### Resolving Ip To Hostnames:

```
#vi /etc/hosts  
10.10.10.50 Master  
10.10.10.51 Node1  
10.10.10.52 Node2
```

### Creating a Normal user:

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

### **settingup sudo privileges:**

```
#visudo  
ram ALL=(ALL) NOPASSWD: ALL
```

### **Settingup passwordless login for user raju:**

```
#su - ram (from master)  
$ssh-keygen  
$cd ~/.ssh  
$ls  
$ssh-copy-id ram@Node1  
$ssh-copy-id ram@Node2
```

### **Connection Test without password:**

```
$ssh ram@Node1  
$ssh ram@Node2
```

### **Setting up a epel repository for installing Ansible:**

```
#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>

## **Installing Ansible on Master / Control Node:**

```
#yum update -y  
#yum repolist  
#yum install ansible -y  
#ansible --version
```

## **Configure Permissions:**

```
$cd /etc/ansible  
$ll  
create a file with name hosts  
$sudo touch hosts  
$sudo chmod 777 hosts  
$vi /etc/ansible/hosts  
[webservers]  
    Node1  
    Node2
```

## **TESTING ANSIBLE COMMANDS:**

```
$ansible -m command -a "uptime" webservers  
    m: Module  
    a: Argument  
$ansible -m command -a "logname" webservers
```