

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:

```
#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
```

Create a Normal user: (setup for all)

```
#useradd raju
```

```
#passwd raju
```

settingup sudo privileges:

```
#visudo
```

```
raju  ALL=(ALL) NOPASSWD: ALL
```

Settingup passwordless login for user raju:

```
#su - raju (from master)
```

```
$ssh-keygen
```

```
$cd ~/.ssh
```

```
$ls
```

```
$ssh-copy-id raju@Node1
```

```
$ssh-copy-id raju@Node2
```

Connection Test without password:

```
$ssh raju@Node1
```

```
$ssh raju@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  
$sudo chmod 777 hosts  
$vi /etc/ansible/hosts  
[webservers]  
agent1  
agent2
```

Testing Ansible commands:

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