

## Ansible Master-Slave Setup

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### Environment

- **Master (Control Node):** Ubuntu (example IP: 13.203.217.178)
  - **Managed Node (Slave):** Ubuntu (Public IP: 43.204.109.249)
  - User: ubuntu (default on Ubuntu EC2)
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### Step-by-Step Setup

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#### 1. Install Ansible on the Master Node

**sudo apt update**

**sudo apt install ansible -y**

Verify installation:

**ansible --version**

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#### 2. Generate SSH Key (on Master)


ssh-keygen

- Press Enter for all prompts to accept defaults.
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#### 3. Copy SSH Key to Managed Node

ssh-copy-id ubuntu@43.204.109.249

- If key already exists:  
Use -f to force:
- **ssh-copy-id -f ubuntu@43.204.109.249**
- Test SSH connection:
- **ssh ubuntu@43.204.109.249**

If it logs in without a password → success 

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#### 4. Create Ansible Inventory File

If the /etc/ansible directory does not exist:

**sudo mkdir -p /etc/ansible**

Then create the inventory file:

```
sudo nano /etc/ansible/hosts
```

Paste this into the file:

```
[webservers]
```

```
43.204.109.249 ansible_user=ubuntu
```

**To save and exit nano:**

- Ctrl + O → Save
- Enter → Confirm filename
- Ctrl + X → Exit

Verify contents:

```
cat /etc/ansible/hosts
```

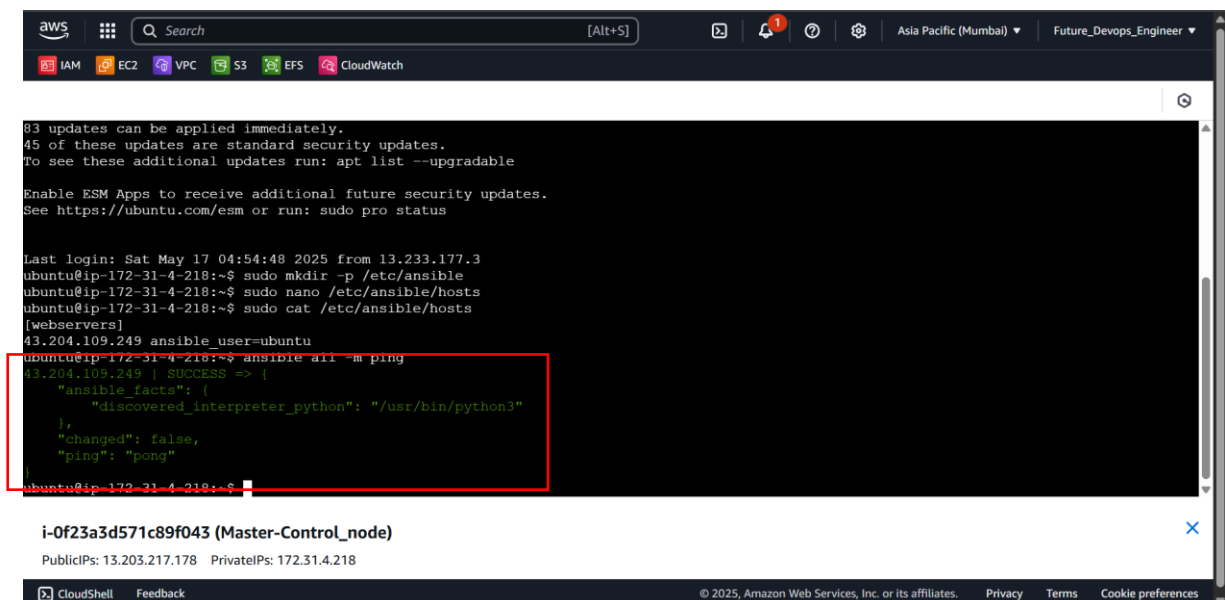
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## 5. Test Ansible Connection

```
ansible all -m ping
```

Expected output:

```
43.204.109.249 | SUCCESS => {  
    "changed": false,  
    "ping": "pong"  
}
```



The screenshot shows an AWS CloudShell terminal window. The terminal output includes system updates, login information, and the execution of several commands: `mkdir -p /etc/ansible`, `nano /etc/ansible/hosts`, and `cat /etc/ansible/hosts`. The final command shown is `ansible all -m ping`, which returns the expected output: `43.204.109.249 | SUCCESS => { "ansible_facts": { "discovered_interpreter_python": "/usr/bin/python3" }, "changed": false, "ping": "pong" }`. This output is highlighted with a red rectangle. The terminal window title is "i-0f23a3d571c89f043 (Master-Control\_node)" and it shows public and private IP addresses.

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## 🎉 Final Result

- Ansible master node can now connect to the managed node using SSH.

- Inventory file is set up.
- Connection is tested and successful.