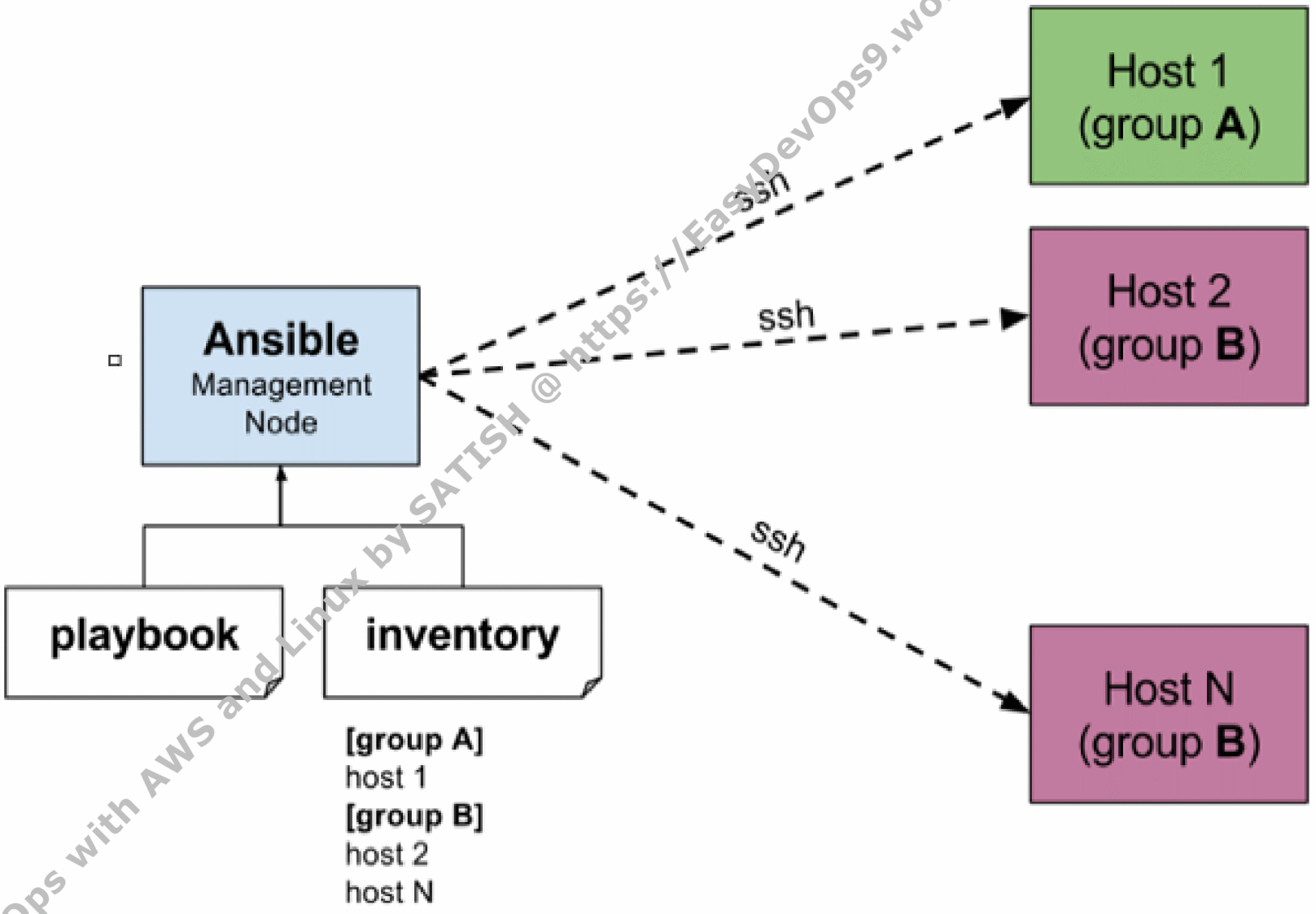
# ANSIBLE

# Ansible Master-Node



# SSH(Secure Shell) Configuration

```
# whoami
# sudo  su  -          ---> to switch root user

Step-1:  to change root password :
-----------------------------------------
          node# passwd  root
     Enter new passwd :  root

Step-2:  to configure ssh:
-----------------------------------
          node# vi /etc/ssh/sshd_config
      [press 'i' for insert mode]
   PermitRootLogin   yes
   PasswordAuthentication   yes
      [press 'Esc']
      [:wq  ---> write and quit]
```

# SSH(Secure Shell) Configuration

**Step-3: to restart ssh service:**

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**node# service ssh restart (for Ubuntu nodes)**

**[OR]**

**node# systemctl restart sshd (for Redhat nodes)**

**Step-4: to Connect with Nodes:**

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**node# hostname -i (to get an Private IP-Address)**

**[OR] # ifconfig**

**[OR] # ip a**

**node# curl ifconfig.me (to get an Public IP-Address)**

**[OR] curl ifconfig.in**

**node# hostname -f (to get a Host Name / FQDN)**

**mstr# ssh <node-IP>**

# Password less Authentication (SSH-Keys)

**Step-1: to generate a Key-pair**

---

```
mstr# ls -a        (to list hidden files)
mstr# cd .ssh
mstr# ssh-keygen
mstr# ls
id_rsa        (private key)
id_rsa.pub    (public key)
```

**Step-2: to send public key to nodes**

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```
mstr# ssh-copy-id  <node IP Address>
```

**Step-3: to Connect with Nodes:**

---

```
mstr# ssh <node IP>
```

# SSH Pass

**Ex:**

```
# apt-get install sshpass

# sshpass -p passwd ssh 172.31.28.166
# sshpass -f  pwd_file ssh 172.31.28.166
```

# SCP (Secure Copy)

**Syntax:**

**# scp -i [private key] <file name> [user@]<ip addr>:<path>**

**Ex:**

**# scp -i ~/.ssh/id_rsa demo.txt root@10.142.0.14:/opt**

**# scp demo.txt 10.142.0.15:/tmp**

**# sshpass -p passwd scp demo.java 10.142.0.14:/tmp**

# Ansible Configuration

- Here we need Three Servers (1-Ansible Master, 2-Nodes)
- Ansible as a means of managing our various servers, we need to install the Ansible software on at least one machine.
- The best way to get Ansible for Ubuntu is to add the project's PPA (personal package archive) to your system.

# Install Ansible on Ubuntu Host

**Step-A: Create Three Servers**

1- Ansible Master (Ubuntu)

2 - Nodes (Ubuntu, Amazon Linux)

**Step-B: Configure SSH for Master and Nodes**

**Step-C: Ansible Installation :**

```
mstr# apt-get update
mstr# apt-get install ansible -y
```

# Install Ansible on Ubuntu Host

```
# ansible --version
        ansible 2.9.6
        config file = /etc/ansible/ansible.cfg
        python version = 3.8.10

           # vi /etc/ansible/hosts
        [web]
         172.31.1.29
        [app]
         172.31.2.22

        [stage:children]
          web
          app
```

# Install Ansible on Ubuntu Host

```
# vi ansible.cfg
        inventory      = /root/myhosts
    #plugin_filters_cfg = /etc/ansible/plugin_filters.yml
        #ask_sudo_pass = True
        #ask_pass      = True
```

# Install Ansible on Ubuntu Host

```
# ansible all -m ping

172.31.2.22 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python"
    },
    "changed": false,
    "ping": "pong"
}
172.31.1.29 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3"
    },
    "changed": false,
    "ping": "pong"
}
```