* Access Key ID:

AKIAZRJMWKHKOTF5WFVN

Secret Access Key:

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

ssh [s3paulinus@server1.anomicatech.com](mailto:s3paulinus@server1.anomicatech.com)

Things to know before working with ansible

1) ansible is agentless ( means, we do not need to run any agent on remote servers for communication )

2) ansible follows push model ( means we push the configuration from ansible controller to remote servers )

3) ansible uses SSH protocol to communicate with remote servers

4) ansible uses below methods for remote servers authentication

password based

key based

Ansible controller ( is the machine/host/server where we install ansible )

/etc/ansible default directory ( we have two important file in it )

hosts ( default inventory file in which we can mention remote servers we want to apply/push the changes to)

ansible.cfg ( default ansible configuraton - can be used to customize as per our need )

Ansible Terminlogy

1) ansible ad-hoc commands ( single task that can be executed against remote servers )

2) ansible playbooks ( set of instructions written in a .yml file to execute against remote servers )

3) ansible facts ( information about remote servers collected ansible before running any task )

4) ansible modules ( are the units of work that ansible ships to remote servers for executing the tasks )

5) ansible role ( to break a playbook into multiple files. This simplifies writing complex playbooks, and it makes them easier to reuse )

look at: https://docs.ansible.com/ansible/latest/reference\_appendices/glossary.html for more terms used in ansible.

#! /bin/bash

apt update -y

apt install tree curl vim wget ansible default-jre default-jdk ansible-lint maven git unzip openssl sshpass gnupg -y

sudo apt-get update -y

export DEBIAN\_FRONTEND=noninteractive

ln -fs /usr/share/zoneinfo/America/New\_York /etc/localtime

apt-get install -y tzdata

dpkg-reconfigure --frontend noninteractive tzdata

sudo git clone https://github.com/ahmetb/kubectx /usr/local/kubectx

sudo ln -s /usr/local/kubectx/kubectx /usr/local/bin/kubectx

sudo ln -s /usr/local/kubectx/kubens /usr/local/bin/kubens

curl -LO "https://dl.k8s.io/release/$(curl -L -s https://dl.k8s.io/release/stable.txt)/bin/linux/amd64/kubectl"

curl -LO "https://dl.k8s.io/$(curl -L -s https://dl.k8s.io/release/stable.txt)/bin/linux/amd64/kubectl.sha256"

echo "$(cat kubectl.sha256) kubectl" | sha256sum --check

sudo install -o root -g root -m 0755 kubectl /usr/local/bin/kubectl

chmod +x kubectl

mkdir -p ~/.local/bin

mv ./kubectl ~/.local/bin/kubectl

useradd jenkins -m -d /home/jenkins -s /bin/bash

useradd ansible -m -d /home/ansible -s /bin/bash

echo -e 'jenkins ALL=(ALL) NOPASSWD: ALL' > /etc/sudoers.d/jenkins

echo -e 'ansible ALL=(ALL) NOPASSWD: ALL' > /etc/sudoers.d/ansible

sudo curl -L "https://github.com/docker/compose/releases/download/1.29.2/docker-compose-$(uname -s)-$(uname -m)" -o /usr/local/bin/docker-compose

sudo chmod +x /usr/local/bin/docker-compose

mkdir -p /usr/local/lib/docker/cli-plugins

curl -SL https://github.com/docker/compose/releases/download/v2.4.1/docker-compose-linux-x86\_64 -o /usr/local/lib/docker/cli-plugins/docker-compose

sudo chmod +x /usr/local/lib/docker/cli-plugins/docker-compose

sudo apt-get remove docker docker-engine docker.io containerd runc -y

sudo apt-get update

sudo apt-get install \

ca-certificates \

curl \

gnupg \

lsb-release

curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /usr/share/keyrings/docker-archive-keyring.gpg

echo \

"deb [arch=$(dpkg --print-architecture) signed-by=/usr/share/keyrings/docker-archive-keyring.gpg] https://download.docker.com/linux/ubuntu \

$(lsb\_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null

sudo apt-get update

sudo apt-get install docker-ce docker-ce-cli containerd.io docker-compose-plugin -y

sudo apt update

sudo apt install default-jre -y

sudo apt install default-jdk -y

apt install -y apt-transport-https \

ca-certificates \

dnsutils \

htop \

iftop \

iotop \

iperf \

iputils-ping \

jq \

less \

locales \

ltrace \

man-db \

manpages \

mosh \

mtr \

netcat \

nethogs \

nfs-common \

pass \

psmisc \

python3-apt \

python3-docker \

rkhunter \

rsync \

screen \

ssl-cert \

strace \

tcpdump \

time \

traceroute \

unhide \

unzip \

uuid-runtime

sudo chmod 666 /var/run/docker.sock

usermod jenkins -aG docker

usermod ansible -aG docker

usermod ubuntu -aG docker

chmod 666 /var/run/docker.sock

sudo apt-get update && sudo apt-get install -y gnupg software-properties-common curl

curl -fsSL https://apt.releases.hashicorp.com/gpg | sudo apt-key add -

sudo apt-add-repository "deb [arch=amd64] https://apt.releases.hashicorp.com $(lsb\_release -cs) main"

sudo apt-get update && sudo apt-get install terraform

usermod jenkins -aG docker

usermod ansible -aG docker