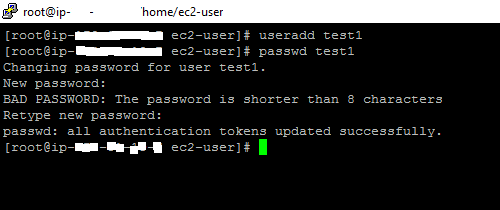
Here in this task we will be dealing with AWS (EC2), Installation of ***Ansible***, Editing the ***Ansible*** Configurations.

First we need to create the EC2 instances (you can create any number of EC2 instances and do use the free tier, in order to get the practices of the task.), here in this task I projected creating 4 EC2 instances namely master, node1, node2, node3.

* Sign in to the free tier AWS console and start creating the EC2 instances.
* <https://aws.amazon.com/> 🡪 sign in to the console if not register to get into the console.

Once your EC2 instances are ready, login to the instances and create the user in each of the instance so that we can interact with each machine using this user.

For creating the user, follow the commands mentioned below



In this same manner we need to update every machine which we created using the AWS-EC2.

***Note:*** *not to get confused use the same username and password across all the machines, which would say some confusing time.*

Do some basic config changes so follow the mentioned steps to do the changes.

* + from the current dir change to the mentioned directory to change the config file.
  + **cd /etc/ssh/** and under this dir open the **sshd\_config** file.
  + to edit the config file use the command,
  + **sudo vi sshd\_config** and onceit opens the editor, then uncomment the few lineso f code to make the task more easy.
  + search for #PasswordAuthentication yes 🡪 remove the #
  + search for #PermitRootLogin 🡪 remove the #
  + then come out the file using **:wq! 🡪** this will make the file edited and save, exit from the file.
  + once these changes done in each and every EC2 instance machine try restarting the instances using
  + **systemctl restart sshd**
  + to test the connection with the other instances in the current instance you need to use this command
  + **ssh <username>@<otherinstanceIP>** 🡪 this will prompt for yes and then we need to give the required password and its logged into the instance.
* To allow the created user login without password you need to do some changes in the sudoers file by adding the created user and giving the sudo permissions to the created user.
  + - sudo vi /etc/sudoers/ 🡪 add the created user with the sudo permissions assigned to the user.



* Always you need to do the above execution under the root level.

Now with the above addition of the code in the ***“SUDOERS”*** file will allow the user to interact with other instance machines sudo permissions.

Once every step is executed now you need to install the epel repo in the instance machine, with this we can install the ***Ansible*** software on the instance. As ***Ansible*** is not available for direct download so we need to use the third party site to install this and this process is explained below.

* To install epel on the instance use this command 🡪 these steps need to be executed in all the instances which you have created using **AWS\_EC2**
* Before going to install the below file make sure ***WGET*** is installed on the machines. if not install using the steps below.
* **sudo yum update**
* **sudo yum install wget**

wget https://dl.fedoraproject.org/pub/epel/7/x86\_64/Packages/e/epel-release-7-11.noarch.rpm

* Once it’s installed try installing the epel repo using

sudo rpm -ivh epel-release-7-11.noarch.rpm

* Later update the yum on the machine and node machines as well using

sudo yum update

* Now using the below command install the ansible on the machines

sudo yum install ansible –y

* Once the installation is done please check whether its installed proper or not using the below command,

ansible --version

* Check in the ansible.cfg for the details of the modules and paths
* To enable logs of ansible and to check what happens at the backend, just enable the logs in the ansible.cfg file by using the command,

sudo vi ansible.cfg <and search for /logging, then enable logs by removing the # i.e. log\_path) before doing this you need to set the dir to ansible folder using the command

cd /etc/ansible/

and then edit for the log enabling

We need to change the permissions for the log file to make it writable. Use the below mentioned command to change the permissions.

sudo touch /var/log/ansible.log (create the log file first) and then change the permissions.

sudo chmod 777 /var/log/ansible.log

Let’s discuss about the configuration of the ansible by going through the ansible.cfg file located in /etc/ansible/

Always take a backup of the ansible.cfg file using the command

sudo cp ansible.cfg ansible.cfg.original

Phyton has got the dependency for ansible and this we can see the python files using the mentioned command,

sudo yum list installed|grep -i python

Check the whether python is installed on the machines and nodes

Use python as command and it will give the version of installed python and to come out of the python use quit ()

To check the file paths use the mentioned command,

set|grep -i <filename> --- example set|grep -i ansible --- results PWD=/etc/ansible

To change the file path which was set for ansible.cfg just use the command,

export ANSIBLE\_CONFIG=<set the path you need to pick>

Check the changed path of ansible config file to new location,

set|grep -i ansible this will give the overriden file path.

To check the defined hosts in the /etc/ansible/hosts file use the command,

ansible all --list-hosts

Just edit the hosts file by adding the code like

[local]

localhost

[apacheweb]

IP-address

[appserver]

IP-address

as shown below

[local]

localhost

[apacheweb]

172.31.30.39

172.31.18.50

[appserver]

172.31.28.196

When you try ping of the hosts it will give the mentioned results

[test@ip-172-31-19-7 ansible]$ ansible apacheweb -m ping

172.31.18.50 | SUCCESS => {

"changed": false,

"ping": "pong"

}

172.31.30.39 | SUCCESS => {

"changed": false,

"ping": "pong"

}

to stop the node/machine use the command,

stay in the machine you need to stop and type -----> sudo systemctl stop sshd and to check the status of this machine use ----> sudo service sshd status