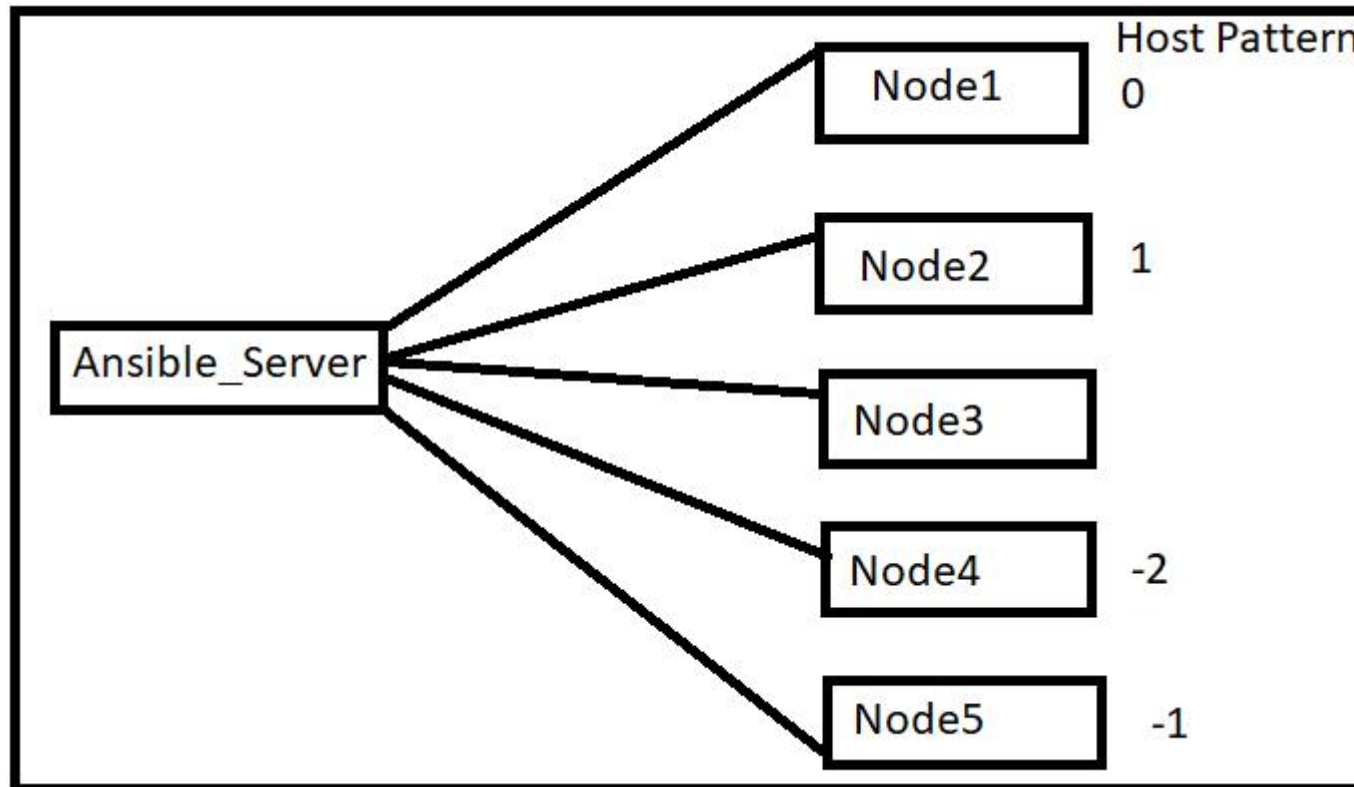
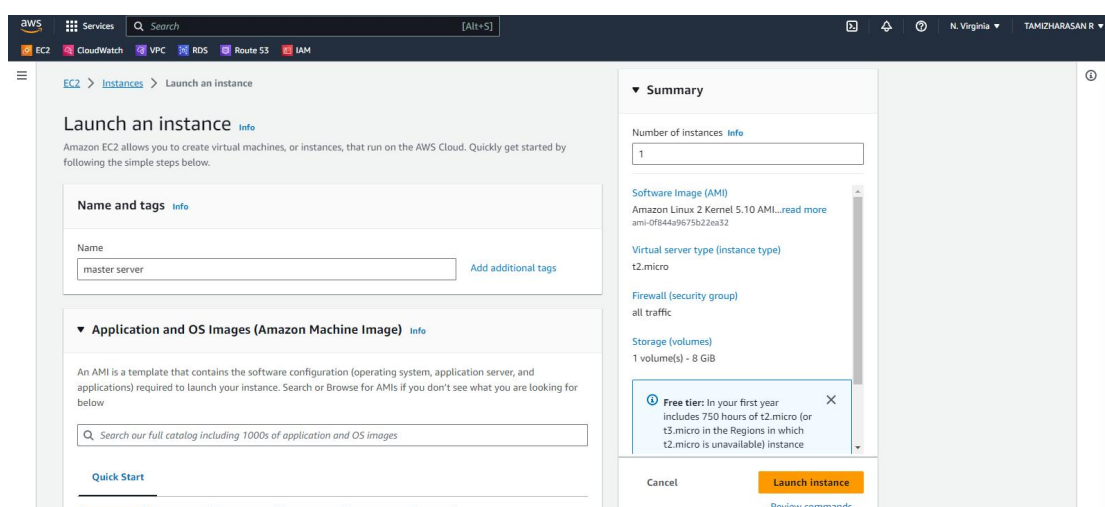


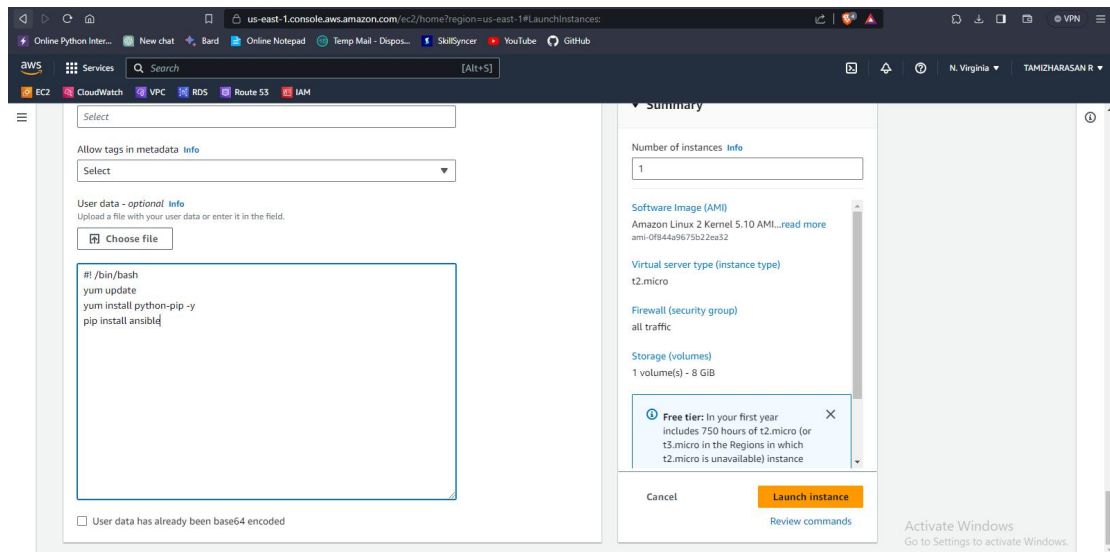
# Configuring Ansible on a Master Server with Five Slave Servers: Installation and Setup Guide :



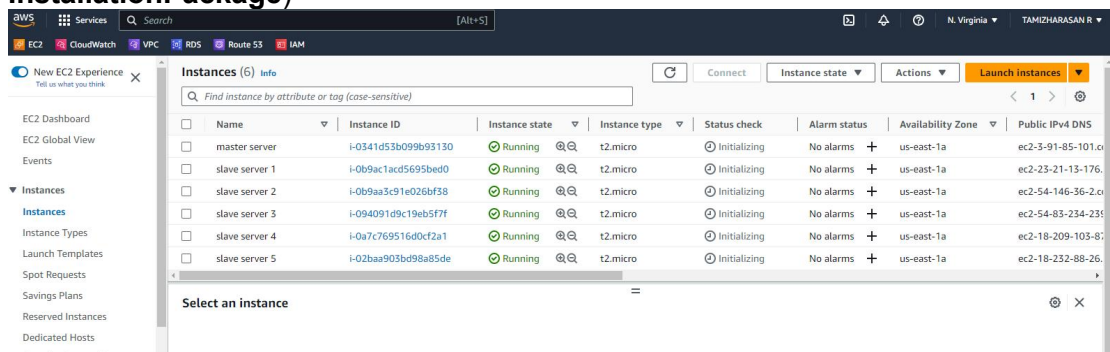
## Launch an instance for Ansible Master Server



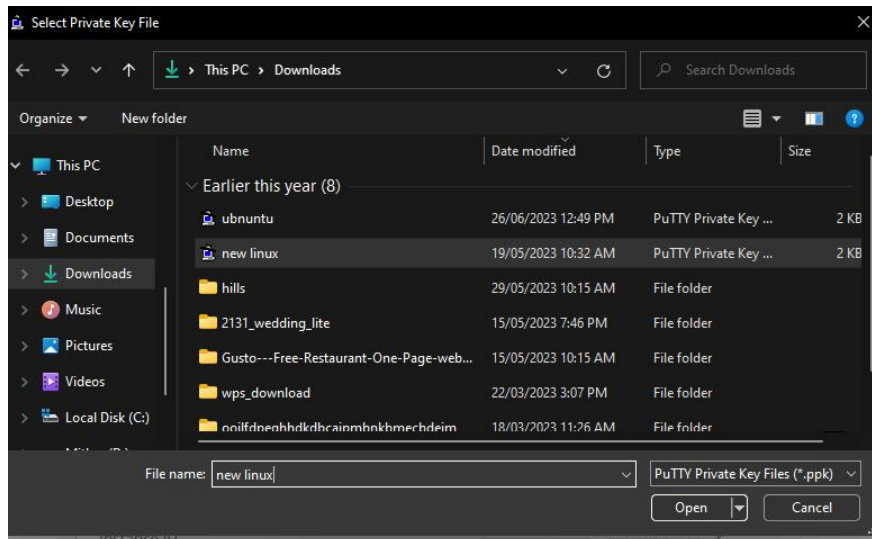
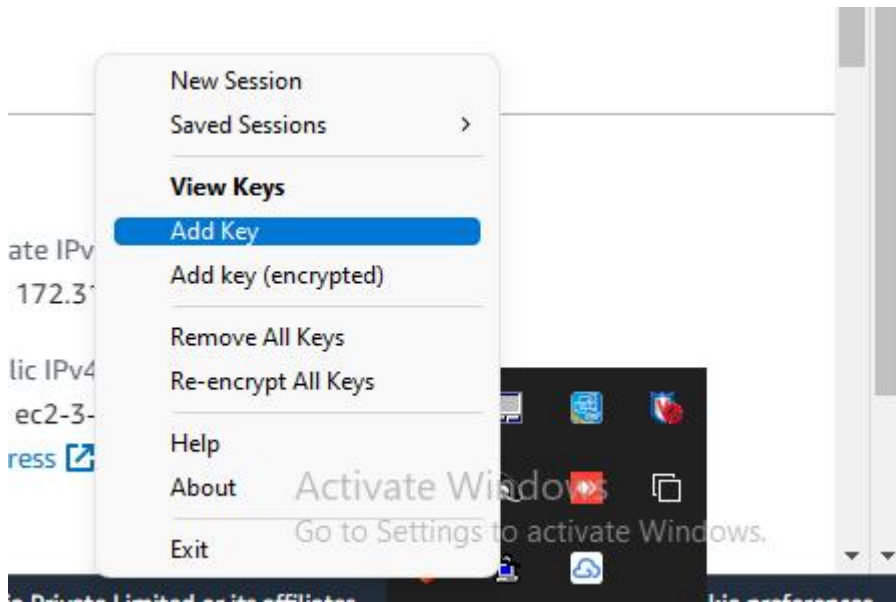
## Add Bash script in Userdata for installing python and ansible using PIP(Python Installation Package

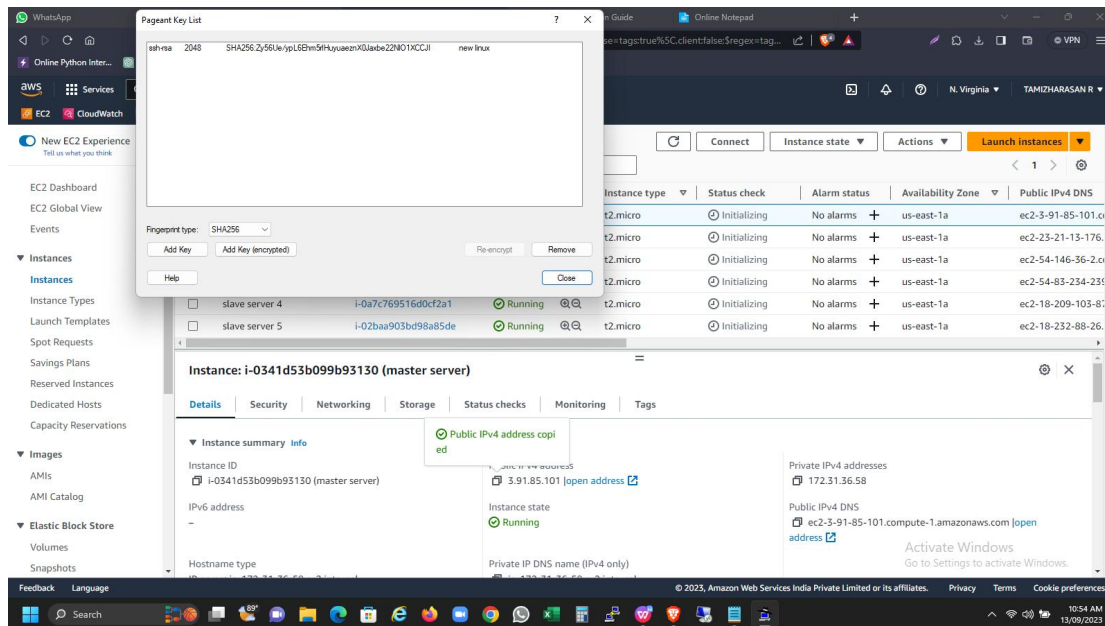


## Launch Server for Slaves Add Bash script in Userdata for installing python using PIP(Python InstallationPackage)



click pageant    click .....>add key



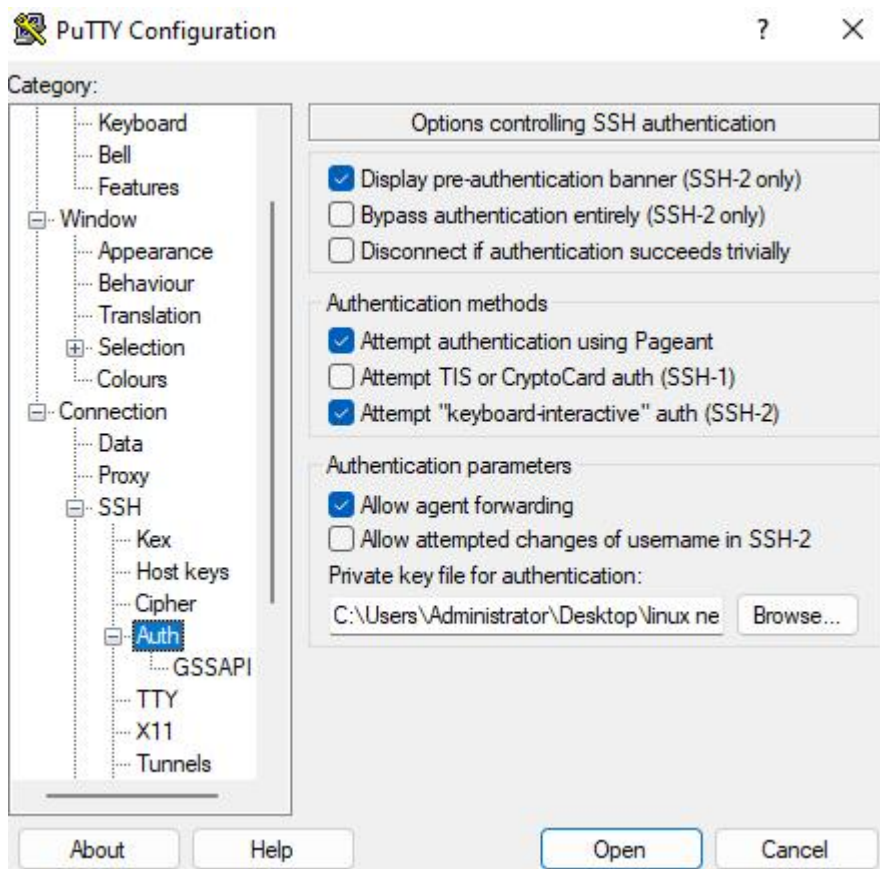


Open putty

hostname = <public ip of master>

enable = allow agent forwarding >> open

Logged into the server using agentforwarding method



```
login as: ec2-user
Authenticating with public key "linux new"
```

```

  _ |  _ | _ )
  _ | ( _ | /  Amazon Linux 2 AMI
  _ | \ _ | _ |
```

```
https://aws.amazon.com/amazon-linux-2/
i package(s) needed for security, out of 34 available
tun "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-36-58 ~]$
```

## Ansible version check

### Python version check

```
ec2-user@ip-172-31-36-58:~
[ec2-user@ip-172-31-36-58 ~]$ ansible --version
[DEPRECATION WARNING]: Ansible will require Python 3.8 or newer on the
controller starting with Ansible 2.12. Current version: 2.7.18 (default, Feb 28
2023, 02:51:06) [GCC 7.3.1 20180712 (Red Hat 7.3.1-15)]. This feature will be
removed from ansible-core in version 2.12. Deprecation warnings can be disabled
by setting deprecation_warnings=False in ansible.cfg.
ansible [core 2.11.12]
  config file = None
  configured module search path = [u'/home/ec2-user/.ansible/plugins/modules', u
'/usr/share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python2.7/site-packages/ansible
  ansible collection location = /home/ec2-user/.ansible/collections:/usr/share/a
nsible/collections
  executable location = /usr/bin/ansible
  python version = 2.7.18 (default, Feb 28 2023, 02:51:06) [GCC 7.3.1 20180712 (
Red Hat 7.3.1-15)]
  jinja version = 2.7.2
  libyaml = True
[ec2-user@ip-172-31-36-58 ~]$ python --version
Python 2.7.18
[ec2-user@ip-172-31-36-58 ~]$
```

## wget <download link of ansible.cfg file>

```
ec2-user@ip-172-31-36-58:~
[ec2-user@ip-172-31-36-58 ~]$ wget https://raw.githubusercontent.com/ansible/ans
ible/stable-2.11/examples/ansible.cfg
--2023-09-13 05:31:27-- https://raw.githubusercontent.com/ansible/ansible/stabl
e-2.11/examples/ansible.cfg
Resolving raw.githubusercontent.com (raw.githubusercontent.com)... 185.199.111.1
33, 185.199.108.133, 185.199.109.133, ...
Connecting to raw.githubusercontent.com (raw.githubusercontent.com)|185.199.111.
133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 20353 (20K) [text/plain]
Saving to: 'ansible.cfg'

100%[=====>] 20,353      --.-K/s   in 0s

2023-09-13 05:31:27 (86.1 MB/s) - 'ansible.cfg' saved [20353/20353]

[ec2-user@ip-172-31-36-58 ~]$
[ec2-user@ip-172-31-36-58 ~]$
```



```
[ec2-user@ip-172-31-36-58 ~]$ cp2-user@ip-172-31-36-58 ~$  
[ec2-user@ip-172-31-36-58 ~]$ wget https://raw.githubusercontent.com/ansible/ansible/stable-2.11/examples/ansible.cfg  
--2023-09-13 05:31:27-- https://raw.githubusercontent.com/ansible/ansible/stable-2.11/examples/ansible.cfg  
Resolving raw.githubusercontent.com (raw.githubusercontent.com)... 185.199.111.133, 185.199.108.133, 185.199.109.133, ...  
Connecting to raw.githubusercontent.com (raw.githubusercontent.com)|185.199.111.133|:443... connected.  
HTTP request sent, awaiting response... 200 OK  
Length: 20353 (20K) [text/plain]  
Saving to: 'ansible.cfg'  
  
100%[=====>] 20,353 --.-K/s in 0s  
  
2023-09-13 05:31:27 (86.1 MB/s) - 'ansible.cfg' saved [20353/20353]  
  
[ec2-user@ip-172-31-36-58 ~]$  
[ec2-user@ip-172-31-36-58 ~]$ ls  
ansible.cfg  
[ec2-user@ip-172-31-36-58 ~]$
```

```
vi tamizh.txt (create an txt file for adding slaves)
Enter the private ip of hosts >> :wq!
```

```
[ec2-user@ip-172-31-36-58 ~]$ vi tamizh.txt
```

```
172.31.47.248
172.31.32.135
172.31.37.162
172.31.46.2
172.31.47.222
```

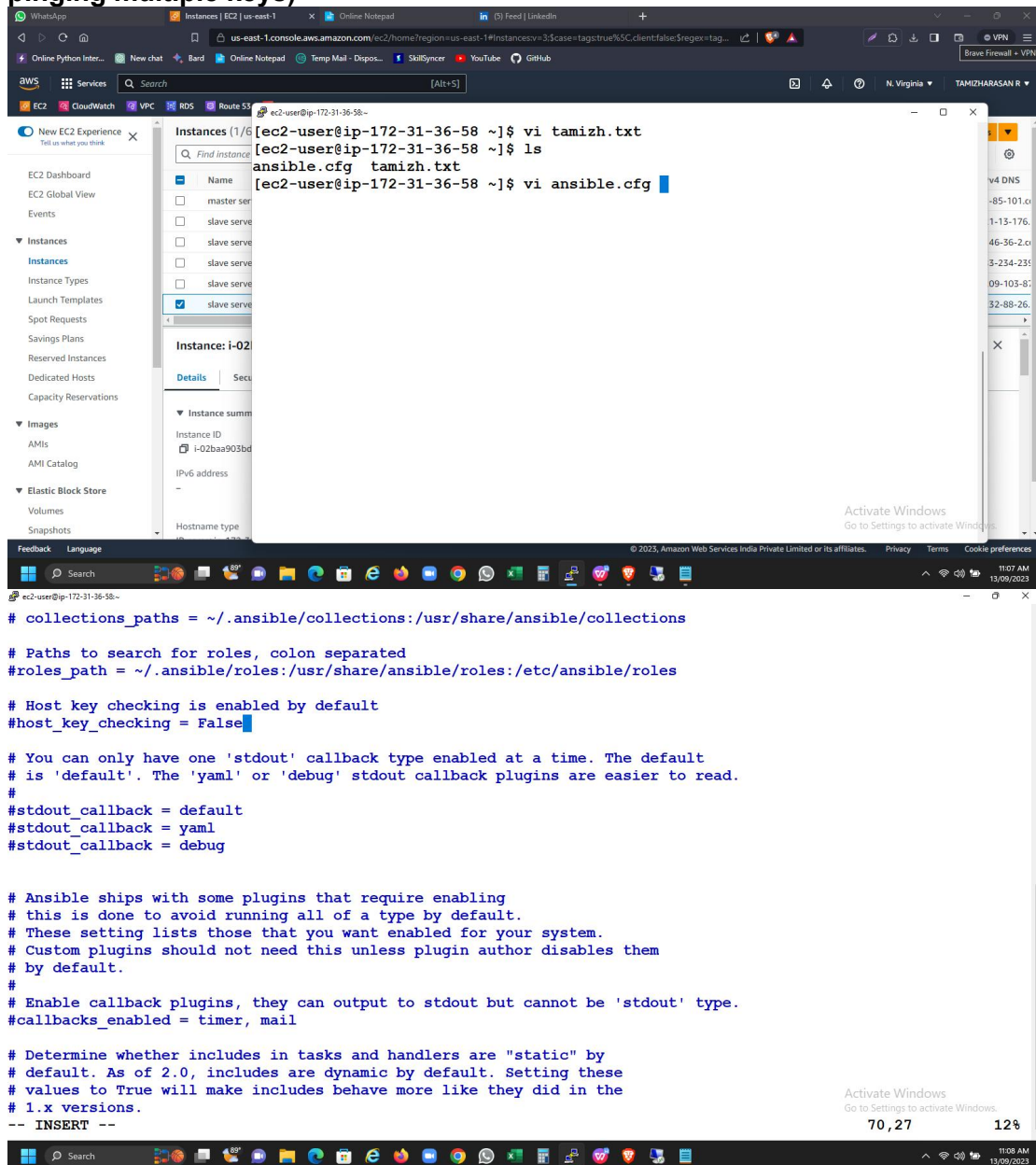
```
-- INSERT --
```

```

ec2-user@ip-172-31-36-58:~
[ec2-user@ip-172-31-36-58 ~]$ vi tamizh.txt
[ec2-user@ip-172-31-36-58 ~]$ ls
ansible.cfg  tamizh.txt
[ec2-user@ip-172-31-36-58 ~]$

```

**vi ansible.cfg (uncomment >> host\_key\_checking = false >> for pinging multiple keys)**



The screenshot shows a web browser window displaying the AWS Management Console. The 'Instances' page is active, showing a list of EC2 instances. A terminal window is open in the foreground, displaying the output of the 'ls' command and the contents of the 'ansible.cfg' file. The terminal output shows the following configuration:

```

# collections_paths = ~/.ansible/collections:/usr/share/ansible/collections

# Paths to search for roles, colon separated
#roles_path = ~/.ansible/roles:/usr/share/ansible/roles:/etc/ansible/roles

# Host key checking is enabled by default
#host_key_checking = False

# You can only have one 'stdout' callback type enabled at a time. The default
# is 'default'. The 'yaml' or 'debug' stdout callback plugins are easier to read.
#
#stdout_callback = default
#stdout_callback = yaml
#stdout_callback = debug

# Ansible ships with some plugins that require enabling
# this is done to avoid running all of a type by default.
# These setting lists those that you want enabled for your system.
# Custom plugins should not need this unless plugin author disables them
# by default.
#
# Enable callback plugins, they can output to stdout but cannot be 'stdout' type.
#callbacks_enabled = timer, mail

# Determine whether includes in tasks and handlers are "static" by
# default. As of 2.0, includes are dynamic by default. Setting these
# values to True will make includes behave more like they did in the
# 1.x versions.
-- INSERT --

```

The terminal window also shows the output of the 'ls' command, which lists 'ansible.cfg' and 'tamizh.txt'.

```
ec2-user@ip-172-31-36-58 ~]$ vi tamizh.txt
[ec2-user@ip-172-31-36-58 ~]$ ls
ansible.cfg  tamizh.txt
[ec2-user@ip-172-31-36-58 ~]$ vi ansible.cfg
[ec2-user@ip-172-31-36-58 ~]$ ansible --version
[DEPRECATION WARNING]: Ansible will require Python 3.8 or newer on the controller starting with Ansible 2.12.
Current version: 2.7.18 (default, Feb 28 2023, 02:51:06) [GCC 7.3.1 20180712 (Red Hat 7.3.1-15)]. This feature
will be removed from ansible-core in version 2.12. Deprecation warnings can be disabled by setting
deprecation_warnings=False in ansible.cfg.
ansible [core 2.11.12]
  config file = /home/ec2-user/ansible.cfg
  configured module search path = [u'/home/ec2-user/.ansible/plugins/modules', u'/usr/share/ansible/plugins/modul
es']
  ansible python module location = /usr/lib/python2.7/site-packages/ansible
  ansible collection location = /home/ec2-user/.ansible/collections:/usr/share/ansible/collections
  executable location = /usr/bin/ansible
  python version = 2.7.18 (default, Feb 28 2023, 02:51:06) [GCC 7.3.1 20180712 (Red Hat 7.3.1-15)]
  jinja version = 2.7.2
  libyaml = True
[ec2-user@ip-172-31-36-58 ~]$
```

**ansible all -i tamizh.txt -m ping (command used for pinging servers in tamizh.txt)**

```
ec2-user@ip-172-31-39-52 ~$
but future installation of another Python interpreter could change the meaning of that path. See
https://docs.ansible.com/ansible-core/2.11/reference_appendices/interpreter_discovery.html for more information.
172.31.32.135 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
[WARNING]: Platform linux on host 172.31.47.222 is using the discovered Python interpreter at /usr/bin/python,
but future installation of another Python interpreter could change the meaning of that path. See
https://docs.ansible.com/ansible-core/2.11/reference_appendices/interpreter_discovery.html for more information.
172.31.47.222 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
[WARNING]: Platform linux on host 172.31.37.162 is using the discovered Python interpreter at /usr/bin/python,
but future installation of another Python interpreter could change the meaning of that path. See
https://docs.ansible.com/ansible-core/2.11/reference_appendices/interpreter_discovery.html for more information.
172.31.37.162 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
}
```

**ansible all -i text.txt -m yum -a "name=httpd state=present" -b (installing httpd in slaves)**  
**(i - inventory file**  
**m - module**  
**a - passing arguments**

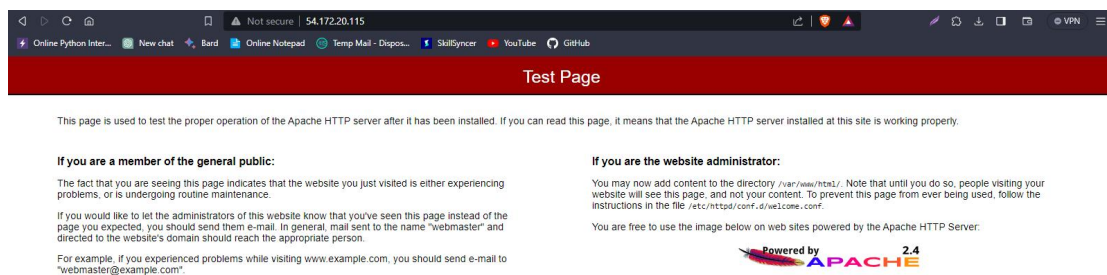
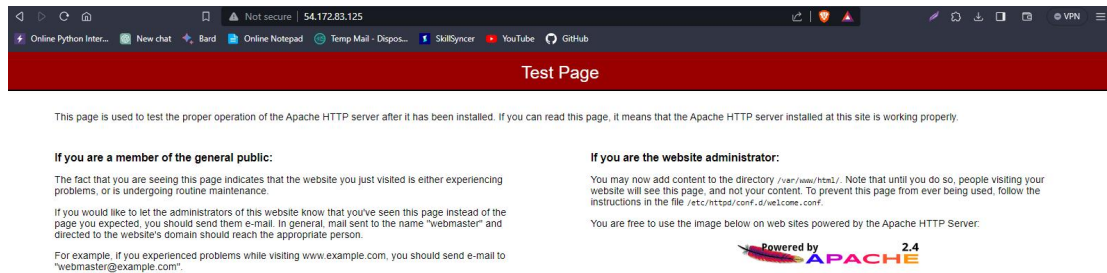
```
ec2-user@ip-172-31-39-52 ~$
[ec2-user@ip-172-31-39-52 ~]$
[ec2-user@ip-172-31-39-52 ~]$ ansible all -i tamizh.txt -m yum -a "name=httpd state=present" -b
```



```
ec2-user@ip-172-31-39-52:~$ ansible all -i tamizh.txt -m service -a "name=httpd state=started" -b
[DEPRECATION WARNING]: Ansible will require Python 3.8 or newer on the controller starting with Ansible 2.12.
Current version: 2.7.18 (default, Feb 28 2023, 02:51:06) [GCC 7.3.1 20180712 (Red Hat 7.3.1-15)]. This feature
will be removed from ansible-core in version 2.12. Deprecation warnings can be disabled by setting
deprecation_warnings=False in ansible.cfg.
```


Activate Windows  
Go to Settings to activate Windows.

**ansible all -i tamizh.txt -m service -a "name=httpd state=started" -b (for starting httpd service)**  
**<public ip :80>**



Grouping slave ips >> vi tamizh.txt

Step 13 : [<groupname>] --> below enter the slaves private ip which you want to group >> :wq!

 ec2-user@ip-172-31-39-52:~

group1

172.31.32.135

172.31.37.162

group2

172.31.46.2

172.31.47.248

172.31.47.222

~

~

~

~

~

~

~

gansible group1 -I tamizh.txt -m ping

ansible group2 -I tamizh.txt -m pin

ansible all -i tamizh.txt -m yum -a "name=httpd state=present" -b

ansible all -i tamizh.txt -m service -a "name=httpd state=started" -b

ansible all -i tamizh.txt -m ping

ansible all -i tamizh.txt -a "date"

ansible all -i tamizh.txt -a "yum install mysql -y"

ansible all -i tamizh.txt --module-name copy --args "src=/home/ec2-user/test dest=/tmp" -b

By  
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