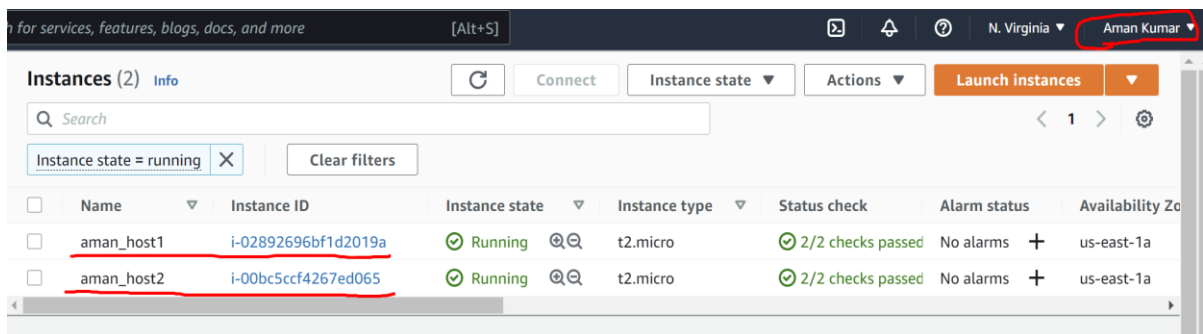


ANSIBLE CONFIGURATION

12 – 05 – 22
NGAD - ASSIGNMENT

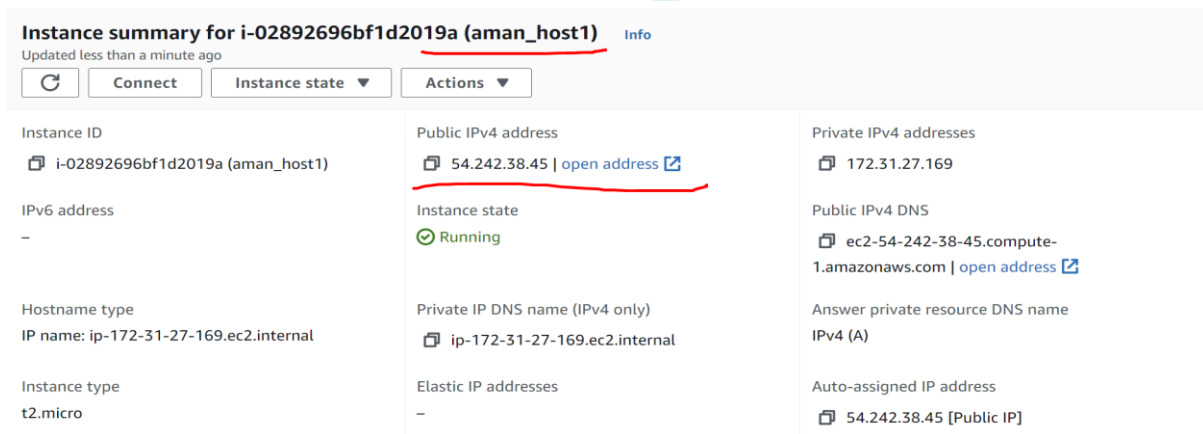
AMAN KUMAR
R19112026

- ANSIBLE HOSTS CREATION (AWS INSTANCES)



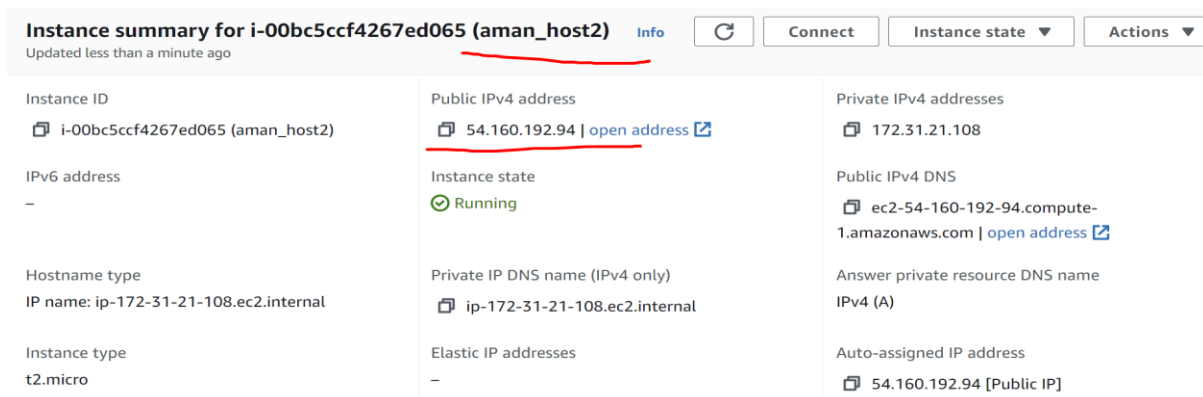
Instances (2) Info								
Search								
Instance state = running Clear filters								
<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	
<input type="checkbox"/>	aman_host1	i-02892696bf1d2019a	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	
<input type="checkbox"/>	aman_host2	i-00bc5ccf4267ed065	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	

○ DETAILS OF AMAN_HOST1



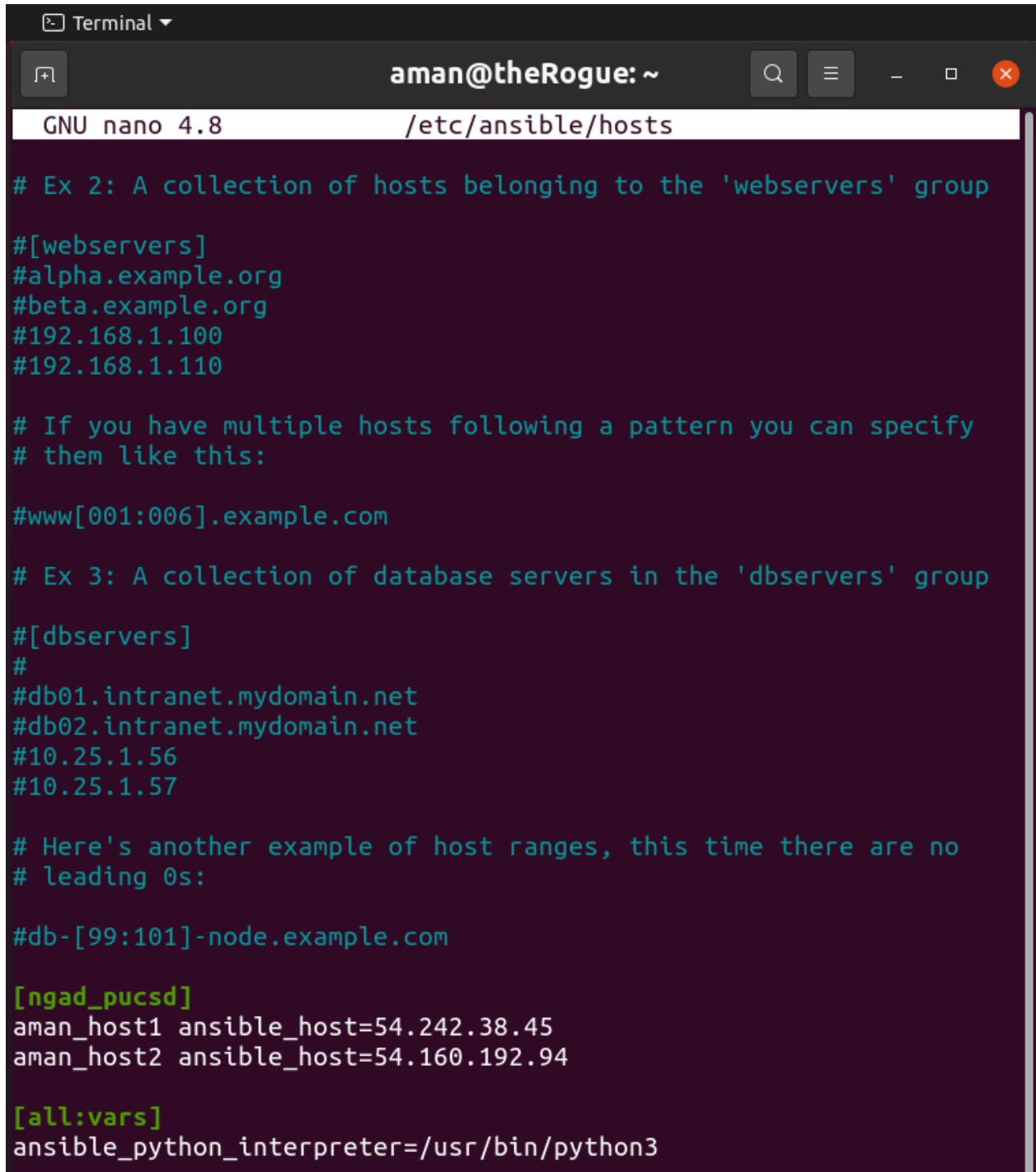
Instance summary for i-02892696bf1d2019a (aman_host1) Info		
Updated less than a minute ago		
Connect Instance state Actions		
Instance ID i-02892696bf1d2019a (aman_host1)	Public IPv4 address 54.242.38.45 open address	Private IPv4 addresses 172.31.27.169
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-54-242-38-45.compute-1.amazonaws.com open address
Hostname type IP name: ip-172-31-27-169.ec2.internal	Private IP DNS name (IPv4 only) ip-172-31-27-169.ec2.internal	Answer private resource DNS name IPv4 (A)
Instance type t2.micro	Elastic IP addresses -	Auto-assigned IP address 54.242.38.45 [Public IP]

○ DETAILS OF AMAN_HOST2



Instance summary for i-00bc5ccf4267ed065 (aman_host2) Info		
Updated less than a minute ago		
Connect Instance state Actions		
Instance ID i-00bc5ccf4267ed065 (aman_host2)	Public IPv4 address 54.160.192.94 open address	Private IPv4 addresses 172.31.21.108
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-54-160-192-94.compute-1.amazonaws.com open address
Hostname type IP name: ip-172-31-21-108.ec2.internal	Private IP DNS name (IPv4 only) ip-172-31-21-108.ec2.internal	Answer private resource DNS name IPv4 (A)
Instance type t2.micro	Elastic IP addresses -	Auto-assigned IP address 54.160.192.94 [Public IP]

ANSIBLE CONTROL NODE CONFIGURATION (LOCAL MACHINE)



```
Terminal
aman@theRogue: ~
GNU nano 4.8 /etc/ansible/hosts

# Ex 2: A collection of hosts belonging to the 'webservers' group

#[webservers]
#alpha.example.org
#beta.example.org
#192.168.1.100
#192.168.1.110

# If you have multiple hosts following a pattern you can specify
# them like this:

#www[001:006].example.com

# Ex 3: A collection of database servers in the 'dbservers' group

#[dbservers]
#
#db01.intranet.mydomain.net
#db02.intranet.mydomain.net
#10.25.1.56
#10.25.1.57

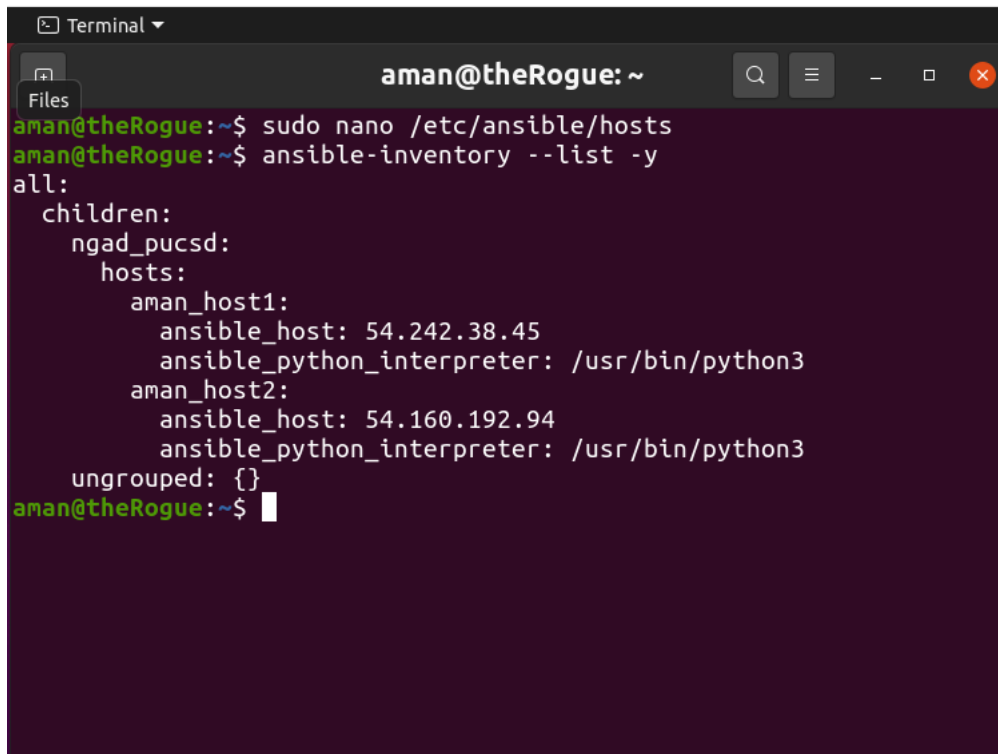
# Here's another example of host ranges, this time there are no
# leading 0s:

#db-[99:101]-node.example.com

[ngad_pucsd]
aman_host1 ansible_host=54.242.38.45
aman_host2 ansible_host=54.160.192.94

[all:vars]
ansible_python_interpreter=/usr/bin/python3
```

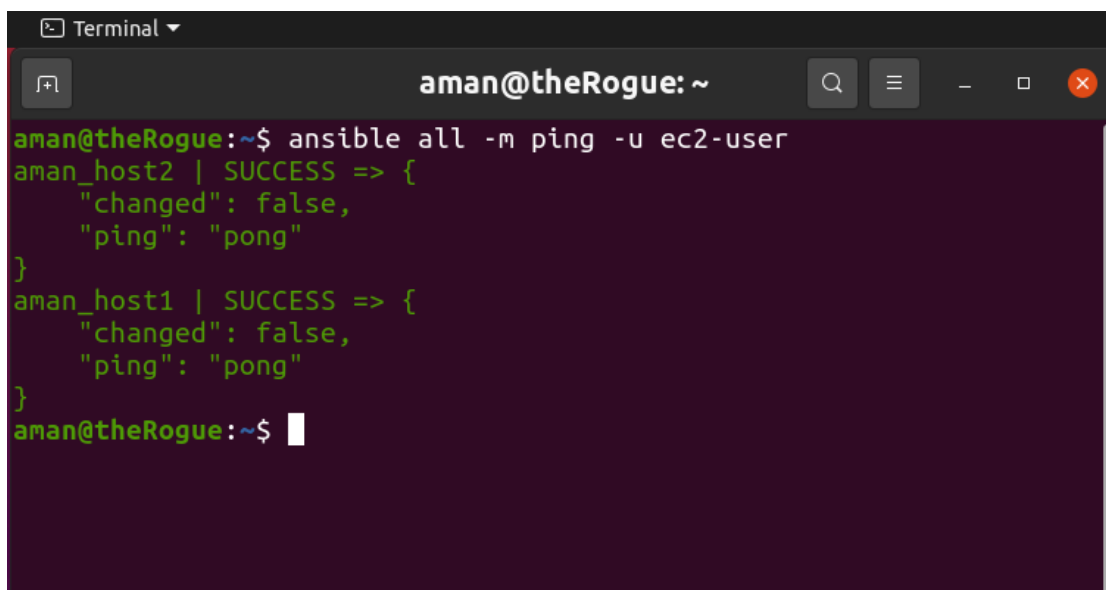
CONTROL NODE SPECIFICATIONS



```
aman@theRogue:~$ sudo nano /etc/ansible/hosts
aman@theRogue:~$ ansible-inventory --list -y
all:
  children:
    ngad_pucsd:
      hosts:
        aman_host1:
          ansible_host: 54.242.38.45
          ansible_python_interpreter: /usr/bin/python3
        aman_host2:
          ansible_host: 54.160.192.94
          ansible_python_interpreter: /usr/bin/python3
      ungrouped: {}
aman@theRogue:~$
```

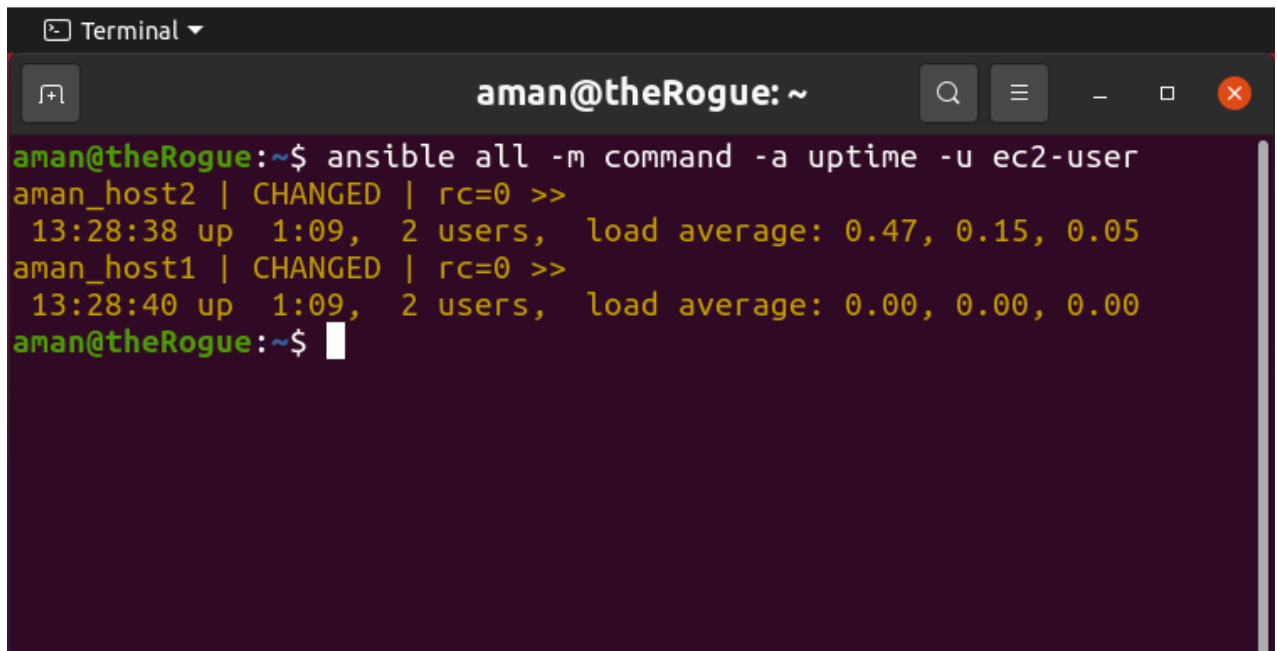
ANSIBLE MODULES

1. PING



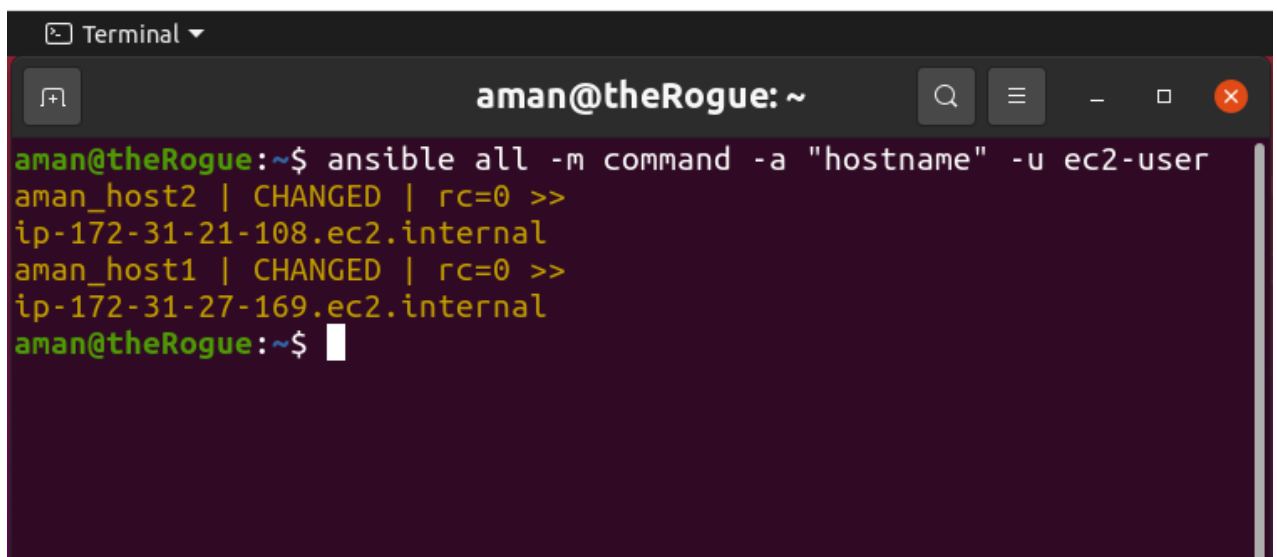
```
aman@theRogue:~$ ansible all -m ping -u ec2-user
aman_host2 | SUCCESS => {
  "changed": false,
  "ping": "pong"
}
aman_host1 | SUCCESS => {
  "changed": false,
  "ping": "pong"
}
aman@theRogue:~$
```

2. COMMAND MODULE – UPTIME COMMAND

A terminal window titled 'Terminal' with the prompt 'aman@theRogue: ~'. The user has executed the command 'ansible all -m command -a uptime -u ec2-user'. The output shows the uptime for two hosts: aman_host2 and aman_host1. Both show a time of 13:28:38 and 13:28:40 respectively, with 1:09 up, 2 users, and load averages of 0.47, 0.15, 0.05 for aman_host2 and 0.00, 0.00, 0.00 for aman_host1.

```
aman@theRogue:~$ ansible all -m command -a uptime -u ec2-user
aman_host2 | CHANGED | rc=0 >>
 13:28:38 up  1:09,  2 users,  load average: 0.47, 0.15, 0.05
aman_host1 | CHANGED | rc=0 >>
 13:28:40 up  1:09,  2 users,  load average: 0.00, 0.00, 0.00
aman@theRogue:~$
```

3. COMMAND MODULE – HOSTNAME COMMAND

A terminal window titled 'Terminal' with the prompt 'aman@theRogue: ~'. The user has executed the command 'ansible all -m command -a "hostname" -u ec2-user'. The output shows the hostname for two hosts: aman_host2 and aman_host1. Both show the IP address followed by '.ec2.internal': ip-172-31-21-108.ec2.internal for aman_host2 and ip-172-31-27-169.ec2.internal for aman_host1.

```
aman@theRogue:~$ ansible all -m command -a "hostname" -u ec2-user
aman_host2 | CHANGED | rc=0 >>
ip-172-31-21-108.ec2.internal
aman_host1 | CHANGED | rc=0 >>
ip-172-31-27-169.ec2.internal
aman@theRogue:~$
```

4. SHELL MODULE – LS COMMAND

```
Terminal
aman@theRogue: ~
aman@theRogue:~$ ansible all -m shell -a "ls -l /" -u ec2-user
aman_host1 | CHANGED | rc=0 >>
total 16
lrwxrwxrwx    1 root root    7 Apr 28 19:53 bin -> usr/bin
dr-xr-xr-x    4 root root 4096 May 12 12:45 boot
drwxr-xr-x   15 root root 2900 May 12 12:19 dev
drwxr-xr-x   80 root root 8192 May 12 12:45 etc
drwxr-xr-x    3 root root   22 May 12 12:19 home
lrwxrwxrwx    1 root root    7 Apr 28 19:53 lib -> usr/lib
lrwxrwxrwx    1 root root    9 Apr 28 19:53 lib64 -> usr/lib64
drwxr-xr-x    2 root root    6 Apr 28 19:53 local
drwxr-xr-x    2 root root    6 Apr  9 2019 media
drwxr-xr-x    2 root root    6 Apr  9 2019 mnt
drwxr-xr-x    4 root root   27 Apr 28 19:54 opt
dr-xr-xr-x  158 root root    0 May 12 12:19 proc
dr-xr-xr-x    3 root root  103 May 12 12:19 root
drwxr-xr-x   29 root root   980 May 12 12:45 run
lrwxrwxrwx    1 root root    8 Apr 28 19:53 sbin -> usr/sbin
drwxr-xr-x    2 root root    6 Apr  9 2019 srv
dr-xr-xr-x   13 root root    0 May 12 12:19 sys
drwxrwxrwt   10 root root   252 May 12 13:40 tmp
drwxr-xr-x   13 root root   155 Apr 28 19:53 usr
drwxr-xr-x   19 root root   269 May 12 12:19 var
aman_host2 | CHANGED | rc=0 >>
total 16
lrwxrwxrwx    1 root root    7 Apr 28 19:53 bin -> usr/bin
dr-xr-xr-x    4 root root 4096 May 12 12:47 boot
drwxr-xr-x   15 root root 2900 May 12 12:19 dev
drwxr-xr-x   80 root root 8192 May 12 12:47 etc
drwxr-xr-x    3 root root   22 May 12 12:19 home
lrwxrwxrwx    1 root root    7 Apr 28 19:53 lib -> usr/lib
lrwxrwxrwx    1 root root    9 Apr 28 19:53 lib64 -> usr/lib64
drwxr-xr-x    2 root root    6 Apr 28 19:53 local
drwxr-xr-x    2 root root    6 Apr  9 2019 media
drwxr-xr-x    2 root root    6 Apr  9 2019 mnt
drwxr-xr-x    4 root root   27 Apr 28 19:54 opt
```

5. YUM COMMAND – INSTALL GIT

```
Terminal
aman@theRogue: ~
aman@theRogue:~$ ansible ngad_pucsd -m yum -a "name=git state=present" --become -u ec2-user
[WARNING]: Platform linux on host aman_host1 is using the discovered Python
interpreter at /usr/bin/python, but future installation of another Python
interpreter could change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
aman_host1 | CHANGED => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": true,
  "changes": {
    "installed": [
      "git"
    ]
  },
  "msg": "",
  "rc": 0,
  "results": [
    "Loaded plugins: extras_suggestions, langpacks, priorities,
    update-motd\nResolving Dependencies\n--> Running transaction check
    \n--> Package git.x86_64 0:2.32.0-1.amzn2.0.1 will be installed\n-
    --> Processing Dependency: perl-Git = 2.32.0-1.amzn2.0.1 for package
    : git-2.32.0-1.amzn2.0.1.x86_64\n--> Processing Dependency: git-cor
    e-doc = 2.32.0-1.amzn2.0.1 for package: git-2.32.0-1.amzn2.0.1.x86_
    64\n--> Processing Dependency: git-core = 2.32.0-1.amzn2.0.1 for pa
    ckage: git-2.32.0-1.amzn2.0.1.x86_64\n--> Processing Dependency: em
    acs-filesystem >= 27.1 for package: git-2.32.0-1.amzn2.0.1.x86_64\n
    --> Processing Dependency: perl(Term::ReadKey) for package: git-2.3
    2.0-1.amzn2.0.1.x86_64\n--> Processing Dependency: perl(Git::I18N)
    for package: git-2.32.0-1.amzn2.0.1.x86_64\n--> Processing Dependen
    cy: perl(Git) for package: git-2.32.0-1.amzn2.0.1.x86_64\n--> Runni
    ng transaction check\n--> Package emacs-filesystem.noarch 1:27.2-4
    .amzn2.0.1 will be installed\n--> Package git-core.x86_64 0:2.32.0
    -1.amzn2.0.1 will be installed\n--> Package git-core-doc.noarch 0:
    2.32.0-1.amzn2.0.1 will be installed\n--> Package perl-Git.noarch
```