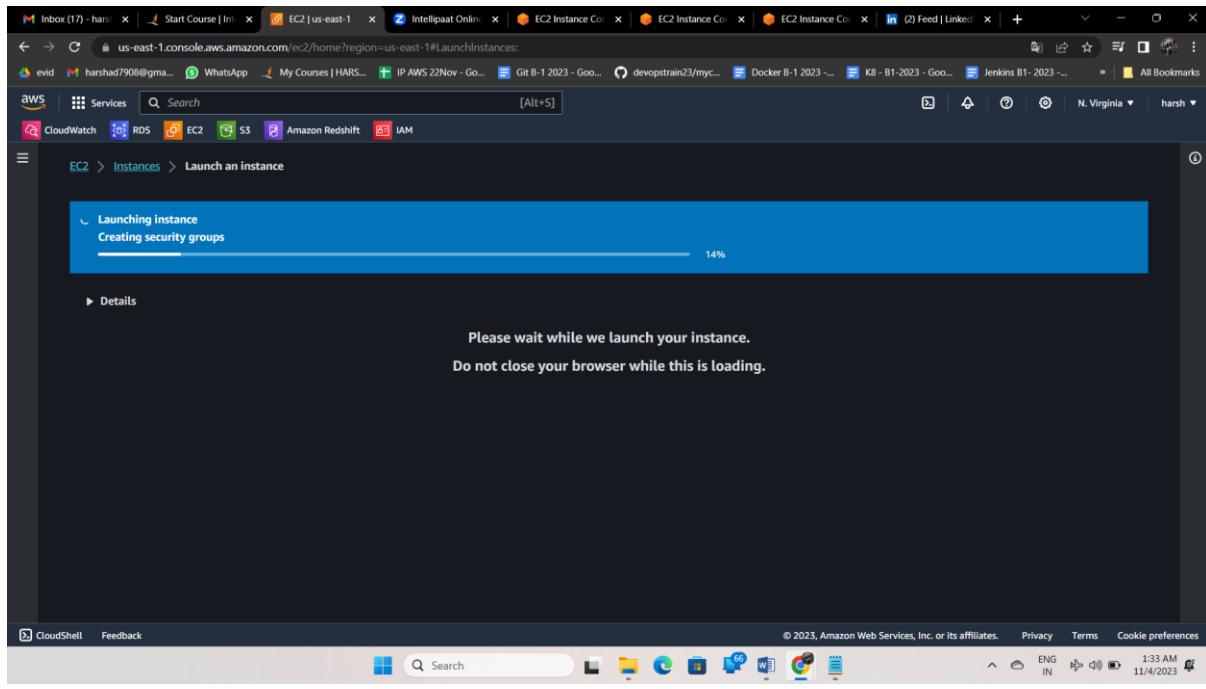


Ansible Assignment 5

The screenshot shows the 'Launch an instance' wizard in the AWS Management Console. The 'Name and tags' section has 'Ansible-slave' entered. Under 'Application and OS Images (Amazon Machine Image)', the search bar is empty. The 'Virtual server type (instance type)' is set to 't2.micro'. The 'Launch instance' button is highlighted.

The screenshot shows the 'Launch an instance' wizard with two security group rules defined. Rule 2 allows HTTP traffic (port 80) from anywhere. Rule 3 allows all traffic (port All) from anywhere. A warning message at the bottom states: '⚠️ Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.' The 'Launch instance' button is highlighted.



The screenshot shows the AWS EC2 Instances list page. The table displays five instances, all of which are currently running. The columns include Name, Instance ID, Instance state, Instance type, Status check, Alarm status, Availability Zone, and Public IP/DNS. The instances are labeled Ansible-Master, Ansible-slave1, Ansible-Slave2, Ansible-slave3, and Ansible-slave4. The monitoring section below the table shows CPU utilization and status check metrics for these instances.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP/DNS
Ansible-Master	i-0df8bc4a5782fea4c	Running	t2.micro	2/2 checks passed	No alarms	us-east-1c	ec2-3-94-64-46.c
Ansible-slave1	i-01dbae4ca583e367f	Running	t2.micro	2/2 checks passed	No alarms	us-east-1c	ec2-52-90-250-9
Ansible-Slave2	i-09afa4f92d1e25005	Running	t2.micro	2/2 checks passed	No alarms	us-east-1c	ec2-3-80-115-14
Ansible-slave3	i-0d52dfe62ae220d00	Running	t2.micro	Initializing	No alarms	us-east-1d	ec2-18-207-229-
Ansible-slave4	i-0eca2f71881d79e80	Running	t2.micro	Initializing	No alarms	us-east-1d	ec2-52-55-133-2

The screenshot shows three consecutive frames of a terminal session in AWS CloudShell. The terminal window title is 'CloudShell' and the URL is 'https://us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-0df8bc4a5782fea4c&osUser=ubuntu®ion=us-east-1&sshPort=22/'. The terminal interface includes a top navigation bar with AWS services like CloudWatch, RDS, EC2, S3, Amazon Redshift, and IAM. The main area displays a terminal session with the command 'nano /etc/ansible/hosts'. The terminal content shows two hosts defined under sections [Slave1] and [Slave2]. In the first frame, the host '172.31.31.183' is present. In the second frame, the host '172.31.38.35' is added under the [prod] section. In the third frame, the host '172.31.17.26' is added under the [prod] section. The terminal also shows standard nano keybindings at the bottom.

```
[Slave1]
172.31.31.183
[Slave2]
172.31.17.26

GNU nano 6.2
[ Read 4 lines ]
^G Help      ^C Write Out    ^W Where Is     ^K Cut          ^X Execute      ^C Location    M-U Undo      M-R Set Mark   M-] To Bracket
^X Exit      ^R Read File    ^V Replace      ^U Paste        ^J Justify      ^F Go To Line  M-E Redo      M-C Copy       M-Q Previous
M-Q Next

i-0df8bc4a5782fea4c (Ansible-Master)
PublicIPs: 3.94.64.46 PrivateIPs: 172.31.19.150
```



```
[tat]
172.31.31.183
172.31.38.35
[prod]
172.31.17.26
172.31.38.35
```



```
i-0df8bc4a5782fea4c (Ansible-Master)
PublicIPs: 3.94.64.46 PrivateIPs: 172.31.19.150
```

The image displays three vertically stacked screenshots of the AWS CloudShell interface, each showing a terminal window with a nano editor.

Top Window:

- Terminal title: i-0df8bc4a5782fea4c (Ansible-Master)
- PublicIPs: 3.94.64.46 PrivateIPs: 172.31.19.150
- Content: Configuration for hosts in /etc/ansible/hosts, listing two hosts under [prod]:

```
[prod]
172.31.17.26
172.31.38.35
```

Middle Window:

- Terminal title: i-0eca2f71881d79e80 (Ansible-slave4)
- PublicIPs: 52.55.133.29 PrivateIPs: 172.31.37.104
- Content: Addition of public key to /root/.ssh/authorized_keys:

```
ssh-rsa AAAAB3NzaC1yc2EAAAQABAAQClODMMIA51zrIWCzsrShJ/PNU1A3LJaRlnjy...DkIYWG5MsWaVnpfzsb9A87ZNBY3zXnM5AK5naCDSFr22uOkYmbBbHDbbBUlw9Q1BWoVrKJiOWMgUZDMUrioMjx514oe...yDm8HxK5bnkjv+32mo3GwNm] 3qxp/0egAxweDefWcelS4tXjFET3OBN2NTFQb/90= ubuntu@ip-172-31-19-150
```

Bottom Window:

- Terminal title: i-0eca2f71881d79e80 (Ansible-slave4)
- PublicIPs: 52.55.133.29 PrivateIPs: 172.31.37.104
- Content: Confirmation of key addition:

```
[ Wrote 3 lines ]
```

ssh authorized_keys *

```
ssh-rsa AAAAB3NzaC1yc2EAAAQABAAQCl0DMMIA51zrLWCzsShJ/PNU1A3LJaRlnjyeDKIYWGSMswaVnpfzsb9A87zNBY32XnMSAK5naUDSFzZ2u0kYMDBhHDbbBUIw9Q1EWGvIKJ1oWNgJZDCMUrioMjx514oeS
yDM0Rx5bnkjv+32mo3Gwlmj3qxp/0eGAXweDefWcels4tXjFET3OBNZNTFQb/90= ubuntu@ip-172-31-19-156
```

Help **Write Out** **Where Is** **Cut** **Execute** **Location** **Undo** **Set Mark** **To Bracket** **Previous**
Exit **Read File** **Replace** **Paste** **Justify** **Go To Line** **Redo** **Copy** **Where Was** **Next**

i-0d52dfe62ae220d00 (Ansible-slave3)
PublicIPs: 18.207.229.250 PrivateIPs: 172.31.38.35

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ubuntu@ip-172-31-19-150:~\$ ansible -m ping
The authenticity of host '172.31.37.104 (172.31.37.104)' can't be established.
ED25519 key fingerprint is SHA256:i42kSu0pE/dMvNt1BINyUzfWgOhxs2TdygJA60770.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/(fingerprint))? 172.31.17.26 | SUCCESS => {
 "ansible_facts": {
 "discovered_interpreter_python": "/usr/bin/python3"
 },
 "changed": false,
 "ping": "pong"
}172.31.183 | SUCCESS => {
 "ansible_facts": {
 "discovered_interpreter_python": "/usr/bin/python3"
 },
 "changed": false,
 "ping": "pong"
}172.31.38.35 | SUCCESS => {
 "ansible_facts": {
 "discovered_interpreter_python": "/usr/bin/python3"
 },
 "changed": false,
 "ping": "pong"
}
yes|

i-0df8bc4a5782fea4c (Ansible-Master)
PublicIPs: 3.94.64.46 PrivateIPs: 172.31.19.150

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The screenshot shows a CloudShell session with multiple tabs open. The main terminal window displays the output of several Ansible playbooks. The first playbook, run on IP 172.31.31.183, succeeds with facts about Python 3. The second, on IP 172.31.39.35, also succeeds with similar facts. The third, on IP 172.31.37.104, also succeeds with facts. The final command, 'ls' in the root directory, lists files like 'apache' and 'nginx'. The top navigation bar shows the AWS logo, CloudShell, Feedback, and various service icons. The top right corner shows the date (11/4/2023), time (1:57 AM), and language (ENG IN). A search bar is at the top center.

```
CloudShell Feedback Search

Inbox (17) Start Count Instances Intellic... EC2 Instan... EC2 Instan... EC2 Instan... EC2 Instan... EC2 Instan... (2) Feed | + - _ x

us-east-1.console.aws.amazon.com/ec2-instance-connect/shell?region=us-east-1&connType=standard&instanceId=i-0df8bc4a5782fea4c&osUser=ubuntu&sshPort=22/ https://aws.amazon.com/ CloudWatch Services Search [Alt+S]

CloudWatch RDS EC2 S3 Amazon Redshift IAM

172.31.31.183 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
172.31.39.35 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}
yes
172.31.37.104 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3"
  },
  "changed": false,
  "ping": "pong"
}

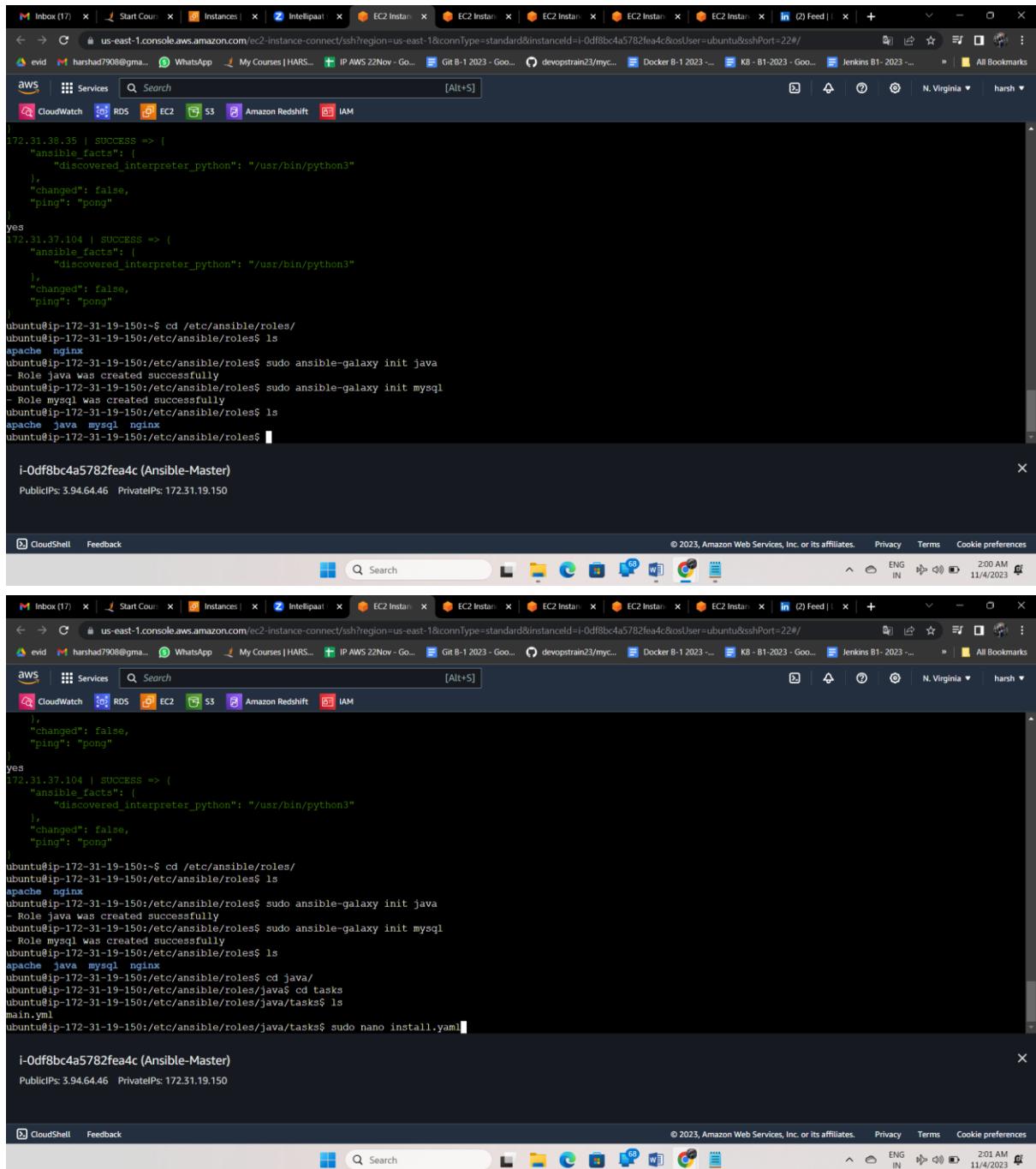
ubuntu@ip-172-31-19-150:~$ cd /etc/ansible/roles/
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ ls
apache nginx
ubuntu@ip-172-31-19-150:/etc/ansible/roles$
```

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```
Inbox (17) | Start Count | Instances | Intellipaat | EC2 Instances | (2) Feed | + - _ X
us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=us-east-1&connType=standard&instanceId=i-0df8bc4a5782fea4c&osUser=ubuntu&sshPort=22#
evid harshad7908@gmail.com WhatsApp My Courses | HARS... IP AWS 22Nov - Go... Git B-1 2023 - Goo... devopstrain23/my... Docker B-1 2023 ... K8 - B1-2023 - Goo... Jenkins B1- 2023 ... All Bookmarks N. Virginia harsh
AWS Services Search [Alt+S]
CloudWatch RDS EC2 S3 Amazon Redshift IAM
"discovered_interpreter_python": "/usr/bin/python3"
|,
"changed": false,
"ping": "pong"
}
172.31.38.35 | SUCCESS => (
"ansible_facts": {
"discovered_interpreter_python": "/usr/bin/python3"
|,
"changed": false,
"ping": "pong"
}
yes
172.31.37.104 | SUCCESS => (
"ansible_facts": {
"discovered_interpreter_python": "/usr/bin/python3"
|,
"changed": false,
"ping": "pong"
}
ubuntu@ip-172-31-19-150:~$ cd /etc/ansible/roles/
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ ls
apache nginx
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ sudo ansible-galaxy init java
- Role java was created successfully
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ 
i-0df8bc4a5782fea4c (Ansible-Master)
PublicIPs: 3.94.64.46 PrivateIPs: 172.31.19.150

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ENG IN 2:00 AM 11/4/2023
Inbox (17) | Start Count | Instances | Intellipaat | EC2 Instances | (2) Feed | + - _ X
us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=us-east-1&connType=standard&instanceId=i-0df8bc4a5782fea4c&osUser=ubuntu&sshPort=22#
evid harshad7908@gmail.com WhatsApp My Courses | HARS... IP AWS 22Nov - Go... Git B-1 2023 - Goo... devopstrain23/my... Docker B-1 2023 ... K8 - B1-2023 - Goo... Jenkins B1- 2023 ... All Bookmarks N. Virginia harsh
AWS Services Search [Alt+S]
CloudWatch RDS EC2 S3 Amazon Redshift IAM
"changed": false,
"ping": "pong"
}
172.31.38.35 | SUCCESS => (
"ansible_facts": {
"discovered_interpreter_python": "/usr/bin/python3"
|,
"changed": false,
"ping": "pong"
}
yes
172.31.37.104 | SUCCESS => (
"ansible_facts": {
"discovered_interpreter_python": "/usr/bin/python3"
|,
"changed": false,
"ping": "pong"
}
ubuntu@ip-172-31-19-150:~$ cd /etc/ansible/roles/
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ ls
apache nginx
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ sudo ansible-galaxy init java
- Role java was created successfully
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ sudo ansible-galaxy init mysql
- Role mysql was created successfully
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ 
i-0df8bc4a5782fea4c (Ansible-Master)
PublicIPs: 3.94.64.46 PrivateIPs: 172.31.19.150

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ENG IN 2:00 AM 11/4/2023
```



The screenshot shows three consecutive screenshots of the AWS CloudShell interface. Each screenshot displays a terminal window with the following command and its output:

```
i-0df8bc4a5782fea4c (Ansible-Master)
PublicIPs: 3.94.64.46 PrivateIPs: 172.31.19.150
```

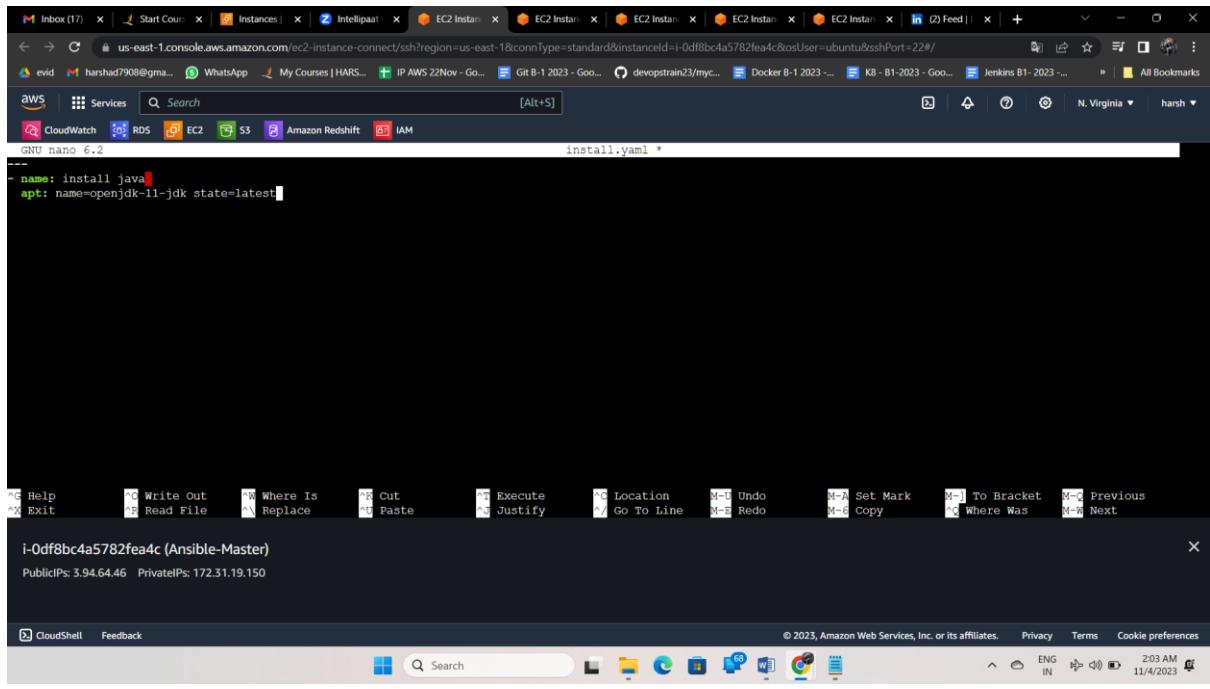
The terminal session starts with a prompt indicating the host is an Ansible-Master node. It then shows the public and private IP addresses. The user runs an Ansible ping command against the host itself, resulting in the following output:

```
172.31.38.35 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3"
    },
    "changed": false,
    "ping": "pong"
}
yes
172.31.37.104 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python3"
    },
    "changed": false,
    "ping": "pong"
}
ubuntu@ip-172-31-19-150:~$ cd /etc/ansible/roles/
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ ls
apache nginx
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ sudo ansible-galaxy init java
- Role java was created successfully
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ sudo ansible-galaxy init mysql
- Role mysql was created successfully
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ ls
apache java mysql nginx
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ [REDACTED]
```

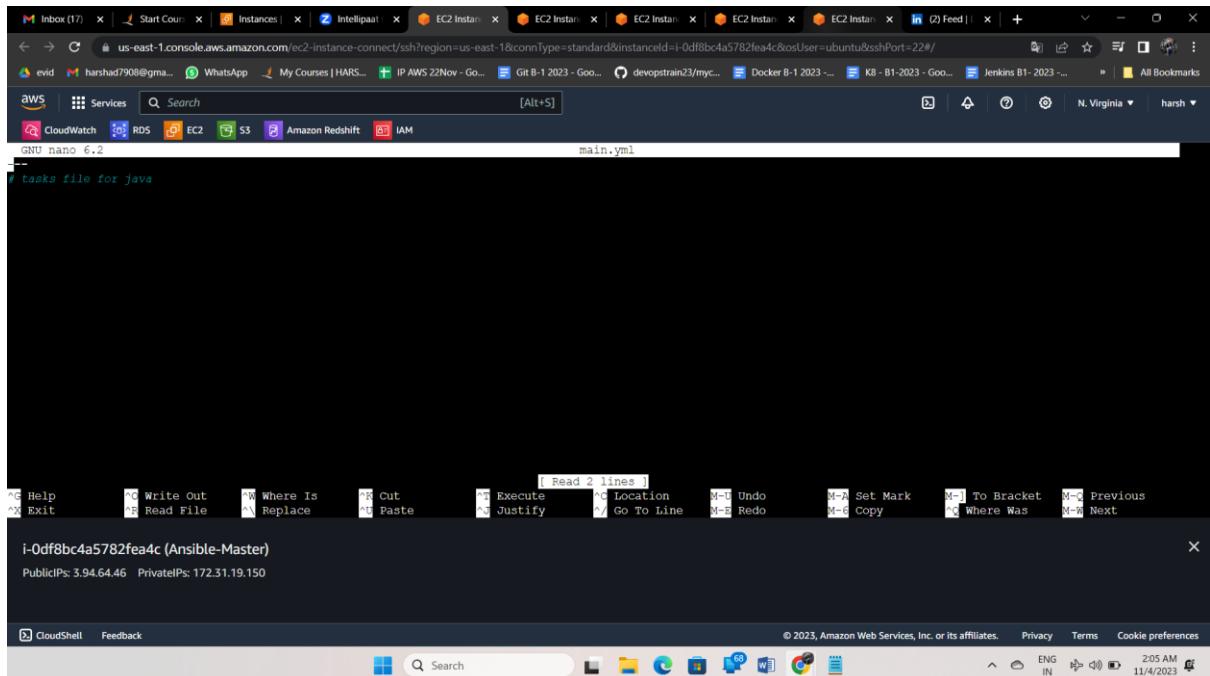
The user then runs another Ansible ping command, which returns the same result as the first one:

```
i-0df8bc4a5782fea4c (Ansible-Master)
PublicIPs: 3.94.64.46 PrivateIPs: 172.31.19.150
```

The terminal session ends with a prompt for further commands.



```
install.yaml *
---  
- name: install java  
  apt: name=openjdk-11-jdk state=latest
```



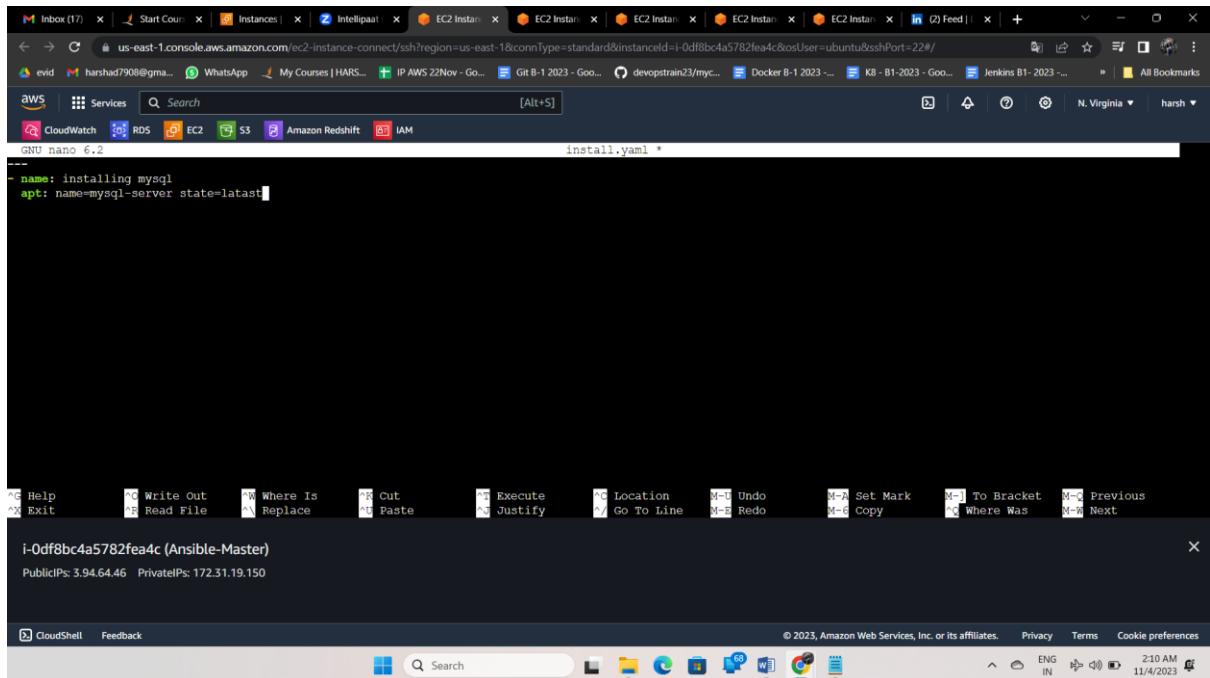
```
main.yml  
# tasks file for java
```

tasks file for java
- include_tasks: install.yaml

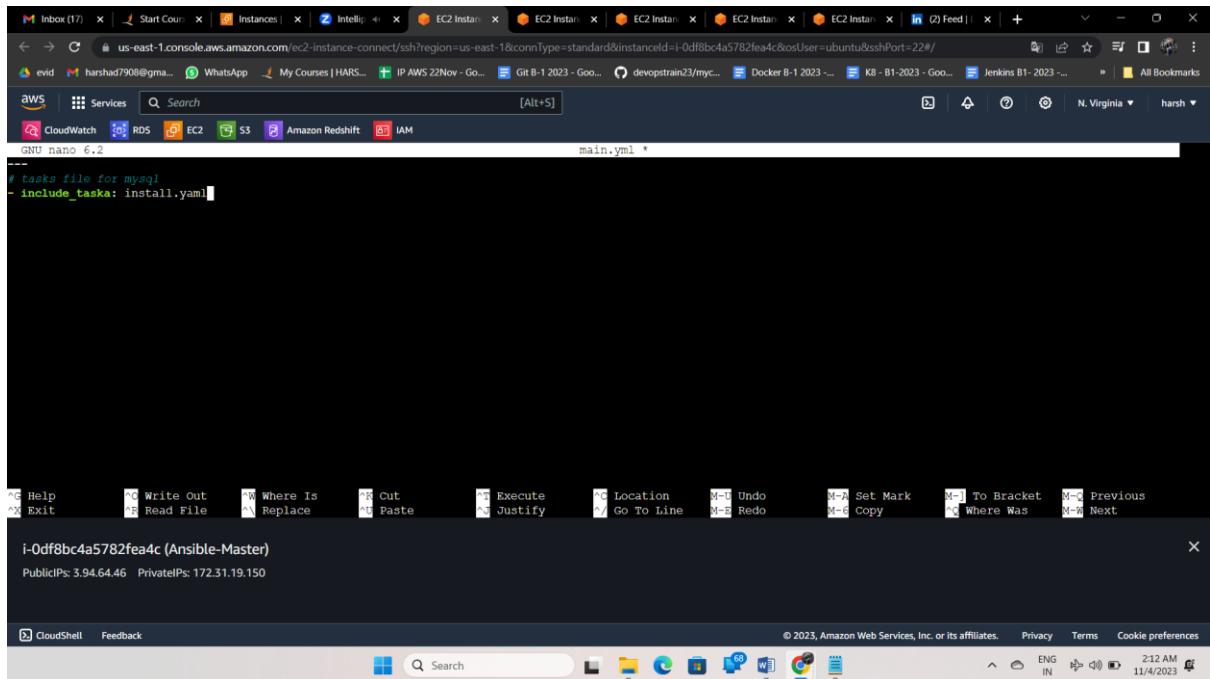
i-0df8bc4a5782fea4c (Ansible-Master)
PublicIPs: 3.94.64.46 PrivateIPs: 172.31.19.150

```
"ping": "pong"  
ubuntu@ip-172-31-19-150:~$ cd /etc/ansible/roles/  
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ ls  
apache  nginx  
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ sudo ansible-galaxy init java  
- Role java was created successfully  
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ sudo ansible-galaxy init mysql  
- Role mysql was created successfully  
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ ls  
apache  java  mysql  nginx  
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ cd java/  
ubuntu@ip-172-31-19-150:/etc/ansible/roles/java$ cd tasks/  
ubuntu@ip-172-31-19-150:/etc/ansible/roles/java/tasks$ ls  
main.yml  
ubuntu@ip-172-31-19-150:/etc/ansible/roles/java/tasks$ sudo nano install.yaml  
ubuntu@ip-172-31-19-150:/etc/ansible/roles/java/tasks$ sudo nano install.yaml  
ubuntu@ip-172-31-19-150:/etc/ansible/roles/java/tasks$ sudo nano main.yml  
ubuntu@ip-172-31-19-150:/etc/ansible/roles/java/tasks$ cd  
ubuntu@ip-172-31-19-150:$ cd /etc/ansible/roles/  
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ ls  
apache  java  mysql  nginx  
ubuntu@ip-172-31-19-150:/etc/ansible/roles$ cd mysql/  
ubuntu@ip-172-31-19-150:/etc/ansible/roles/mysql$ cd tasks/  
ubuntu@ip-172-31-19-150:/etc/ansible/roles/mysql/tasks$ sudo nano install.yaml
```

i-0df8bc4a5782fea4c (Ansible-Master)
PublicIPs: 3.94.64.46 PrivateIPs: 172.31.19.150



```
install.yaml *
---  
- name: installing mysql  
  apt: name=mysql-server state=latest
```



```
main.yaml *
# tasks file for mysql
- include_tasks: install.yaml
```

```
ls
ansible@ip-172-31-19-150:/etc/ansible/roles$ ls
apache nginx
ansible@ip-172-31-19-150:/etc/ansible/roles$ sudo ansible-galaxy init java
- Role java was created successfully
ansible@ip-172-31-19-150:/etc/ansible/roles$ sudo ansible-galaxy init mysql
- Role mysql was created successfully
ansible@ip-172-31-19-150:/etc/ansible/roles$ ls
apache java mysql nginx
ansible@ip-172-31-19-150:/etc/ansible/roles$ cd java/
ansible@ip-172-31-19-150:/etc/ansible/roles/java$ cd tasks
ansible@ip-172-31-19-150:/etc/ansible/roles/java/tasks$ ls
main.yml
ansible@ip-172-31-19-150:/etc/ansible/roles/java/tasks$ sudo nano install.yaml
ansible@ip-172-31-19-150:/etc/ansible/roles/java/tasks$ sudo nano main.yaml
ansible@ip-172-31-19-150:/etc/ansible/roles/java/tasks$ cd ..
ansible@ip-172-31-19-150:/etc/ansible/roles/java$ cd ..
ansible@ip-172-31-19-150:/etc/ansible/roles$ ls
apache java mysql nginx
ansible@ip-172-31-19-150:/etc/ansible/roles$ cd mysql
ansible@ip-172-31-19-150:/etc/ansible/roles/mysql$ cd tasks
ansible@ip-172-31-19-150:/etc/ansible/roles/mysql/tasks$ sudo nano install.yaml
ansible@ip-172-31-19-150:/etc/ansible/roles/mysql/tasks$ sudo nano main.yaml
ansible@ip-172-31-19-150:/etc/ansible/roles/mysql/tasks$ cd ..
ansible@ip-172-31-19-150:~$ sudo nano play5.yaml
```

i-0df8bc4a5782fea4c (Ansible-Master)
PublicIPs: 3.94.64.46 PrivateIPs: 172.31.19.150

```
GNU nano 6.2          play5.yaml *
```

```
- name: running java role for test group
  hosts: test
  become: true
  roles:
    - java
- name: running mysql role for prod group
  hosts: prod
  become: true
  roles:
    - mysql
```

```
i-0df8bc4a5782fea4c (Ansible-Master)  
PublicIPs: 3.94.64.46 PrivateIPs: 172.31.19.150
```

```
i-0df8bc4a5782fea4c (Ansible-Master)  
PublicIPs: 3.94.64.46 PrivateIPs: 172.31.19.150
```