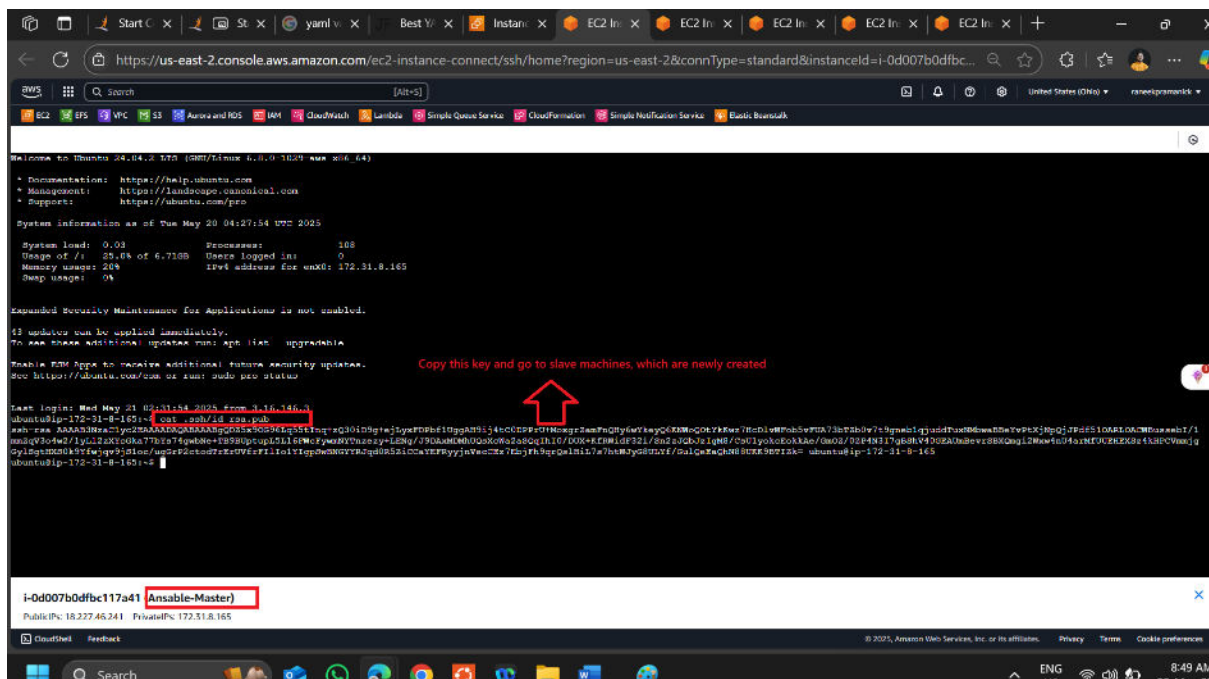
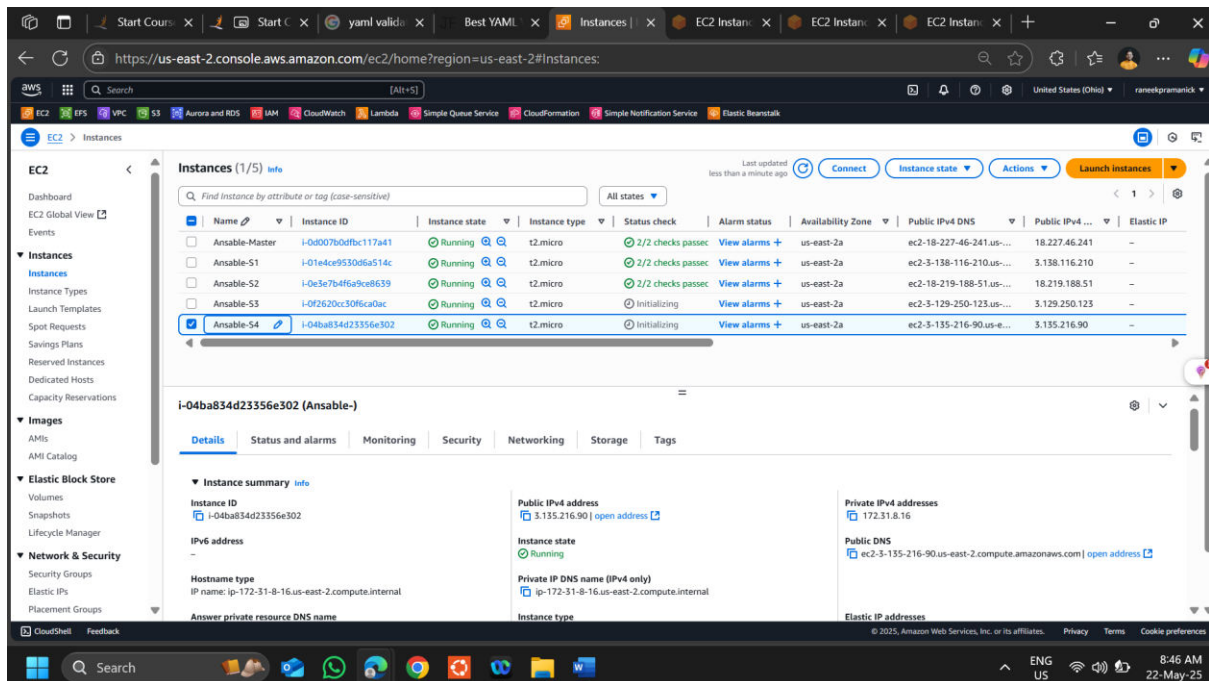


Tasks To Be Performed:

1. Create a new deployment of Ansible cluster of 5 nodes
2. Label 2 nodes as test and other 2 as prod
3. Install Java on test nodes
4. Install MySQL server on prod nodes

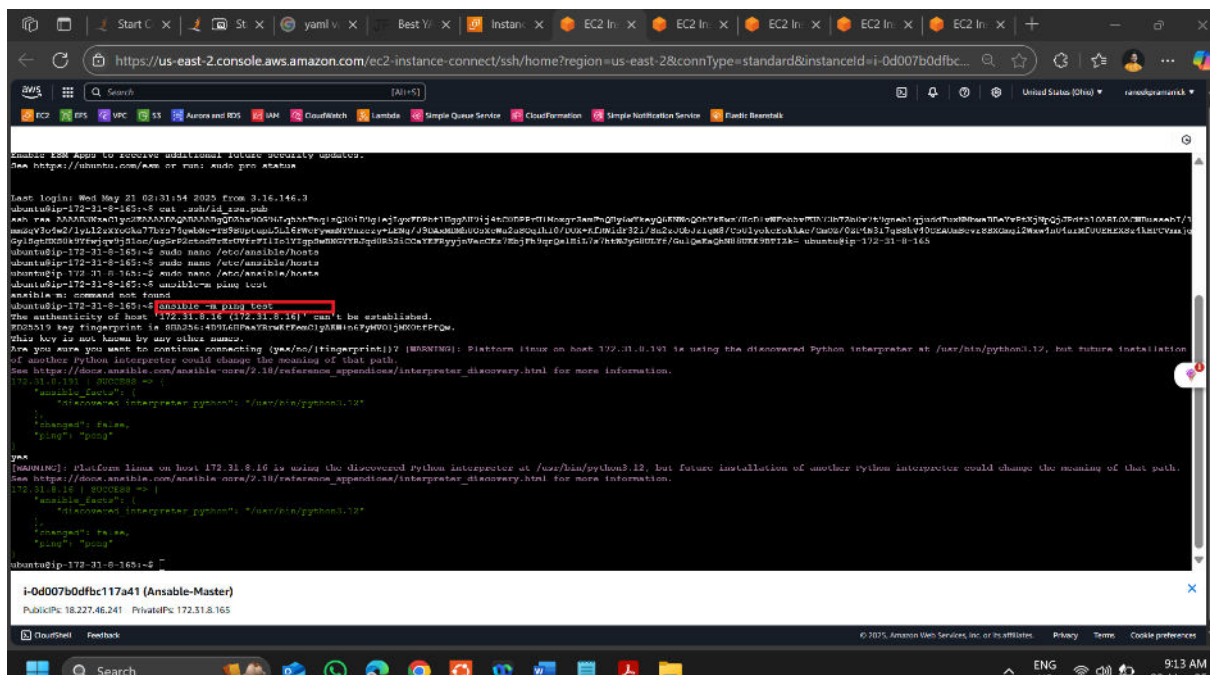
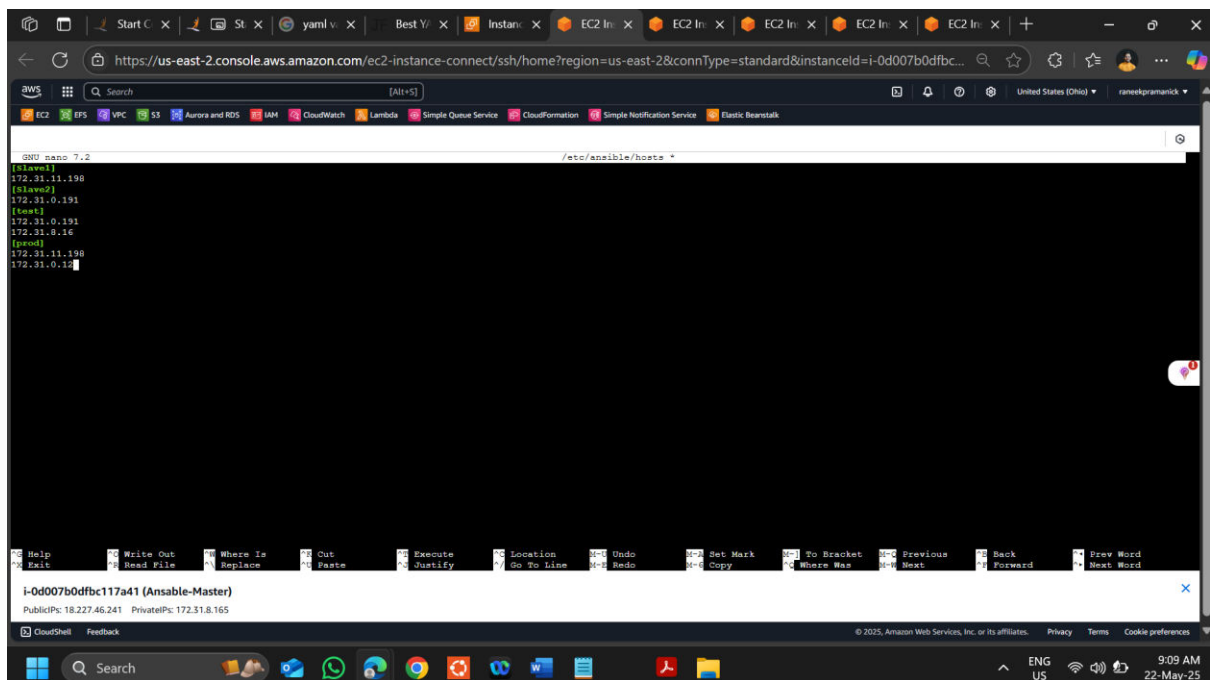
Use Ansible roles for the above and group the hosts under test and prod.



The screenshot shows a terminal window within the AWS Management Console. The terminal displays the Ubuntu 24.04.2 LTS login banner, including system information and update status. At the bottom, the user runs the command `sudo nano .ssh/authorized_keys`, which opens a nano editor. The terminal title bar indicates the instance ID `i-0f2620cc30f6ca0a` and the user `(Ansible-S3)`.

This screenshot shows the nano editor with a long SSH key being pasted into the `.ssh/authorized_keys` file. A red arrow points to the second line of the file, with the text "Pasted the key on the 2nd line on both the slave machine" below it. The terminal title bar remains the same as in the previous screenshot.

Paste the key on both the slave machine




```
Start C x St x yam v x JT Best Y x Instan x EC2 In x EC2 In x EC2 In x EC2 In x EC2 In x EC2 In x +
https://us-east-2.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=us-east-2&connType=standard&instanceId=i-0d007b0dfbc...
RWS Search [Alt+S] United States (IDN) ronekpranick
EC2 ECS EKS VPC S3 Aurora and RDS IAM CloudWatch Lambda Simple Queue Service CloudFormation Simple Notification Service Elastic Beanstalk

"changed": false,
"ping": "pong"

yes
[WARNING]: Platform linux on host 172.31.8.16 is using the discovered Python interpreter at /usr/bin/python3.12, but future installation of another Python interpreter could change the meaning of that path.
See https://docs.ansible.com/ansible-core/2.10/reference_appendices/interpreter_discovery.html for more information.
172.31.8.16 | SUCCESS =>
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3.12"
  },
  "changed": false,
  "ping": "pong"

ubuntu@ip-172-31-8-165:~$ ansible -m ping prod
The authenticity of host '172.31.0.12 (172.31.0.12)' can't be established.
ED25519 key fingerprint is 88A256:004F50AFC0A880D561**Ab/a032du4W1uqk4.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? [WARNING]: Platform linux on host 172.31.11.198 is using the discovered Python interpreter at /usr/bin/python3.12, but future installation
of another Python interpreter could change the meaning of that
path. See https://docs.ansible.com/ansible-core/2.10/reference_appendices/interpreter_discovery.html for more information.
172.31.11.198 | SUCCESS =>
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3.12"
  },
  "changed": false,
  "ping": "pong"

yes
[WARNING]: Platform linux on host 172.31.0.12 is using the discovered Python interpreter at /usr/bin/python3.12, but future installation of another Python interpreter could change the meaning of that path.
See https://docs.ansible.com/ansible-core/2.10/reference_appendices/interpreter_discovery.html for more information.
172.31.0.12 | SUCCESS =>
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3.12"
  },
  "changed": false,
  "ping": "pong"

ubuntu@ip-172-31-8-165:~$ |
i-0d007b0dfbc117a41 (Ansible-Master)
Public IP: 18.227.46.241 Private IP: 172.31.8.165
CloudShell Feedback
© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences
9:15 AM 22-May-25
```

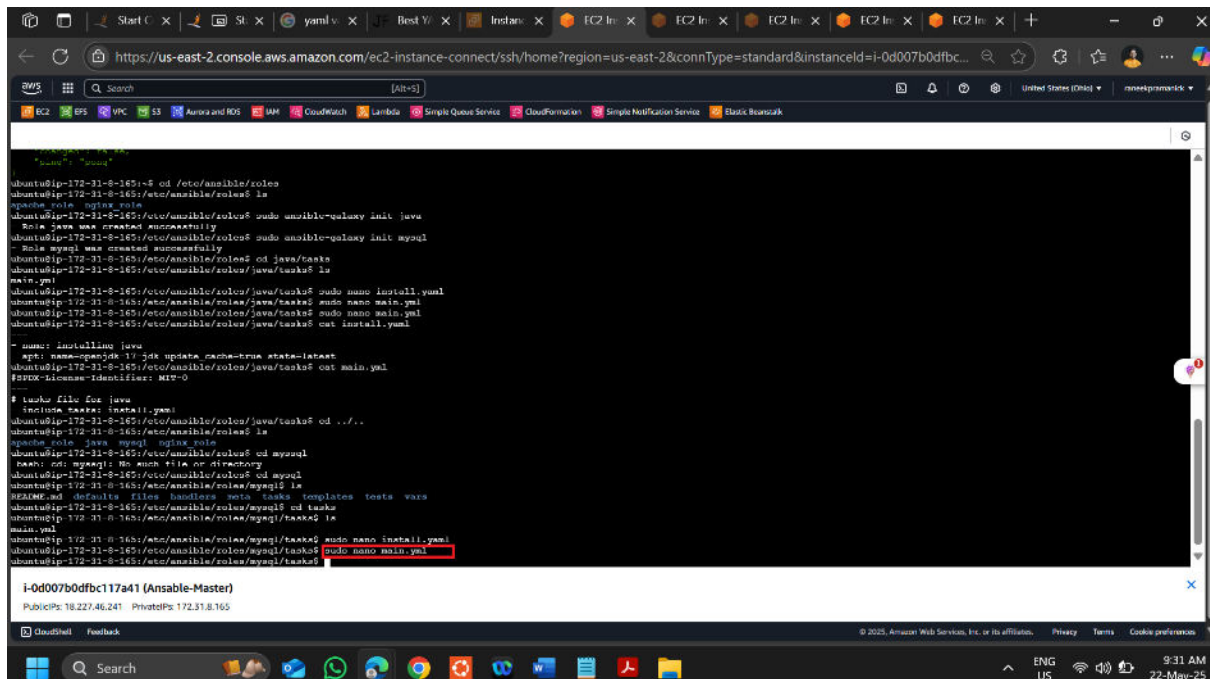
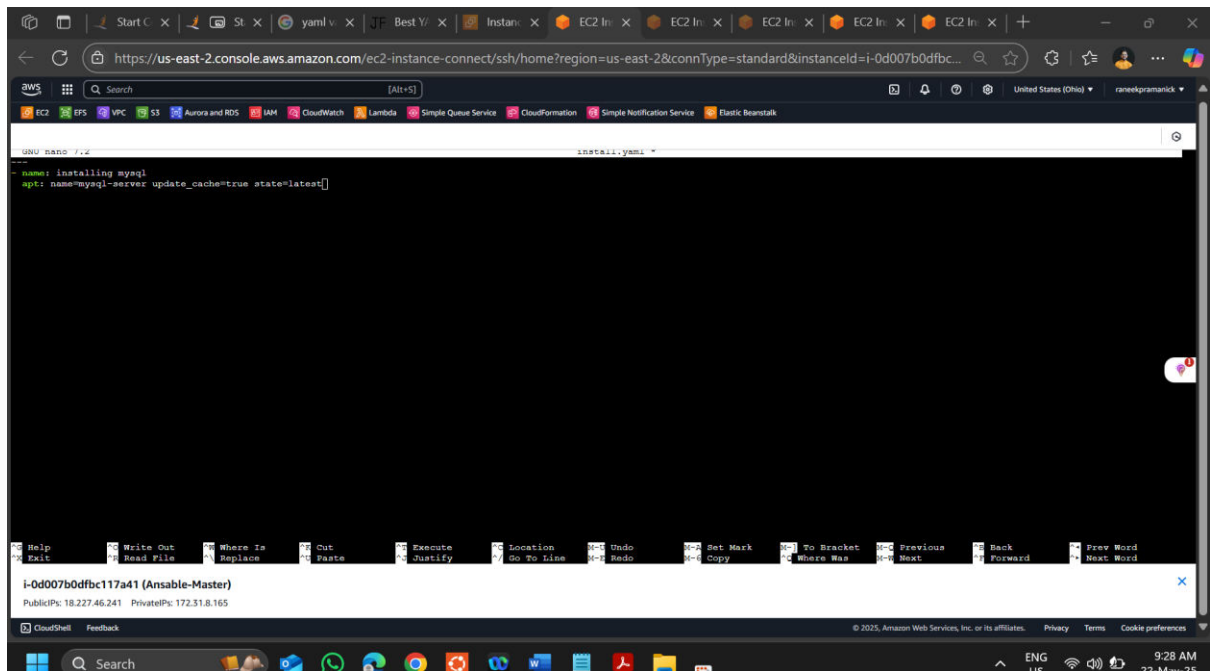
```
Start C x St x yam v x JT Best Y x Instan x EC2 In x EC2 In x EC2 In x EC2 In x EC2 In x EC2 In x EC2 In x +
https://us-east-2.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=us-east-2&connType=standard&instanceId=i-0d007b0dfbc...
RWS Search [Alt+S] United States (IDN) ronekpranick
EC2 ECS EKS VPC S3 Aurora and RDS IAM CloudWatch Lambda Simple Queue Service CloudFormation Simple Notification Service Elastic Beanstalk

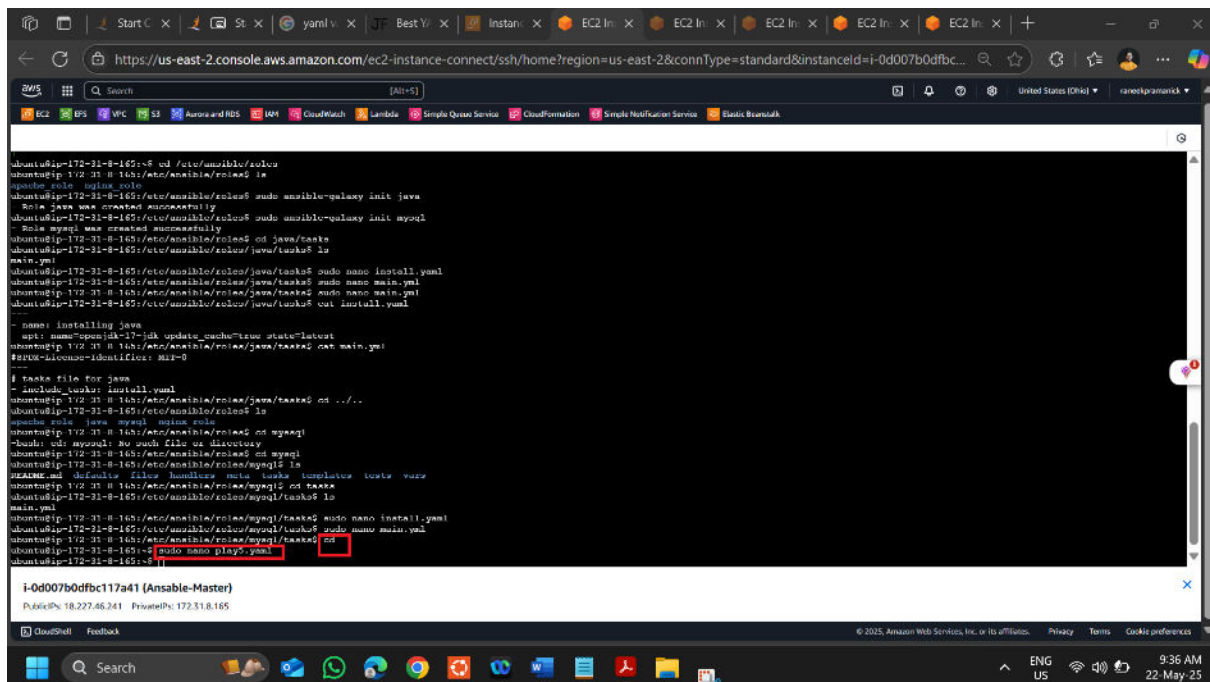
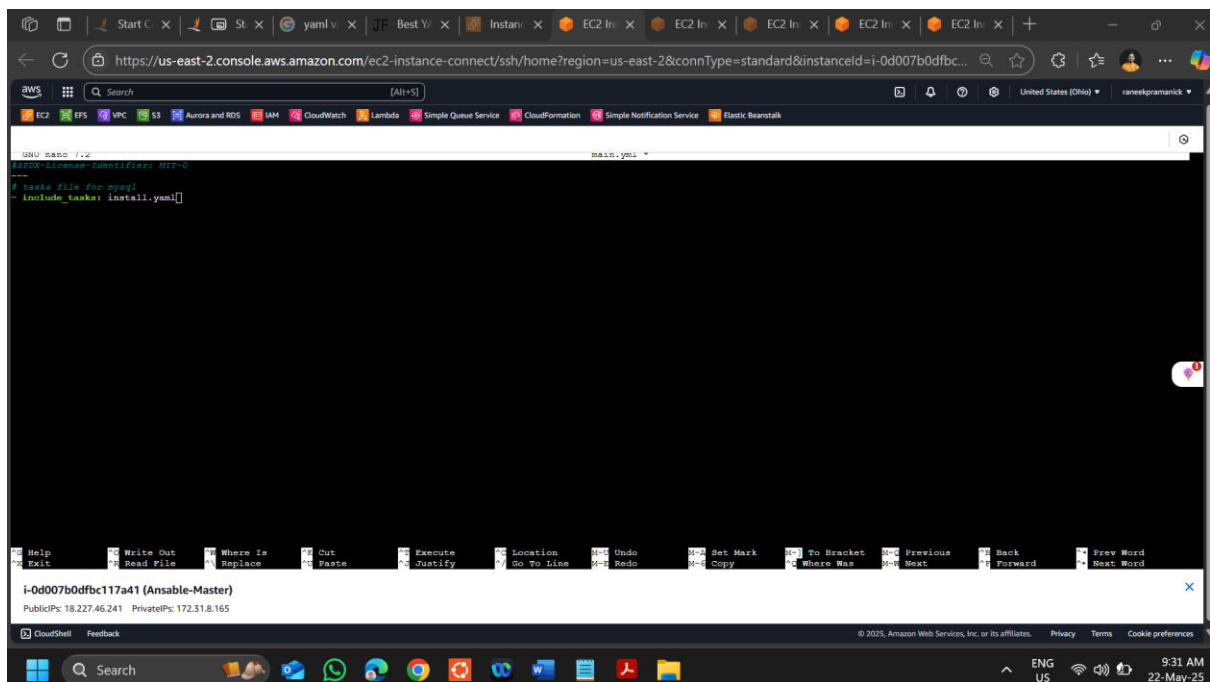
"changed": false,
"ping": "pong"

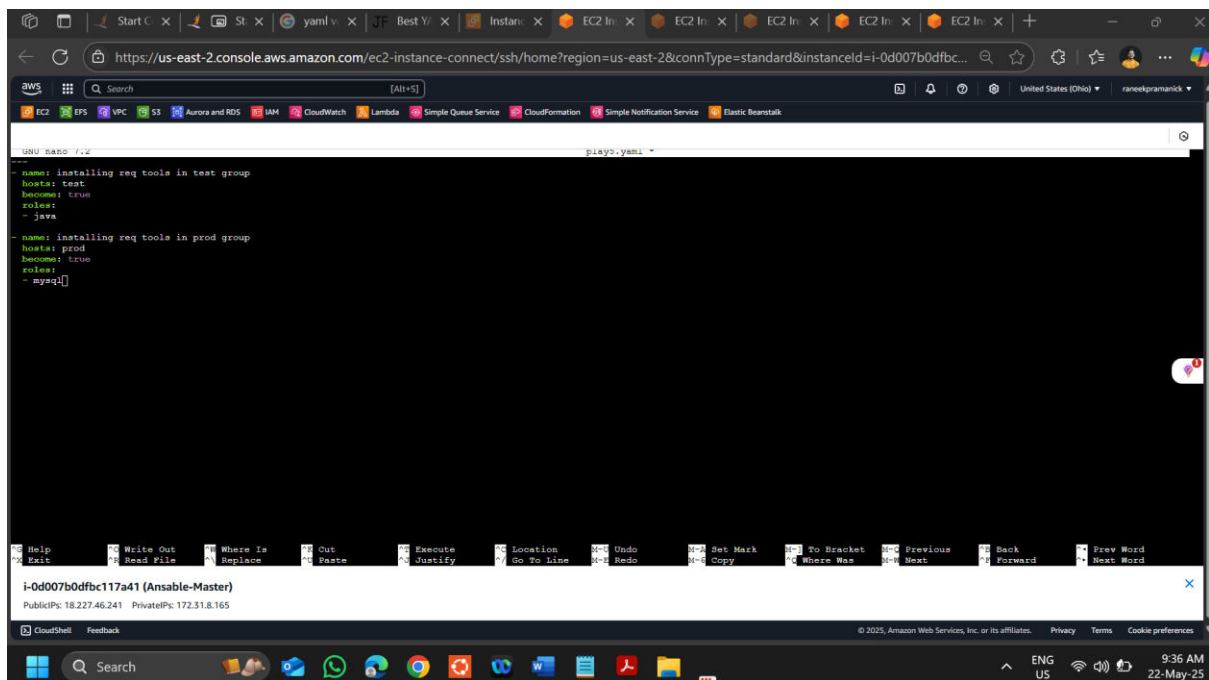
ubuntu@ip-172-31-8-165:~$ ansible -m ping prod
The authenticity of host '172.31.0.12 (172.31.0.12)' can't be established.
ED25519 key fingerprint is 88A256:004F50AFC0A880D561**Ab/a032du4W1uqk4.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? [WARNING]: Platform linux on host 172.31.11.198 is using the discovered Python interpreter at /usr/bin/python3.12, but future installation
of another Python interpreter could change the meaning of that
path. See https://docs.ansible.com/ansible-core/2.10/reference_appendices/interpreter_discovery.html for more information.
172.31.11.198 | SUCCESS =>
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3.12"
  },
  "changed": false,
  "ping": "pong"

yes
[WARNING]: Platform linux on host 172.31.0.12 is using the discovered Python interpreter at /usr/bin/python3.12, but future installation of another Python interpreter could change the meaning of that path.
See https://docs.ansible.com/ansible-core/2.10/reference_appendices/interpreter_discovery.html for more information.
172.31.0.12 | SUCCESS =>
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python3.12"
  },
  "changed": false,
  "ping": "pong"

ubuntu@ip-172-31-8-165:~$ cd /etc/ansible/roles
ubuntu@ip-172-31-8-165:/etc/ansible/roles$ ls
ansible-role.yml  nginx_role
ubuntu@ip-172-31-8-165:/etc/ansible/roles$ sudo ansible-galaxy init java
Role java was created successfully
ubuntu@ip-172-31-8-165:/etc/ansible/roles$ sudo ansible-galaxy init mysql
Role mysql was created successfully
ubuntu@ip-172-31-8-165:/etc/ansible/roles$ cd java/tasks
ubuntu@ip-172-31-8-165:/etc/ansible/roles/java/tasks$ ls
main.yml
ubuntu@ip-172-31-8-165:/etc/ansible/roles/java/tasks$ sudo nano install.yml
i-0d007b0dfbc117a41 (Ansible-Master)
Public IP: 18.227.46.241 Private IP: 172.31.8.165
CloudShell Feedback
© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences
9:21 AM 22-May-25
```

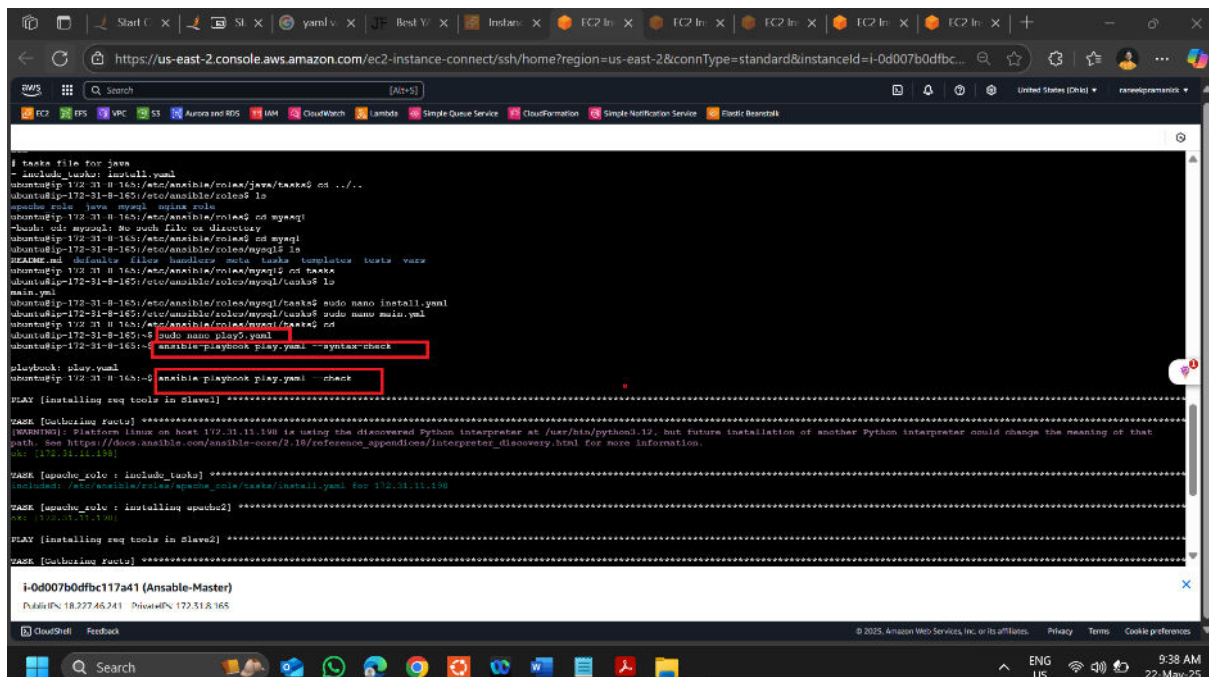







ansible-playbook play.yml --syntax-check

ansible-playbook play.yml --check



```
https://us-east-2.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=us-east-2&connType=standard&instanceId=i-0d007b0dfbc...

TASK [Gathering Facts] *****
[WARNING]: Platform linux on host 172.31.0.191 is using the discovered Python interpreter at /usr/bin/python3.12, but future installation of another Python interpreter could change the meaning of that path.
See https://docs.ansible.com/ansible-core/2.18/reference_appendices/interpreter_discovery.html for more information.
OK: [172.31.0.191]

TASK [nginx : include tasks] *****
[WARNING]: /usr/share/ansible/roles/nginx/tasks/main.yml for 172.31.0.191
OK: [172.31.0.191]

TASK [nginx : installing Nginx] *****
OK: [172.31.0.191]

TASK [nginx : include tasks] *****
[WARNING]: /usr/share/ansible/roles/nginx/tasks/main.yml for 172.31.0.191
OK: [172.31.0.191]

TASK [nginx : replacing default.html file] *****
OK: [172.31.0.191]

PLAY RECAP *****
172.31.0.191      : ok=7    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
172.31.17.138    : ok=0    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

ubuntu@ip-172-31-8-165:~$ ansible-playbook play5.yml

PLAY [installing req tools in test group] *****

TASK [Gathering Facts] *****
[WARNING]: Platform linux on host 172.31.0.191 is using the discovered Python interpreter at /usr/bin/python3.12, but future installation of another Python interpreter could change the meaning of that path.
See https://docs.ansible.com/ansible-core/2.18/reference_appendices/interpreter_discovery.html for more information.
OK: [172.31.0.191]

[WARNING]: Platform linux on host 172.31.8.16 is using the discovered Python interpreter at /usr/bin/python3.12, but future installation of another Python interpreter could change the meaning of that path.
See https://docs.ansible.com/ansible-core/2.18/reference_appendices/interpreter_discovery.html for more information.
OK: [172.31.8.16]

TASK [java : include tasks] *****
[WARNING]: /usr/share/ansible/roles/java/tasks/main.yml for 172.31.0.191, 172.31.8.16
OK: [172.31.0.191]

TASK [java : installing java] *****
changed: [172.31.0.191]
changed: [172.31.8.16]

PLAY [installing req tools in prod group] *****

TASK [Gathering Facts] *****
[WARNING]: Platform linux on host 172.31.0.12 is using the discovered Python interpreter at /usr/bin/python3.12, but future installation of another Python interpreter could change the meaning of that path.
See https://docs.ansible.com/ansible-core/2.18/reference_appendices/interpreter_discovery.html for more information.
OK: [172.31.0.12]

[WARNING]: Platform linux on host 172.31.11.198 is using the discovered Python interpreter at /usr/bin/python3.12, but future installation of another Python interpreter could change the meaning of that path.
See https://docs.ansible.com/ansible-core/2.18/reference_appendices/interpreter_discovery.html for more information.
OK: [172.31.11.198]

TASK [mysql : include tasks] *****
[WARNING]: /usr/share/ansible/roles/mysql/tasks/main.yml for 172.31.11.198, 172.31.0.12
OK: [172.31.11.198]

TASK [mysql : installing mysql] *****
changed: [172.31.11.198]

i-0d007b0dfbc117a41 (Ansible-Master)
PublicIP: 18.227.46.241  PrivateIP: 172.31.8.165

© 2025, Amazon Web Services, Inc. or its affiliates.  Privacy  Terms  Cookie preferences

9:39 AM
22-May-25
```

```
https://us-east-2.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=us-east-2&connType=standard&instanceId=i-0d007b0dfbc...

PLAY RECAP *****
172.31.0.191      : ok=7    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
172.31.17.138    : ok=0    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

ubuntu@ip-172-31-8-165:~$ ansible-playbook play5.yml

PLAY [installing req tools in test group] *****

TASK [Gathering Facts] *****
[WARNING]: Platform linux on host 172.31.0.191 is using the discovered Python interpreter at /usr/bin/python3.12, but future installation of another Python interpreter could change the meaning of that path.
See https://docs.ansible.com/ansible-core/2.18/reference_appendices/interpreter_discovery.html for more information.
OK: [172.31.0.191]

[WARNING]: Platform linux on host 172.31.8.16 is using the discovered Python interpreter at /usr/bin/python3.12, but future installation of another Python interpreter could change the meaning of that path.
See https://docs.ansible.com/ansible-core/2.18/reference_appendices/interpreter_discovery.html for more information.
OK: [172.31.8.16]

TASK [java : include tasks] *****
[WARNING]: /usr/share/ansible/roles/java/tasks/main.yml for 172.31.0.191, 172.31.8.16
OK: [172.31.0.191]

TASK [java : installing java] *****
changed: [172.31.0.191]
changed: [172.31.8.16]

PLAY [installing req tools in prod group] *****

TASK [Gathering Facts] *****
[WARNING]: Platform linux on host 172.31.0.12 is using the discovered Python interpreter at /usr/bin/python3.12, but future installation of another Python interpreter could change the meaning of that path.
See https://docs.ansible.com/ansible-core/2.18/reference_appendices/interpreter_discovery.html for more information.
OK: [172.31.0.12]

[WARNING]: Platform linux on host 172.31.11.198 is using the discovered Python interpreter at /usr/bin/python3.12, but future installation of another Python interpreter could change the meaning of that path.
See https://docs.ansible.com/ansible-core/2.18/reference_appendices/interpreter_discovery.html for more information.
OK: [172.31.11.198]

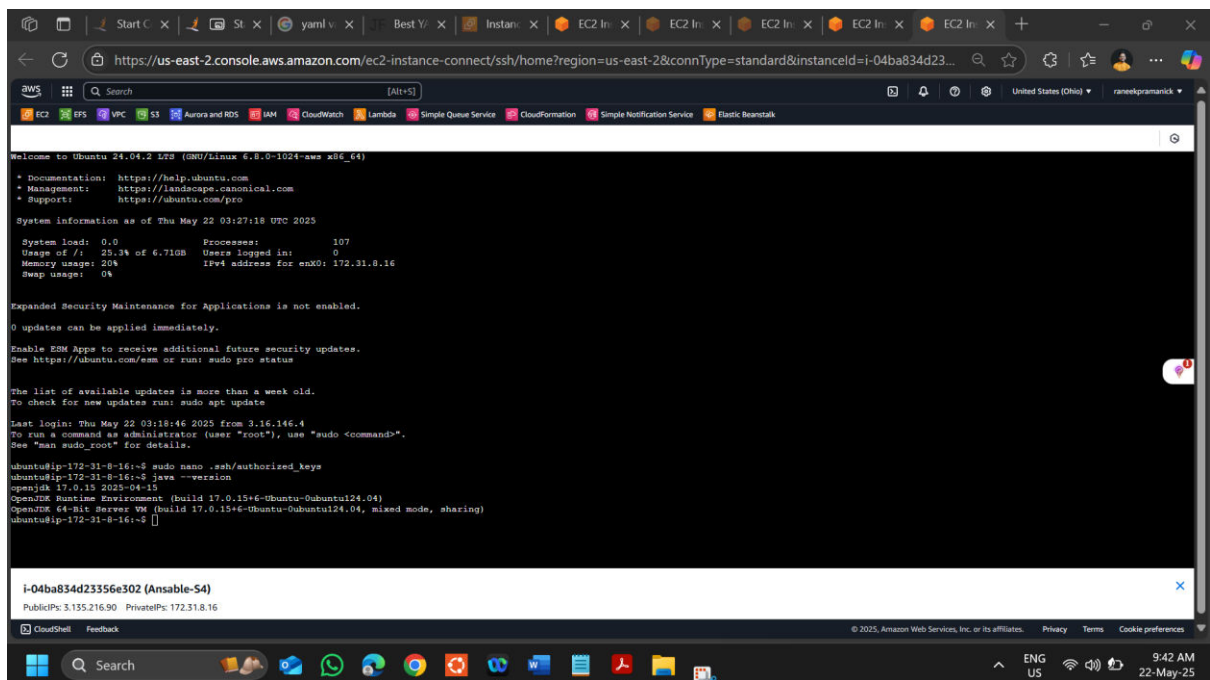
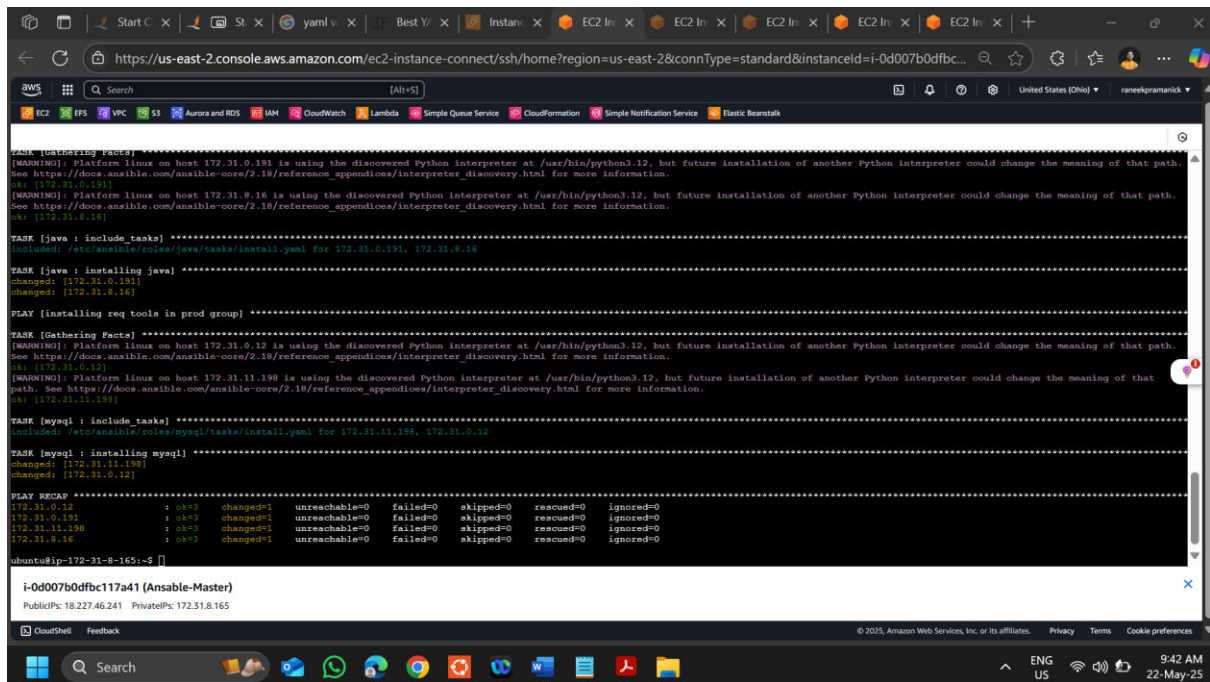
TASK [mysql : include tasks] *****
[WARNING]: /usr/share/ansible/roles/mysql/tasks/main.yml for 172.31.11.198, 172.31.0.12
OK: [172.31.11.198]

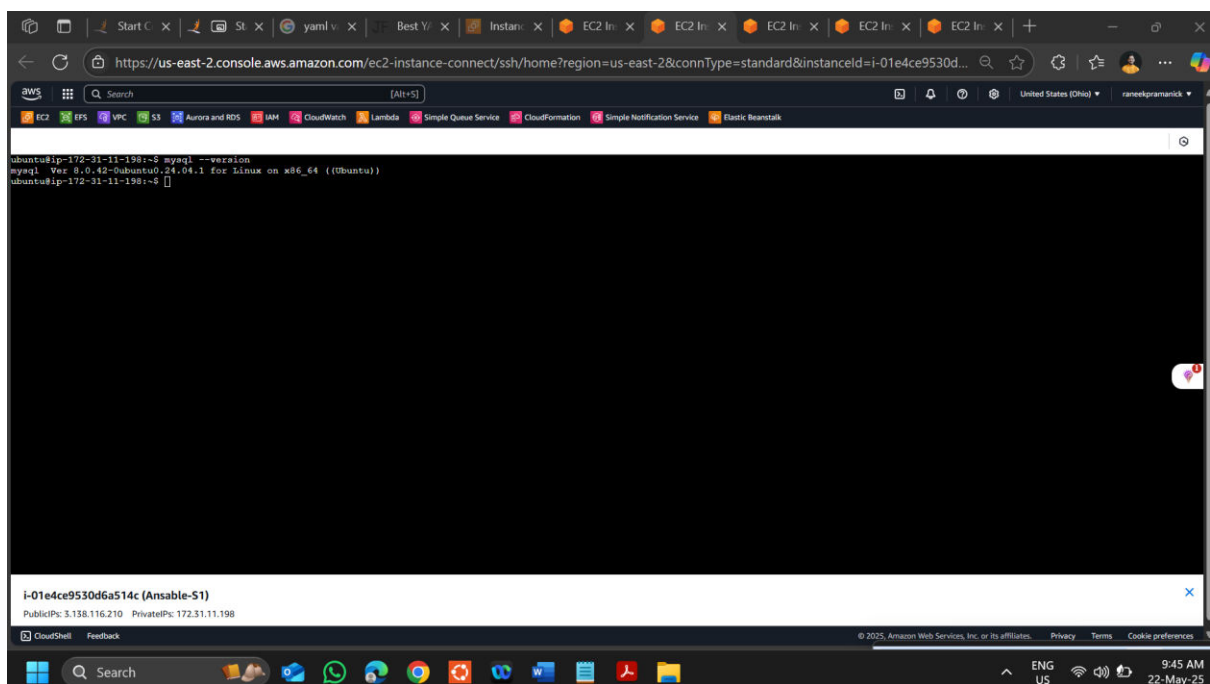
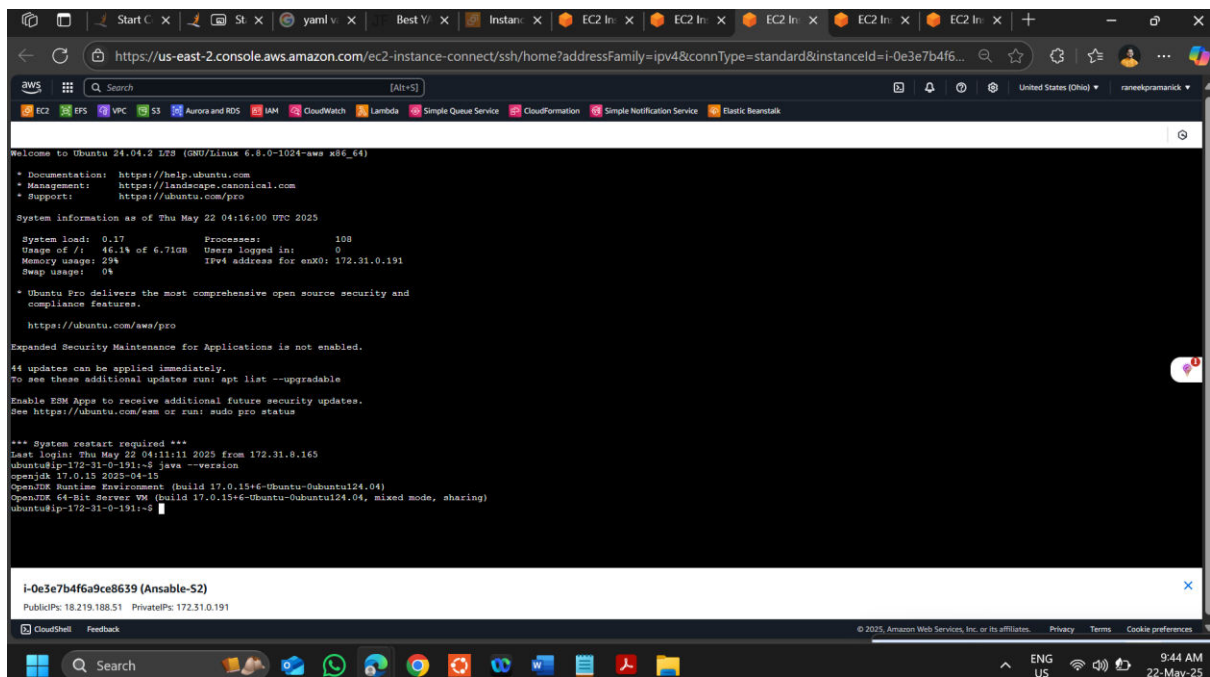
TASK [mysql : installing mysql] *****
changed: [172.31.11.198]

i-0d007b0dfbc117a41 (Ansible-Master)
PublicIP: 18.227.46.241  PrivateIP: 172.31.8.165

© 2025, Amazon Web Services, Inc. or its affiliates.  Privacy  Terms  Cookie preferences

9:41 AM
22-May-25
```





Start C X St X yam v X Best Vi X Instan X EC2 In X EC2 In X EC2 In X EC2 In X EC2 In X +

https://us-east-2.console.aws.amazon.com/ec2-instance-connect/ssh/home?region=us-east-2&connType=standard&instanceId=i-0f2620cc30f6... Search [Alt+S] United States (Ohio) raneekpranick

EC2 EFS VPC S3 Aurora and RDS IAM CloudWatch Lambda Simple Queue Service CloudFormation Simple Notification Service Elastic Beanstalk

```
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-1024-aws x86_64)

* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:        https://ubuntu.com/pro

System information as of Thu May 22 04:16:16 UTC 2025

System load: 0.02          Processes: 107
Usage of /: 36.5% of 6.71GB Users logged in: 0
Memory usage: 58%         IPv4 address for eno1: 172.31.0.12
Swap usage: 0%

Expanded Security Maintenance for Applications is not enabled.

89 updates can be applied immediately.
45 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Enable KVM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Last login: Thu May 22 04:16:17 2025 from 3.16.146.3
ubuntu@ip-172-31-0-12:~$ mysql --version
mysql Ver 8.0.42-0ubuntu0.24.04.1 for Linux on x86_64 ((Ubuntu))
ubuntu@ip-172-31-0-12:~$
```

i-0f2620cc30f6ca0ac (Ansible-53)

PublicIPs: 3.129.250.123 PrivateIPs: 172.31.0.12

CloudShell Feedback © 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

ENG US 9:45 AM 22-May-25