

Ansible Playbooks:

A screenshot of a Safari browser window displaying the AWS CloudShell interface. The title bar shows "Safari" and the address bar shows "ap-south-1.console.aws.amazon.com". The main content area is a terminal window with the following text:

```
ubuntu@ip-172-31-5-188:~/ansible$ ansible all -m ping -i /home/ubuntu/ansible/hosts --private-key=~/ssh/ansible_key
node1 | SUCCESS => {
    "changed": false,
    "ping": "pong"
}
node2 | SUCCESS => {
    "changed": false,
    "ping": "pong"
}
ubuntu@ip-172-31-5-188:~/ansible$ mkdir playbooks
```

Below the terminal, a summary of the instance is shown:

i-0d75d5bf9ae17efcd (master)
PublicIPs: 3.110.154.191 PrivateIPs: 172.31.5.188

The bottom navigation bar includes links for "CloudShell", "Feedback", "© 2024, Amazon Web Services, Inc. or its affiliates.", "Privacy", "Terms", and "Cookie preferences".

Playbook 1 - To create file

Safari File Edit View History Bookmarks Window Help

35% 🔋 WiFi 🌐 Sun 12:42 PM

Private < >

Instances | EC2 | ap-south-1

EC2 Instance Connect | ap-south-1

aws Services Search [Option+S]

```
---  
- name: This playbook will create a file  
hosts: all  
become: true  
tasks:  
  - name: create a file  
    file:  
      path: /home/ubuntu/ansible.txt  
      state: touch  
  
"create_file.yml" 9L, 183B
```

9,20 All

i-0d75d5bf9ae17efcd (master) X

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Instances | EC2 | ap-south-1

EC2 Instance Connect | ap-south-1

aws Services Search [Option+S]

```
ubuntu@ip-172-31-5-188:~/ansible$ cd playbooks  
ubuntu@ip-172-31-5-188:~/ansible/playbooks$ vim create_file.yml  
ubuntu@ip-172-31-5-188:~/ansible/playbooks$ ansible-playbook create_file.yml -i /home/ubuntu/ansible/hosts --private-key=/.ssh/ansible_key  
  
PLAY [This playbook will create a file] ****  
TASK [Gathering Facts] ****  
ok: [node2]  
ok: [node1]  
  
TASK [create a file] ****  
changed: [node2]  
changed: [node1]  
  
PLAY RECAP ****  
node1 : ok=2 changed=1 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0  
node2 : ok=2 changed=1 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0  
  
ubuntu@ip-172-31-5-188:~/ansible/playbooks$
```

i-0d75d5bf9ae17efcd (master) X

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The file is visible in node1 as well

```
node2 : ok=2    changed=1    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
ubuntu@ip-172-31-5-188:~/ansible/playbooks$ cd ../..
ubuntu@ip-172-31-5-188:~$ pwd
/home/ubuntu
ubuntu@ip-172-31-5-188:~$ ls
ansible
ubuntu@ip-172-31-5-188:~$ sudo ssh -i ~/.ssh/ansible_key ubuntu@3.109.212.118
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 6.2.0-1018-aws x86_64)

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

System information as of Sun Mar  3 07:19:01 UTC 2024

System load: 0.0          Processes:         97
Usage of /: 20.6% of 7.57GB  Users logged in: 0
Memory usage: 20%          IPv4 address for eth0: 172.31.7.49
Swap usage:  0%          

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

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

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

Last login: Sun Mar  3 07:13:31 2024 from 3.110.154.191
ubuntu@ip-172-31-7-49:~$ ls
ansible.txt

i-0d75d5bf9ae17efcd (master)
PublicIPs: 3.110.154.191  PrivateIPs: 172.31.5.188
```

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The file is visible in node2 as well

A screenshot of a Safari browser window displaying an EC2 instance terminal session. The title bar shows the URL: ap-south-1.console.aws.amazon.com. The main content area is a terminal window with the following text:

```
ubuntu@ip-172-31-5-188:~$ sudo ssh -i ~/.ssh/ansible_key ubuntu@3.109.212.118
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 6.2.0-1018-aws x86_64)

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

System information as of Sun Mar  3 07:27:01 UTC 2024

System load:  0.0      Processes:         99
Usage of /:   20.6% of 7.57GB  Users logged in:     0
Memory usage: 20%          IPv4 address for eth0: 172.31.7.49
Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

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

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

Last login: Sun Mar  3 07:19:02 2024 from 3.110.154.191
ubuntu@ip-172-31-7-49:~$ ls
ansible.txt
ubuntu@ip-172-31-7-49:~$
```

The terminal window has a dark background with white text. At the bottom, there is a message about ESM updates and a note about the age of available updates. The user has run `ls` to list files in the current directory.

Playbook 2 - To create user

So here i got error - name: to create a user name ansible

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33% 🔍 🔍 Sun 1:12 PM

Private < >

Instances | EC2 | ap-south-1

EC2 Instance Connect | ap-south-1

aws Services Search [Option+S]

```
---  
- name: This playbook will create user  
  hosts: all  
  become: true  
  tasks:  
    - name: to create a user name ansible  
      user: name=ansible  
  
"create_user.yml" 7L, 141B
```

7,20 All

i-0d75d5bf9ae17efcd (master)

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33% 🔍 🔍 Sun 1:11 PM

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Instances | EC2 | ap-south-1

EC2 Instance Connect | ap-south-1

aws Services Search [Option+S]

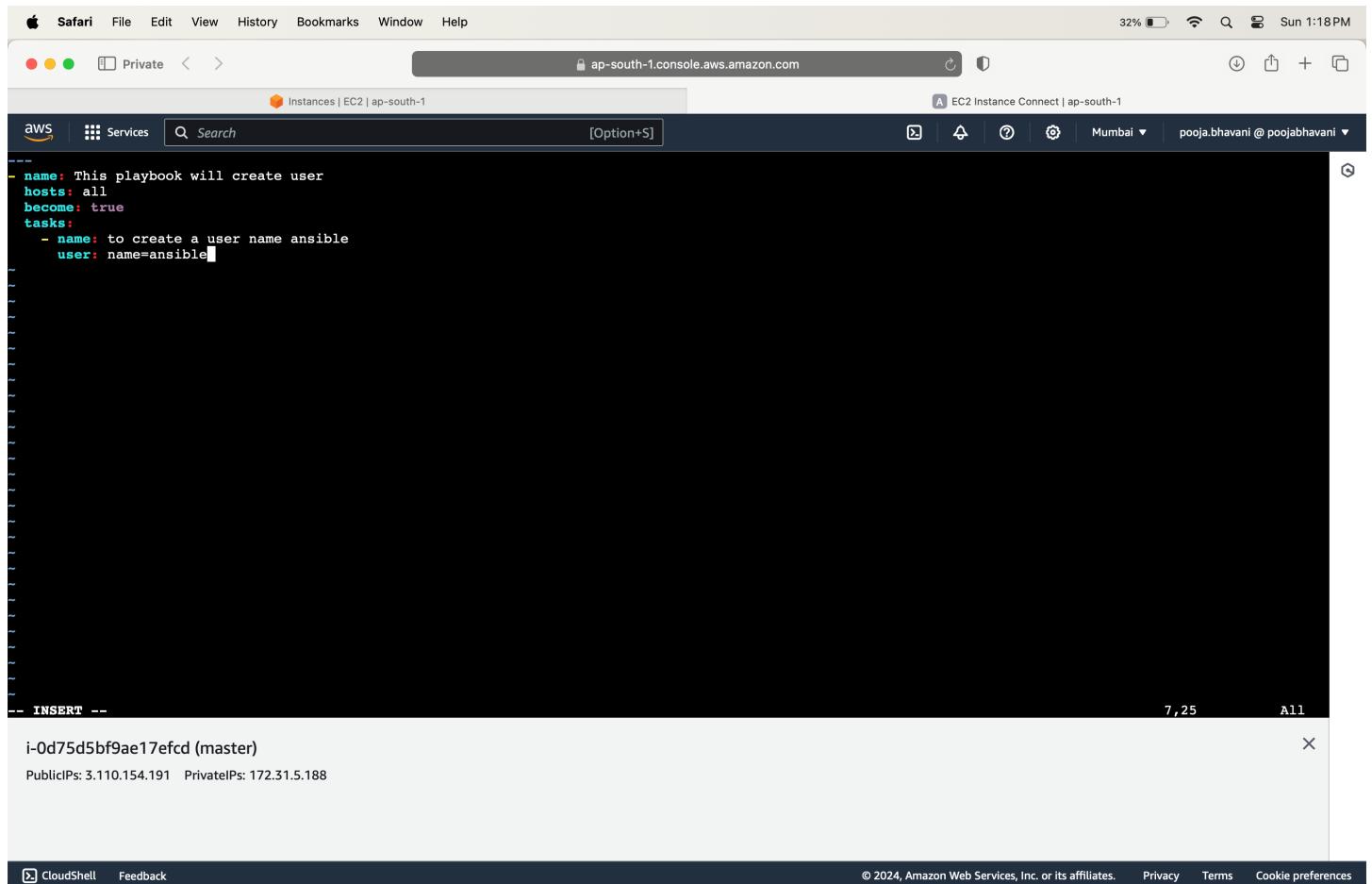
```
System load: 0.0 Processes: 99  
Usage of /: 20.6% of 7.57GB Users logged in: 0  
Memory usage: 20% IPv4 address for eth0: 172.31.7.49  
Swap usage: 0%  
  
Expanded Security Maintenance for Applications is not enabled.  
0 updates can be applied immediately.  
Enable ESM Apps to receive additional future security updates.  
See https://ubuntu.com/esm or run: sudo pro status  
  
The list of available updates is more than a week old.  
To check for new updates run: sudo apt update  
  
Last login: Sun Mar 3 07:19:02 2024 from 3.110.154.191  
ubuntu@ip-172-31-7-49:~$ ls  
ansible.txt  
ubuntu@ip-172-31-7-49:~$ exit  
logout  
Connection to 3.109.212.118 closed.  
ubuntu@ip-172-31-5-188:~$ cd ansible  
ubuntu@ip-172-31-5-188:~/ansible/playbooks$ vim create_user.yml  
ubuntu@ip-172-31-5-188:~/ansible/playbooks$ ansible-playbook create_user.yml -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key  
  
PLAY [This playbook will create user] ****  
  
TASK [Gathering Facts] ****  
ok: [node1]  
ok: [node2]  
ERROR! the field 'hosts' is required but was not set  
ubuntu@ip-172-31-5-188:~/ansible/playbooks$
```

i-0d75d5bf9ae17efcd (master)

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Fixed error



The screenshot shows a Safari browser window with the following details:

- Address Bar:** ap-south-1.console.aws.amazon.com
- Page Title:** Instances | EC2 | ap-south-1
- Header:** AWS Services Search [Option+S] Mumbai pooja.bhavani @ poojabhavani
- Content Area:** A terminal window displaying an Ansible playbook. The playbook creates a user named 'ansible' on all hosts with become: true. The terminal shows the command being run and its output.
- Bottom Status Bar:** i-0d75d5bf9ae17efcd (master) Public IPs: 3.110.154.191 Private IPs: 172.31.5.188
- Footer:** © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Now, if I run this command changes=0 no changes will be done because the file is already created it won't overwrite it again.

Safari File Edit View History Bookmarks Window Help

31% 🔋 WiFi 🔍 Sun 1:26PM

Private < >

Instances | EC2 | ap-south-1

EC2 Instance Connect | ap-south-1

Mumbai ▾ pooja.bhavani @ poojabhavani ▾

aws Services Search [Option+S]

```
ubuntu@ip-172-31-5-188:~$ cd ansible
ubuntu@ip-172-31-5-188:~/ansible$ cd playbooks
ubuntu@ip-172-31-5-188:~/ansible/playbooks$ ansible-playbook create_user.yml -i /home/ubuntu/ansible/hosts --private-key=/.ssh/ansible_key
PLAY [This playbook will create user] ****
TASK [Gathering Facts] ****
ok: [node2]
ok: [node1]

TASK [to create a user name ansible] ****
ok: [node2]
ok: [node1]

PLAY RECAP ****
node1 : ok=2    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
node2 : ok=2    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

ubuntu@ip-172-31-5-188:~/ansible/playbooks$
```

i-0d75d5bf9ae17efcd (master)

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Playbook 3 Installing docker package on all the nodes

- Task 1: installing gpg key

Safari File Edit View History Bookmarks Window Help

30% Sun 1:49PM

Private Instances | EC2 | ap-south-1 EC2 Instance Connect | ap-south-1 Deploying Ansible Playbooks as a DevOps Engineer // DevOps Bootcamp Day -8...

aws Services Search [Option+S]

```
---  
- name: This playbook will install Docker  
  hosts: all  
  become: true  
  tasks:  
    - name: Add Docker GPG apt Key  
      apt_key:  
        url: https://download.docker.com/linux/ubuntu/gpg  
        state: present  
  
"install_docker.yml" 9L, 214B 8,56 All  
i-0d75d5bf9ae17efcd (master) X  
PublicIPs: 3.110.154.191 PrivateIPs: 172.31.5.188
```

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Safari File Edit View History Bookmarks Window Help

30% Sun 1:47PM

Private Instances | EC2 | ap-south-1 EC2 Instance Connect | ap-south-1 Deploying Ansible Playbooks as a DevOps Engineer // DevOps Bootcamp Day -8...

aws Services Search [Option+S]

```
TASK [Gathering Facts] *****  
ok: [node2]  
ok: [node1]  
  
TASK [Add Docker GPG apt Key] *****  
fatal: [node2]: FAILED! => {"changed": false, "cmd": "/usr/bin/apt-key add -", "msg": "Warning: apt-key is deprecated. Manage keyring files in trusted.gpg.d instead (see apt-key(8)).\nngpg: no valid OpenPGP data found.", "rc": 2, "stderr": "Warning: apt-key is deprecated. Manage keyring files in trusted.gpg.d instead (see apt-key(8)).", "stdout": "", "stdout_lines": ["Warning: apt-key is deprecated. Manage keyring files in trusted.gpg.d instead (see apt-key(8)).", "ngpg: no valid OpenPGP data found."], "stderr_lines": []}  
fatal: [node1]: FAILED! => {"changed": false, "cmd": "/usr/bin/apt-key add -", "msg": "Warning: apt-key is deprecated. Manage keyring files in trusted.gpg.d instead (see apt-key(8)).\nngpg: no valid OpenPGP data found.", "rc": 2, "stderr": "Warning: apt-key is deprecated. Manage keyring files in trusted.gpg.d instead (see apt-key(8)).", "stdout": "", "stdout_lines": []}  
  
PLAY RECAP *****  
node1 : ok=1 changed=0 unreachable=0 failed=1 skipped=0 rescued=0 ignored=0  
node2 : ok=1 changed=0 unreachable=0 failed=1 skipped=0 rescued=0 ignored=0  
  
ubuntu@ip-172-31-5-188:~/ansible/playbooks$ vim install_docker.yml  
ubuntu@ip-172-31-5-188:~/ansible/playbooks$ ansible-playbook install_docker.yml -i /home/ubuntu/ansible/hosts --private-key=/.ssh/ansible_key  
  
PLAY [This playbook will install Docker] *****  
  
TASK [Gathering Facts] *****  
ok: [node1]  
ok: [node2]  
  
TASK [Add Docker GPG apt Key] *****  
changed: [node1]  
changed: [node2]  
  
PLAY RECAP *****  
node1 : ok=2 changed=1 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0  
node2 : ok=2 changed=1 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0  
  
ubuntu@ip-172-31-5-188:~/ansible/playbooks$ i-0d75d5bf9ae17efcd (master) X  
PublicIPs: 3.110.154.191 PrivateIPs: 172.31.5.188
```

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- Task 2: Adding docker repository
- Task 3: Installing docker

The screenshot shows a Safari browser window with the following details:

- Address Bar:** ap-south-1.console.aws.amazon.com
- Page Title:** Instances | EC2 | ap-south-1
- Sub-Header:** EC2 Instance Connect | ap-south-1
- Right-Header:** Deploying Ansible Playbooks as a DevOps Engineer // DevOps Bootcamp Day -8...
- User Information:** Mumbai | pooja.bhavani @ poojabhavani

The main content area displays an Ansible playbook:

```
---
- name: This playbook will install Docker
  hosts: all
  become: true
  tasks:
    - name: Add Docker GPG apt Key
      apt_key:
        url: https://download.docker.com/linux/ubuntu/gpg
        state: present

    - name: Add Docker Repository
      apt_repository:
        repo: deb https://download.docker.com/linux/ubuntu focal stable
        state: present

    - name: Install Docker
      apt:
        name: docker-ce
        state: latest

-- INSERT --
```

At the bottom of the screen, there is a message box containing:

i-0d75d5bf9ae17efcd (master)
Public IPs: 3.110.154.191 Private IPs: 172.31.5.188

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Now docker package is installed.

Safari File Edit View History Bookmarks Window Help

28% Sun 2:13PM

Private ap-south-1.console.aws.amazon.com

Instances | EC2 | ap-south-1

EC2 Instance Connect | ap-south-1

Deploying Ansible Playbooks as a DevOps Engineer // DevOps Bootcamp Day -8...

Mumbai pooja.bhavani@poojabhavani.com

```
aws Services Search [Option+S]
ubuntu@ip-172-31-5-188:~/ansible/playbooks$ ansible-playbook install_docker.yml -i /home/ubuntu/ansible/hosts --private-key=~/.ssh/ansible_key
PLAY [This playbook will install Docker] ****
TASK [Gathering Facts] ****
ok: [node2]
ok: [node1]

TASK [Add Docker GPG apt Key] ****
ok: [node2]
ok: [node1]

TASK [Add Docker Repository] ****
ok: [node2]
ok: [node1]

TASK [Install Docker] ****
ok: [node1]
ok: [node2]

PLAY RECAP ****
node1      : ok=4    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
node2      : ok=4    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

ubuntu@ip-172-31-5-188:~/ansible/playbooks$
```

i-0d75d5bf9ae17efcd (master)

PublicIPs: 3.110.154.191 PrivateIPs: 172.31.5.188

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