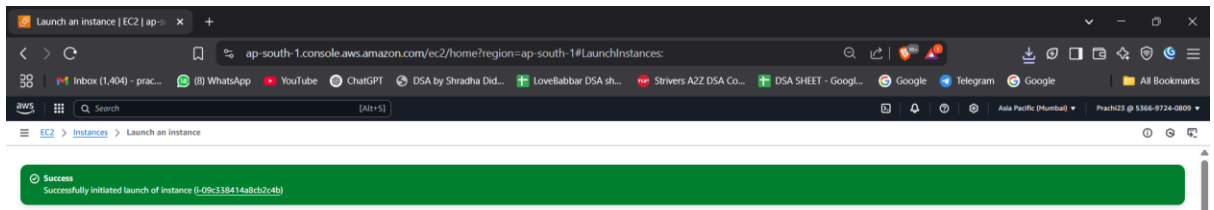


## ASSIGNMENT NO : 08

1. Create an EC2 instance.



Note: Download and Save the .pem Key File and Change Key Permissions (Required by SSH).

2. Install Ubuntu for windows subsystem environment.

```
prachi@LENOVO: /mnt/c/Windows/System32
C:\Windows\System32>wsl --install
Downloading: Ubuntu
Installing: Ubuntu
An install, uninstall, or conversion is in progress for this distribution.
Error code: Wsl/InstallDistro/Service/RegisterDistro/0x8000000d

C:\Windows\System32>wsl --list --all
Windows Subsystem for Linux Distributions:
Ubuntu

C:\Windows\System32>wsl --unregister Ubuntu
Unregistering.
The operation completed successfully.

C:\Windows\System32>
C:\Windows\System32>wsl --set-default-version 2
For information on key differences with WSL 2 please visit https://aka.ms/wsl2
The operation completed successfully.

C:\Windows\System32>wsl --install
Downloading: Ubuntu
Installing: Ubuntu
Distribution successfully installed. It can be launched via 'wsl.exe -d Ubuntu'

C:\Windows\System32>wsl.exe -d Ubuntu
Provisioning the new WSL instance Ubuntu
This might take a while...
Create a default Unix user account: prachi
New password:
Retype new password:
passwd: password updated successfully
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 5.15.167.4-microsoft-standard-WSL2 x86_64)

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

System information as of Mon Apr 14 17:27:04 UTC 2025

System load: 0.24          Processes:            31
Usage of /:  0.1% of 1006.85GB   Users logged in:     0
Memory usage: 11%          IPv4 address for eth0: 172.20.70.80
Swap usage:  0%
```

3. Install ansible.

```
prachi@LENOVO: /mnt/c/Windows/System32
prachi@LENOVO: /mnt/c/Windows/System32$ sudo apt update
[sudo] password for prachi:
Get:1 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Hit:2 http://archive.ubuntu.com/ubuntu noble InRelease
Get:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [748 kB]
Get:5 http://archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:6 http://archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:7 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [143 kB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [8956 B]
Get:9 http://security.ubuntu.com/ubuntu noble-security/main amd64 c-n-f Metadata [7068 B]
Get:10 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [830 kB]
Get:11 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [181 kB]
Get:12 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [52.2 kB]
Get:13 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [468 B]
Get:14 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [859 kB]
Get:15 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [175 kB]
Get:16 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 B]
Get:17 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 c-n-f Metadata [468 B]
Get:18 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [17.6 kB]
Get:19 http://security.ubuntu.com/ubuntu noble-security/multiverse Translation-en [3792 B]
Get:20 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [208 B]
Get:21 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 c-n-f Metadata [380 B]
Get:22 http://archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:23 http://archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:24 http://archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [381 kB]
```

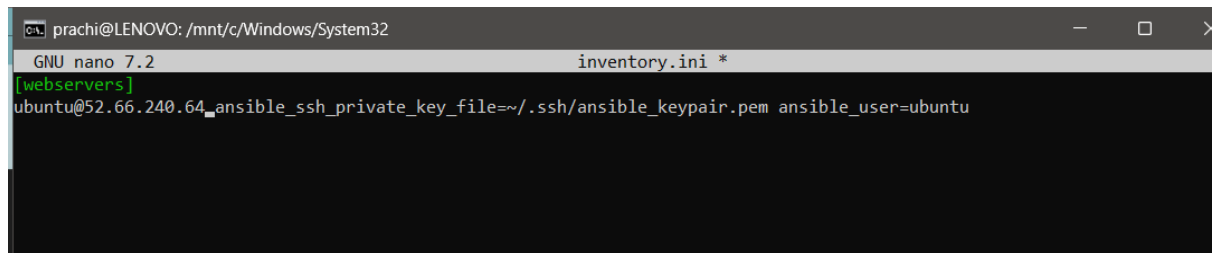
```
prachi@LENOVO:/mnt/c/Windows/System32$ sudo apt install ansible -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  ansible-core ieee-data python3-argcomplete python3-dnspython python3-jmespath python3-kerberos
  python3-libcloud python3-lockfile python3-netaddr python3-ntlm-auth python3-packaging
  python3-passlib python3-requests-ntlm python3-resolvelib python3-selinux python3-simplejson
  python3-winrm python3-xmltodict
Suggested packages:
  cowsay sshpass python3-trio python3-aioquic python3-h2 python3-httpx python3-httpcore
  python-lockfile-doc python3 python-netaddr-docs
```

4. Move Your EC2 Key Pair (.pem) to Ubuntu.

```
prachi@LENOVO:/mnt/c/Windows/System32$ mkdir -p ~/.ssh
prachi@LENOVO:/mnt/c/Windows/System32$ cp /mnt/c/Users/prach/Desktop/Ansible_Practical/ansible_keypair.pem ~/.ssh
prachi@LENOVO:/mnt/c/Windows/System32$ chmod 400 ~/.ssh/ansible_keypair.pem
prachi@LENOVO:/mnt/c/Windows/System32$
```

5. Create an inventory file This is a file that lists your target hosts, so Ansible knows where to apply the playbook. Write the file in nano, the terminal text editor

```
prachi@LENOVO:/mnt/c/Windows/System32$ nano inventory.ini
prachi@LENOVO:/mnt/c/Windows/System32$
```



The screenshot shows a terminal window with the nano text editor open. The title bar indicates the file is 'inventory.ini \*'. The content of the file is as follows:

```
GNU nano 7.2                                inventory.ini *
[webservers]
ubuntu@52.66.240.64_ansible_ssh_private_key_file=~/.ssh/ansible_keypair.pem ansible_user=ubuntu
```

6. Create Your Ansible Playbook.

```
prachi@LENOVO:/mnt/c/Windows/System32$ nano install_nginx.yml
prachi@LENOVO:/mnt/c/Windows/System32$
```

```
prachi@LENOVO: /mnt/c/Windows/System32
GNU nano 7.2                                install_nginx.yml
---
name: Install and Start NGINX on EC2
hosts: webservers
become: yes
tasks:
  -name: Install NGINX
    apt:
      name:nginx
      state: present
      update_cache: yes

  -name:Start and Enable NGINX service
    systemd:
      name:nginx
      state:started
      enabled: yes

[ Read 18 lines ]
^G Help      ^O Write Out  ^W Where Is   ^K Cut        ^T Execute    ^C Location   M-U Undo     M-A Set Mark
^X Exit      ^R Read File  ^N Replace    ^I Paste      ^J Justify    ^_ Go To Line  M-F Redo     M-6 Copy
```

7. Run Your Playbook Make sure you're in the same directory as your files, then:

```
prachi@LENOVO:/mnt/c/Windows/System32$ ansible-playbook -i inventory.ini install_nginx.yml

PLAY [Install and Start NGINX on EC2] *****

TASK [Gathering Facts] *****
The authenticity of host '52.66.240.64 (52.66.240.64)' can't be established.
ED25519 key fingerprint is SHA256:dhnCj7PIC0Q0/alwpZFdyBnT1S3MxR2nZhB2hyhrk/s.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
ok: [ubuntu@52.66.240.64]

TASK [Install NGINX] *****
```

Now check it in your browser:

<http://52.66.240.64>

