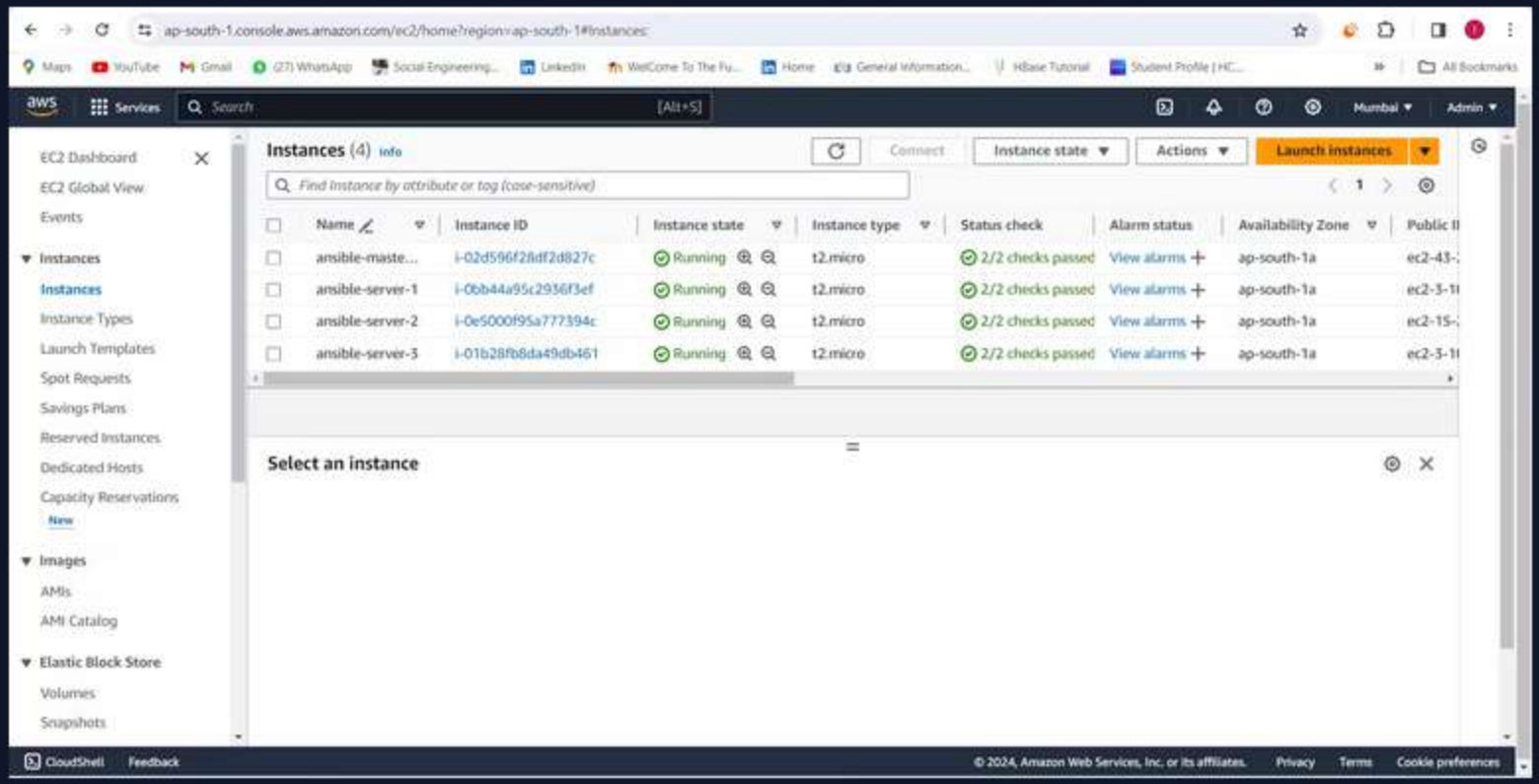
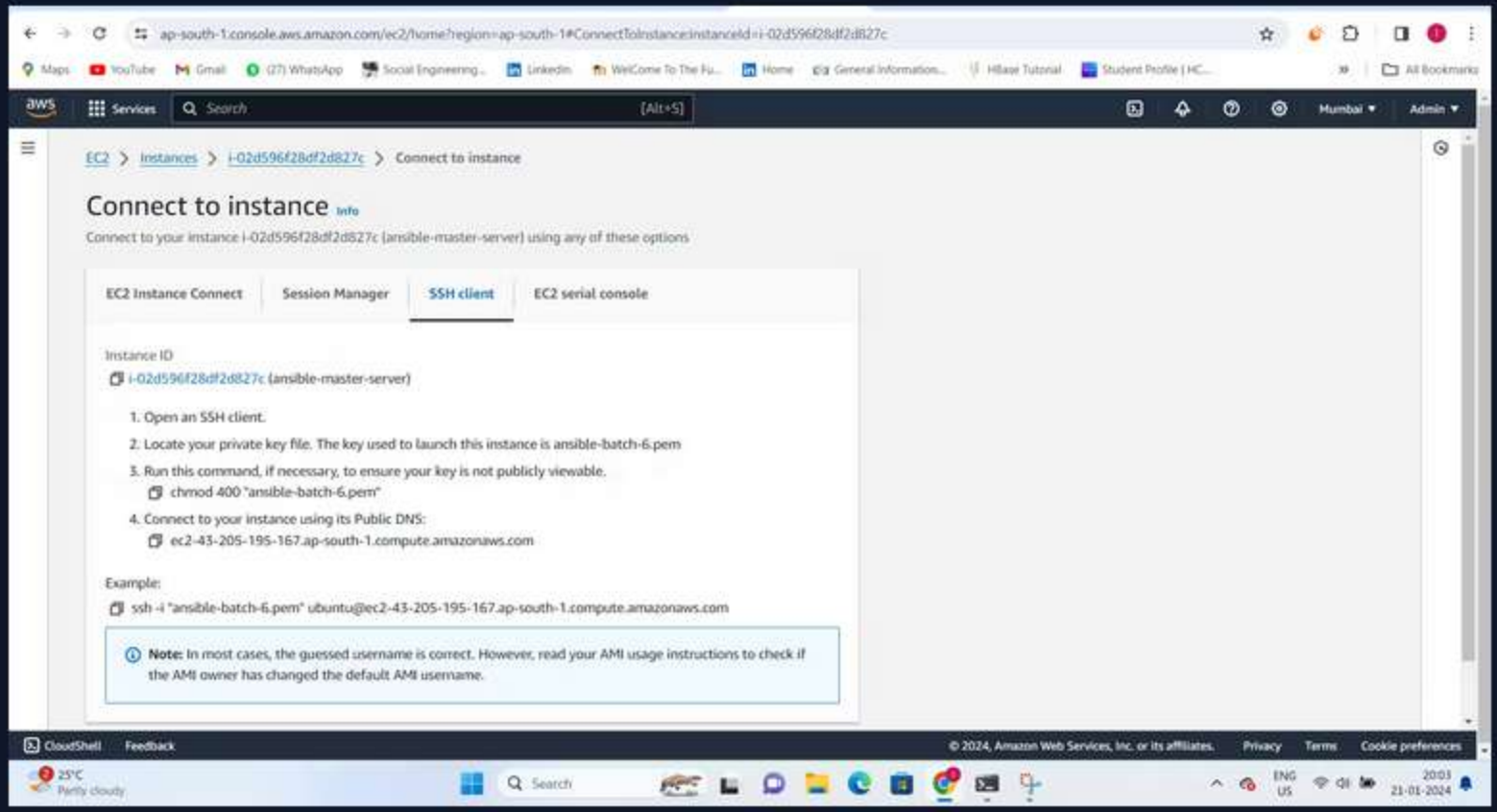
Task-01: Create 3 EC2 instances with the same key pair

1. Use the AWS Management Console or AWS CLI to create three EC2 instances.
2. Make sure to use the same key pair for all three instances.
3. Note down the public IP addresses of the instances for later use.



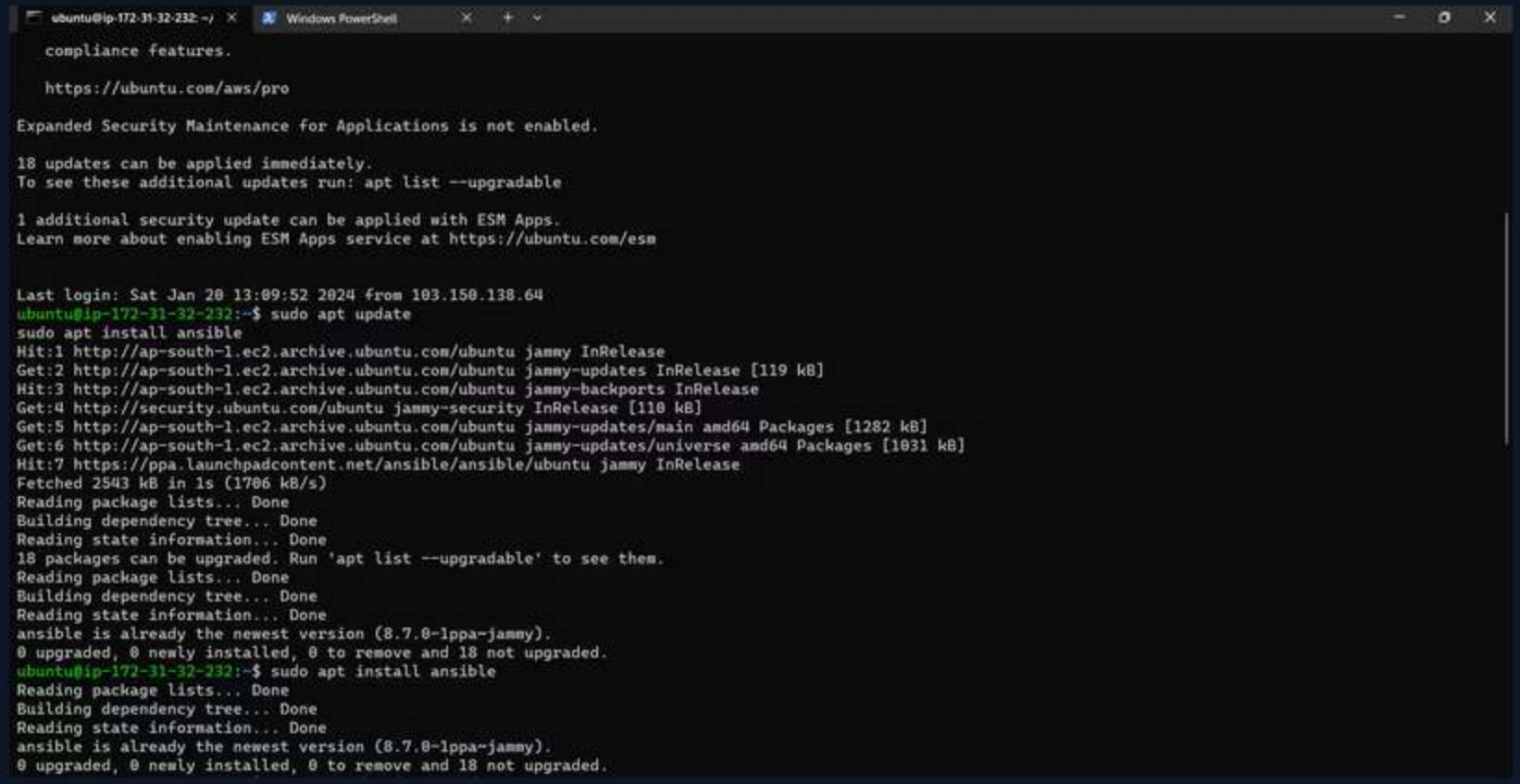


Task-02: Install Ansible in the host server

Connect to your Ansible host server and install Ansible. Assuming you're using Ubuntu, you can use the following commands:

COPY

```
sudo apt update
sudo apt install ansible
```

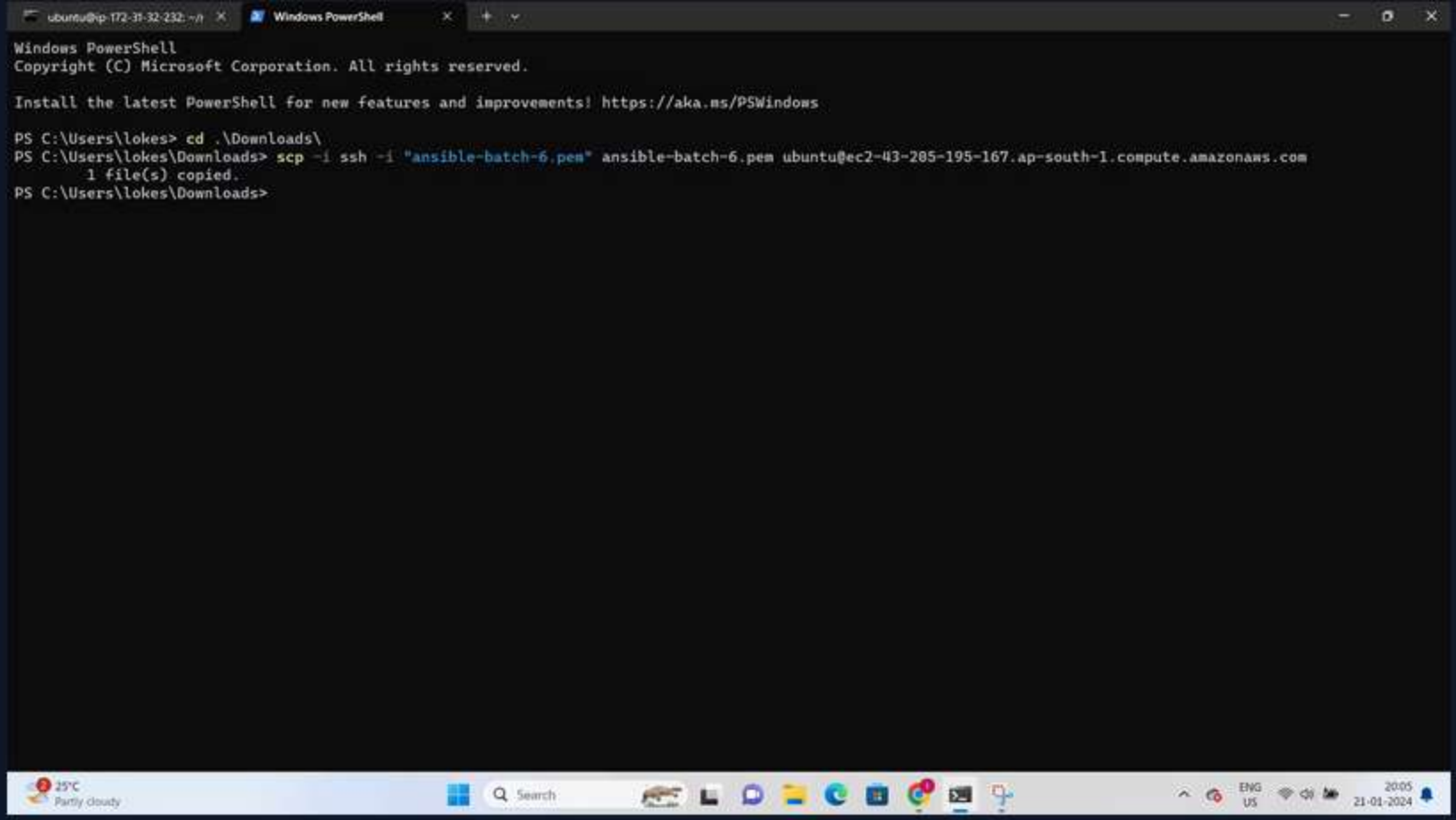


Task-03: Copy the private key from local to Ansible host

Assuming you have the private key on your local machine, use `scp` to copy it to your Ansible host:

COPY

```
scp /path/to/your/private-key.pem user@ansible_host_ip:/home/ubuntu/.ssh/
```



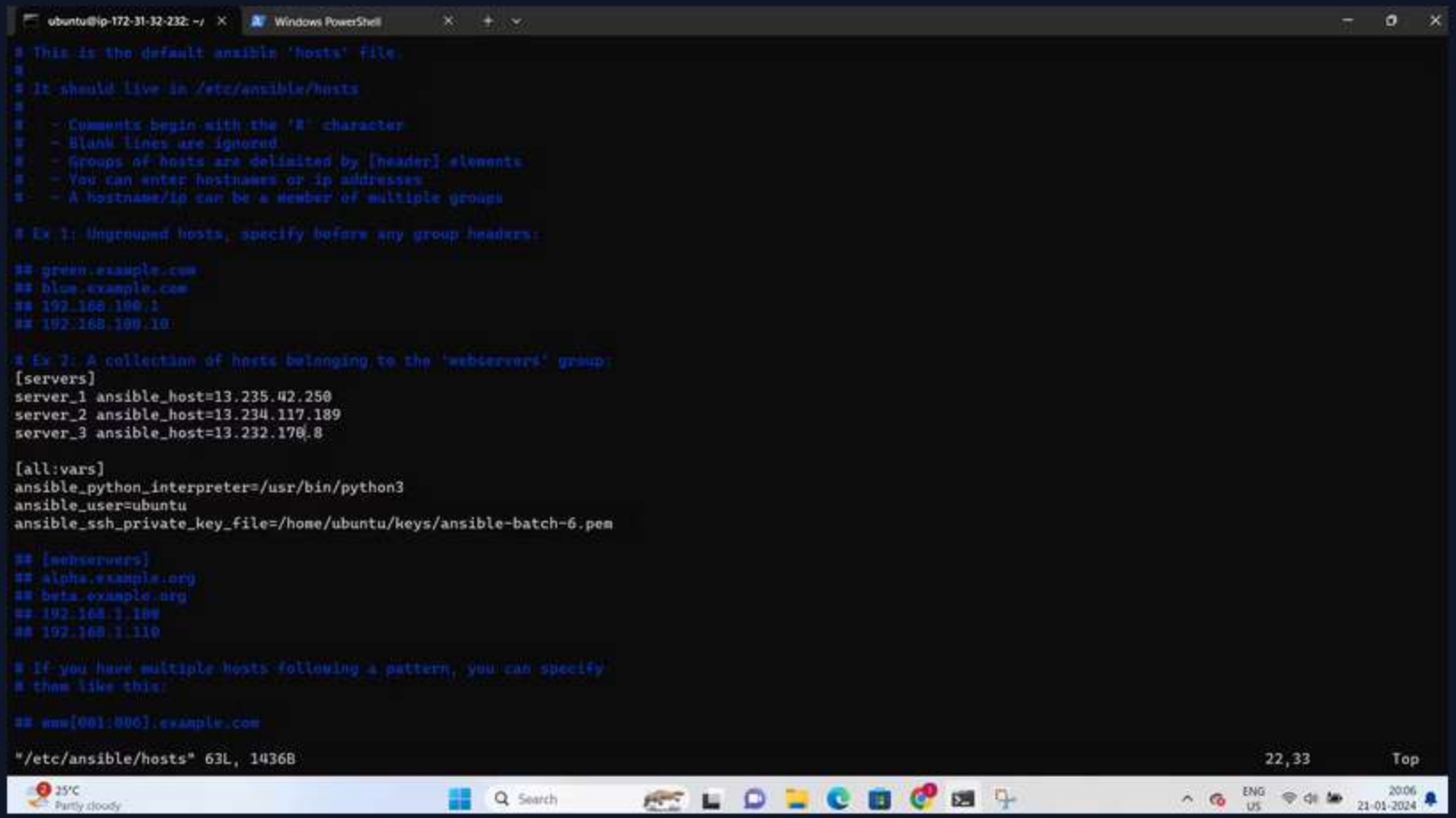
Replace `/path/to/your/private-key.pem`, `user`, `ansible_host_ip` with the actual path to your private key, your server's username, and the IP address of your Ansible host.

Task-04: Access the inventory file using sudo vim

Edit the Ansible inventory file to include the details of your EC2 instances. Open the inventory file using `sudo vim /etc/ansible/hosts` and add the following:

COPY

```
[web_servers]
ec2_instance_ip1
ec2_instance_ip2
ec2_instance_ip3
```



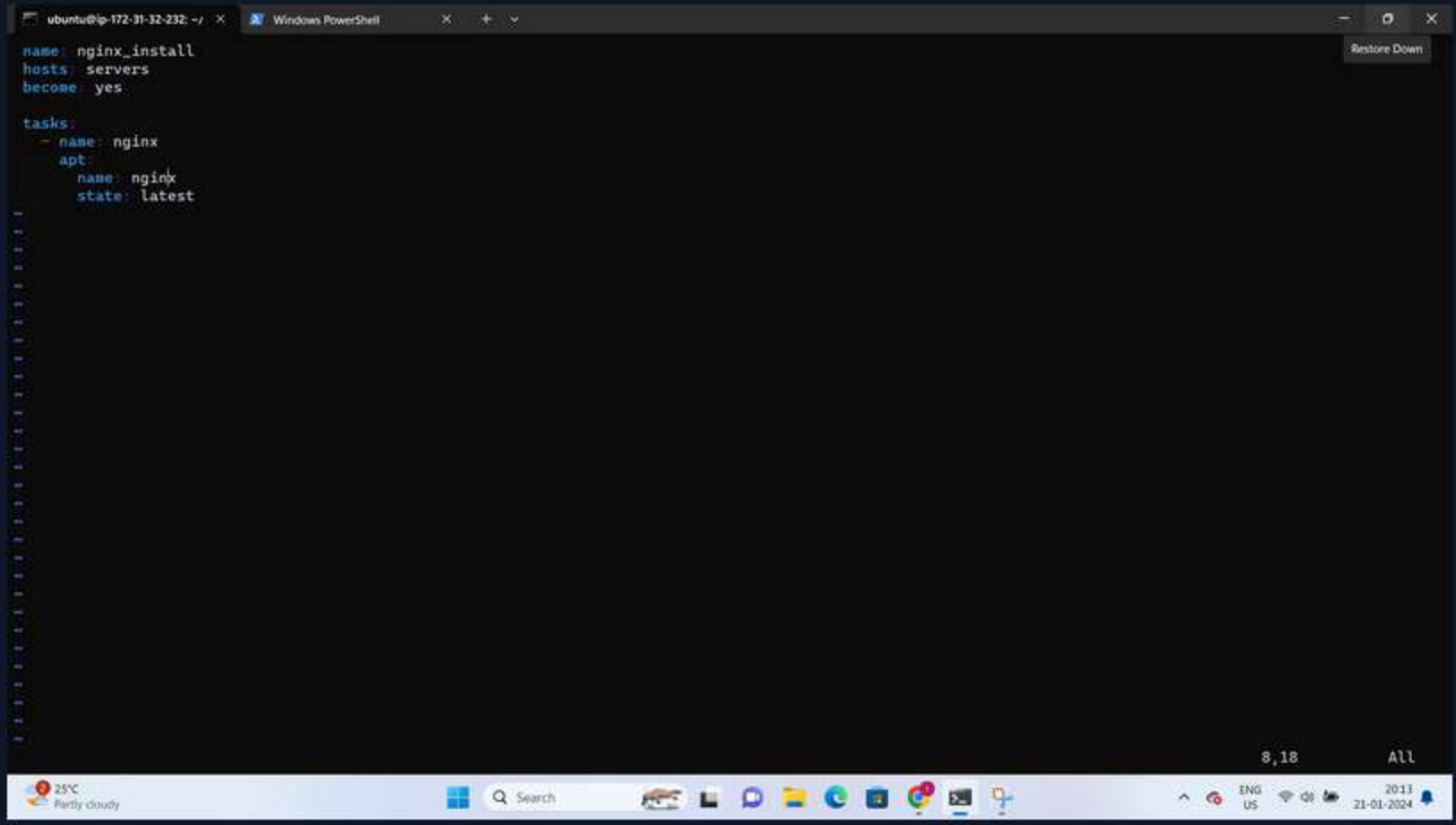
Replace `ec2_instance_ip1`, `ec2_instance_ip2`, and `ec2_instance_ip3` with the public IP addresses of your EC2 instances.

Task-05: Create a playbook to install Nginx

Create an Ansible playbook, let's say `nginx_install.yml`, with the following content:

COPY

```yaml
---
- name: Install Nginx
  hosts: web_servers
  become: yes

  tasks:
    - name: Update apt cache
      apt:
        update_cache: yes

    - name: Install Nginx
      apt:
        name: nginx
        state: present

    - name: Start Nginx service
      service:
        name: nginx
        state: started
        enabled: yes
```



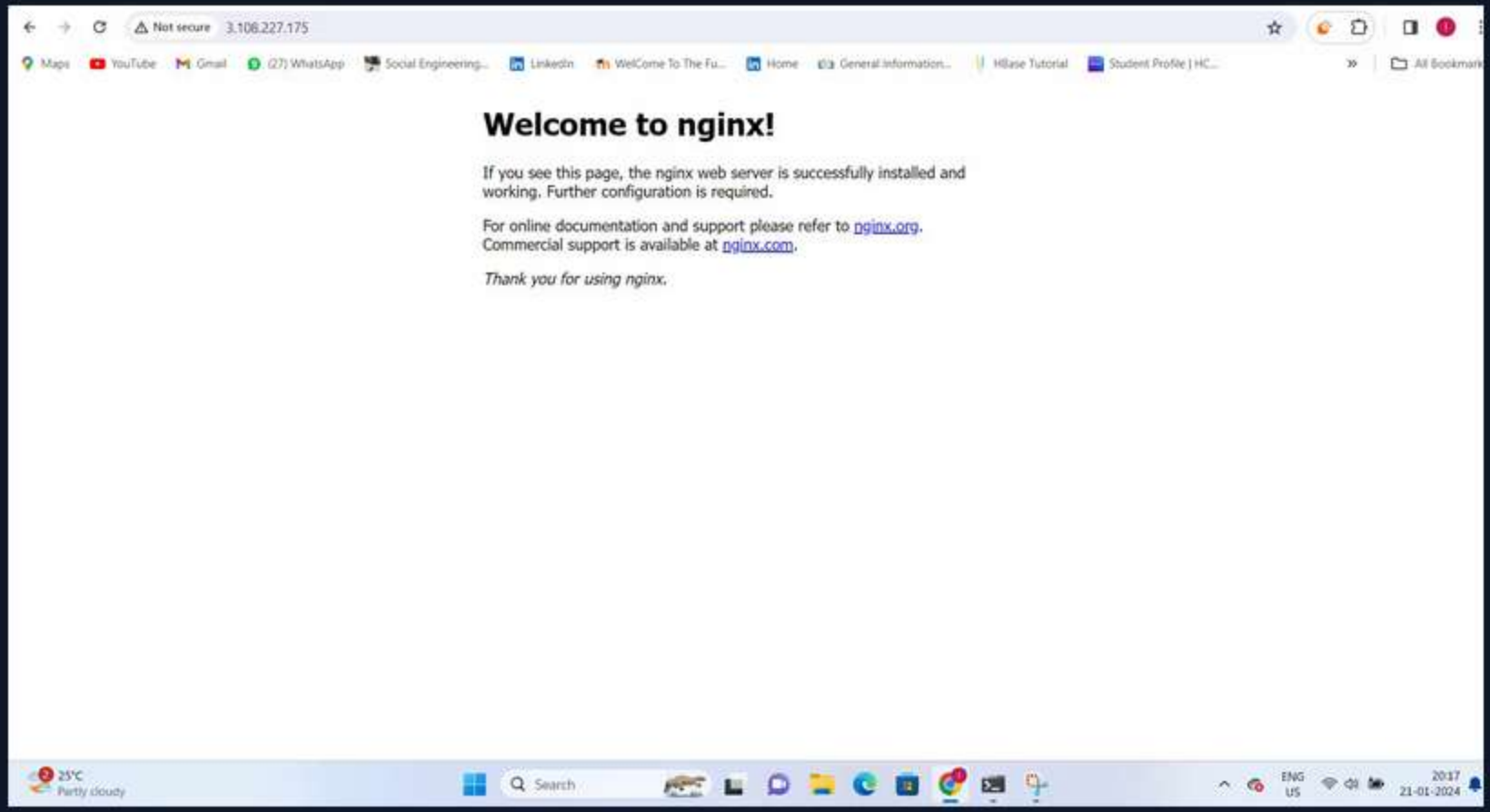
Task-06: Deploy a sample webpage using the Ansible playbook

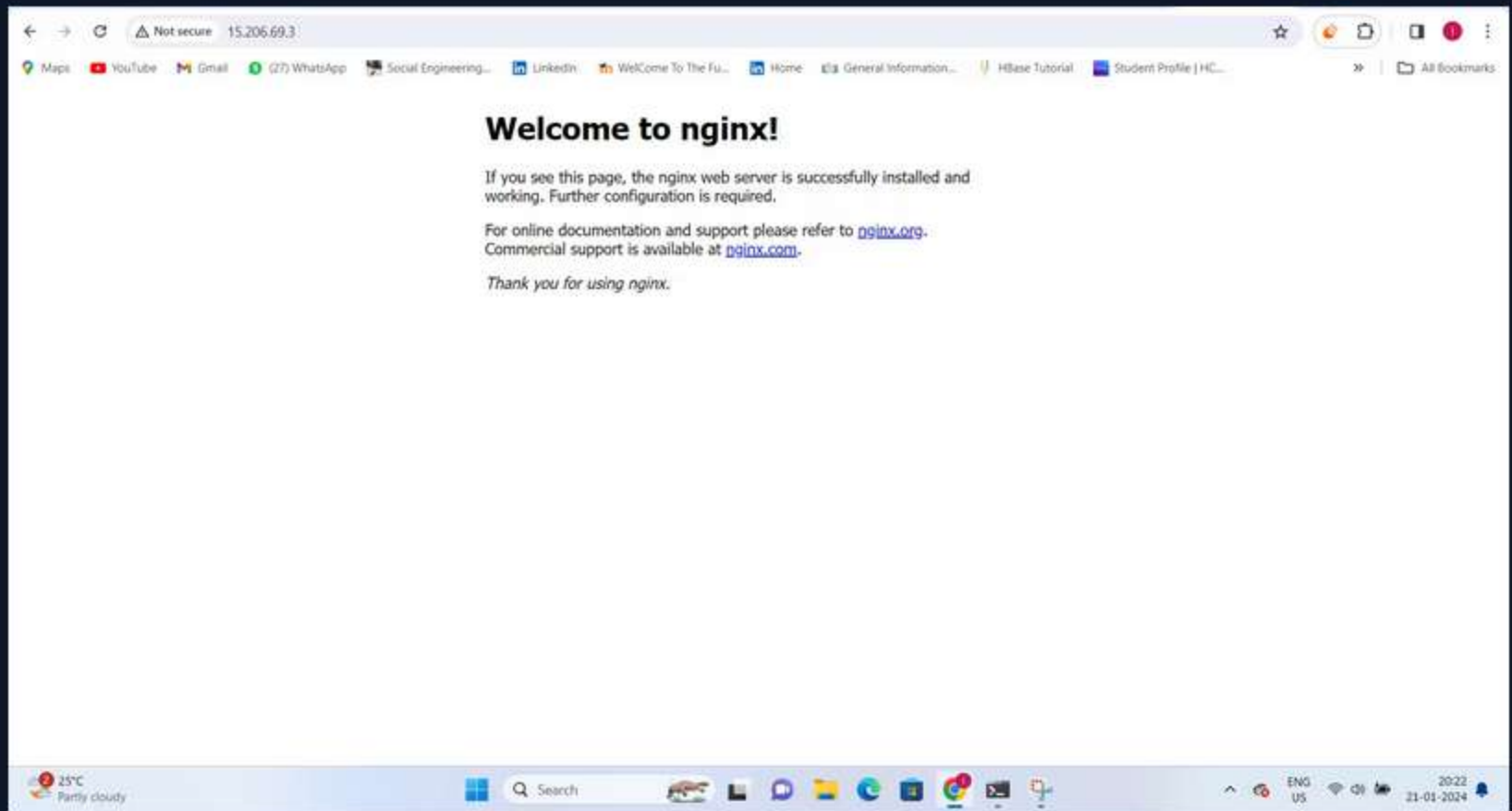
Extend the playbook (`nginx_install.yml`) to deploy a sample webpage:

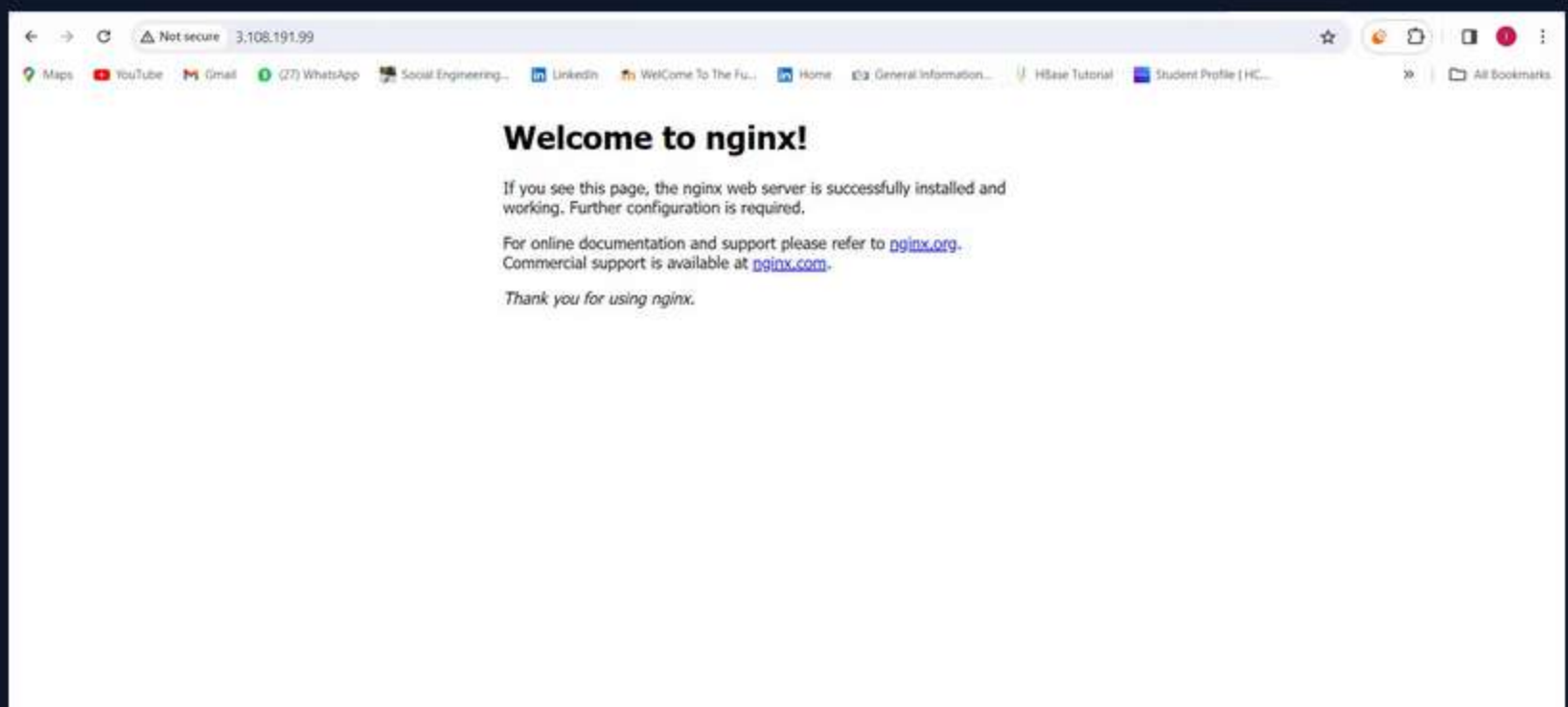
COPY

```yaml
---
- name: Install Nginx and deploy sample webpage
  hosts: web_servers
  become: yes

  tasks:
    # ... (previous tasks)

    - name: Create sample index.html
      copy:
        content: "<html><body><h1>Hello from Ansible!</h1></body></html>"
        dest: /var/www/html/index.html

    - name: Restart Nginx service
      service:
        name: nginx
        state: restarted
```

```
ubuntu@ip-172-31-32-232:~/my_playbook$  cat docker_play.yml
---
 name: Install Docker
 hosts: servers
 become: yes

 tasks:
   - name: Install docker
     apt:
       name: docker.io
       state: latest
ubuntu@ip-172-31-32-232:~/my_playbook$
```




Not secure 15.206.69.3
Welcome to nginx!
If you see this page, the nginx web server is successfully installed and working. Further configuration is required.
For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.
Thank you for using nginx.


Not secure 3.108.191.99
Welcome to nginx!
If you see this page, the nginx web server is successfully installed and working. Further configuration is required.
For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.
Thank you for using nginx.