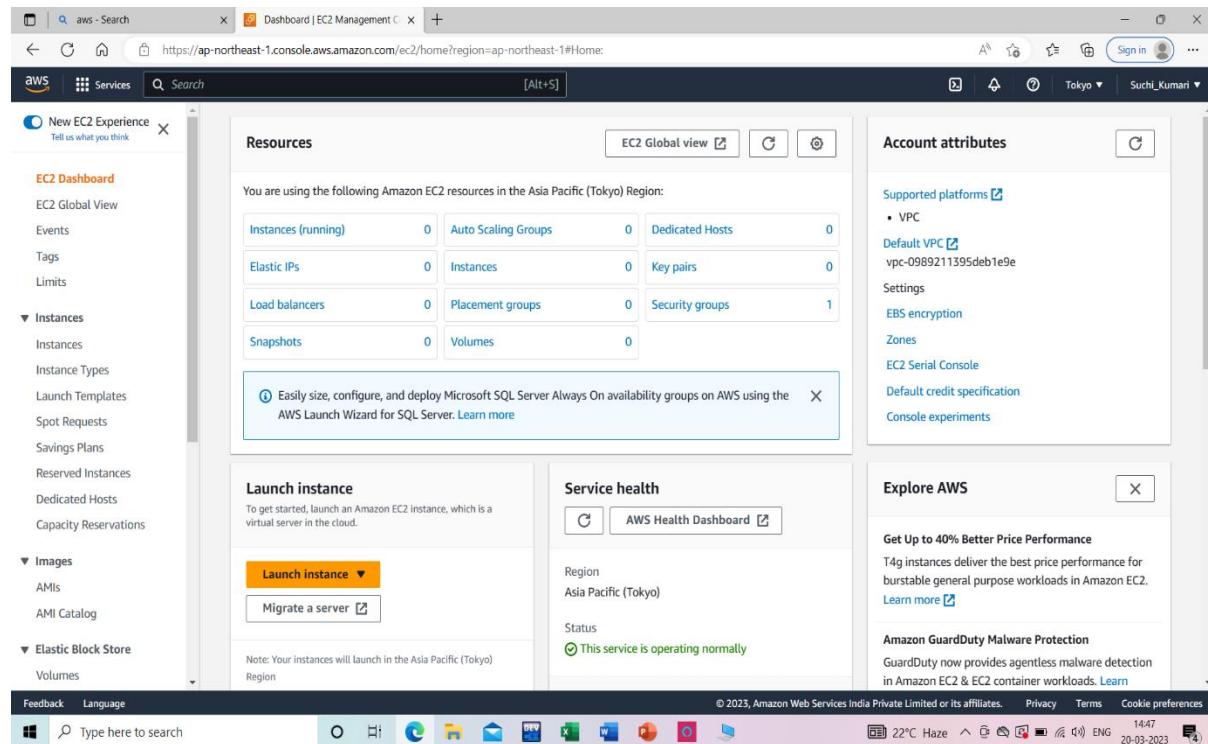


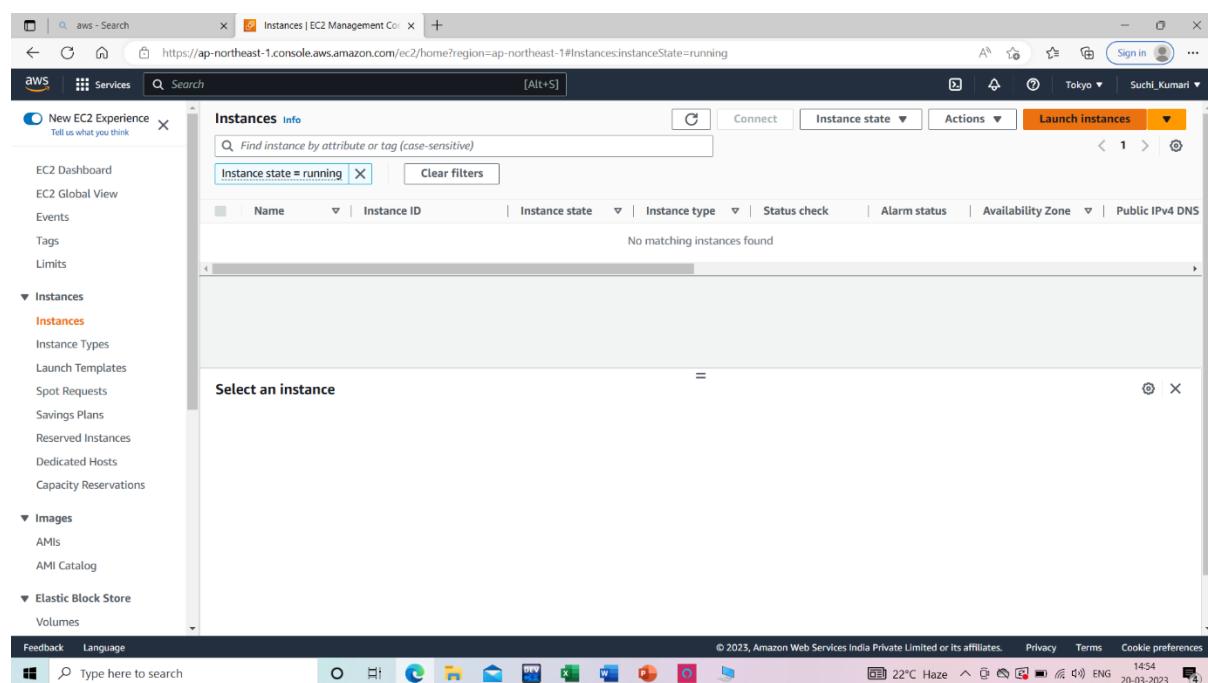
ASSIGNMENT-7

Problem Statement : Upload a static website on EC2.

1. Sign in to your AWS account as a root user and search EC2. Then click on Instances (running).



2. Then click on Launch instances.



3.Then enter name of web server.

The screenshot shows the 'Launch an instance' page in the AWS Management Console. In the 'Name and tags' section, the 'Name' field contains 'e.g. My Web Server'. To the right, there's a summary panel with the following details:

- Number of instances**: 1
- Software Image (AMI)**: Amazon Linux 2023 AMI 2023.0.2... (with a 'read more' link)
- ami-067871d950411e643**
- Virtual server type (instance type)**: t2.micro
- Firewall (security group)**: New security group
- Storage (volumes)**: 1 volume(s) - 8 GiB

A tooltip for the t2.micro instance type states: "Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million I/Os, 1 GiB of bandwidth, and..."

At the bottom right of the summary panel is a large orange 'Launch instance' button.

4.Then select Ubuntu.

The screenshot shows the 'Launch an instance' page with the 'Application and OS Images (Amazon Machine Image)' section expanded. The 'Quick Start' grid includes icons for Amazon Linux, macOS, Ubuntu, Windows, and Red Hat. The Ubuntu icon is highlighted with a blue border. Below the grid, the 'Amazon Machine Image (AMI)' section displays the following details for the 'Amazon Linux 2023 AMI':

- Amazon Linux 2023 AMI**
- Free tier eligible**
- ami-067871d950411e643** (64-bit (x86), uefi-preferred) / ami-00cd61829b9bb9eca (64-bit (Arm), uefi)
- Virtualization**: hvm
- ENAs enabled**: true
- Root device type**: ebs

Below this, the 'Description' section shows 'Amazon Linux 2023 AMI 2023.0.20230315.0 x86_64 HVM kernel-6.1'. The 'Architecture' dropdown is set to '64-bit (x86)', 'Boot mode' to 'uefi-preferred', and 'AMI ID' to 'ami-067871d950411e643'. A 'Verified provider' badge is present.

To the right, the summary panel remains the same as in the previous screenshot, showing 1 instance of the Amazon Linux 2023 AMI with t2.micro instance type, a New security group, and 8 GiB of storage.

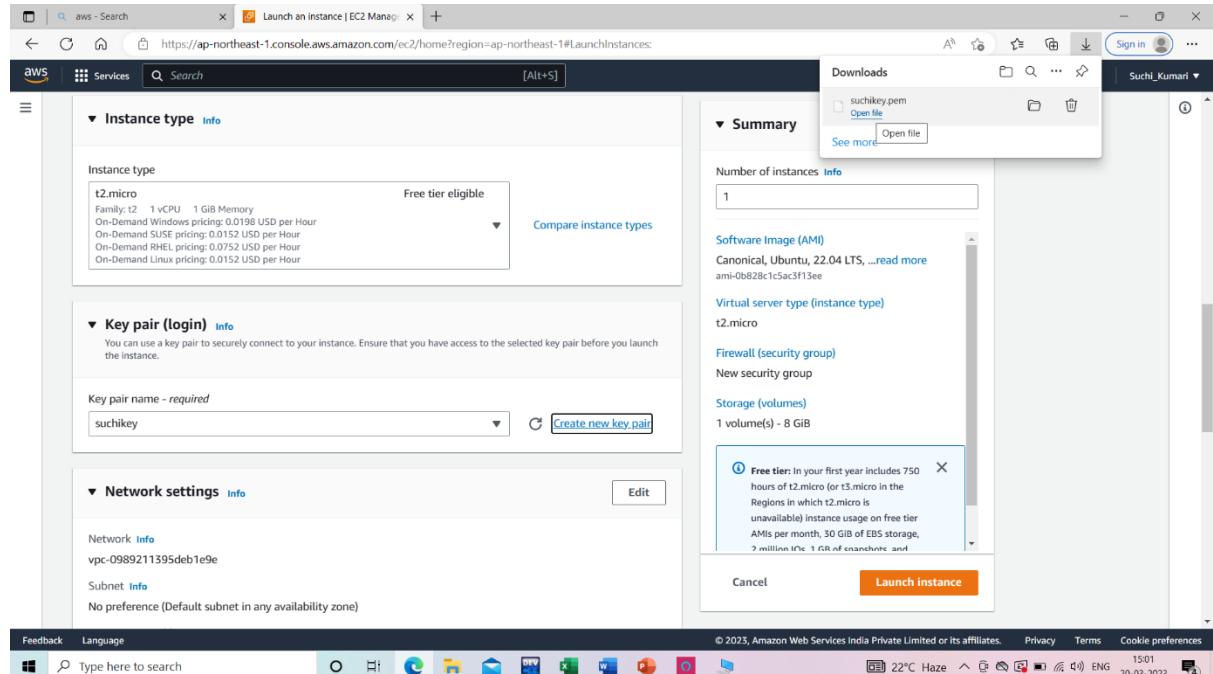
5.Then for key pair (login) click on Create new key pair.

The screenshot shows the 'Launch an instance | EC2 Manager' wizard. In the 'Key pair (login)' section, there is a dropdown menu labeled 'Select' and a button labeled 'Create new key pair'. A tooltip for the 'Free tier' is visible, stating: 'Free tier: In your first year includes 750 hours of t2.micro (or t3.micro) in the Regions in which t2.micro is unavailable instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million IOPS 1 GiB of snapshots and 1000 API requests per month'.

6.Then enter key pair name and click on Create key pair.

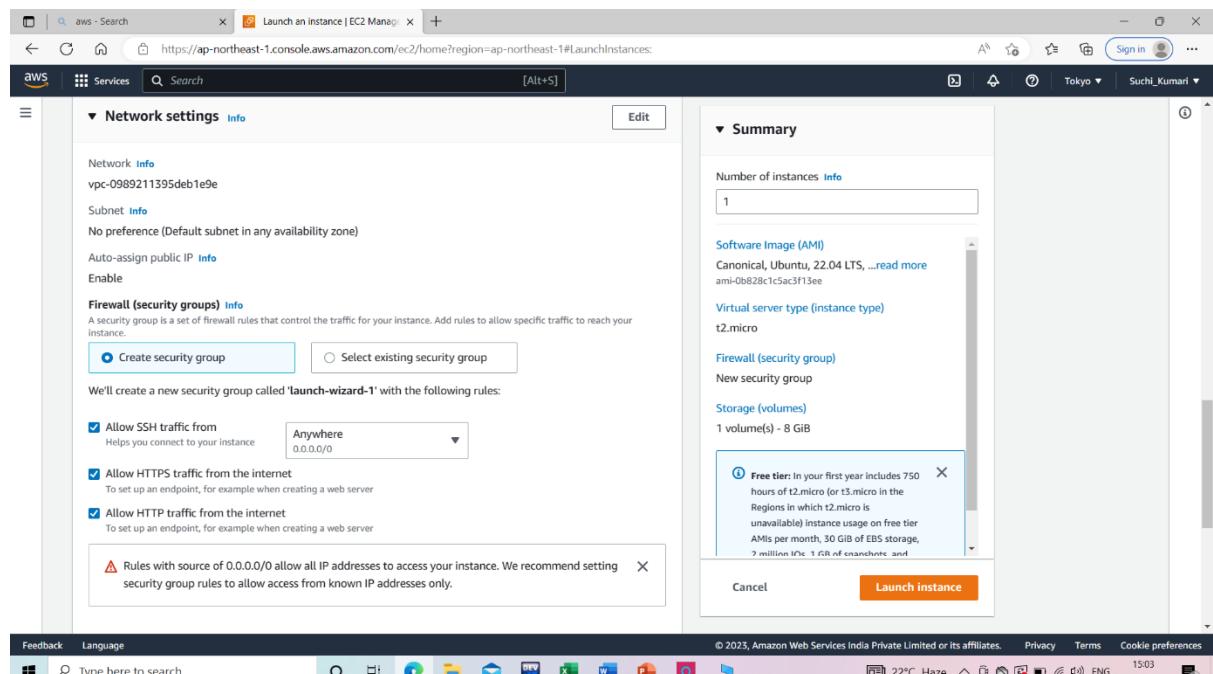
The screenshot shows the 'Create key pair' dialog box. It contains fields for 'Key pair name' (with placeholder 'Enter key pair name') and 'Key pair type' (with options 'RSA' and 'ED25519'). Below these are settings for 'Private key file format' ('.pem' selected). A tooltip for 'RSA' is visible, stating: 'RSA encrypted private and public key pair'. A tooltip for 'ED25519' is visible, stating: 'ED25519 encrypted private and public key pair (Not supported for Windows instances)'. At the bottom of the dialog are 'Cancel' and 'Create key pair' buttons.

7.Then successfully key pair created.



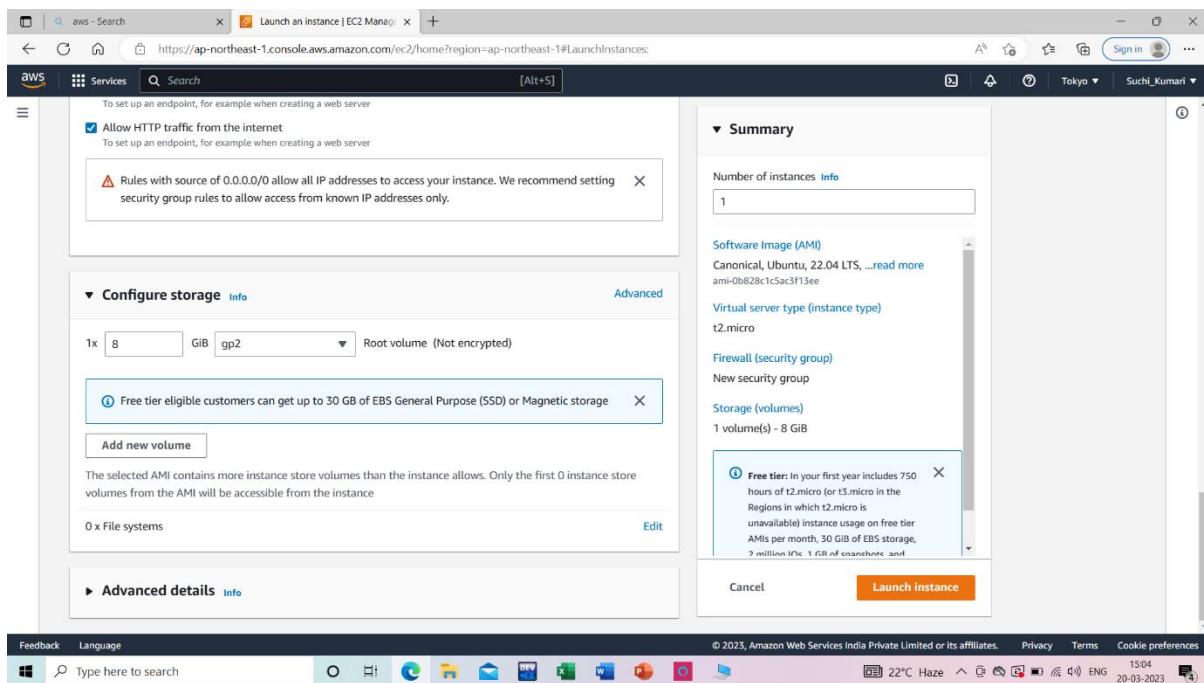
The screenshot shows the 'Launch an instance' wizard in the AWS Management Console. The 'Key pair (login)' step is selected. A context menu is open over the 'suchikey' dropdown, showing options like 'Open file'. The 'Summary' section on the right shows 1 instance being launched with the Canonical, Ubuntu 22.04 LTS AMI and t2.micro instance type. The 'Launch instance' button is visible at the bottom right.

8.Then check on 'Allow SSH traffic from' , 'Allow HTTPS traffic from the internet' and 'Allow HTTP traffic from the internet'.

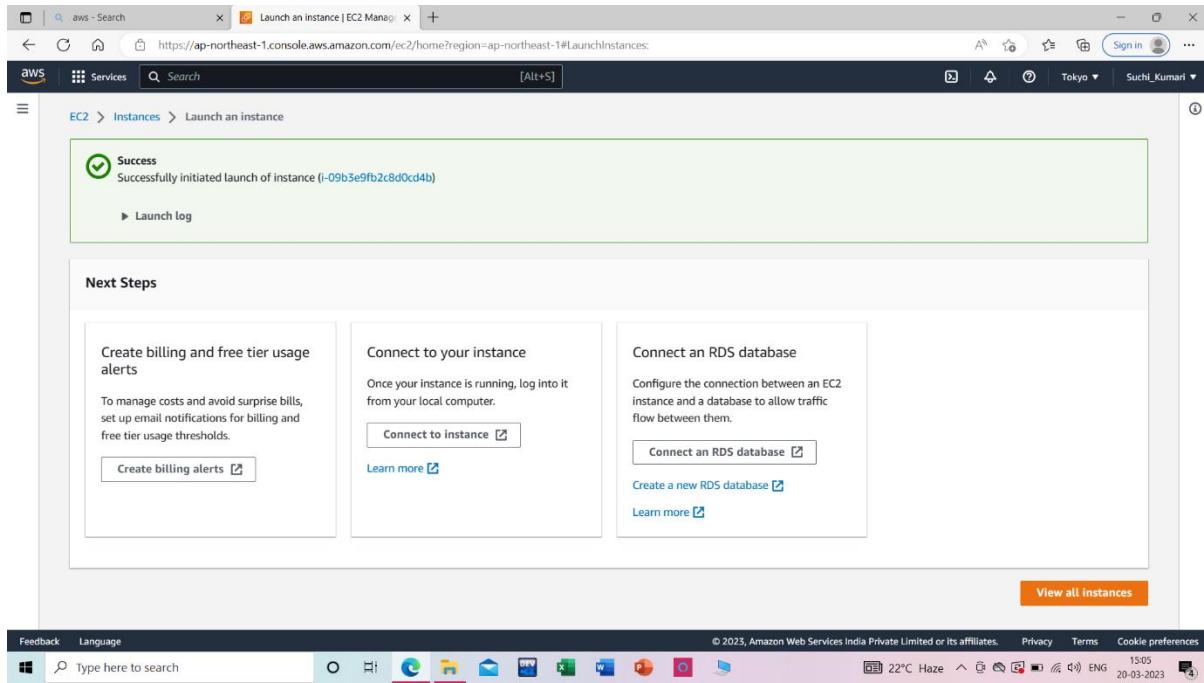


The screenshot shows the 'Launch an instance' wizard in the AWS Management Console. The 'Network settings' step is selected. Under 'Firewall (security groups)', the 'Create security group' option is selected. A note at the bottom states: 'Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting X security group rules to allow access from known IP addresses only.' The 'Launch instance' button is visible at the bottom right.

9.Then click on Launch instance.



10.Successfully initiated Launch of instance. Then go to instances.



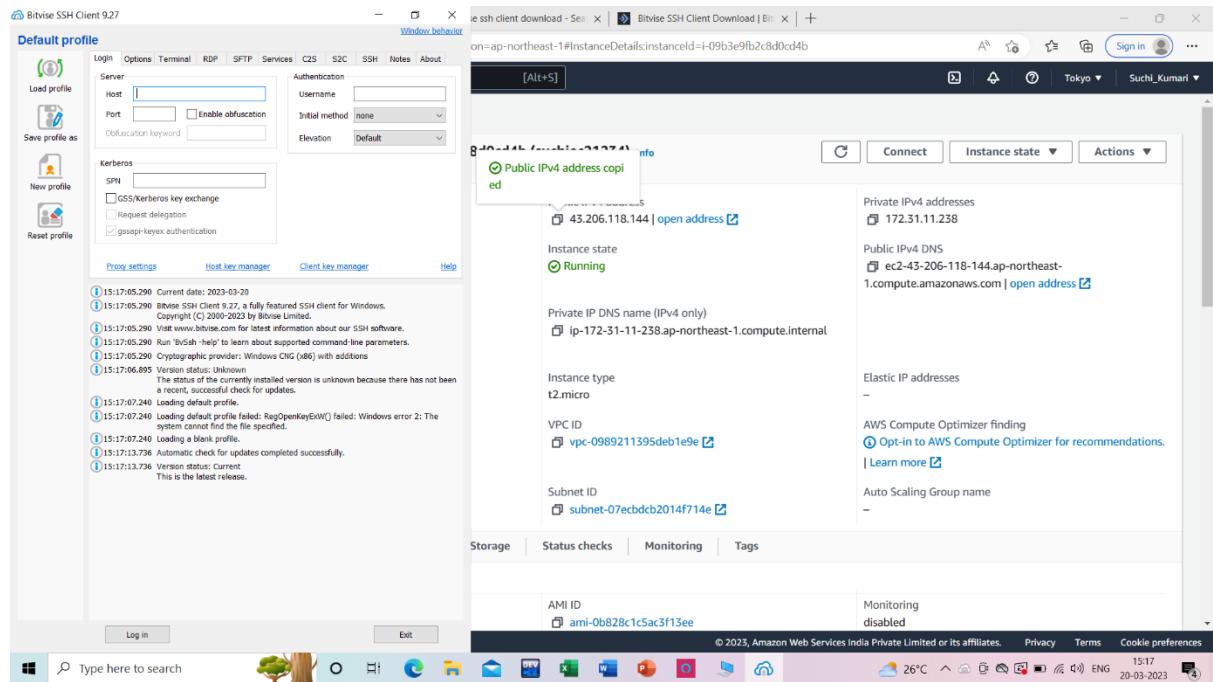
11.Then click on Instance ID.

The screenshot shows the AWS EC2 Management Console. The left sidebar is collapsed. The main area displays a table of instances with one row selected. The selected instance is 'suchiec21234' with Instance ID 'i-09b3e9fb2c8d0cd4b', which is currently 'Running' and has an 'Initializing' status check. A 'Select an instance' modal is overlaid on the page. The bottom of the screen shows the Windows taskbar with various pinned icons.

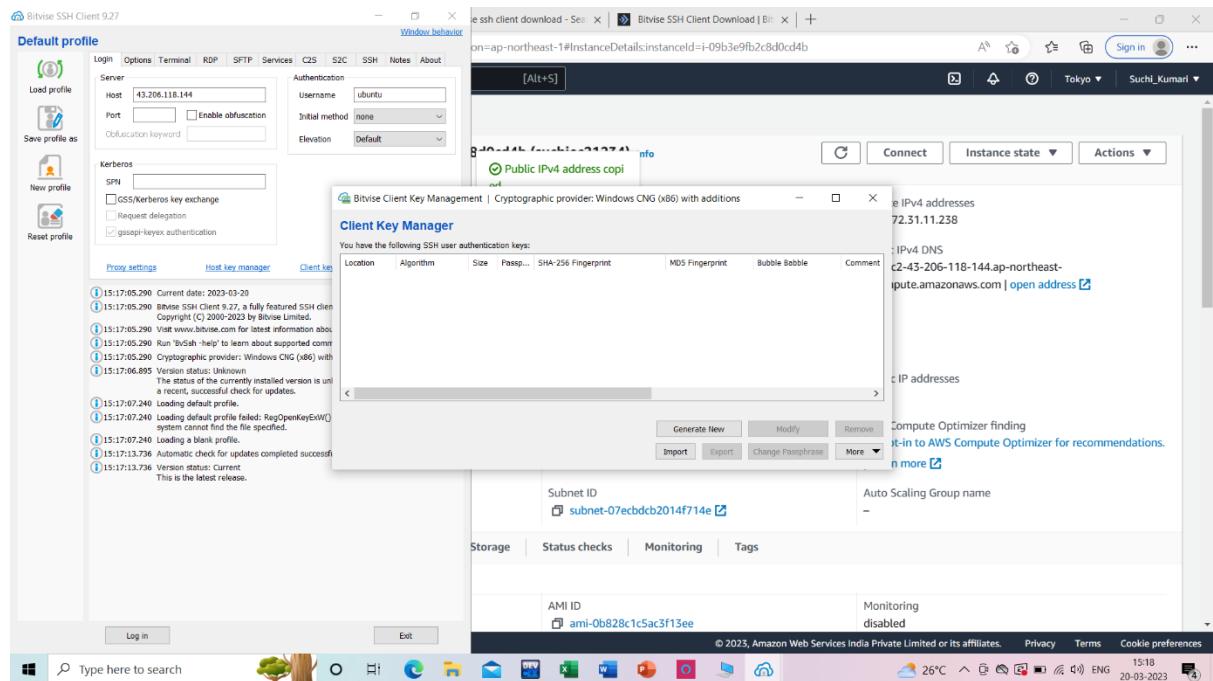
12.Then copy Public IPv4 address and after that open Bitvise SSH client.

The screenshot shows the AWS EC2 Management Console with the 'Instances' section expanded. It displays detailed information for the instance 'i-09b3e9fb2c8d0cd4b'. The 'Details' tab is selected. A tooltip indicates that the Public IPv4 address '43.206.118.144' has been copied. Other visible details include the Instance ID, IP name, Instance type (t2.micro), VPC ID, and Subnet ID. The bottom of the screen shows the Windows taskbar.

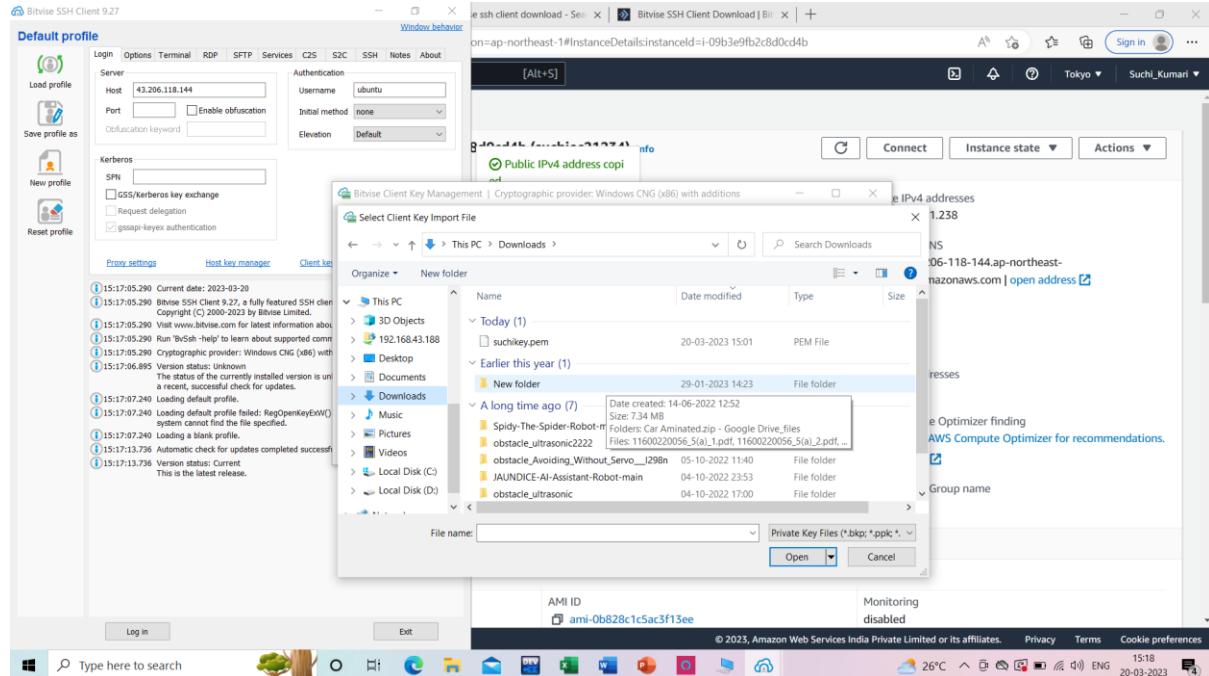
13.Then past it on Home in Bitvise SSH client.



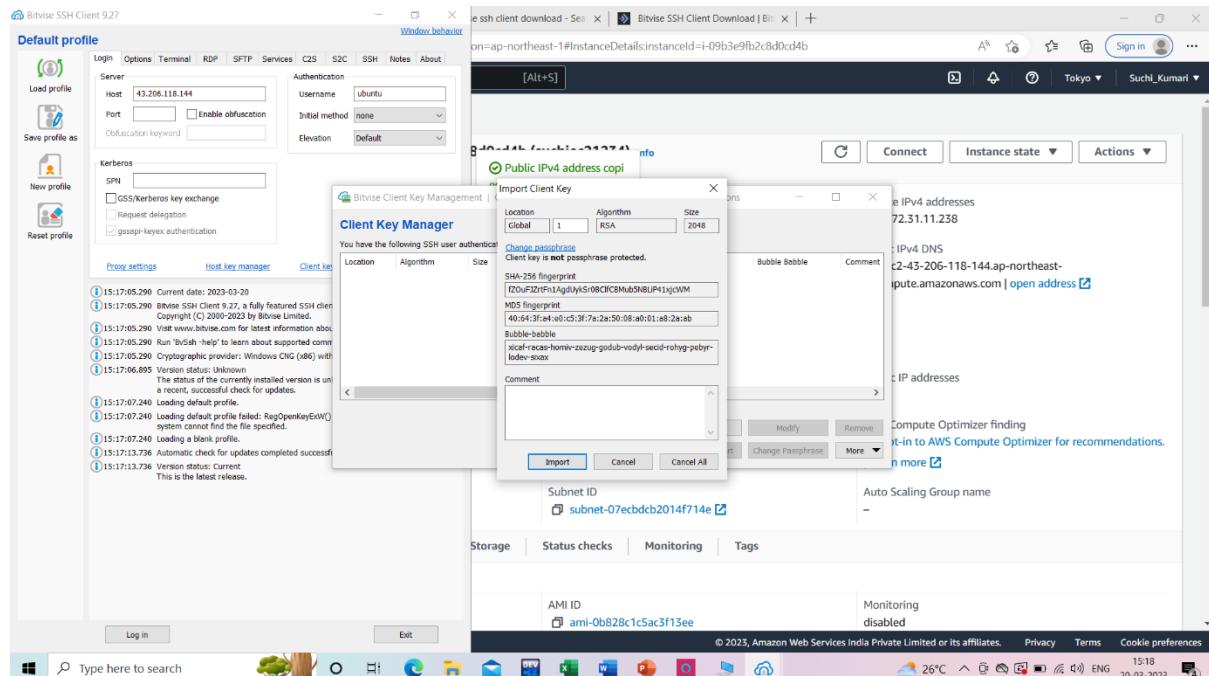
14.Then enter username as ubuntu and method as publickey and client key as Global 1.Then click on Import.



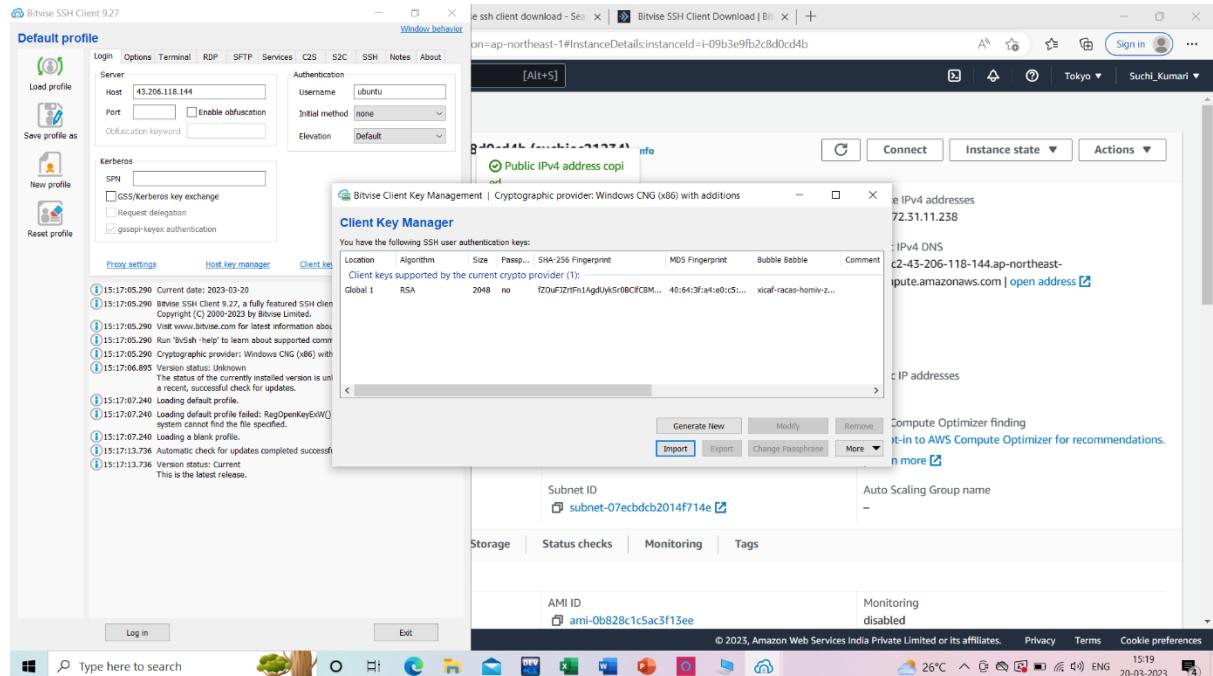
15.Then select .pem file which is automatically downloaded. Then click on open.



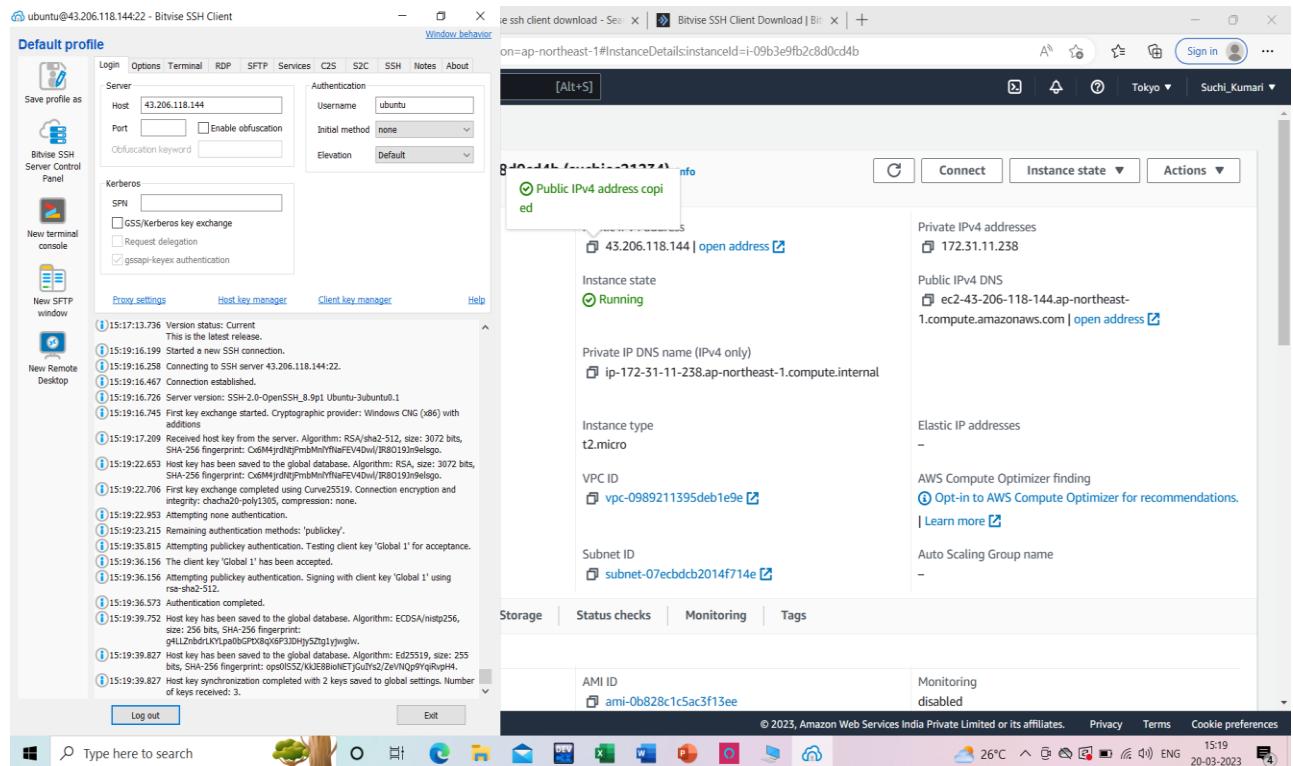
16.Then click on import.



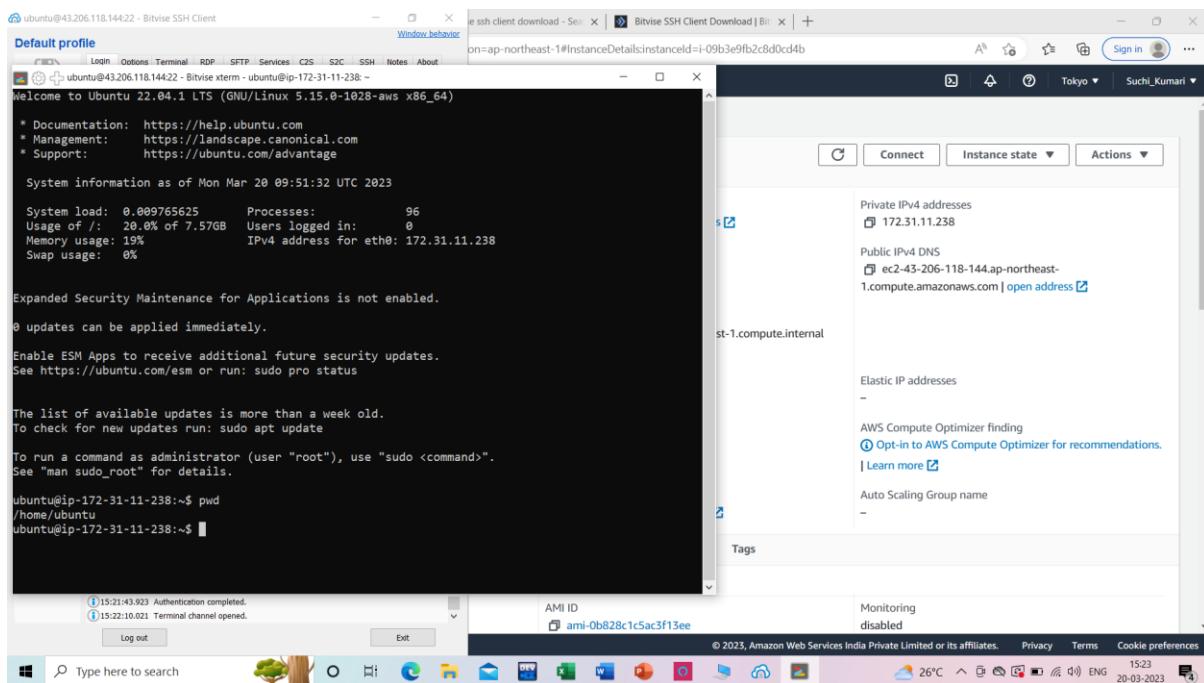
17.Then again click on import.



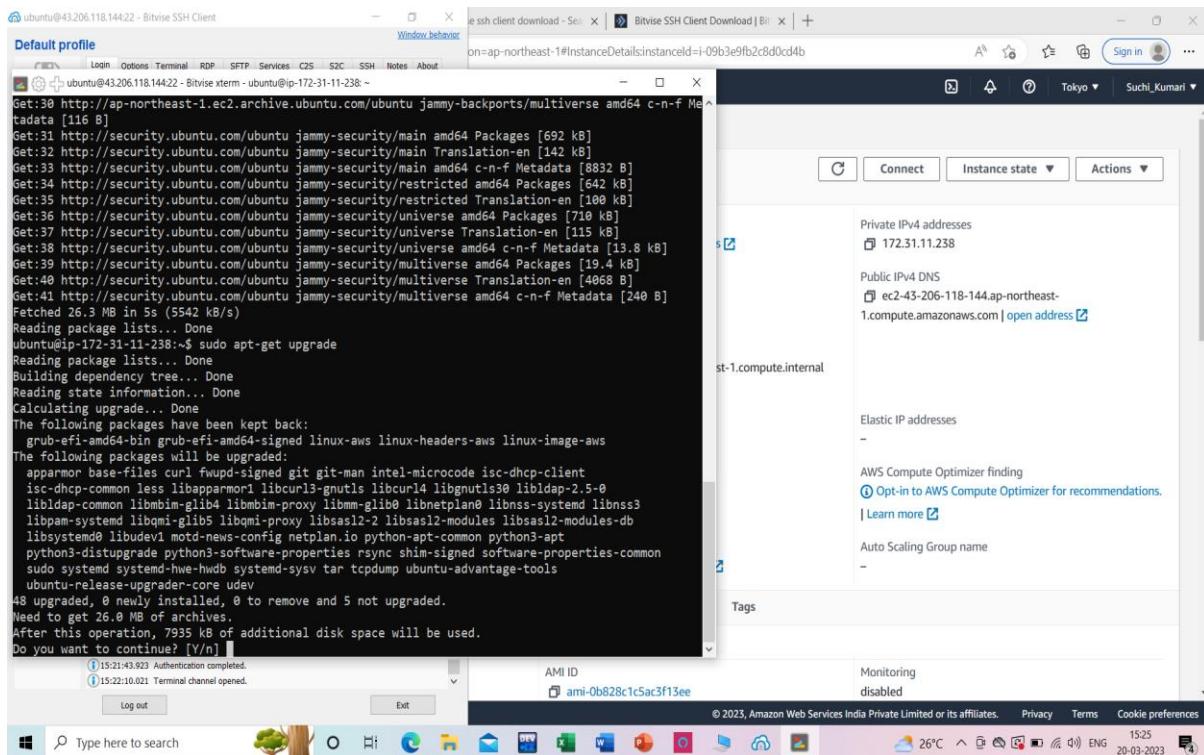
18.Then click on New terminal console.



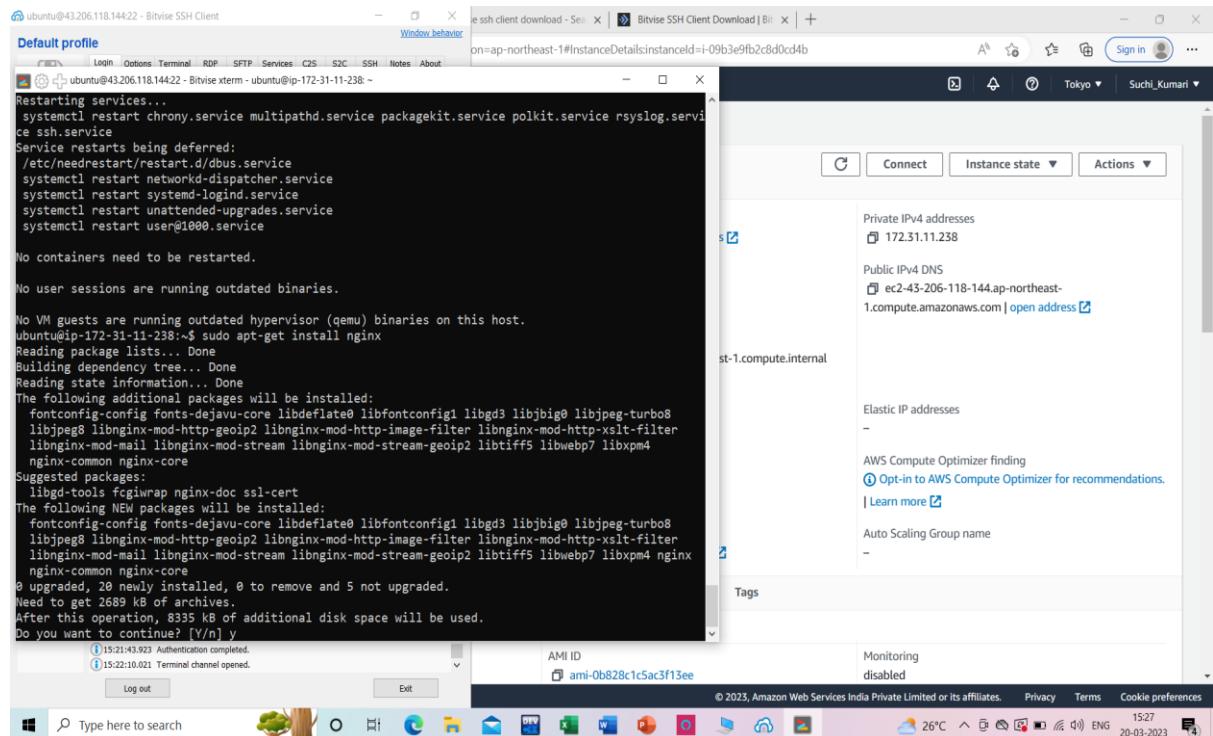
19. pwd is clicked.



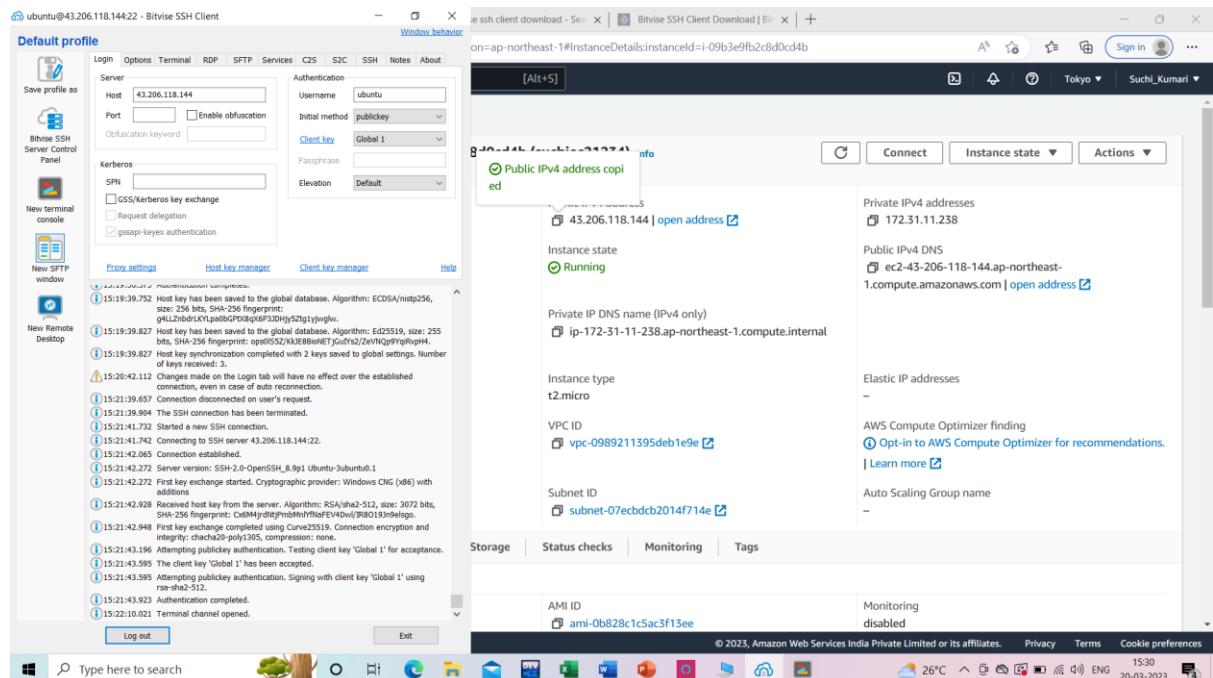
20. sudo apt-get update is clicked. sudo apt-get upgrade is clicked.



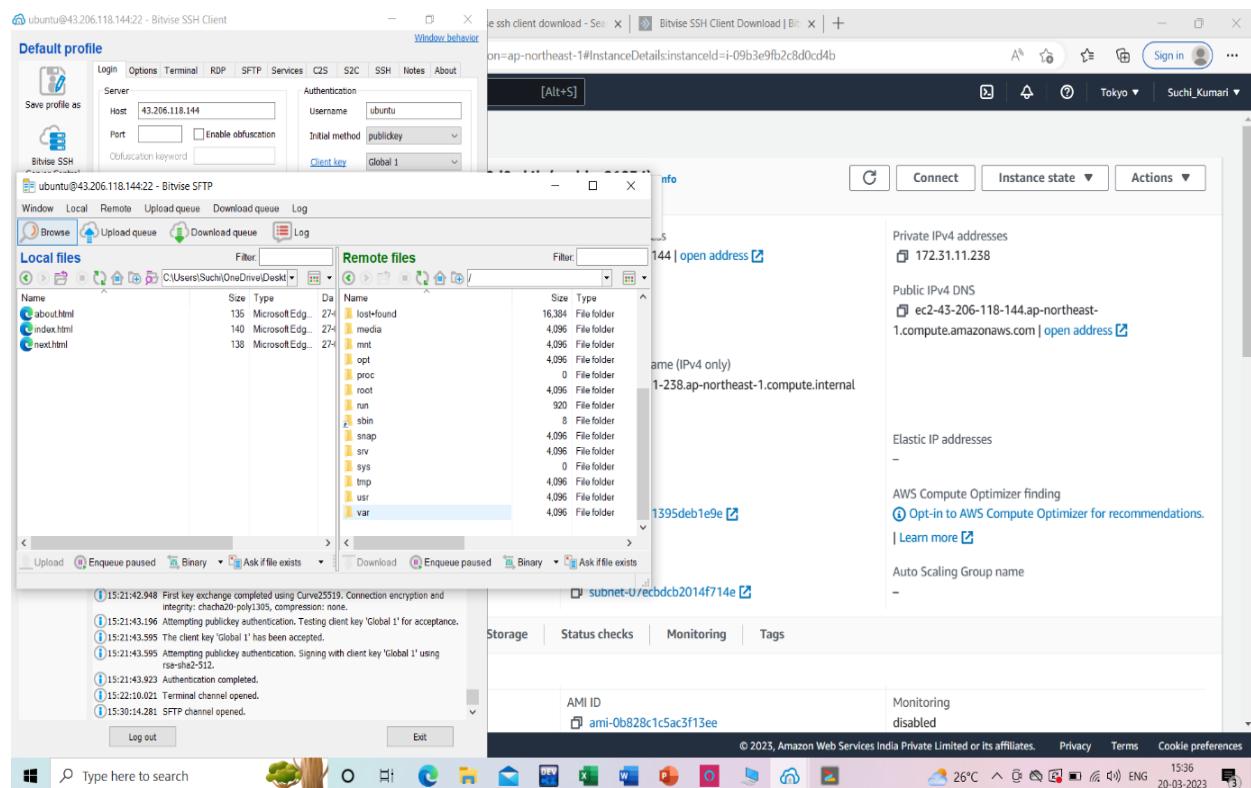
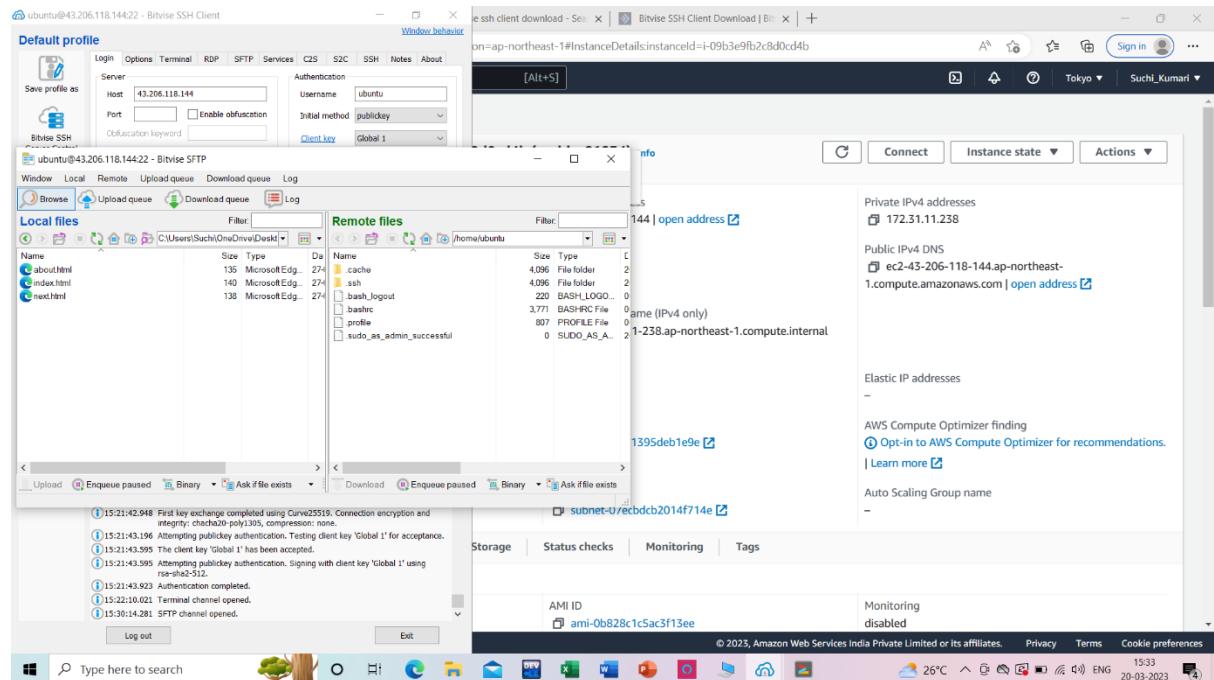
21. sudo apt-get install nginx is clicked.

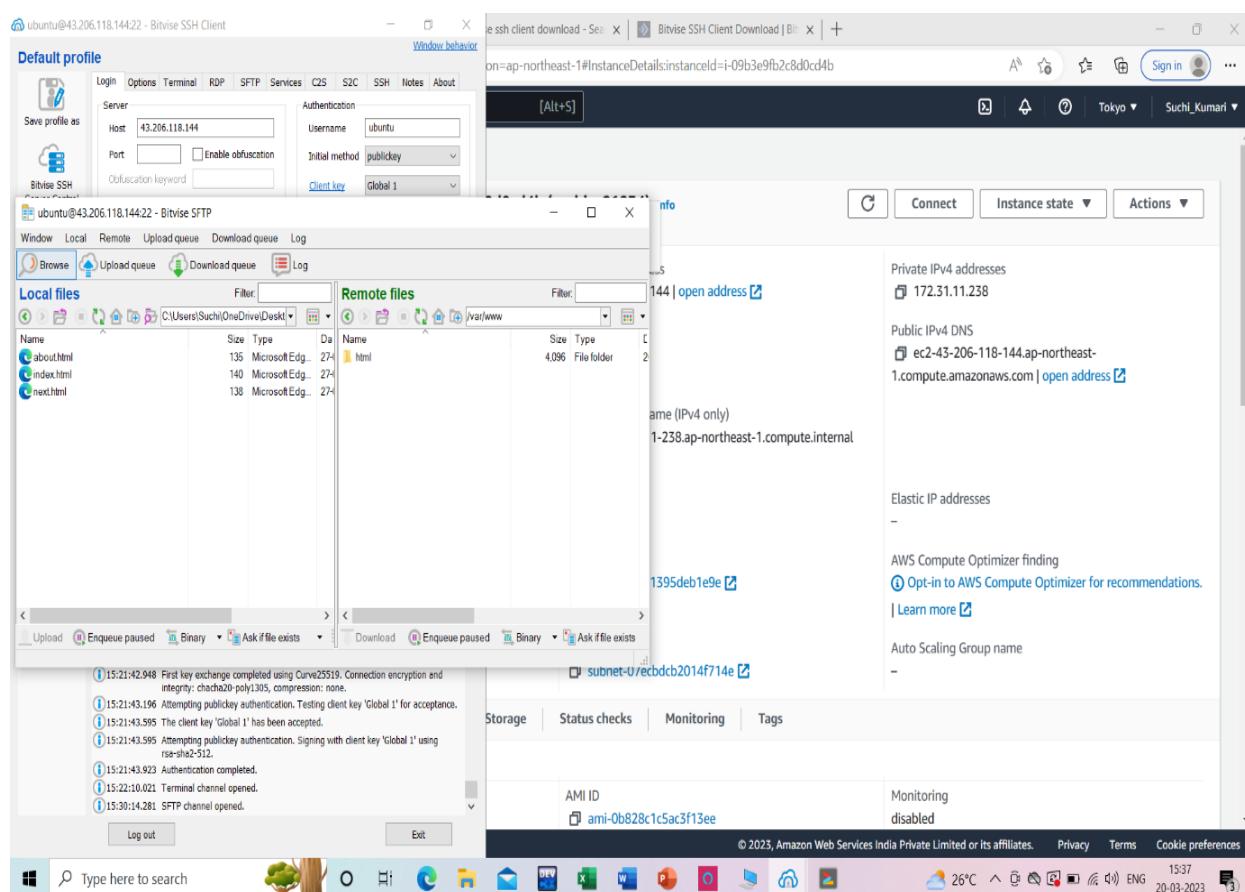
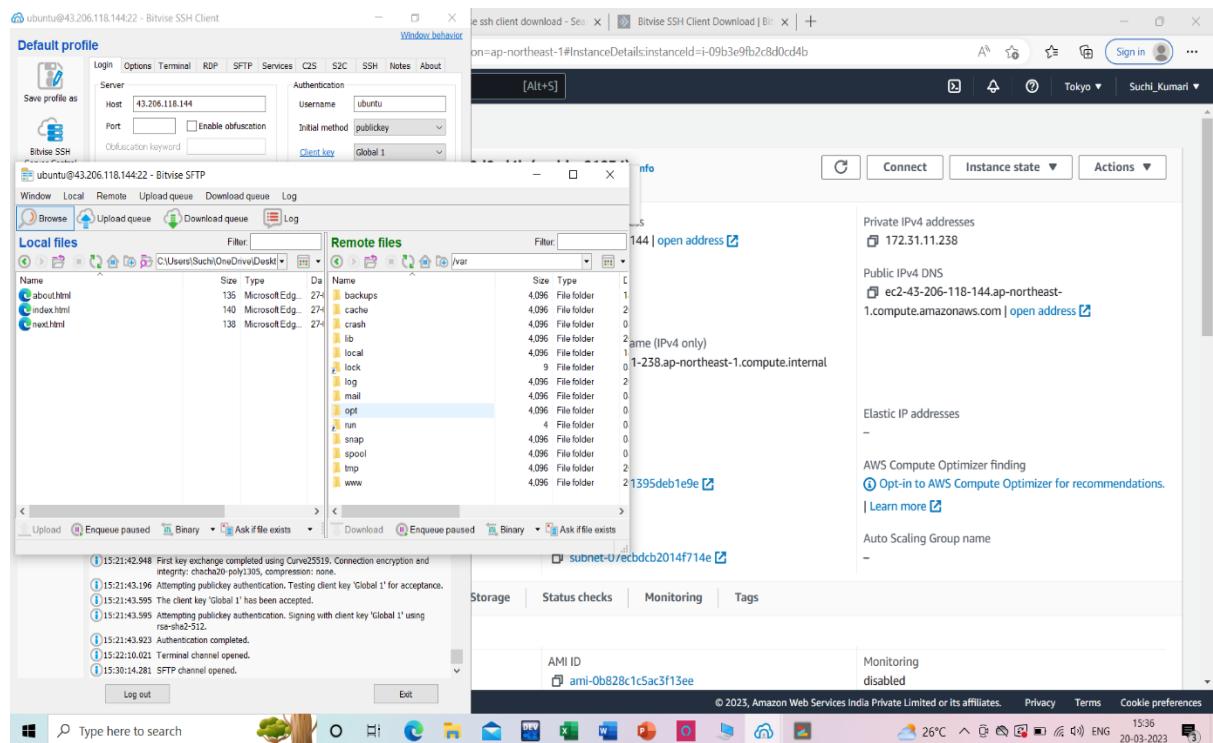


22. Then click on New SFTP window.



23. In the remote section the Up symbol is clicked twice. The var is clicked then www is clicked then html is clicked.





24.Then Copy the IP and search.

The screenshot shows the AWS EC2 Instances page. On the left, there's a sidebar with navigation links like EC2 Dashboard, EC2 Global View, Events, Tags, Limits, Instances, Images, and Elastic Block Store. The main area displays an instance summary for the instance ID i-09b3e9fb2c8d0cd4b. Key details include:

- Instance ID: i-09b3e9fb2c8d0cd4b (suchiec21234)
- IPV6 address: -
- Hostname type: IP name: ip-172-31-11-238.ap-northeast-1.compute.internal
- Answer private resource DNS name: IPv4 (A)
- Auto-assigned IP address: 43.206.118.144 [Public IP]
- IAM Role: -
- Public IP address: 43.206.118.144 [open address]
- Private IP address: 172.31.11.238
- Private IP DNS name (IPv4 only): ip-172-31-11-238.ap-northeast-1.compute.internal
- Instance state: Running
- Instance type: t2.micro
- VPC ID: vpc-098921139deb1e9e
- Subnet ID: subnet-07ecbdb2014f714e
- Elastic IP addresses: -
- AWS Compute Optimizer finding: Opt-in to AWS Compute Optimizer for recommendations. | Learn more
- Auto Scaling Group name: -

At the bottom, there are tabs for Details, Security, Networking, Storage, Status checks, Monitoring, and Tags. The Details tab is selected. A tooltip "Public IPv4 address copied" is visible over the Public IP address field. The status bar at the bottom shows the URL https://ap-northeast-1.console.aws.amazon.com/ec2/home?region=ap-northeast-1#InstanceDetails:instanceId=i-09b3e9fb2c8d0cd4b.

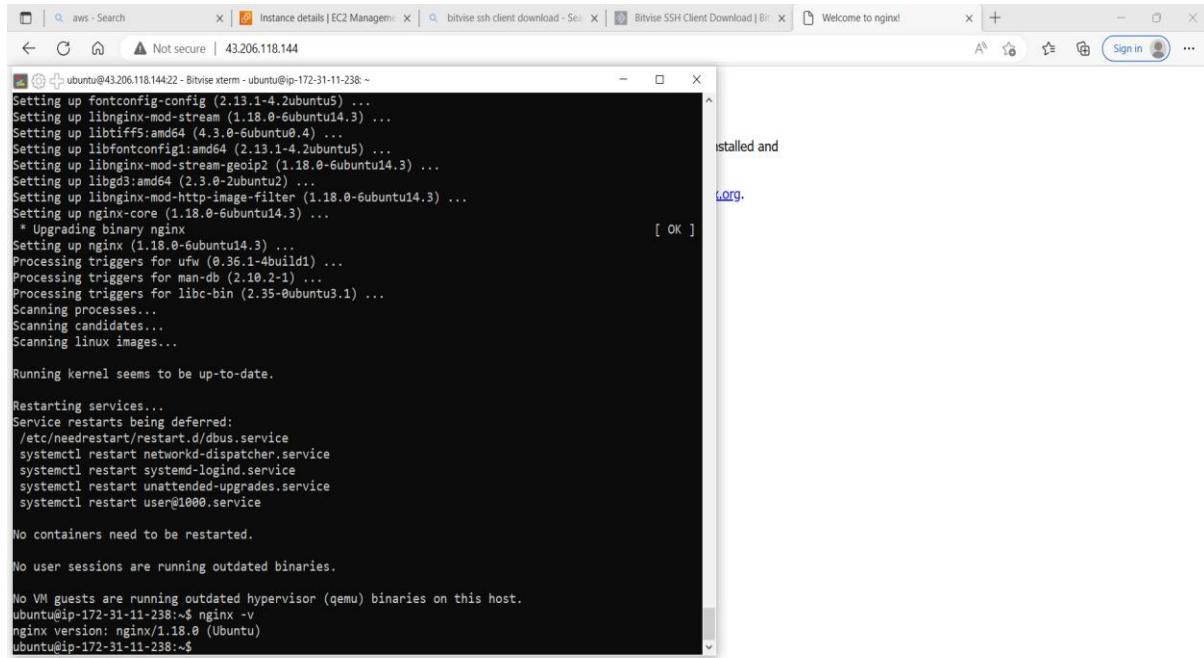
The screenshot shows a web browser window with the URL 43.206.118.144. The page displays the "Welcome to nginx!" message. Below it, there is some descriptive text and links to documentation and support.

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.

The screenshot shows the Windows taskbar. It includes icons for File Explorer, Task View, Start, Edge browser, Mail, Photos, OneDrive, Microsoft Store, and others. The nginx welcome page icon is visible in the taskbar, indicating it is currently running in the background.

25.The terminal is opened.cd .. is clicked twice. cd var, cd www, cd html, ls, cd ..,sudo chmod 777 html is clicked.



```
aws - Search Instance details | EC2 Management bitvise ssh client download - Se Bitvise SSH Client Download | Bit Welcome to nginx! [OK]
ubuntu@43.206.118.144:22 - Bitvise xterm - ubuntu@ip-172-31-11-238 ~
Not secure | 43.206.118.144

Setting up fontconfig-config (2.13.1-4.2ubuntu5) ...
Setting up libnginx-mod-stream (1.18.0-6ubuntu14.3) ...
Setting up libtiff5:amd64 (4.3.0-6ubuntu0.4) ...
Setting up libfontconfig1:amd64 (2.13.1-4.2ubuntu5) ...
Setting up libnginx-mod-stream-geoptr (1.18.0-6ubuntu14.3) ...
Setting up libgd3:amd64 (2.3.0-2ubuntu2) ...
Setting up libnginx-mod-http-image-filter (1.18.0-6ubuntu14.3) ...
Setting up nginx-core (1.18.0-6ubuntu14.3) ...
  * Upgrading binary nginx
Setting up nginx (1.18.0-6ubuntu14.3) ...
Processing triggers for ufw (0.36.1-4build1) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...
Scanning processes...
Scanning candidates...
Scanning linux images...

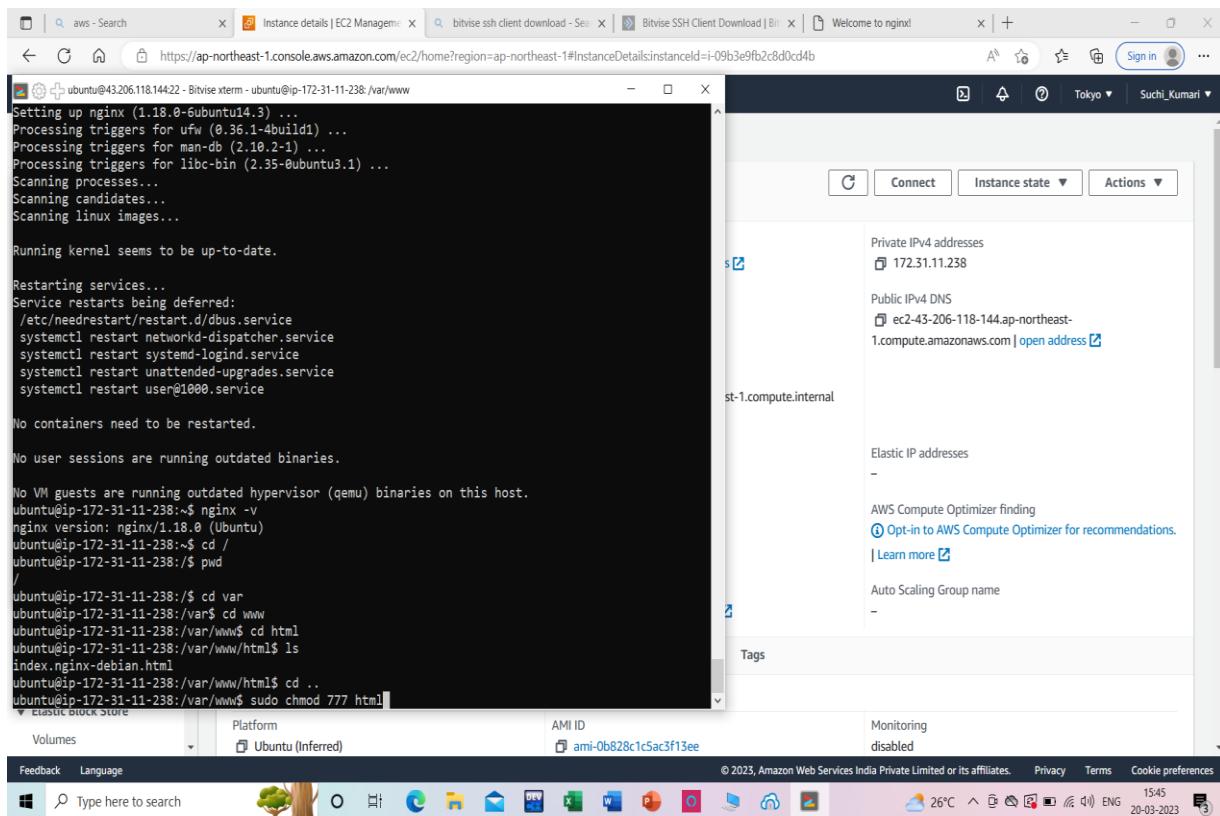
Running kernel seems to be up-to-date.

Restarting services...
Service restarts being deferred:
/etc/needrestart/restart.d/dbus.service
systemctl restart networkd-dispatcher.service
systemctl restart systemd-logind.service
systemctl restart unattended-upgrades.service
systemctl restart user@1000.service

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-11-238:~$ nginx -v
nginx version: nginx/1.18.0 (Ubuntu)
ubuntu@ip-172-31-11-238:~$
```



aws - Search Instance details | EC2 Management bitvise ssh client download - Se Bitvise SSH Client Download | Bit Welcome to nginx! [OK]
ubuntu@43.206.118.144:22 - Bitvise xterm - ubuntu@ip-172-31-11-238: /var/www
https://ap-northeast-1.console.aws.amazon.com/ec2/home?region=ap-northeast-1#instanceDetails:instanceId=i-09b3e9fb2c8d0cd4b
Sign in Tokyo Suchi_Kumari

Private IPv4 addresses
172.31.11.238

Public IPv4 DNS
ec2-43-206-118-144.ap-northeast-1.compute.amazonaws.com | open address

st-1.compute.internal

Elastic IP addresses
-

AWS Compute Optimizer finding
Opt-in to AWS Compute Optimizer for recommendations.
| Learn more

Auto Scaling Group name
-

Tags

Volumes Platform AMI ID Monitoring
Ubuntu (Inferred) ami-0b828c1c5ac3f13ee disabled

Feedback Language Type here to search
2023, Amazon Web Services India Private Limited or its affiliates. Privacy Terms Cookie preferences
1545 26°C 20-03-2023

```
Setting up nginx (1.18.0-6ubuntu14.3) ...
Processing triggers for ufw (0.36.1-4build1) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...
Scanning processes...
Scanning candidates...
Scanning linux images...

Running kernel seems to be up-to-date.

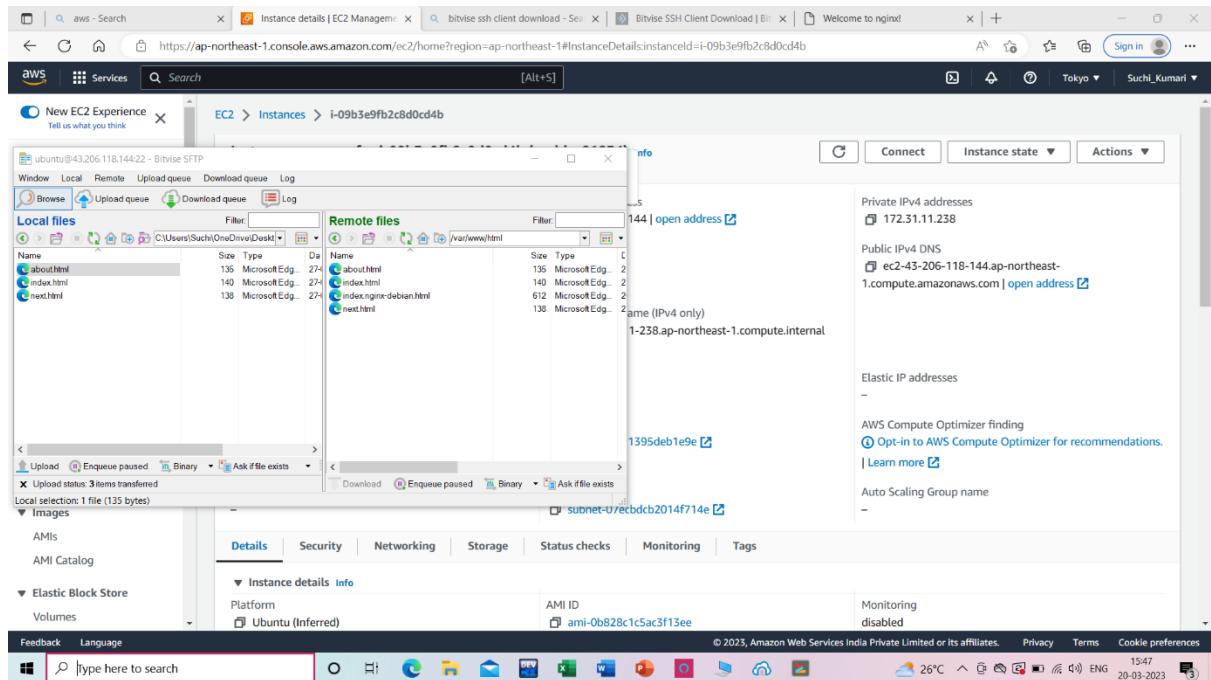
Restarting services...
Service restarts being deferred:
/etc/needrestart/restart.d/dbus.service
systemctl restart networkd-dispatcher.service
systemctl restart systemd-logind.service
systemctl restart unattended-upgrades.service
systemctl restart user@1000.service

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-11-238:~$ nginx -v
nginx version: nginx/1.18.0 (Ubuntu)
ubuntu@ip-172-31-11-238:~$ cd /
ubuntu@ip-172-31-11-238:~$ pwd
/
ubuntu@ip-172-31-11-238:~$ cd var
ubuntu@ip-172-31-11-238:/var$ cd www
ubuntu@ip-172-31-11-238:/var/www$ cd html
ubuntu@ip-172-31-11-238:/var/www/html$ ls
index.nginx-debian.html
ubuntu@ip-172-31-11-238:/var/www/html$ cd ..
ubuntu@ip-172-31-11-238:/var/www$ sudo chmod 777 html
```

26. The files from the local files is dragged to the remote files.



27. After this if we open the public IP Address in another tab then we can see that the website opens.

