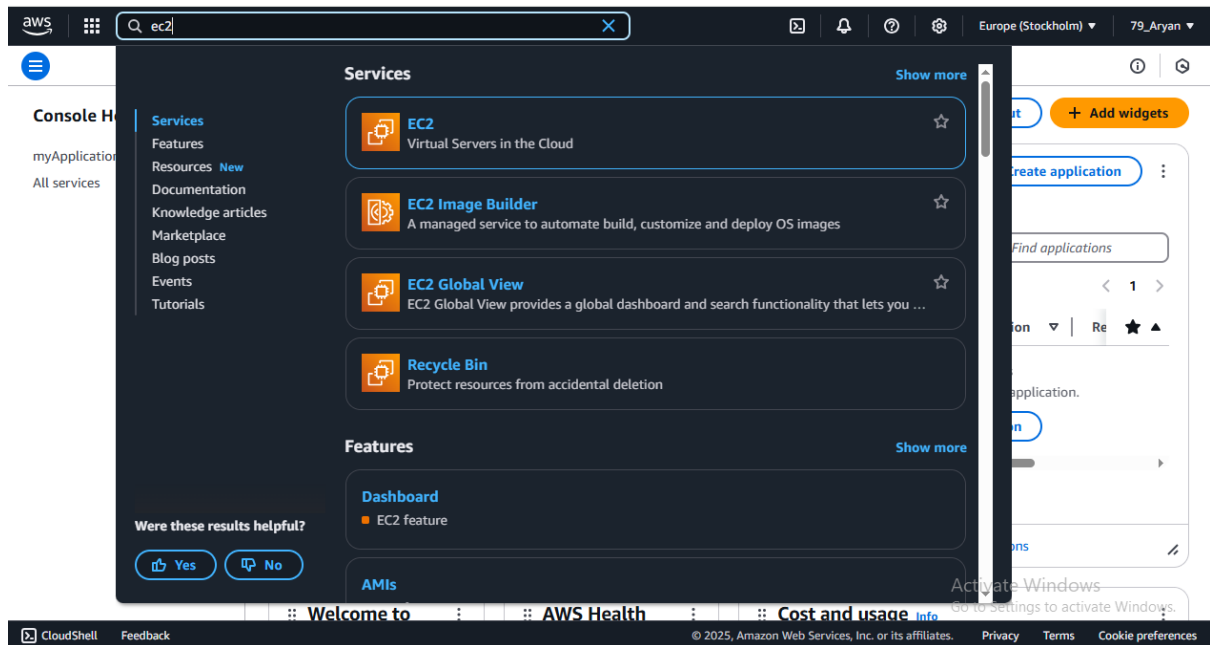


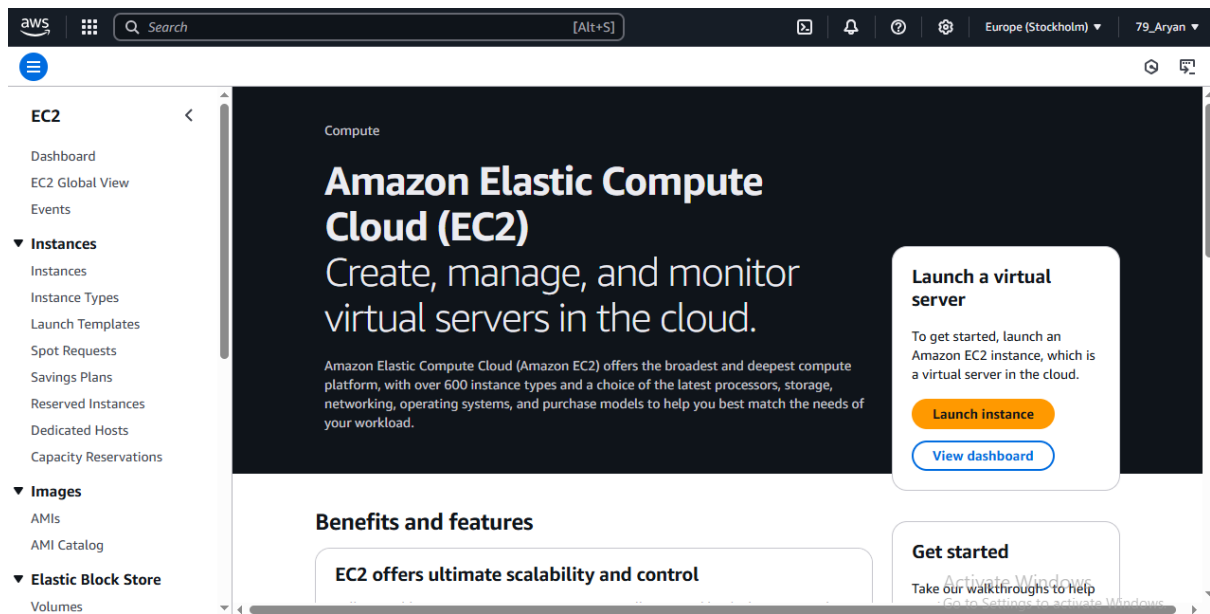
Assignment No:07

Title: Hosting a website on EC2.

Step-1: Search EC2 in the AWS management console.



Step-2: Click on the EC2 and click on Launch Instance.



Step-3: Name the Instance then Select the OS for the instance.

aws

Search

[Alt+S]

Europe (Stockholm)

79_Aryan

EC2 > Instances > Launch an instance

It seems like you may be new to launching instances in EC2. Take a walkthrough to learn about EC2, how to launch instances and about best practices

Do not show me this message again

Take a walkthrough

Launch an instance Info

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags Info

Name

AryanEC2

Add additional tags

▼ Application and OS Images (Amazon Machine Image) Info

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Quick Start

▼ Summary

Number of instances Info

1

Software Image (AMI) Info

Amazon Linux 2023 AMI 2023.6.2...read more

ami-0c2e61fdbc5495691

Virtual server type (instance type) Info

t3.micro

Firewall (security group) Info

New security group

Storage (volumes) Info

1 volume(s) - 8 GiB

Free tier: In your first year of...
Cancel

aws

Search

[Alt+S]

Europe (Stockholm)

79_Aryan

EC2 > Instances > Launch an instance

▼ Application and OS Images (Amazon Machine Image) Info

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Quick Start

Amazon Linux

macOS

Ubuntu

Windows

Red Hat

SUSE Linux

Browse more AMIs

Amazon Machine Image (AMI) Info

Ubuntu Server 24.04 LTS (HVM), SSD Volume Type

ami-0c1ac8a41498c1a9c (64-bit (x86)) / ami-09fdd0b7882a4ec7b (64-bit (Arm))

Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

Description

Ubuntu Server 24.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical

▼ Summary

Number of instances Info

1

Software Image (AMI) Info

Canonical, Ubuntu, 24.04, amd64...read more

ami-0c1ac8a41498c1a9c

Virtual server type (instance type) Info

t3.micro

Firewall (security group) Info

New security group

Storage (volumes) Info

1 volume(s) - 8 GiB

Free tier: In your first year of...
Cancel

Launch instance

aws

Search

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Europe (Stockholm)

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EC2 > Instances > Launch an instance

▼ Key pair (login) Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - *required*

aryanAWS_key

Create new key pair

▼ Network settings Info

Network Info

vpc-0b1facd02bc4f59ad

Subnet Info

No preference (Default subnet in any availability zone)

Auto-assign public IP Info

Enable

Additional charges apply when outside of free tier allowance

Firewall (security groups) Info

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group

Select existing security group

We'll create a new security group called 'launch-wizard-1' with the following rules:

▼ Summary

Number of instances Info

1

Software Image (AMI)

Canonical, Ubuntu, 24.04, amd64...read more

ami-0c1ac8a41498c1a9c

Virtual server type (instance type)

t3.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Free tier: In your first year of

Cancel

Launch instance

Activate Windows

Go to Settings to activate Windows.

Preview code

aws

Search

[Alt+S]

Europe (Stockholm)

79_Aryan

EC2 > Instances > Launch an instance

Additional charges apply when outside of free tier allowance

Firewall (security groups) Info

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group

Select existing security group

We'll create a new security group called 'launch-wizard-1' with the following rules:

☒ Allow SSH traffic from

Helps you connect to your instance

Anywhere

0.0.0.0/0

☒ Allow HTTPS traffic from the internet

To set up an endpoint, for example when creating a web server

☒ Allow HTTP traffic from the internet

To set up an endpoint, for example when creating a web server

Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

▼ Configure storage Info

Advanced

1x 8 GiB gp3

Root volume, 3000 IOPS, Not encrypted

▼ Summary

Number of instances Info

1

Software Image (AMI)

Canonical, Ubuntu, 24.04, amd64...read more

ami-0c1ac8a41498c1a9c

Virtual server type (instance type)

t3.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Free tier: In your first year of

Cancel

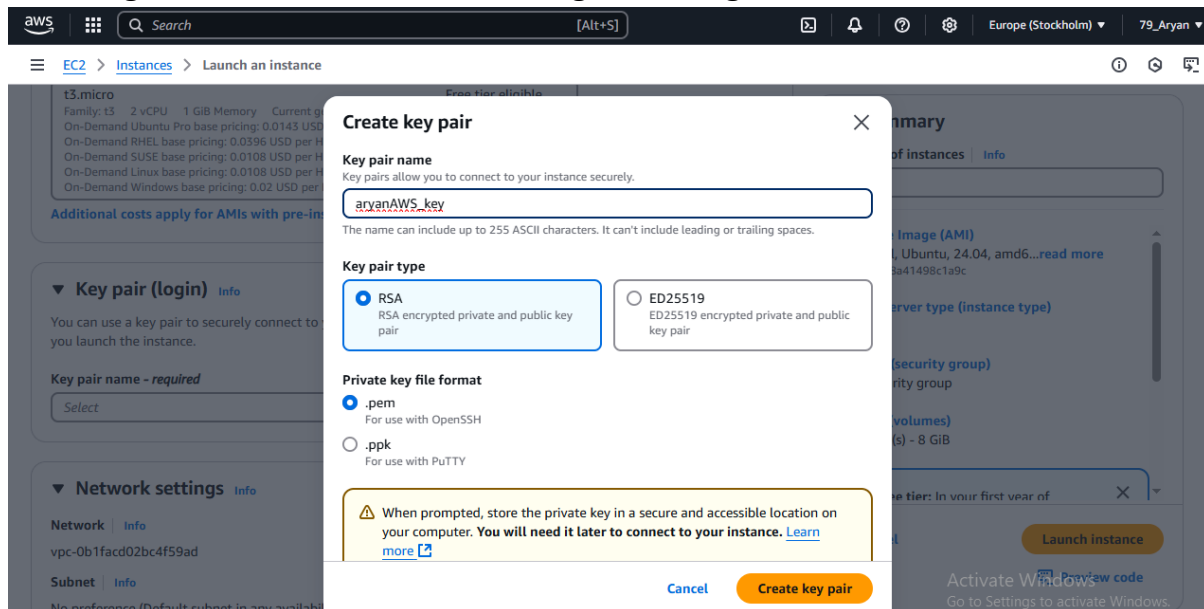
Launch instance

Activate Windows

Go to Settings to activate Windows.

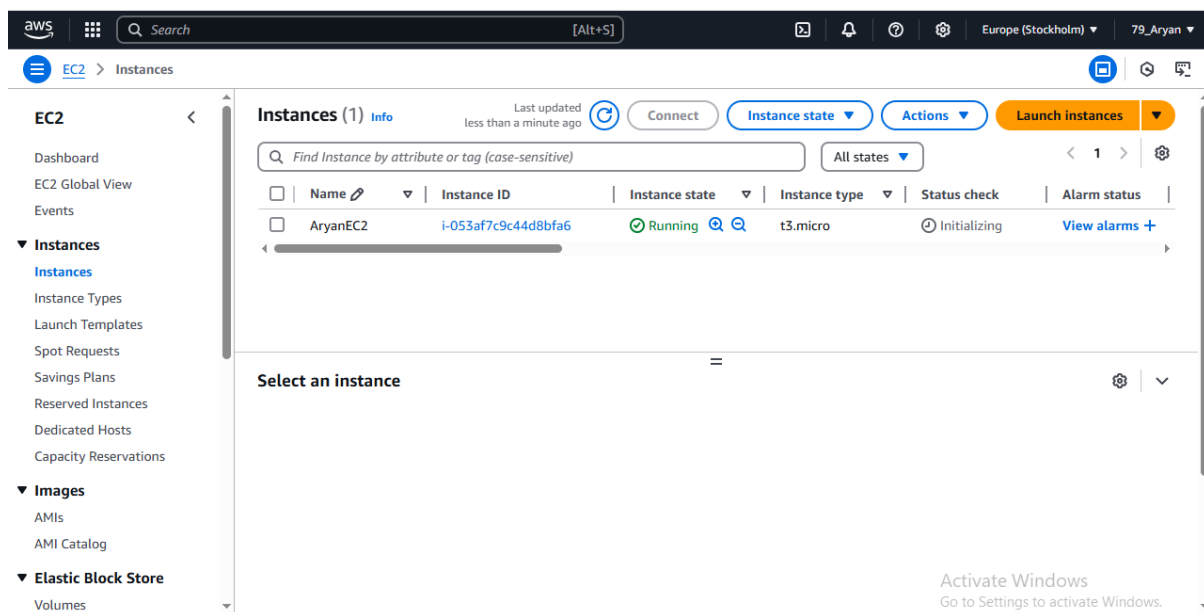
Preview code

Step-4: Now click on key pairs select an existing key pair or click on create new key pair then name the key pair and select newly created key pair. Then allow SSH traffic from anywhere and allow http and https traffic from internet by checking the boxes below. Then configure storage and click on Launch Instance.

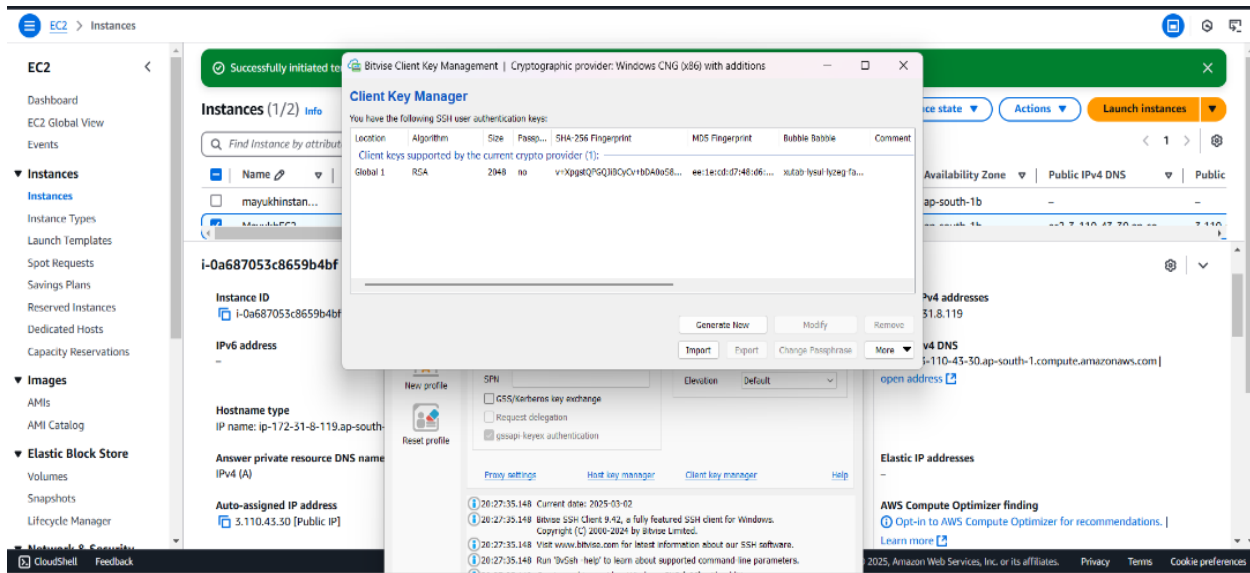


Step-5: After the Instance created goto Instances using the window in left side and click on the Instance id of the instance.

Step-6: Copy the Public IPv4 address of the instance.



Step-7: Then open Bitvise SSH client and open the client key manager and import the .pem file downloaded after creating the key pair. Then paste the Public IPv4 address in Host IP. In the authentication select the initial method as public key give username and select the client key that imported using the client key manager. Then login and then open new terminal console from left side.



Step-8: Set up the Ubuntu server by updating and upgrading it using the commands `sudo apt-get update` and `sudo apt-get upgrade`

```
ubuntu@ip-172-31-8-119:~$ sudo apt-get update
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:5 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:8 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:9 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:10 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:11 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.0 kB]
Get:12 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
Get:13 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [890 kB]
Get:14 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [201 kB]
Get:15 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [151 kB]
Get:16 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1028 kB]
Get:17 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [257 kB]
Get:18 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [363 kB]
Get:19 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 c-n-f Metadata [19.9 kB]
Get:20 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [695 kB]
Get:21 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [641 kB]
Get:22 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted Translation-en [138 kB]
Get:23 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]
Get:24 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [23.4 kB]
Get:25 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse Translation-en [5308 B]
Get:26 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [940 B]
Get:27 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 c-n-f Metadata [552 B]
Get:28 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [208 B]
Get:29 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/main amd64 c-n-f Metadata [112 B]
Get:30 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [14.2 kB]
Get:31 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe Translation-en [12.1 kB]
Get:32 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [20.0 kB]
Get:33 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/universe amd64 c-n-f Metadata [1104 B]
```

```

Get:34 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [216 B]
Get:35 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 c-n-f Metadata [116 B]
Get:36 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 B]
Get:37 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:38 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [122 kB]
Get:39 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [8984 B]
Get:40 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [815 kB]
Get:41 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en [174 kB]
Get:42 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Components [52.0 kB]
Get:43 http://security.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [13.5 kB]
Get:44 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [667 kB]
Get:45 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en [131 kB]
Get:46 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 B]
Get:47 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [19.4 kB]
Get:48 http://security.ubuntu.com/ubuntu noble-security/multiverse Translation-en [4308 B]
Get:49 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [212 B]
Get:50 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 c-n-f Metadata [356 B]
Fetched 32.5 MB in 11s (2915 kB/s)

Reading package lists... Done
ubuntu@ip-172-31-8-119:~$ sudo apt-get upgrade
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following packages have been kept back:
  linux-aws linux-headers-aws linux-image-aws
The following packages will be upgraded:
  base-files bind0-dnswtills bind0-host bind0-libs bpfttrace bsdxtrautils bsduutils cloud-init cryptsetup cryptsetup-bin cryptsetup-initramfs dmeventd dmsetup
  dracut-install eject fdisk fwupd gir1.2-packagekit-glib-1.0 initramfs-tools initramfs-tools-bin initramfs-tools-core intel-microcode kmod krb5-locales landscape-common
  libaio1t64 libattr1 libblkid1 libbsd0 libc-bin libc6 libc62 libc62-bin libcryptsetup12 libdevmapper-event1.02.1 libdevmapper1.02.1 libdrm-common libdrm2 libdw1t64
  libelf1t64 libfdisk1 libfwupd2 libgmp10 libgnutls30t64 libgpg-error-l10n libgpg-error0 libgssapi-krb5-2 libidn2-0 libk5crypto3 libkmod2 libkrb5-3 libkrb5support0
  libltdl-common libltdl7 liblvm2cmd2.03 libmd0 libmount1 libmpfr6 libnghttp2-14 libnl-3-200 libnl-genl-3-200 libnl-route-3-200 libnss-systemd libnvmem1t64 libopeniscsiusr
  libpackagekit-glib2-18 libpam-cap libpam-systemd libpcre2-8-0 libperl5.38t64 libpolkit-agent-1-0 libpolkit-gobject-1-0 libpython3.12-minimal libpython3.12-stdlib
  libpython3.12t64 libselinux1 libsmartcols1 libssl3t64 libsystemd-shared libsystemd0 libtasn1-6 libudev1 libunistring5 libunwind8 libuuid1 libxml2
  linux-tools-common locales lvm2 motd-news-config mount open-iscsi openssh-client openssh-server openssh-sftp-server openssl packagekit packagekit-tools perl perl-base
  perl-modules-5.38 polkitd pollinate python-apt-common python3-apt python3-distupgrade python3-jinja2 python3.12 python3.12-minimal rsync systemd systemd-dev
  systemd-resolved systemd-sysv tzdata tzdata-legacy ubuntu-kernel-accessories ubuntu-minimal ubuntu-release-upgrader-core ubuntu-server ubuntu-standard udev util-linux
  uuid-runtime vim vim-common vim-runtime vim-tiny xfsprogs xxd
131 upgraded, 0 newly installed, 0 to remove and 3 not upgraded.
Need to get 81.8 MB of archives.
After this operation, 2928 kB of additional disk space will be used.
Do you want to continue? [Y/n] y

```

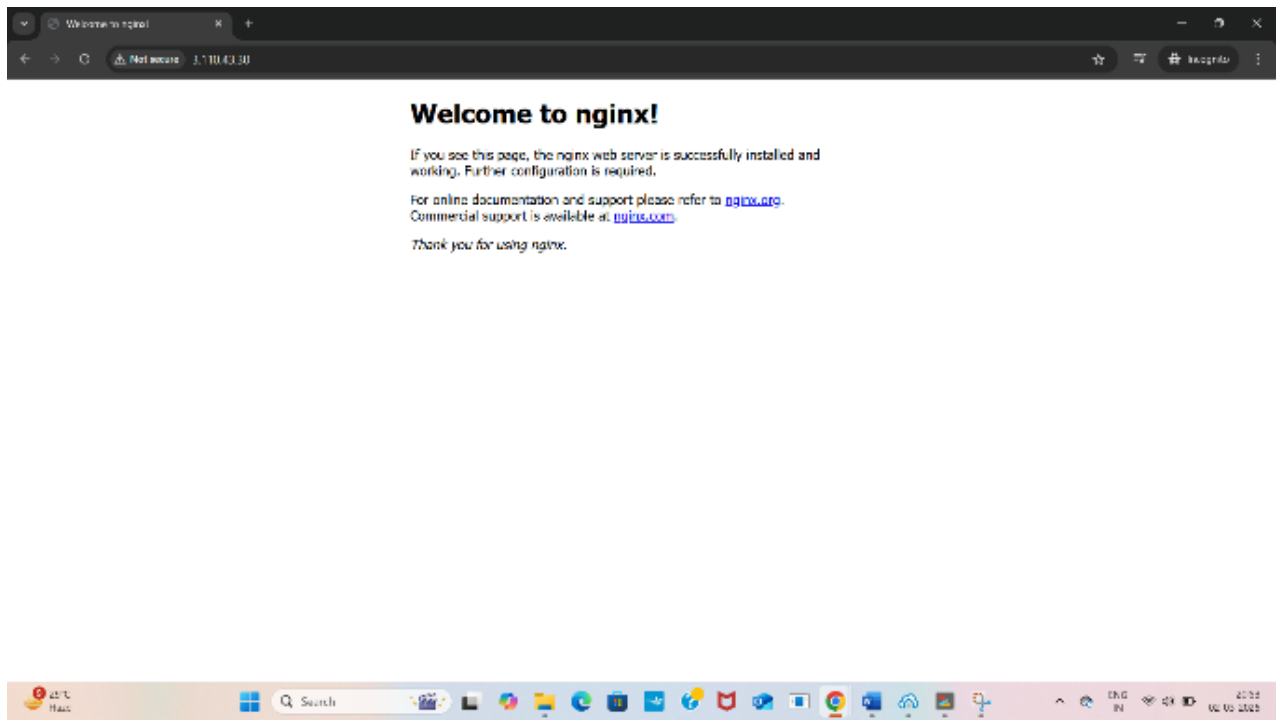
Step-9: Now set up the web server by downloading nginx and ngi using commands `sudo apt install nginx` and `sudo apt install ngi`. Then open the Public IPv4 of the instance in a incognito tab to see the nginx welcome page.

```

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-8-119:~$ sudo apt install nginx
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  nginx-common
Suggested packages:
  fcgiwrap nginx-doc ssl-cert
The following NEW packages will be installed:
  nginx nginx-common
0 upgraded, 2 newly installed, 0 to remove and 3 not upgraded.
Need to get 552 kB of archives.
After this operation, 1596 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 nginx-common all 1.24.0-2ubuntu7.1 [31.2 kB]
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 nginx amd64 1.24.0-2ubuntu7.1 [521 kB]
Fetched 552 kB in 0s (23.2 MB/s)
Preconfiguring packages ...
Selecting previously unselected package nginx-common.
(Reading database ... 70560 files and directories currently installed.)
Preparing to unpack .../nginx-common_1.24.0-2ubuntu7.1_all.deb ...
Unpacking nginx-common (1.24.0-2ubuntu7.1) ...
Selecting previously unselected package nginx.
Preparing to unpack .../nginx_1.24.0-2ubuntu7.1_amd64.deb ...
Unpacking nginx (1.24.0-2ubuntu7.1) ...
Setting up nginx (1.24.0-2ubuntu7.1) ...
Setting up nginx-common (1.24.0-2ubuntu7.1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/nginx.service → /usr/lib/systemd/system/nginx.service.
Processing triggers for ufw (0.36.2-6) ...
Processing triggers for man-db (2.12.0-4build2) ...
Scanning processes...
Scanning candidates...
Scanning linux images...

Running kernel seems to be up-to-date.

```

Step-10: Now open the terminal again and navigate to the location `/var/www` using command `cd ../../var/www` and then change the permission of the html directory using command `sudo chmod 777 html` to give it full permission.

```
ubuntu@15.207.116.224:22 - Bitvise xterm - ubuntu@ip-172-31-5-164: /var/www
Setting up nginx (1.24.0-2ubuntu7.1) ...
Setting up nginx-common (1.24.0-2ubuntu7.1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/nginx.service → /usr/lib/systemd/system/nginx.service.
Processing triggers for ufw (0.36.2-6) ...
Processing triggers for man-db (2.12.0-4build2) ...
Scanning processes...
Scanning candidates...
Scanning linux images...

Running kernel seems to be up-to-date.

Restarting services...

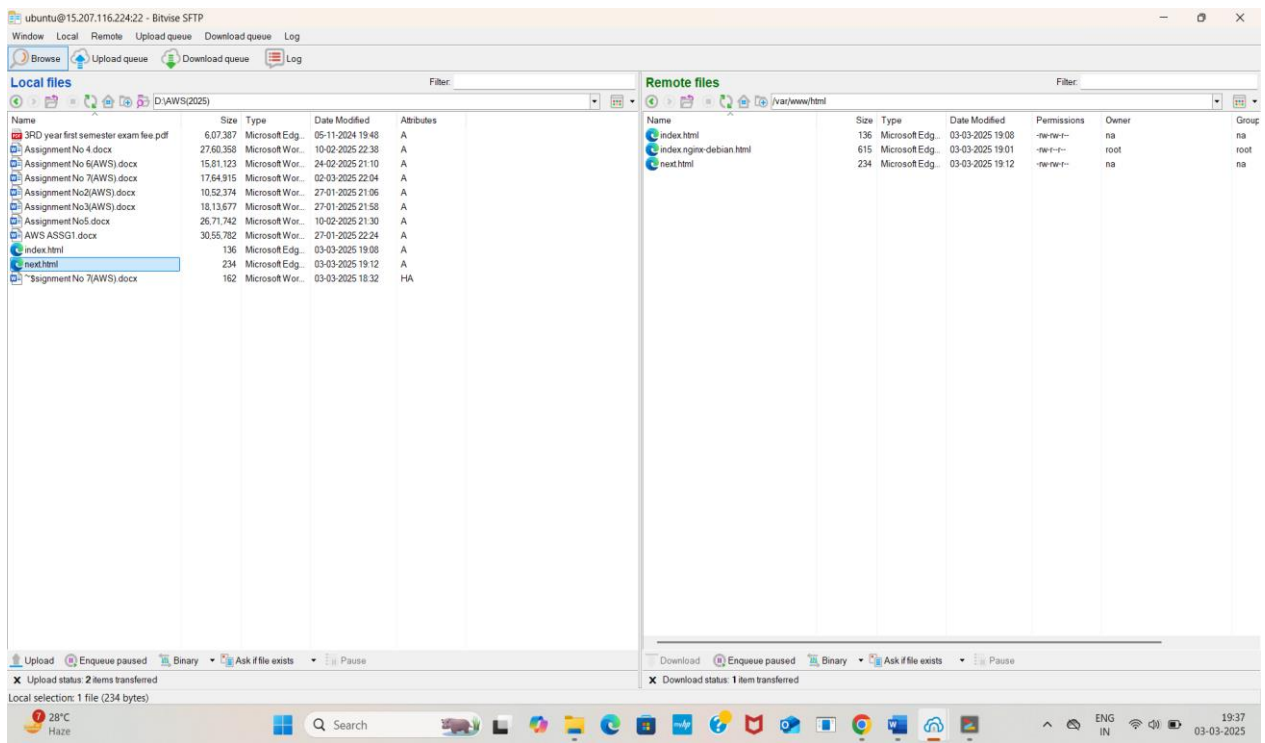
Service restarts being deferred:
/etc/needrestart/restart.d/dbus.service
systemctl restart getty@tty1.service
systemctl restart networkd-dispatcher.service
systemctl restart serial-getty@ttyS0.service
systemctl restart systemd-logind.service
systemctl restart unattended-upgrades.service

No containers need to be restarted.

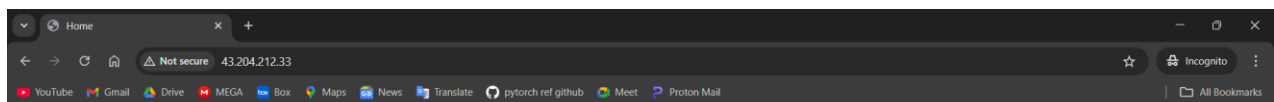
User sessions running outdated binaries:
ubuntu @ session #1: sshd[1035,1145]
ubuntu @ user manager service: systemd[1040]

No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-5-164:~$ sudo apt-get install ngi
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package ngi
ubuntu@ip-172-31-5-164:~$ cd ../../var/www
-bash: ../../var/www: Is a directory
ubuntu@ip-172-31-5-164:~$ sudo chmod 777 html
chmod: cannot access 'html': No such file or directory
ubuntu@ip-172-31-5-164:~$ sudo chmod 777 html
chmod: cannot access 'html': No such file or directory
ubuntu@ip-172-31-5-164:~$ cd ../../var/www
ubuntu@ip-172-31-5-164:/var/www$ sudo chmod 777 html
ubuntu@ip-172-31-5-164:/var/www$
```

Step-11: Then open the bitvise and open the New SFTP window and navigate to /var/www/html of the remote files section using the top bar then just drag and drop the html files from local files section to remote files section.



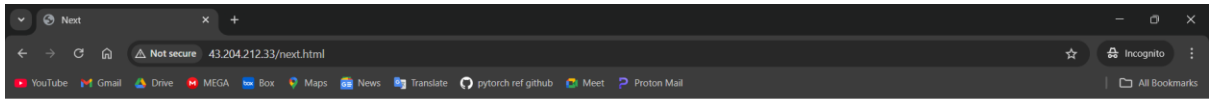
Step-12: Open the Public IPv4 of the instance in incognito mode.



This is the HomePage

Welcome Home

[Next Google](#)



This is Next

Welcome to Next

