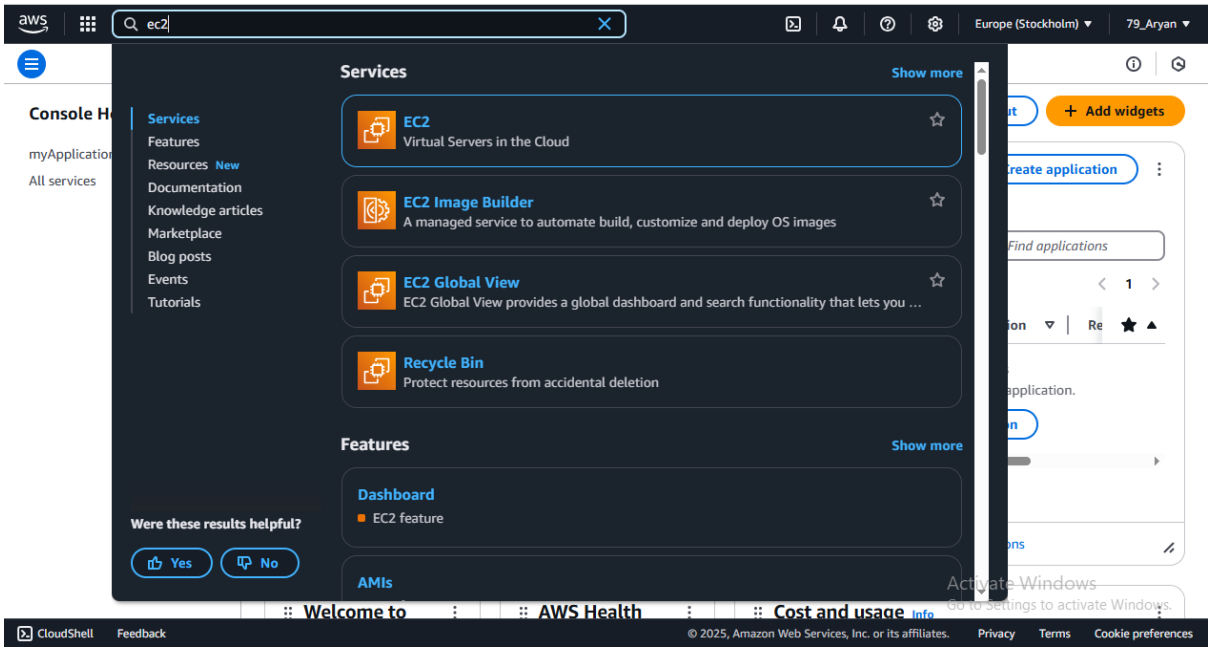
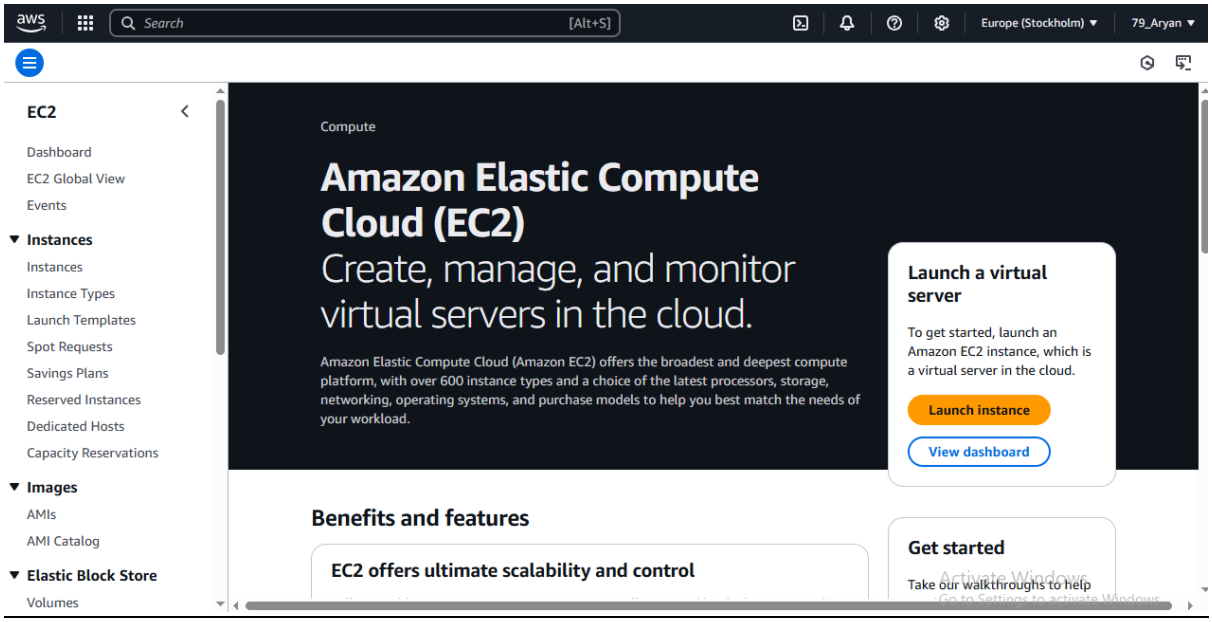
Assignment No:07

Title: Hosting a website on EC2.

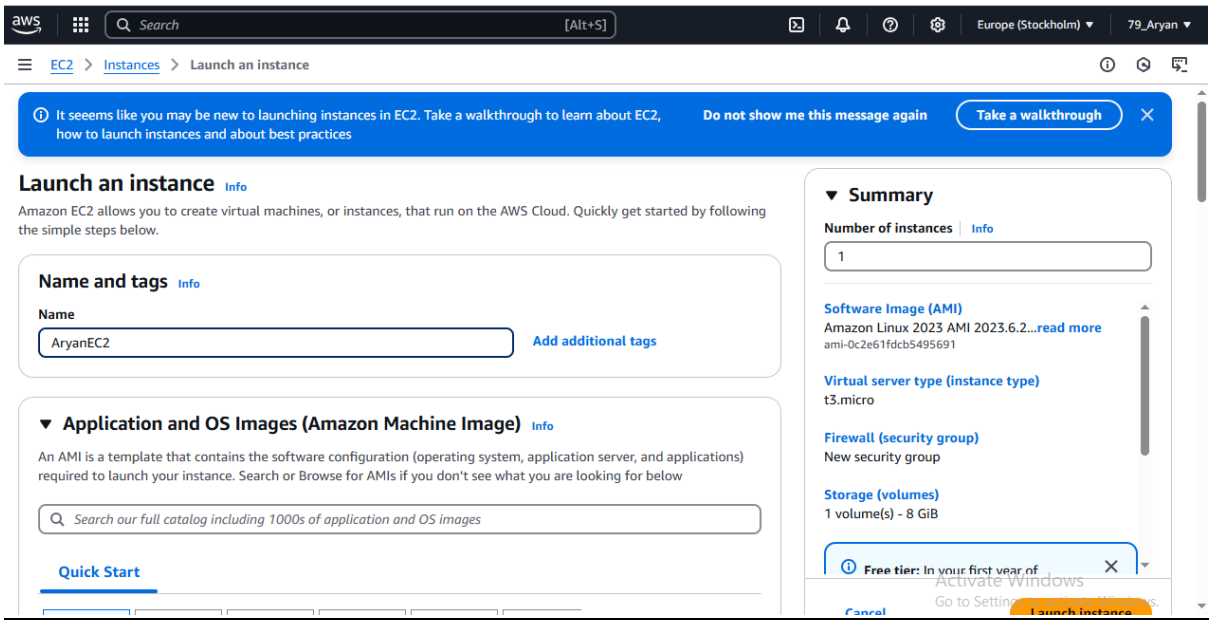
Step-1: Search EC2 in the AWS management console.

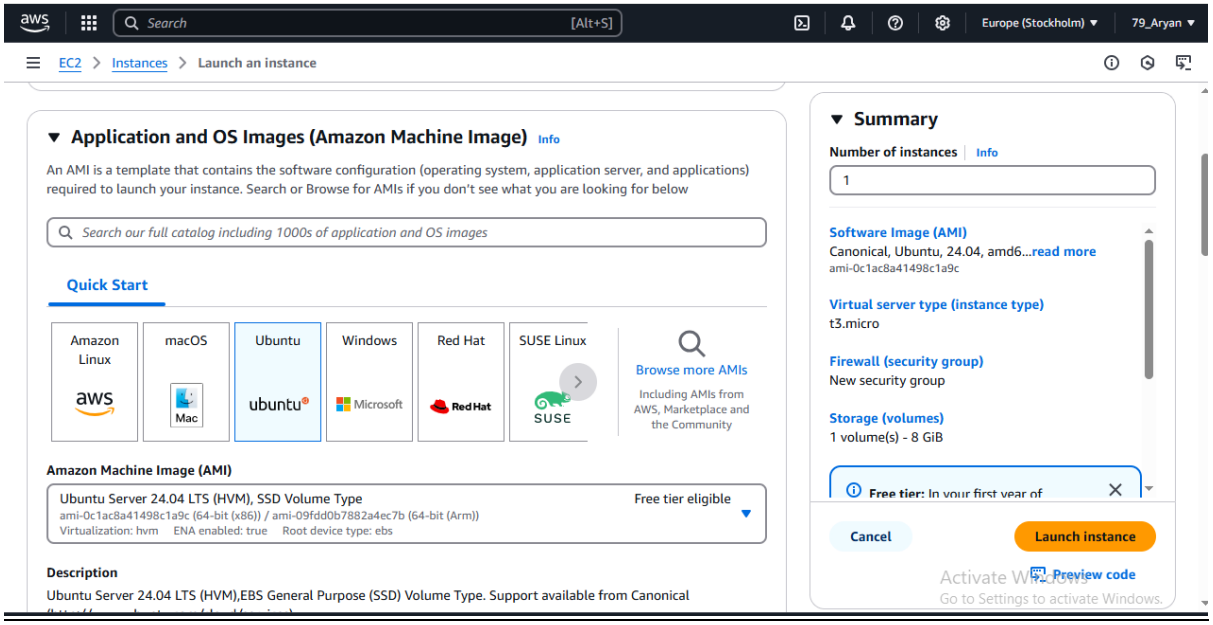


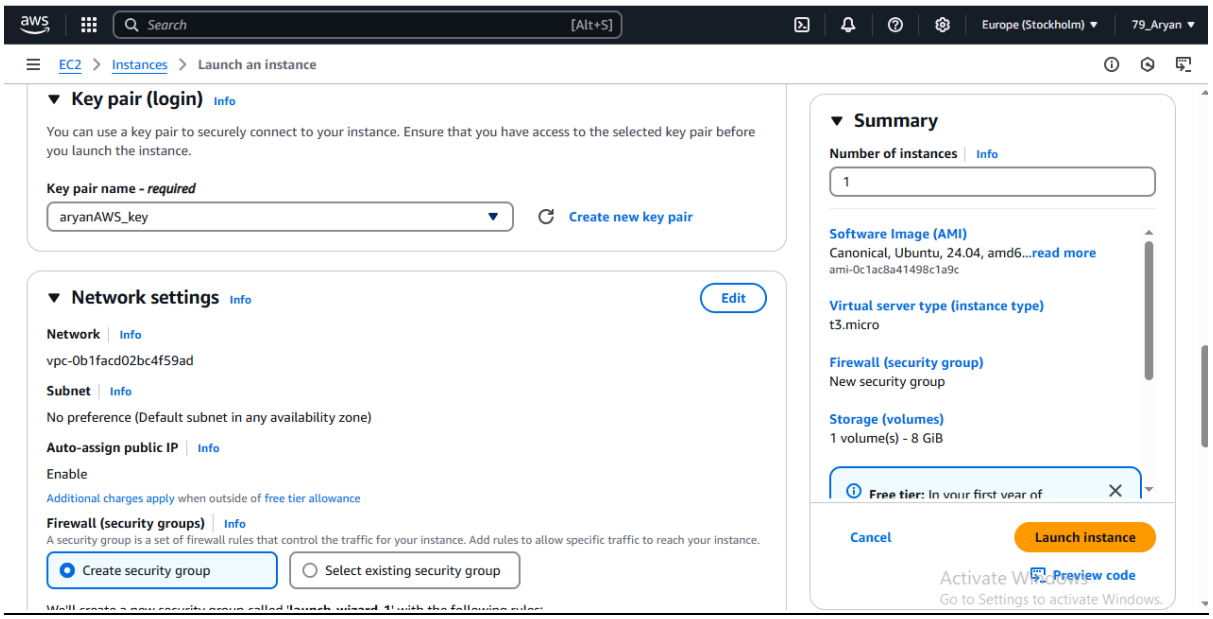
Step-2: Click on the EC2 and click on Launch Instance.

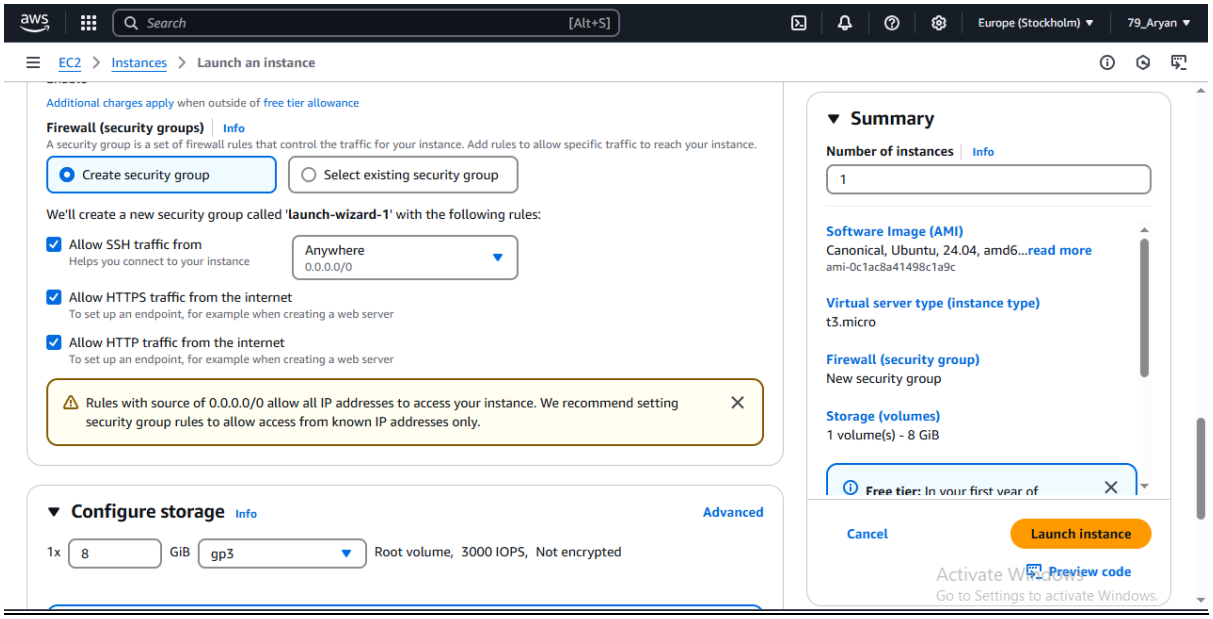


Step-3: Name the Instance then Select the OS for the instance.

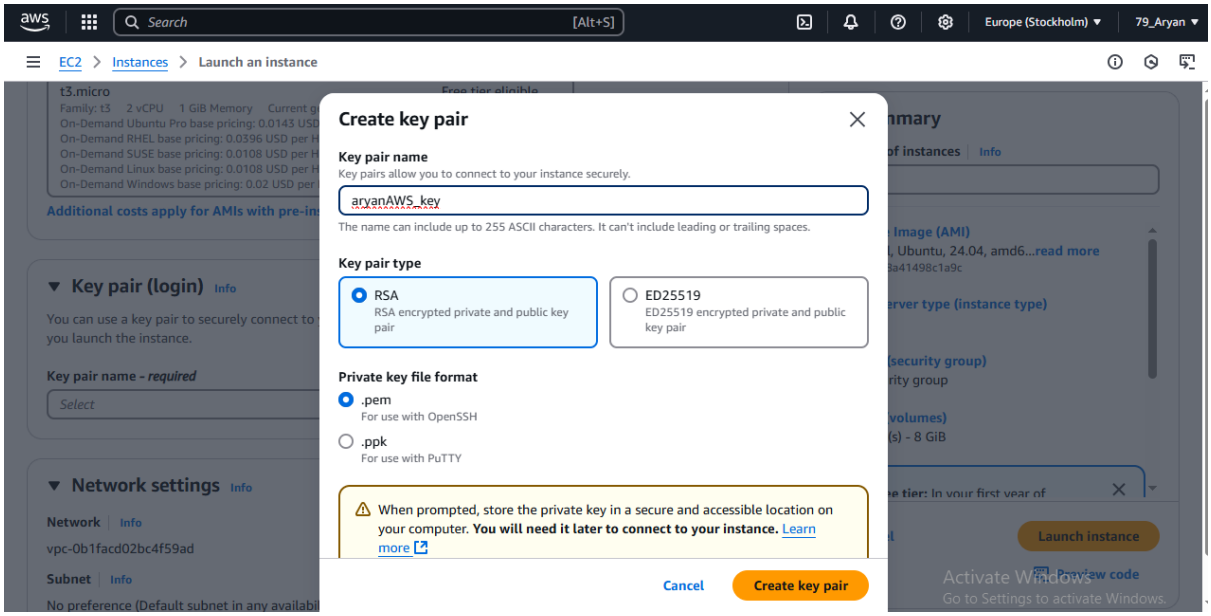





aws
Search
[Alt+S]
Europe (Stockholm)
79_Aryan
EC2 > Instances > Launch an instance
Key pair (login) Info
You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.
Key pair name - required
aryanAWS_key
Create new key pair
Network settings Info
Edit
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
Summary
Number of instances Info
1
Software Image (AMI)
Canonical, Ubuntu, 24.04, amd6...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
Preview code
Activate Windows
Go to Settings to activate Windows.

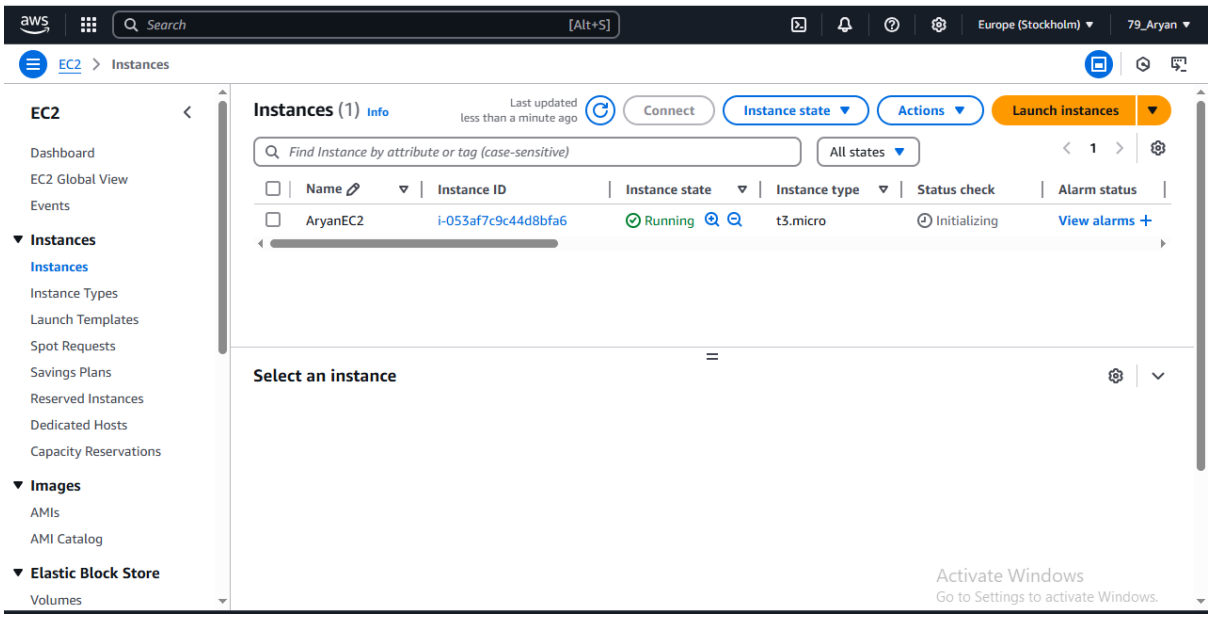

aws
Search
[Alt+S]
Europe (Stockholm)
79_Aryan
EC2 > Instances > Launch an instance
Additional charges apply when outside of free tier allowance
Firewall (security groups) Info
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic 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, amd6...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
Preview code
Activate Windows
Go to Settings to activate Windows.

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.

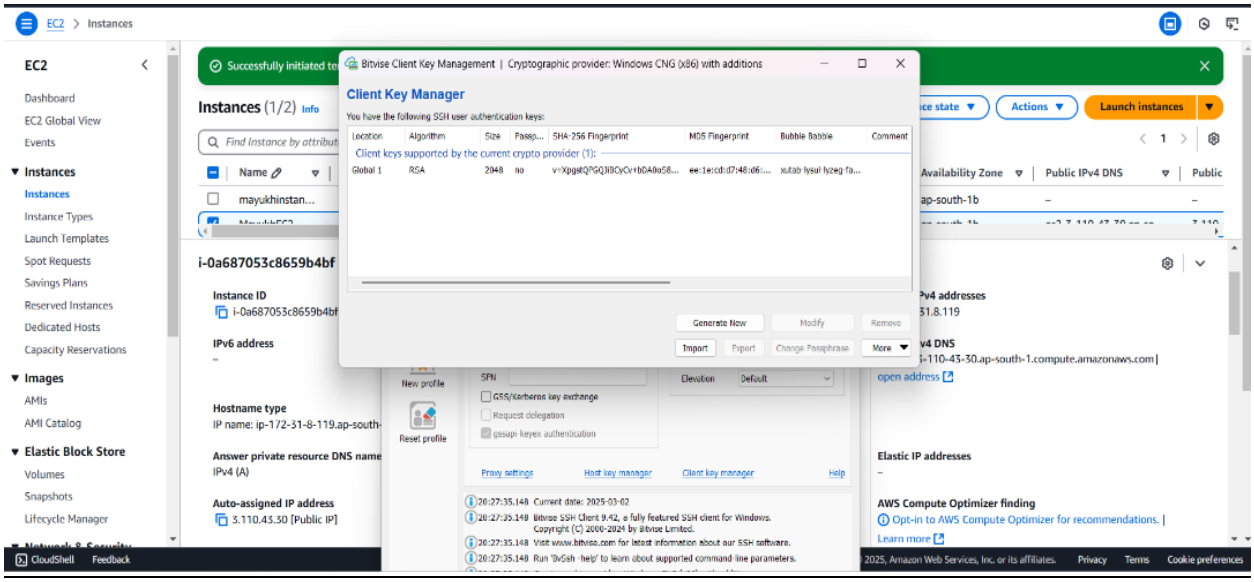


Step-5: After the Instance created goto Instances using the window in left side and click on the Instance id of the instance.

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.



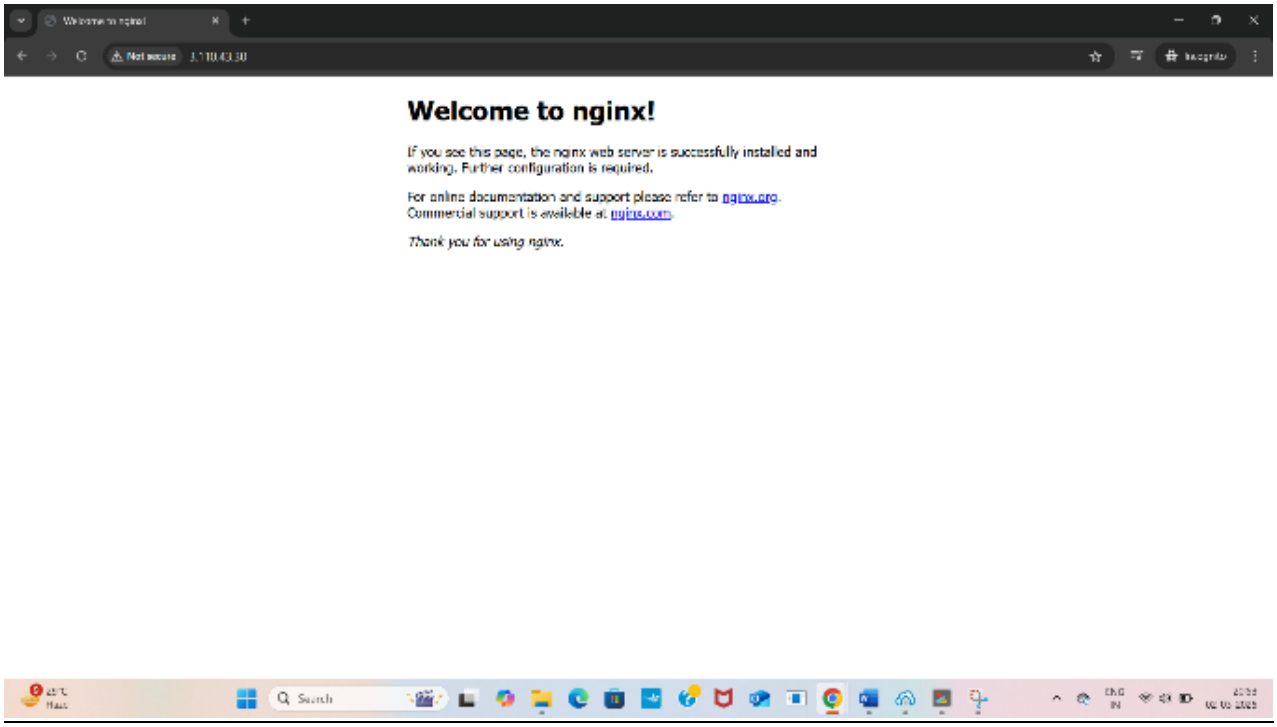
Step-8: Set up the Ubuntu server by updating and upgrading it using the commands sudo apt-get update and sudo apt-get upgrade

```
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]
```

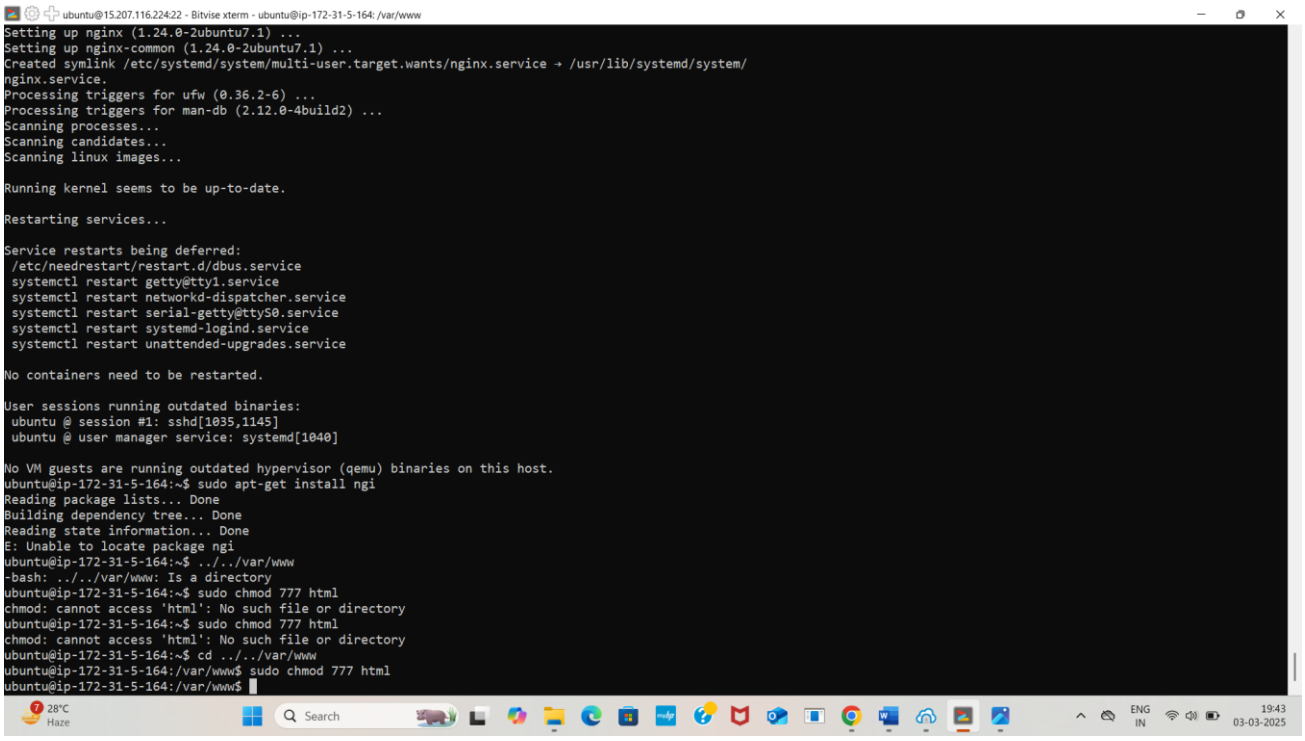
```
Get:34 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [216 B]
Get:35 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/restricted amd64 c-n-f Metadata [116 B]
Get:36 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu noble-backports/multiverse 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 bind9-dnsutils bind9-host bind9-libs bpftrace bsdextrautils bsdutils cloud-init cryptsetup cryptsetup-bin cryptsetup-initramfs dmeventd dmsetup
  dracut-install eject fdisk fwupd gir1.2-packagekitglib-1.0 initramfs-tools initramfs-tools-bin initramfs-tools-core intel-microcode kmod krb5-locales landscape-common
  libaio1t64 libattr1 libblkid1 libbsd0 libc-bin libc6 libcap2 libcap2-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
  libldap-common libldap2 liblvm2cmd2.03 libmd0 libmount1 libmpfr6 libnghttp2-14 libnl-3-200 libnl-genl-3-200 libnl-route-3-200 libnss-systemd libnvme1t64 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 libsqlite3-0 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.

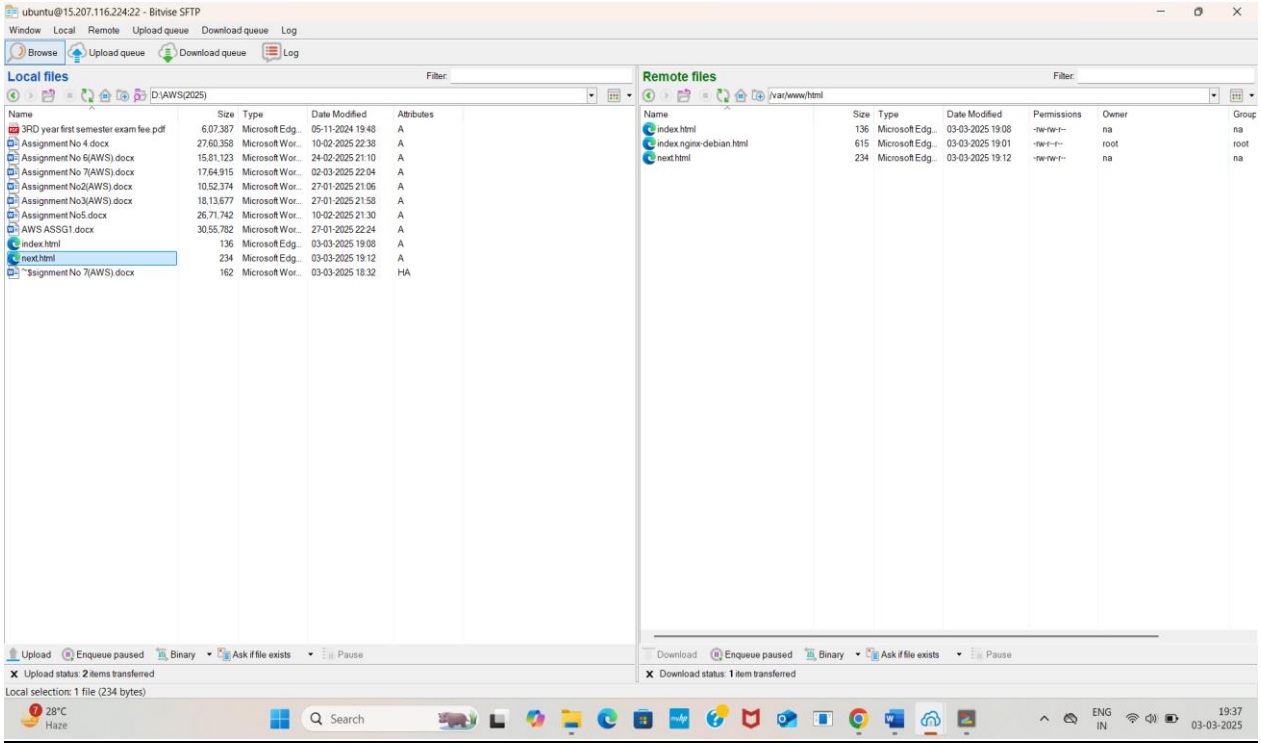
```
No VM guests are running outdated hypervisor (qemu) binaries on this host.
ubuntu@ip-172-31-8-119:~$ sudo apt install nginx
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  nginx-common
Suggested 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.
```



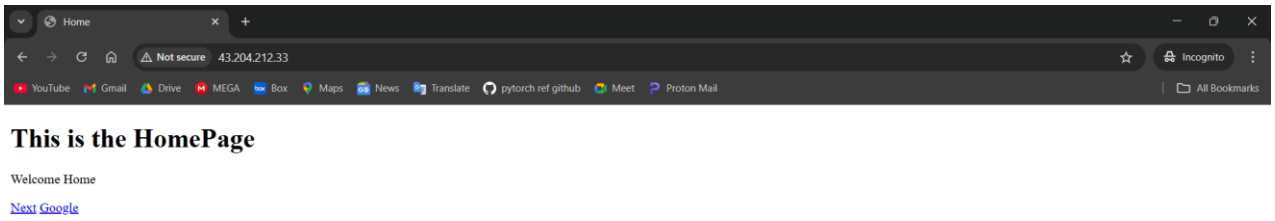
Step-10: Now open the terminal again and navigate to the location /var/www using command cd ../../var/www and then change the permission of the html directory using command sudo chmod 777 html to give it full permission.

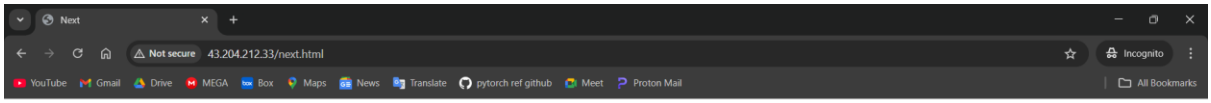


Step-11: Then open the bitvise and open the New SFTP window and navigate to /var/www/html of the remote files section using the top bar then just drag and drop the html files from local files section to remote files section.



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





This is Next

Welcome to Next