

ASSIGNMENT : 7

PROBLEM STATEMENT = Hosting a Website on EC2.

#To host the website:

STEP 1: Create 3- Static Webpages using HTML

```
D: > AWS > about.html > html > body > br
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Document1</title>
7 </head>
8 <body>
9   <h1>About page</h1>
10  <a href="index.html">index</a>
11  <br>
12  <a href="Next.html">Next</a>
13 </body>
14 </html>
```

ABOUT. HTML

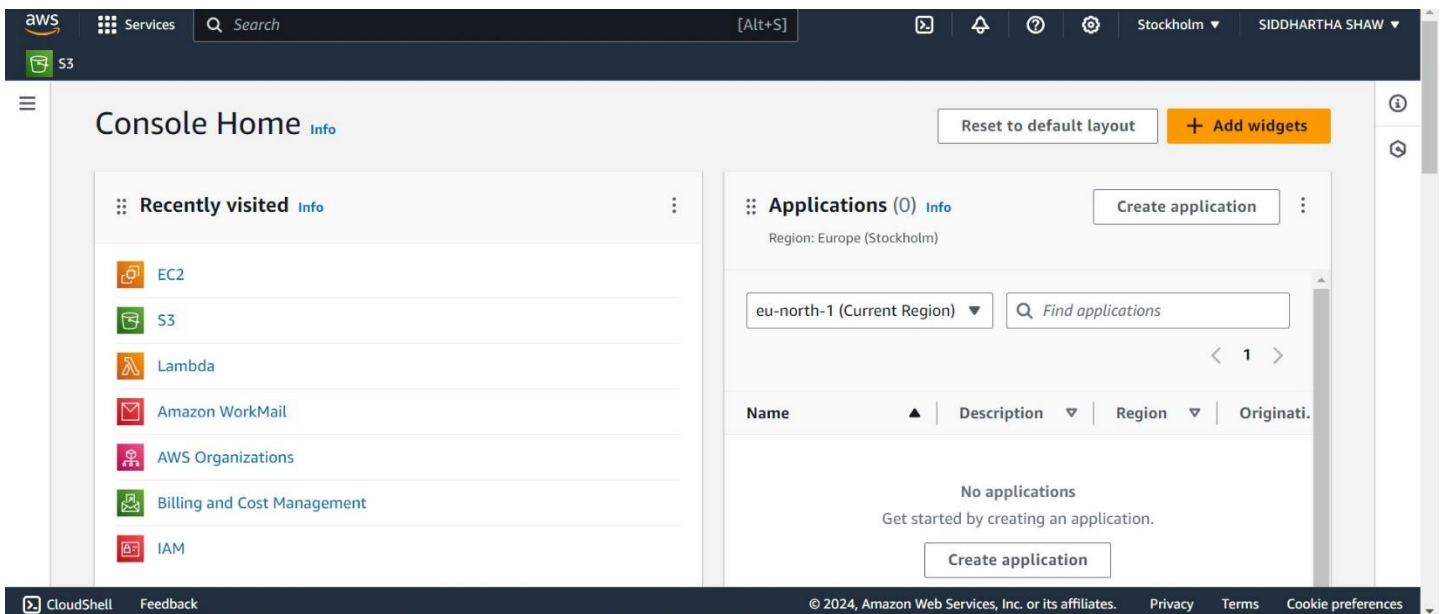
```
D: > AWS > index.html > html
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Document</title>
7 </head>
8 <body>
9   <h1>Index page</h1>
10  <a href="about.html">about</a>
11  <br>
12  <a href="Next.html">Next</a>
13 </body>
14 </html>
```

INDEX. HTML

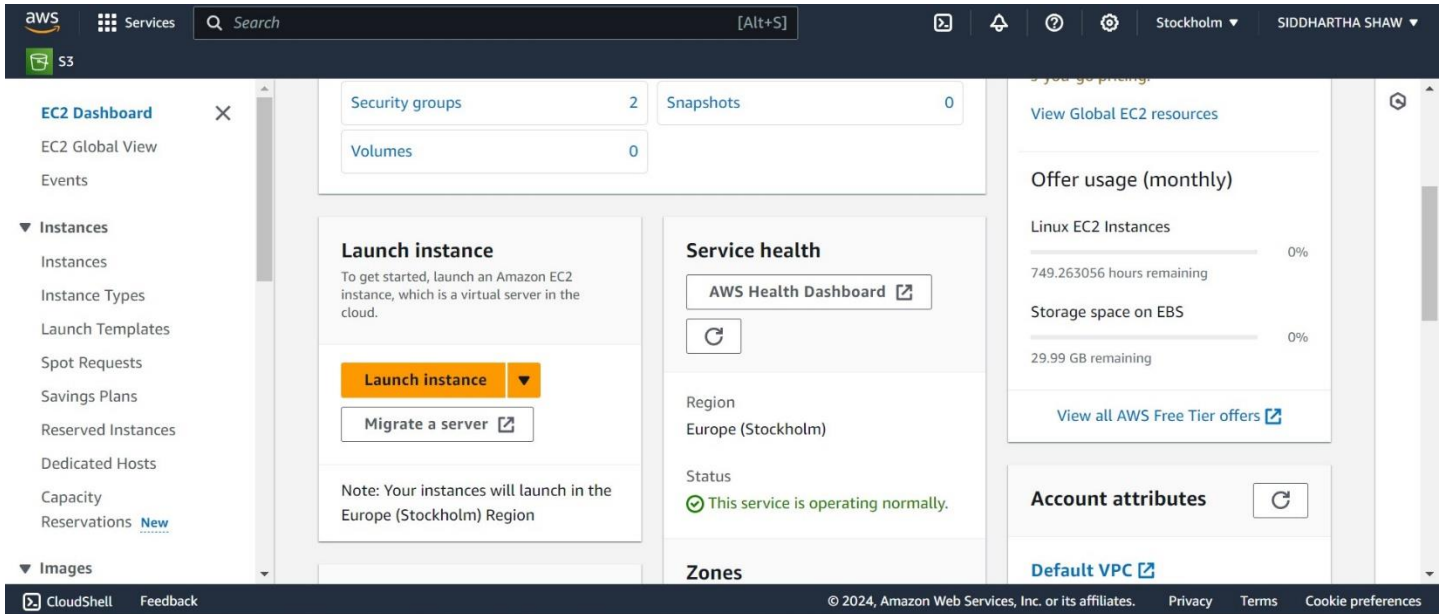
```
D: > AWS > Next.html > html > body > br
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Document2</title>
7 </head>
8 <body>
9   <h1>Next page</h1>
10  <a href="about.html">about</a>
11  <br>
12  <a href="index.html">index</a>
13 </body>
14 </html>
```

NEXT. HTML

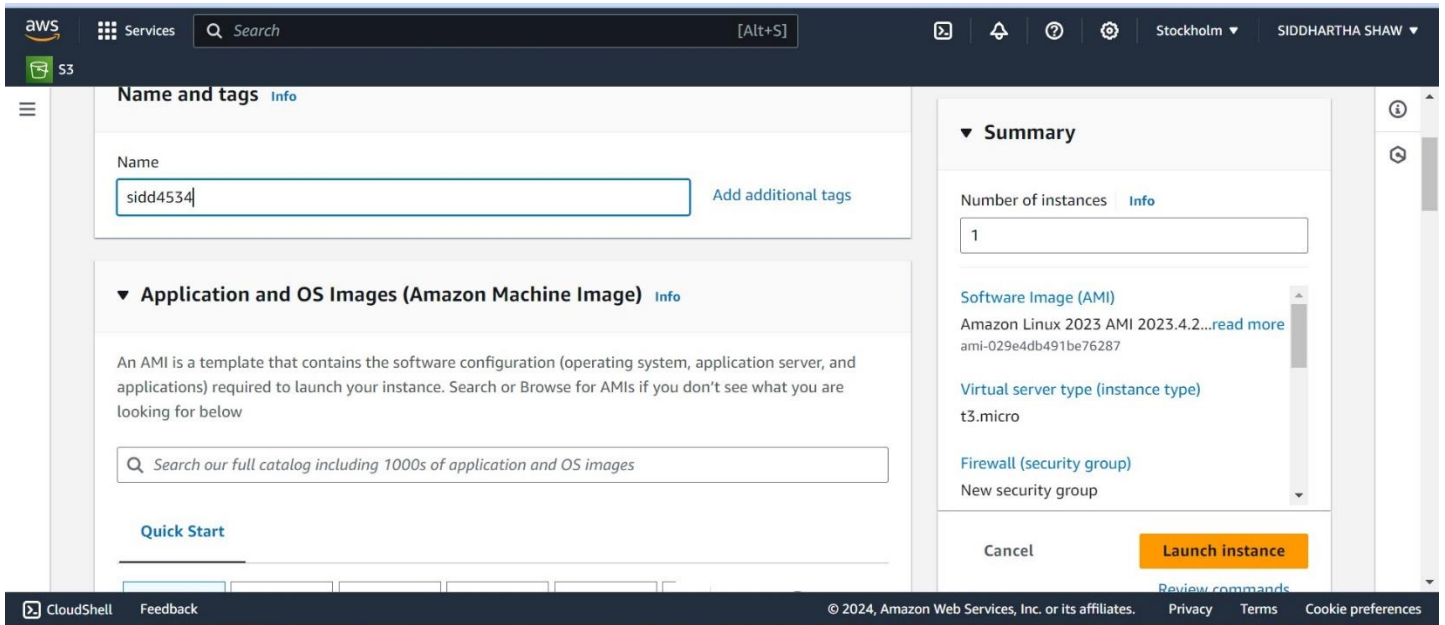
STEP 2– Search for the “EC2” and Click on the “EC2” option.



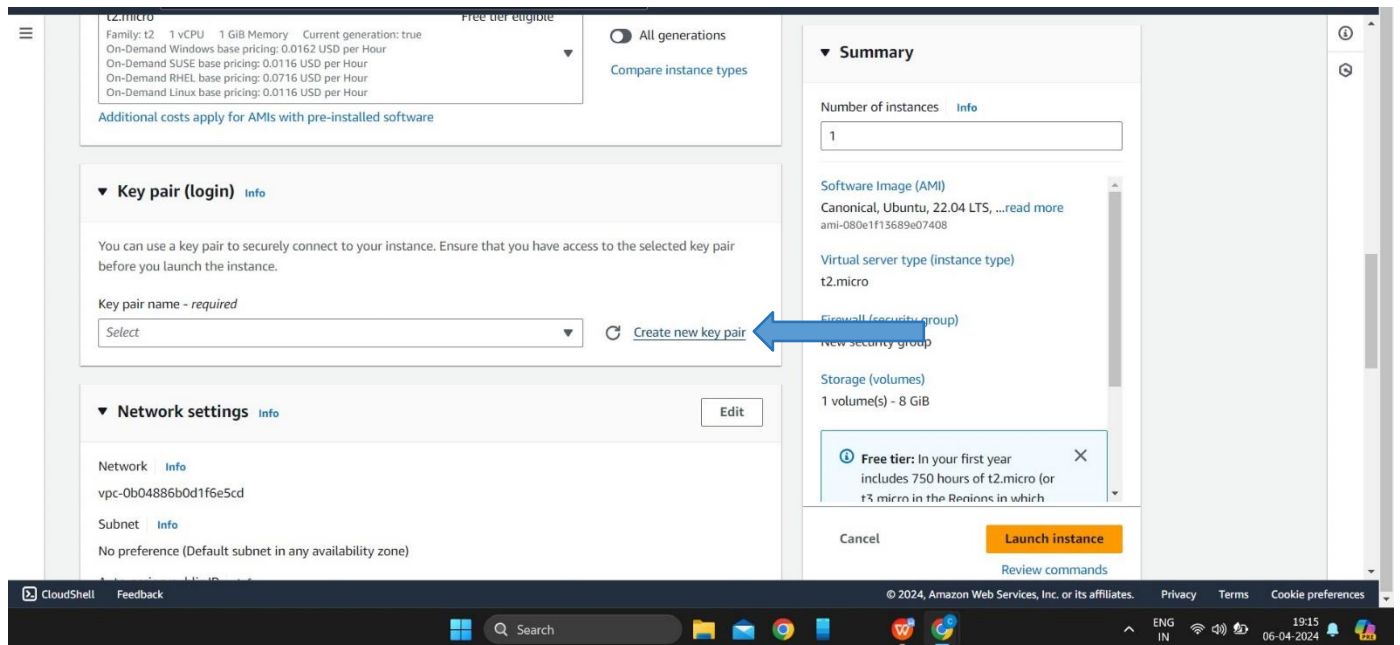
STEP 3: Click on “Launch Instance” button



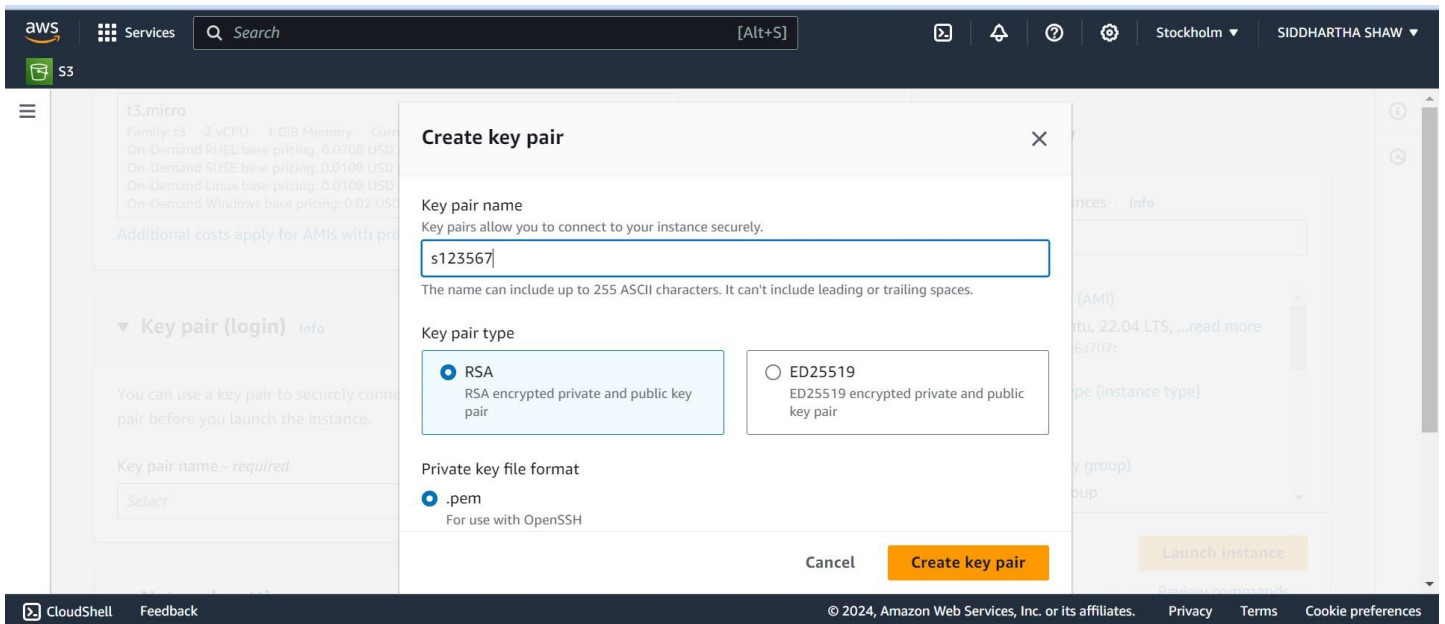
STEP 4: Give a unique name to the instance & select "Ubuntu"



STEP 5: Create a new key pair by clicking "Create New Key Pair" button



STEP 6: Give a name to the key pair, then click "Create Key Pair"



STEP 7: Select all the Security options, then click on "Launch Instance"

Create security group

Select existing security group

We'll create a new security group called 'launch-wizard-2' with the following rules:

- ☒ Allow SSH traffic from

Helps you connect to your instance

Anywhere0.0.0.0/0
- ☒ 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

Advanced

Summary

Number of instances

1

Software Image (AMI)

Canonical, Ubuntu, 22.04 LTS, ...read more

ami-0914547665e6a707c

Virtual server type (instance type)

t3.micro

Firewall (security group)

New security group

Cancel

Launch instance

Review commands

STEP 8: Click on the instance ID to access it

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EC2 > Instances > Launch an instance

Success
Successfully initiated launch of instance (i-0dec519f3a1be3d2e)

Launch log

Next Steps

What would you like to do next with this instance, for example "create alarm" or "create backup"

Create billing and free tier usage alerts

Connect to your instance
Once your instance is running, log into it from your local computer.

Connect an RDS database
Configure the connection between your EC2 instance and your RDS database.

Create EBS snapshot policy
Create an EBS snapshot of the instance's root volume.

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Instances (1) Info

Find Instance by attribute or tag (case-sensitive)

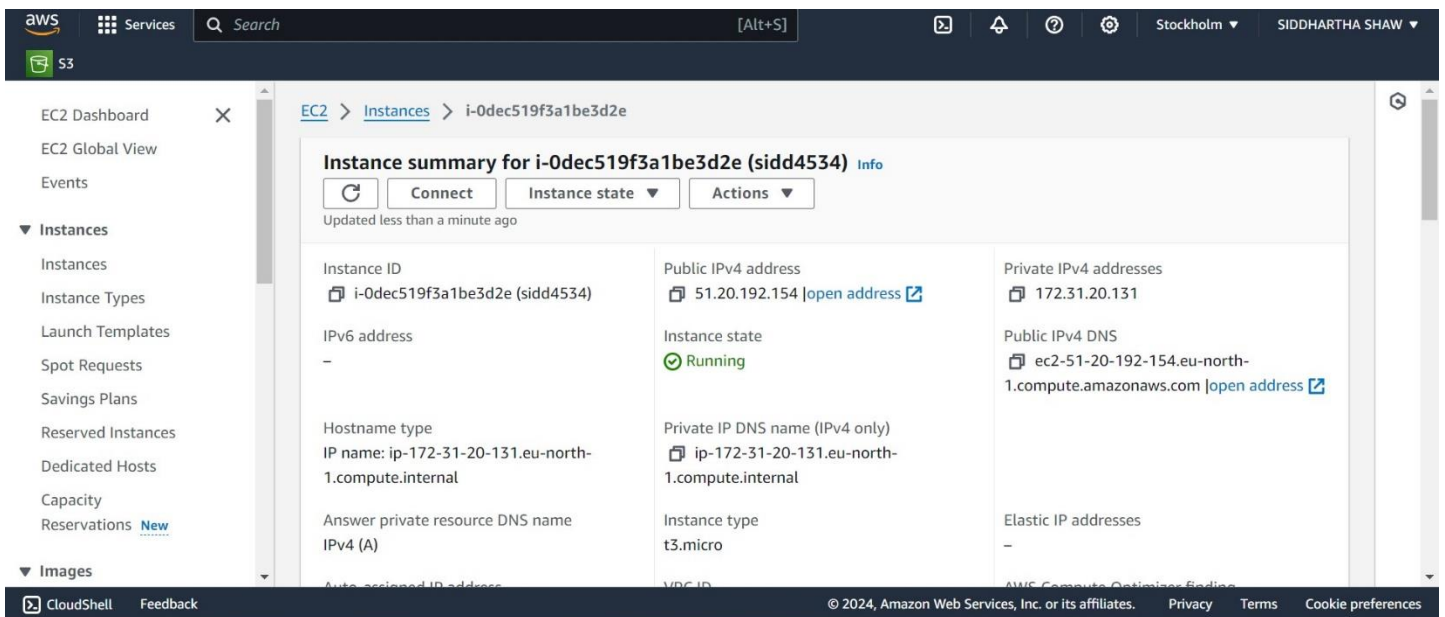
Instance ID = i-0dec519f3a1be3d2e Clear filters

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status
<input type="checkbox"/>	sidd4534	i-0dec519f3a1be3d2e	Running	t3.micro	Initializing	View alarms

Select an instance

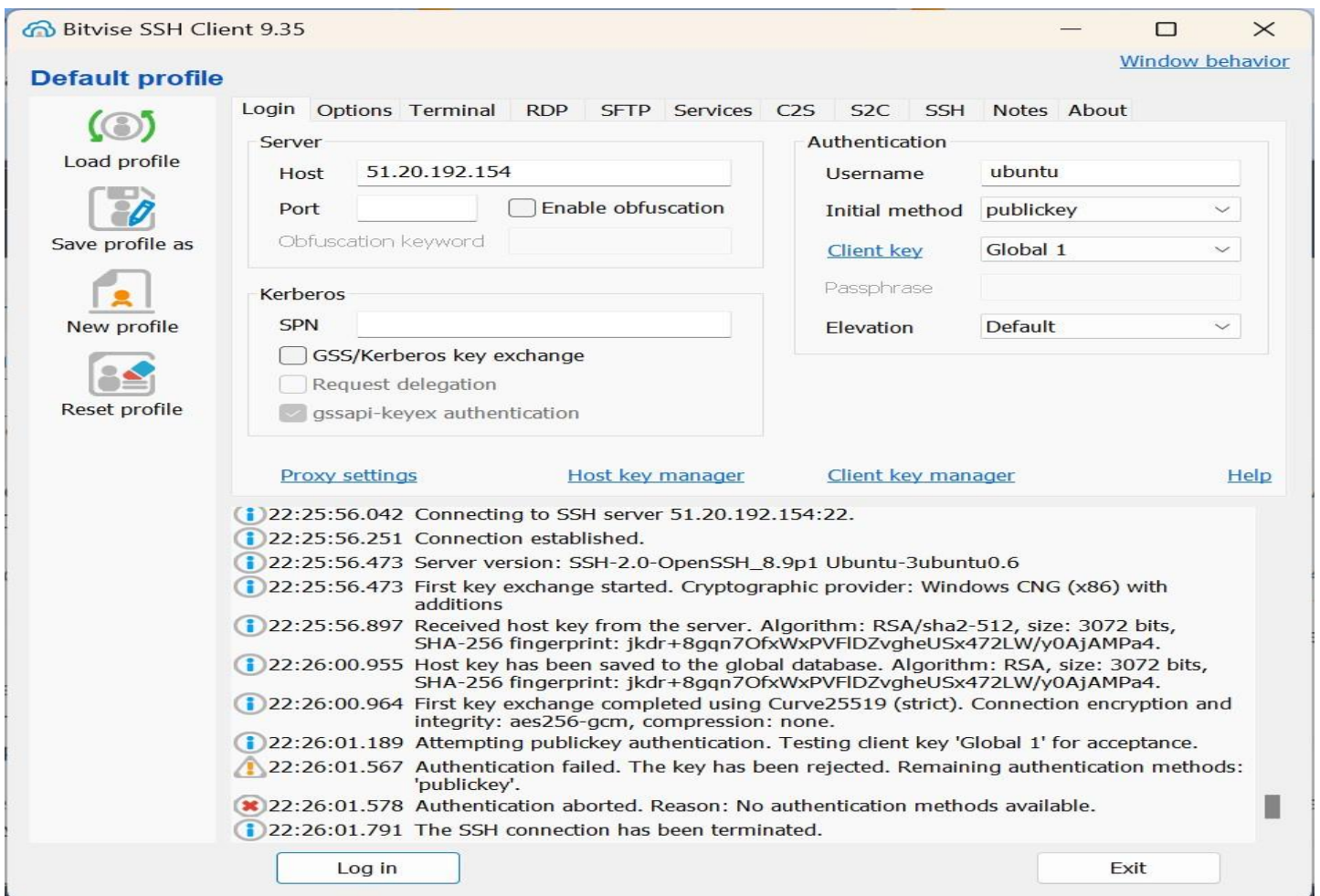
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STEP 9: Copy the "Public IPv4 Address" of the instance



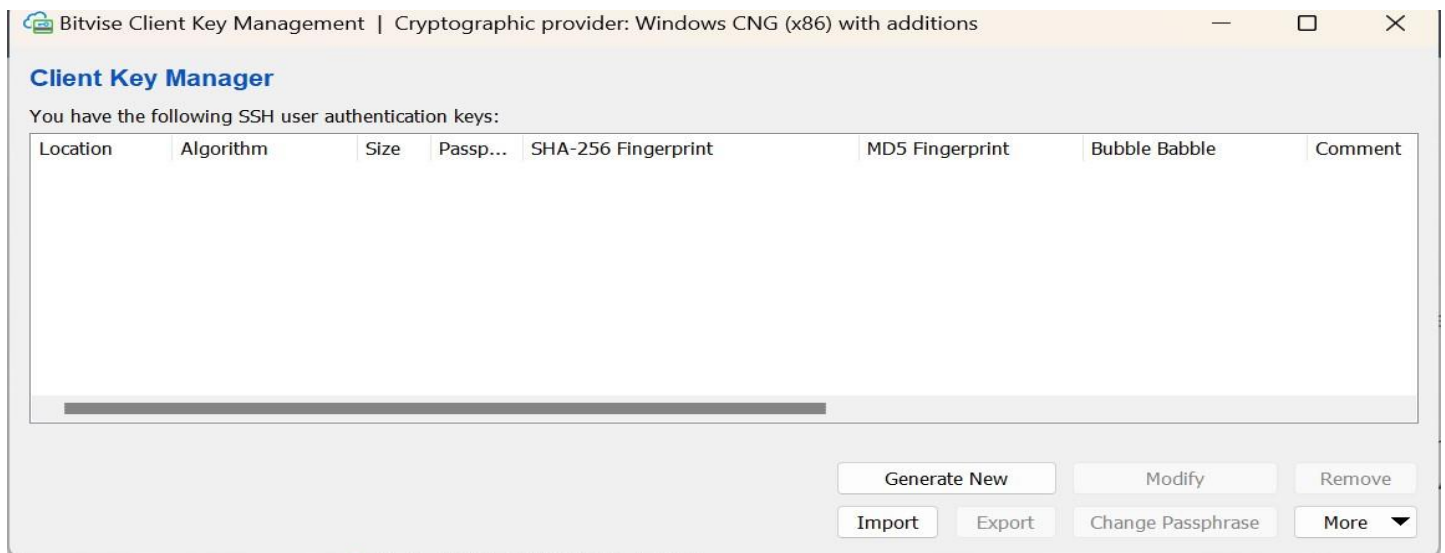
The screenshot shows the AWS Management Console interface. The left sidebar contains navigation options like EC2 Dashboard, EC2 Global View, Events, and a list of Instance types. The main content area displays the 'Instance summary for i-0dec519f3a1be3d2e (sidd4534)'. The instance is in a 'Running' state. The 'Public IPv4 address' is listed as 51.20.192.154, with a link to 'open address'. Other details include the Instance ID, IPv6 address, Hostname type, Private IP DNS name, and Instance type (t3.micro).

STEP 10: Paste IP address under Host, then go to "Client Key Manager" option

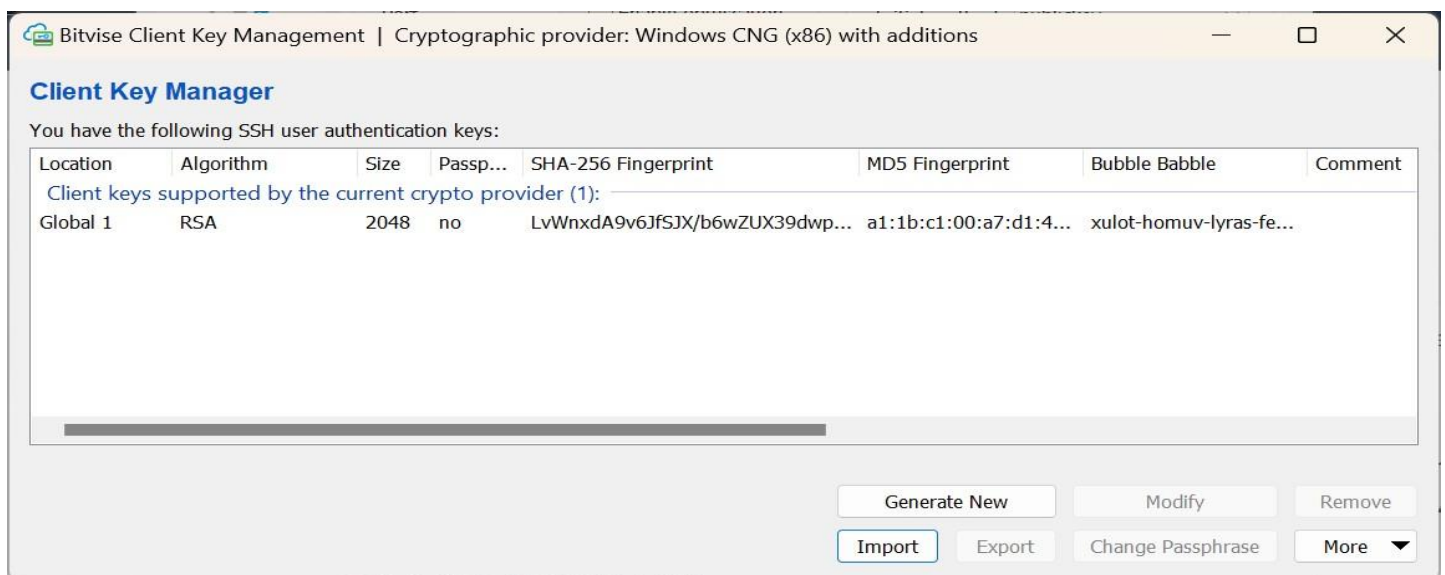


The screenshot shows the Bitvise SSH Client 9.35 interface. The 'Default profile' is selected. The 'Host' field is set to 51.20.192.154. The 'Authentication' tab is active, showing 'Username: ubuntu', 'Initial method: publickey', and 'Client key: Global 1'. The 'Log in' button is visible at the bottom. The log window at the bottom shows the connection process, including the establishment of the SSH connection and the attempt to use the 'Global 1' client key for authentication.

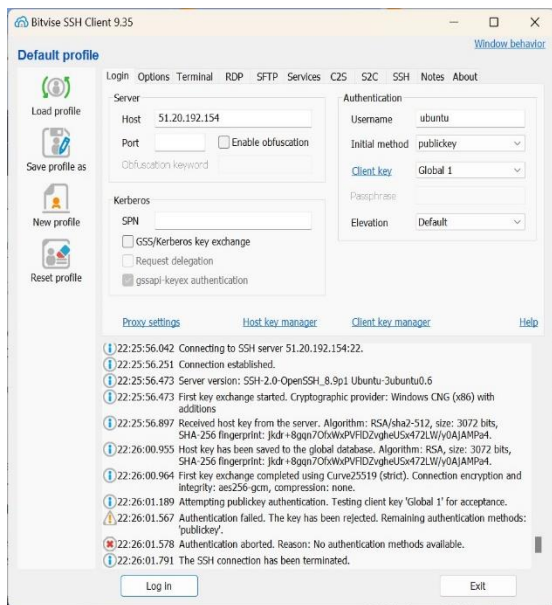
STEP 11→ Click on "Import" button & select the key, then click "Import"



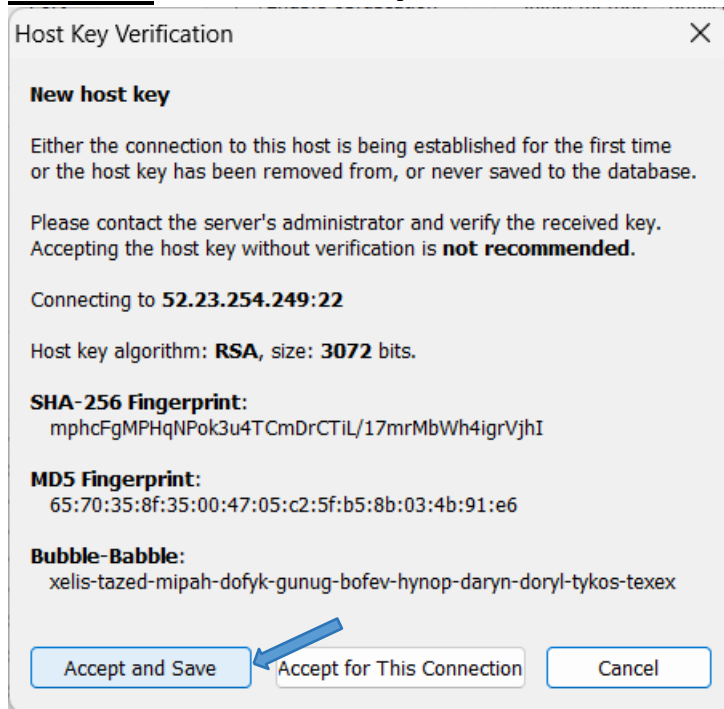
STEP 12→ The new key is successfully added, click "Import"



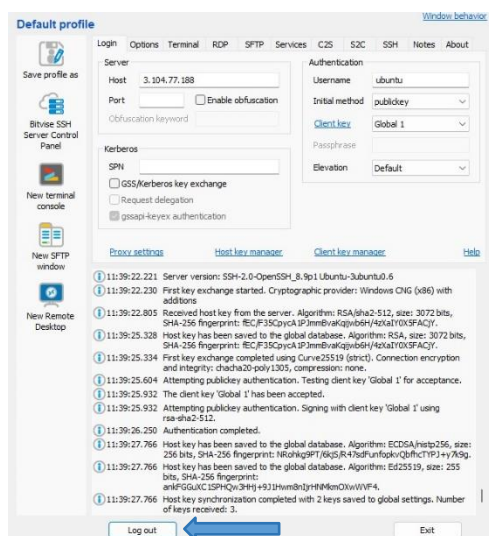
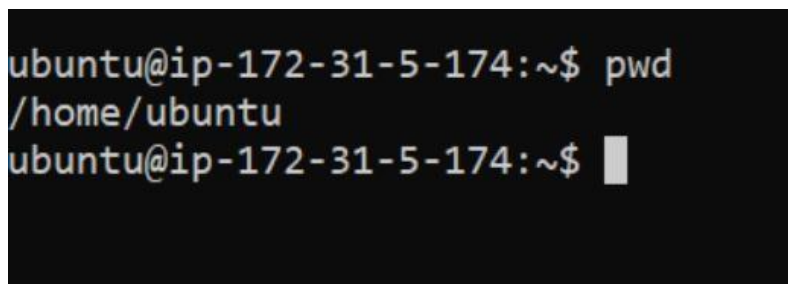
STEP 13→ Give the username as "ubuntu," select "Public Key" & "Global 1", then click in the "Log in" button



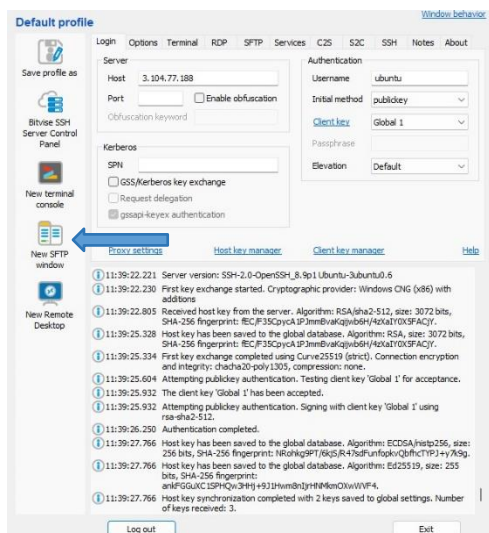
STEP 14→ Click on "Accept & Save" button: Accept and save the connection



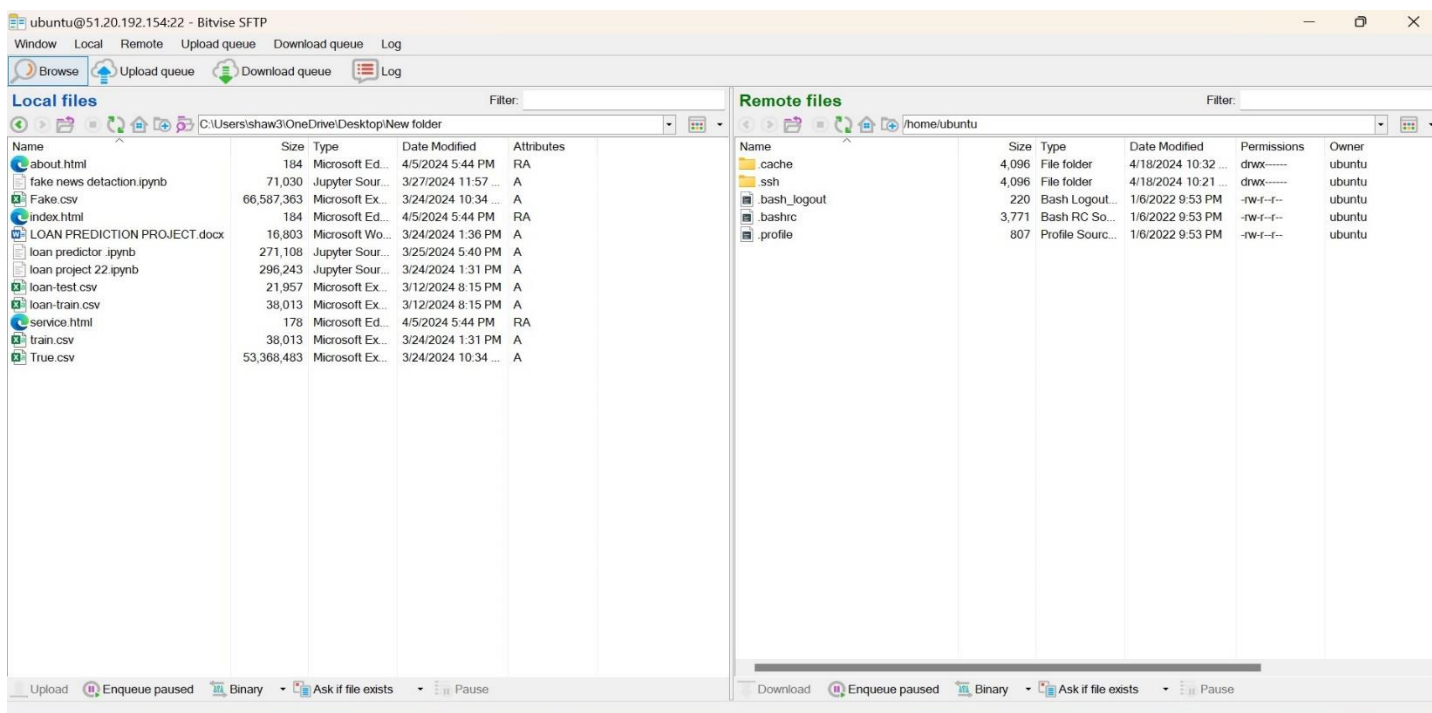
STEP 15→ Now the client is connected: Verify that the client has successfully established a connection to the EC2 instance.



STEP 16: Click on "New SFTP Window" button: Open a new SFTP (Secure File Transfer Protocol) window.



STEP 17: Under Local Files, open the folder where the HTML files are present



STEP 18: Go to the terminal and type the following commands. “ `sudo apt-get update` ”, “ `sudo apt-get upgrade` ”, “ `sudo apt-get install nginx` ”.

sudo apt-get update: Updates the local package index to reflect the latest changes in repositories.

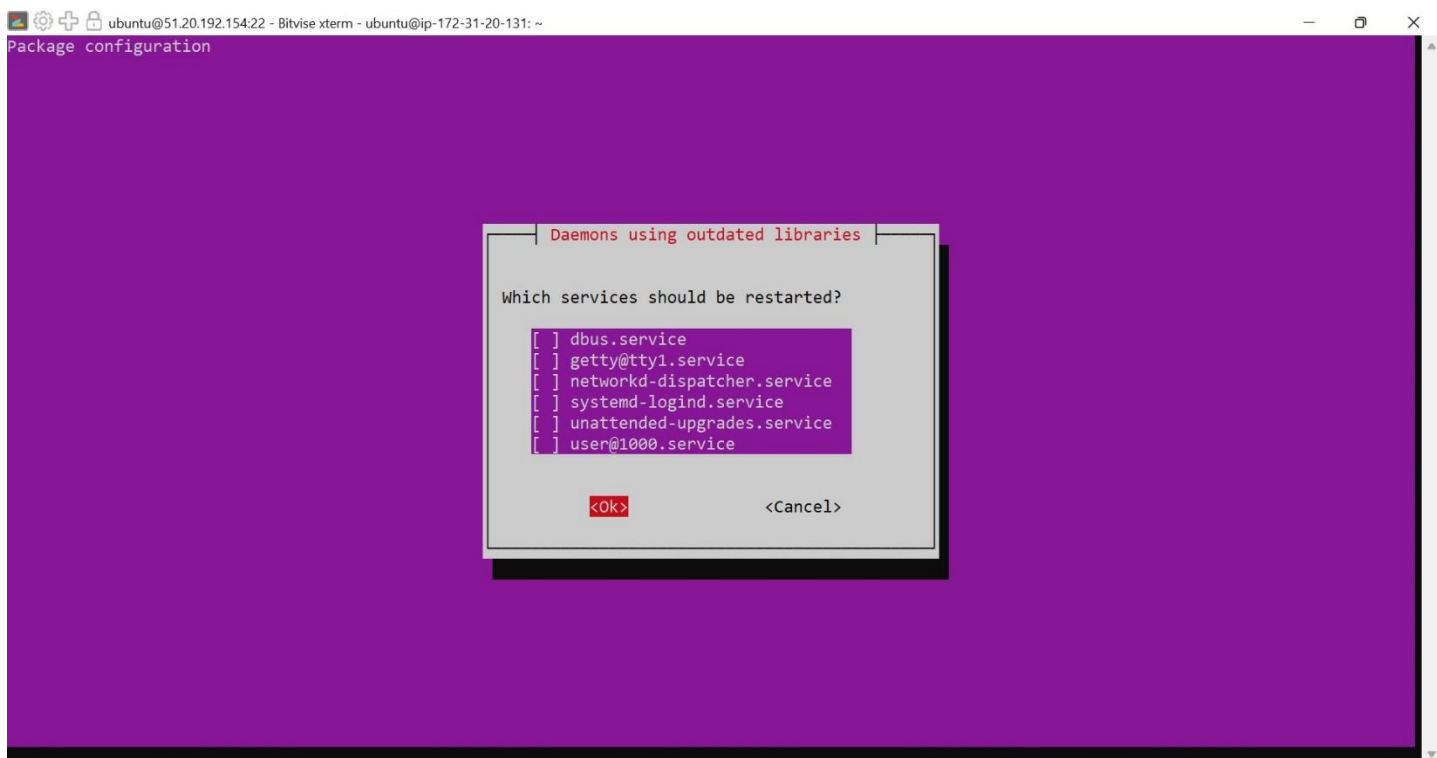
sudo apt-get upgrade: Upgrades installed packages to their latest available versions.

sudo apt-get install nginx: Installs the Nginx web server on the system.

```
ubuntu@ip-172-31-3-213:~$ sudo apt-get update
```

```
Hit:1 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:3 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [109 kB]
Get:4 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
Get:5 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:6 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]
Get:7 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 c-n-f Metadata [286 kB]
Get:8 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [217 kB]
Get:9 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy/multiverse Translation-en [112 kB]
Get:10 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 c-n-f Metadata [8372 B]
Get:11 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [1519 kB]
Get:12 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [293 kB]
Get:13 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [1644 kB]
Get:14 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [274 kB]
Get:15 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1060 kB]
Get:16 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [241 kB]
Get:17 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [22.1 kB]
Get:18 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [49.6 kB]
Get:19 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [12.0 kB]
```

```
ubuntu@51.20.192.154:22 - Bitvise xterm - ubuntu@ip-172-31-20-131: ~
Setting up snapd (2.61.3+22.04) ...
Installing new version of config file /etc/apparmor.d/usr.lib.snapd.snap-confine.real ...
snapd.failure.service is a disabled or a static unit not running, not starting it.
snapd.snap-repair.service is a disabled or a static unit not running, not starting it.
Failed to restart snapd.mounts-pre.target: Operation refused, unit snapd.mounts-pre.target may be requested by dependency only (it is configured to refuse manual start/stop).
See system logs and 'systemctl status snapd.mounts-pre.target' for details.
Could not execute systemctl: at /usr/bin/deb-systemd-invoke line 142.
Setting up apt-utils (2.4.12) ...
Setting up bsdxattrutils (2.37.2-4ubuntu3.4) ...
Setting up update-notifier-common (3.192.54.8) ...
update-notifier-download.service is a disabled or a static unit not running, not starting it.
update-notifier-motd.service is a disabled or a static unit not running, not starting it.
Setting up locales (2.35-0ubuntu3.7) ...
Generating locales (this might take a while)...
  en_US.UTF-8... done
Generation complete.
Setting up libldap-common (2.5.17+dfsg-0ubuntu0.22.04.1) ...
Setting up libpgpme11:amd64 (1.16.0-1.2ubuntu4.2) ...
Setting up libldap-2.5-0:amd64 (2.5.17+dfsg-0ubuntu0.22.04.1) ...
Setting up xxd (2:8.2.3995-1ubuntu2.16) ...
Setting up eject (2.37.2-4ubuntu3.4) ...
Setting up libklibc:amd64 (2.0.10-4ubuntu0.1) ...
Setting up vim-common (2:8.2.3995-1ubuntu2.16) ...
Setting up libnspr4:amd64 (2:4.35-0ubuntu0.22.04.1) ...
Setting up python3-cryptography (3.4.8-1ubuntu2.2) ...
Setting up libfdisk1:amd64 (2.37.2-4ubuntu3.4) ...
Setting up mount (2.37.2-4ubuntu3.4) ...
Setting up uuid-runtime (2.37.2-4ubuntu3.4) ...
uuidd.service is a disabled or a static unit not running, not starting it.
Setting up libcurl4:amd64 (7.81.0-1ubuntu1.16) ...
Setting up curl (7.81.0-1ubuntu1.16) ...
Setting up vim-runtime (2:8.2.3995-1ubuntu2.16) ...
```



STEP 19: Type the command “`sudo chmod 777 html`” and press “Enter”. The command “`sudo chmod 777 html`” is used to change the permissions of the directory named “html” to allow full read, write, and execute permissions for all users.

```
ubuntu@51.20.192.154:22 - Bitvise xterm - ubuntu@ip-172-31-20-131: /var/www/html

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 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-172-31-20-131:~$ nginx-v
nginx-v: command not found
ubuntu@ip-172-31-20-131:~$ nginx -v
nginx version: nginx/1.18.0 (Ubuntu)
ubuntu@ip-172-31-20-131:~$ pwd
/home/ubuntu
ubuntu@ip-172-31-20-131:~$ cd/
-bash: cd/: No such file or directory
ubuntu@ip-172-31-20-131:~$ cd /
ubuntu@ip-172-31-20-131:/$ pwd
/
ubuntu@ip-172-31-20-131:/$ cd var
ubuntu@ip-172-31-20-131:/var$ cd www
ubuntu@ip-172-31-20-131:/var/www$ cd html
ubuntu@ip-172-31-20-131:/var/www/html$ ls
index.nginx-debian.html
ubuntu@ip-172-31-20-131:/var/www/html$
```

```
ubuntu@51.20.192.154:22 - Bitvise xterm - ubuntu@ip-172-31-20-131: /var/www

systemctl restart getty@tty1.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-172-31-20-131:~$ nginx-v
nginx-v: command not found
ubuntu@ip-172-31-20-131:~$ nginx -v
nginx version: nginx/1.18.0 (Ubuntu)
ubuntu@ip-172-31-20-131:~$ pwd
/home/ubuntu
ubuntu@ip-172-31-20-131:~$ cd/
-bash: cd/: No such file or directory
ubuntu@ip-172-31-20-131:~$ cd /
ubuntu@ip-172-31-20-131:/$ pwd
/
ubuntu@ip-172-31-20-131:/$ cd var
ubuntu@ip-172-31-20-131:/var$ cd www
ubuntu@ip-172-31-20-131:/var/www$ cd html
ubuntu@ip-172-31-20-131:/var/www/html$ ls
index.nginx-debian.html
ubuntu@ip-172-31-20-131:/var/www/html$ cd ..
ubuntu@ip-172-31-20-131:/var/www$ cd www
-bash: cd: www: No such file or directory
ubuntu@ip-172-31-20-131:/var/www$ sudo chmod 777 html
ubuntu@ip-172-31-20-131:/var/www$ ls
html
ubuntu@ip-172-31-20-131:/var/www$
```

STEP 20: Now going back to the "SFTP Window," under the "Remote Files," open the HTML directory and drag & drop the HTML files

ubuntu@51.20.192.154:22 - Bitvise SFTP

WindowLocalRemoteUpload queueDownload queueLog

BrowseUpload queueDownload queueLog

Local files

Filter:

C:\Users\shaw3\OneDrive\Desktop\New folder

Name	Size	Type	Date Modified	Attributes
about.html	184	Microsoft Ed...	4/5/2024 5:44 PM	RA
fake news detaction.ipynb	71,030	Jupyter Sour...	3/27/2024 11:57 ...	A
Fake.csv	66,587,363	Microsoft Ex...	3/24/2024 10:34 ...	A
index.html	184	Microsoft Ed...	4/5/2024 5:44 PM	RA
LOAN PREDICTION PROJECT.docx	16,803	Microsoft Wo...	3/24/2024 1:36 PM	A
loan predictor .ipynb	271,108	Jupyter Sour...	3/25/2024 5:40 PM	A
loan project 22.ipynb	296,243	Jupyter Sour...	3/24/2024 1:31 PM	A
loan-test.csv	21,957	Microsoft Ex...	3/12/2024 8:15 PM	A
loan-train.csv	38,013	Microsoft Ex...	3/12/2024 8:15 PM	A
service.html	178	Microsoft Ed...	4/5/2024 5:44 PM	RA
train.csv	38,013	Microsoft Ex...	3/24/2024 1:31 PM	A
True.csv	53,368,483	Microsoft EX...	3/24/2024 10:34 ...	A

Upload

Enqueue paused

Binary

Ask if file exists

Pause

Upload status: 1 item transferred

Local selection: 1 file (184 bytes)

Remote files

Filter:

/home/ubuntu

Name	Size	Type	Date Modified	Permissions	Owner
cache	4,096	File folder	4/18/2024 10:32 ...	drwx-----	ubuntu
ssh	4,096	File folder	4/18/2024 10:21 ...	drwx-----	ubuntu
bash_logout	220	Bash Logout...	1/6/2022 9:53 PM	-rw-r--r--	ubuntu
bashrc	3,771	Bash RC So...	1/6/2022 9:53 PM	-rw-r--r--	ubuntu
profile	807	Profile Sourc...	1/6/2022 9:53 PM	-rw-r--r--	ubuntu
about.html	184	Microsoft Ed...	4/5/2024 5:44 PM	-rw-rw-r--	na

Download

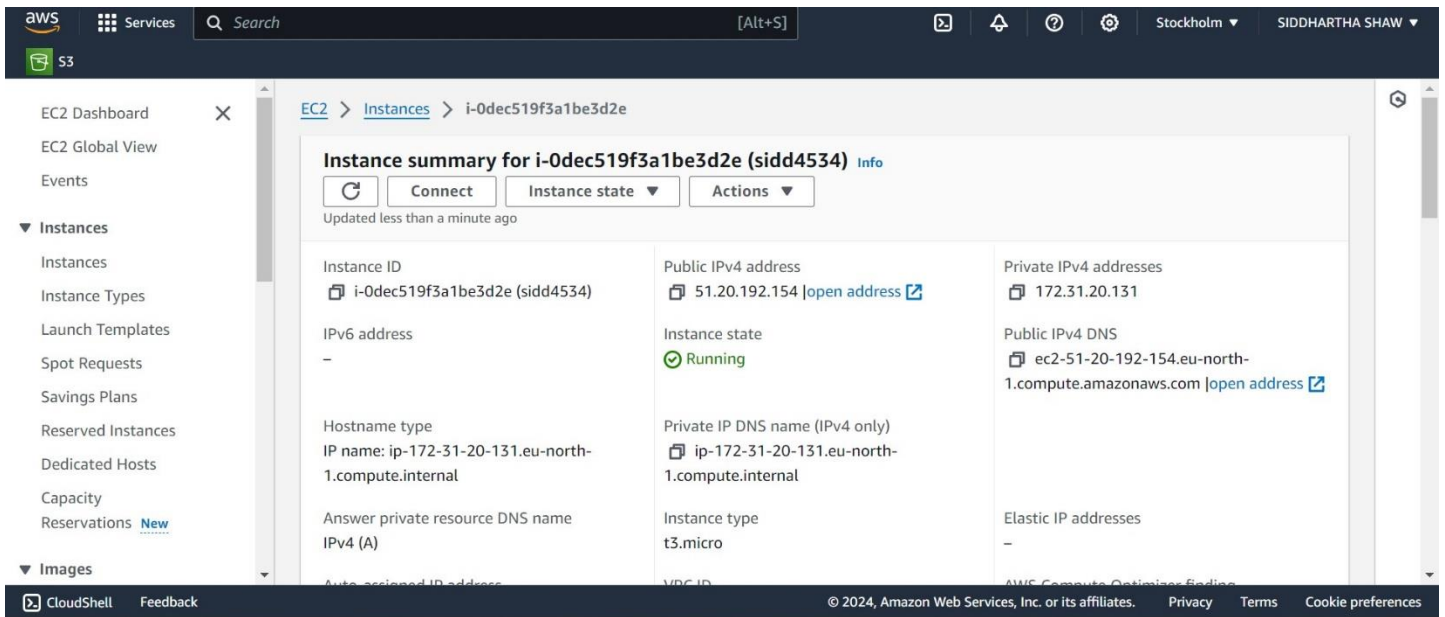
Enqueue paused

Binary

Ask if file exists

Pause

STEP 21: Now go back to the “AWS Window” and copy the public IPV4 address and paste in the new tab. Anyone can access it.



STEP 22: A new window will open with the webpage.

