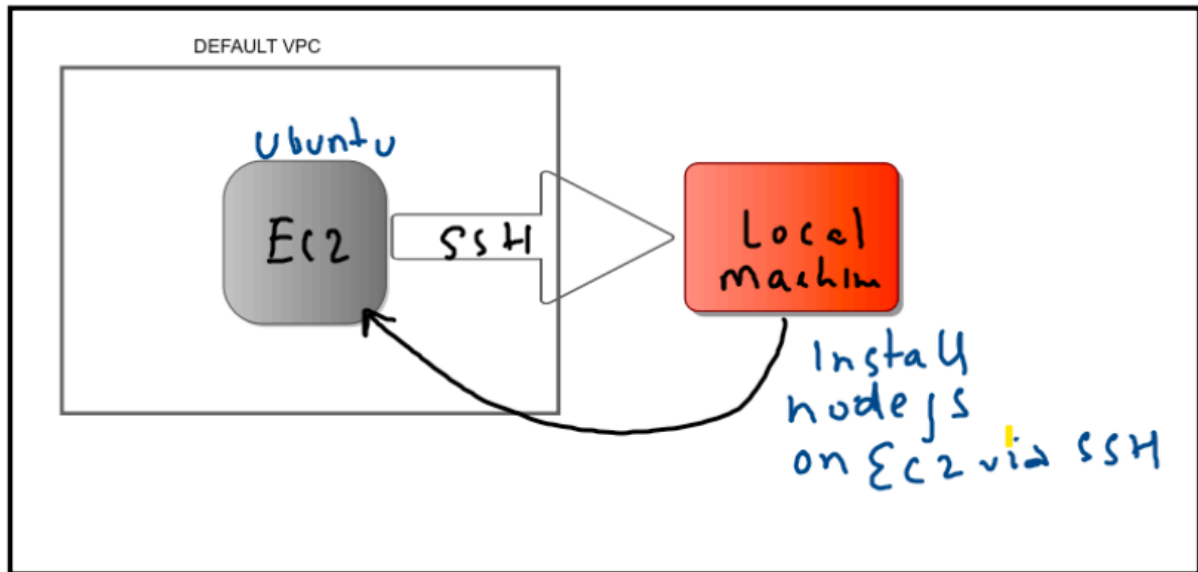


Assignment Afternoon Batch Aditya College DevOps Advance - EC2 instance.

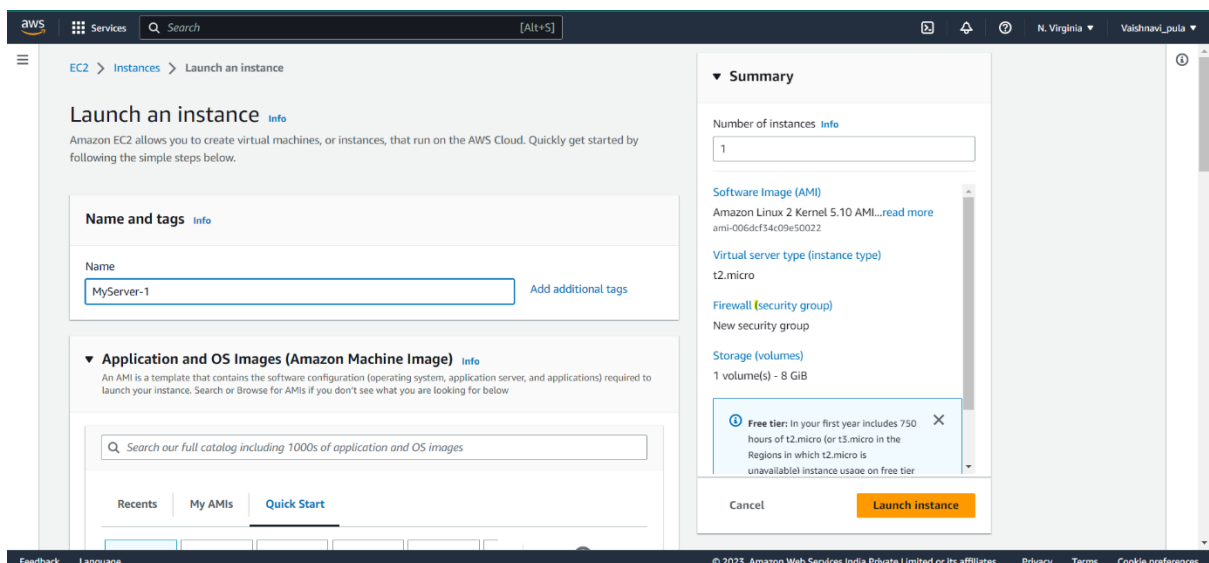
Architecture



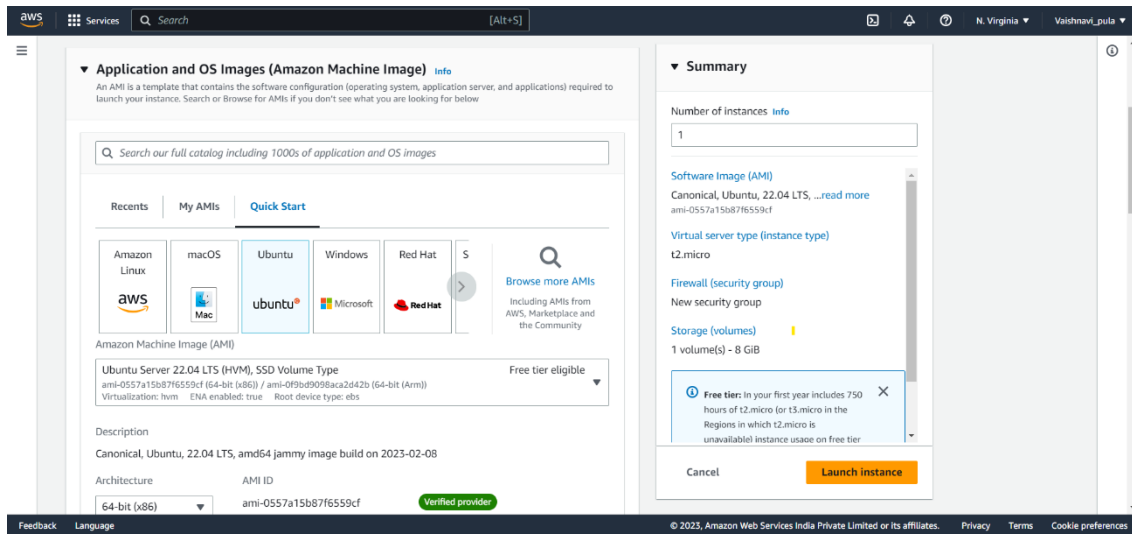
Goals:

1. Create EC2 Instance with Ubuntu AMI.
2. Create Key pair for SSH Access.
3. Create Security Group with SSH and HTTP/HTTPS Ports Enabled.
4. SSH Created EC2 Instance to local Machine.
5. Install Nodejs in the Ubuntu machine.
6. Check the status of nodejs.

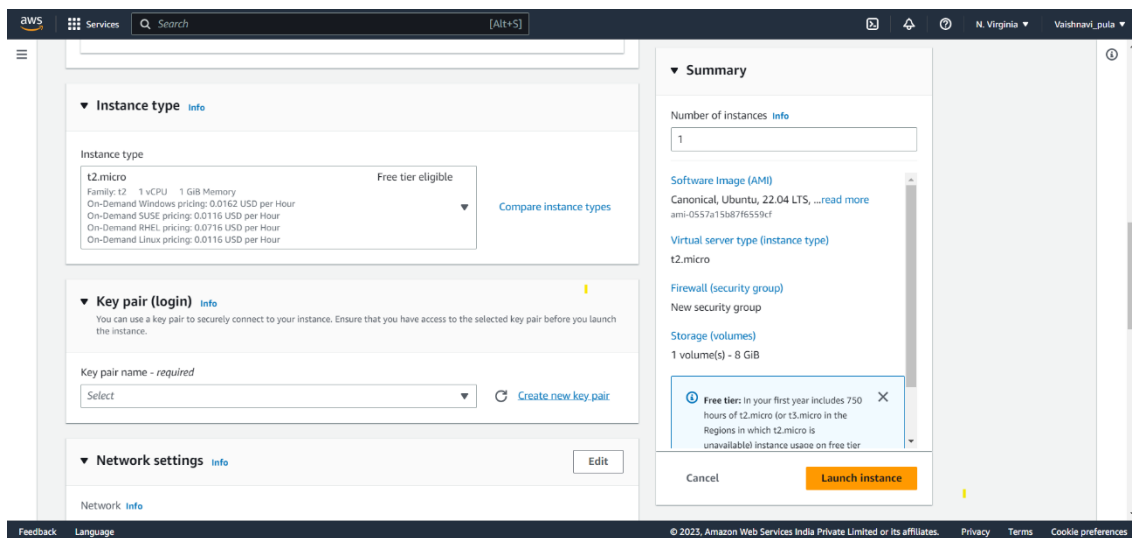
Created Instance



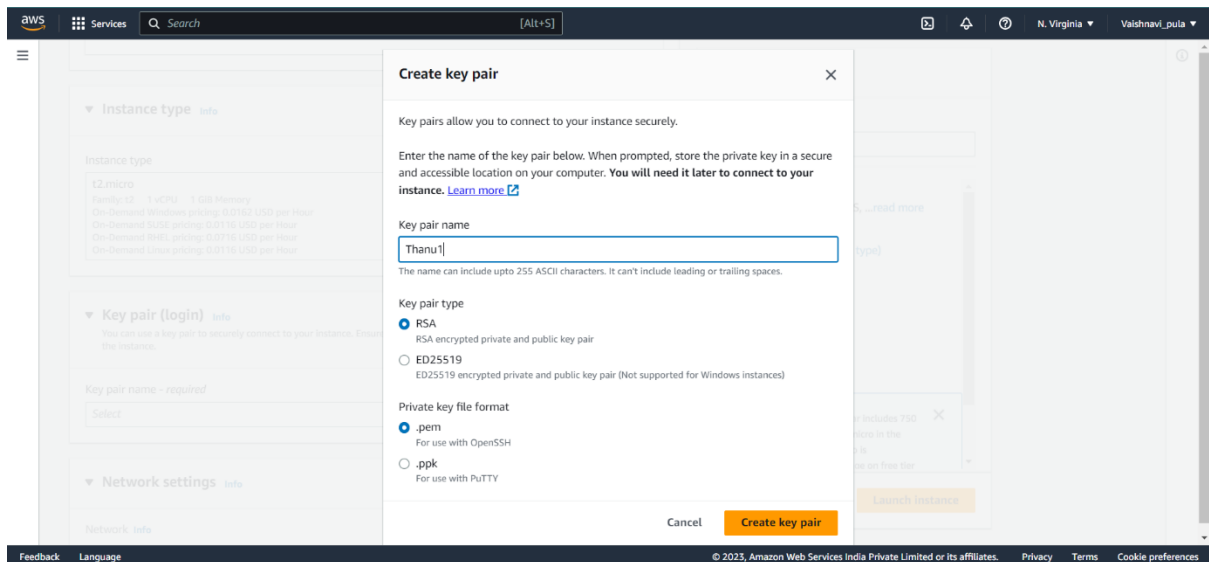
Selected Ubuntu AMI.



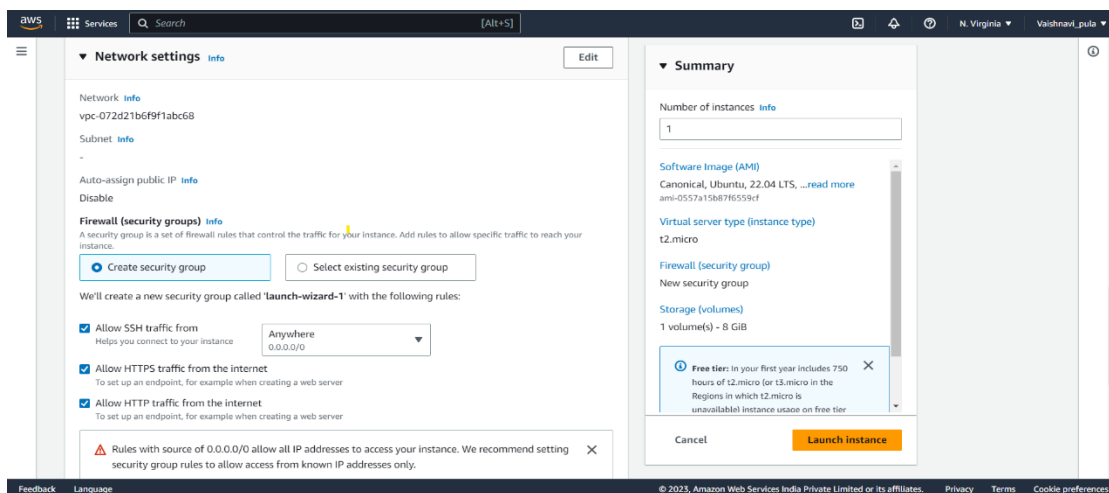
Create New Key Pair.



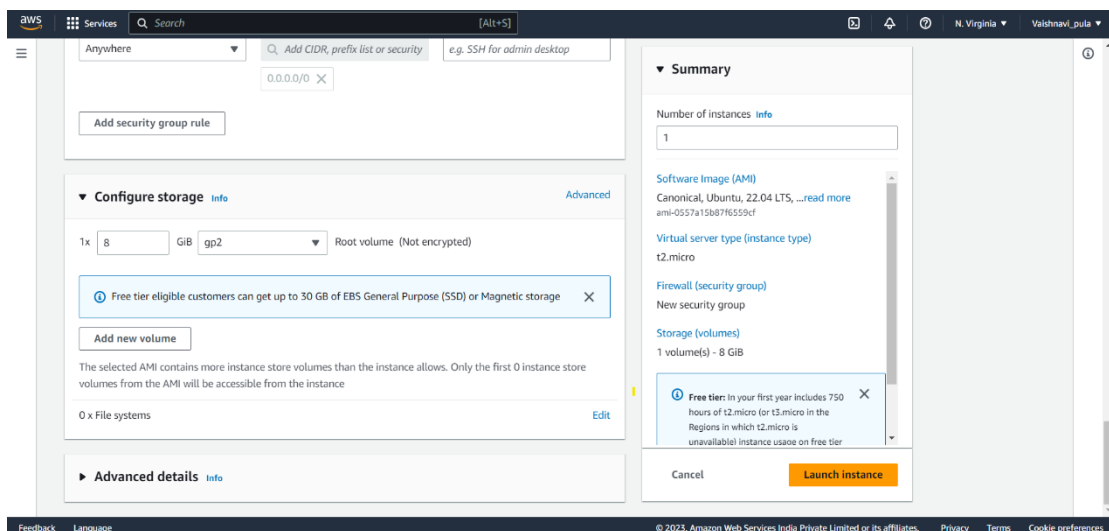
Created ".pem" key pair.



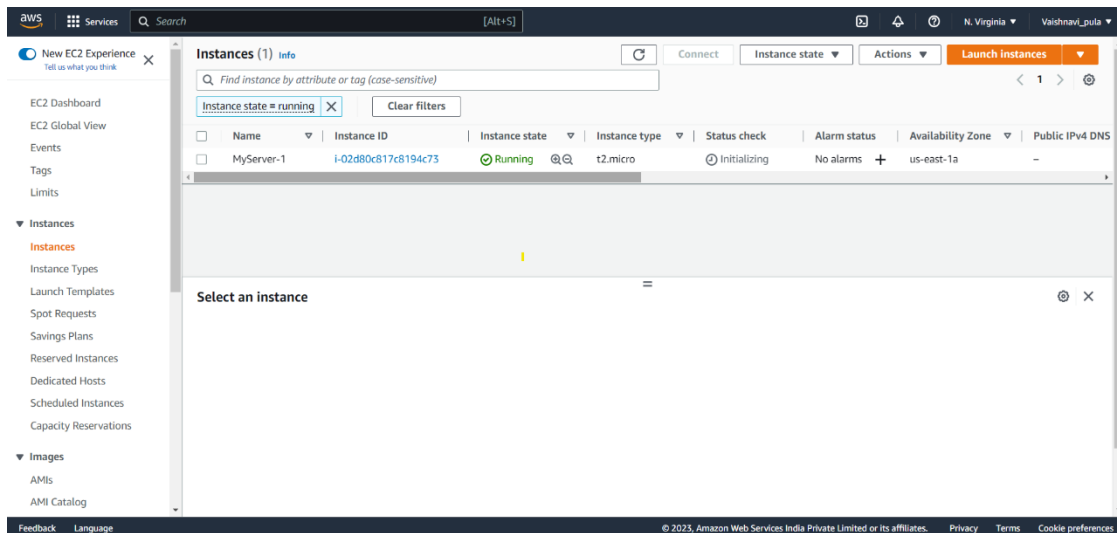
Creating Security group with SSH ,HTTP and HTTPS ports enabled.



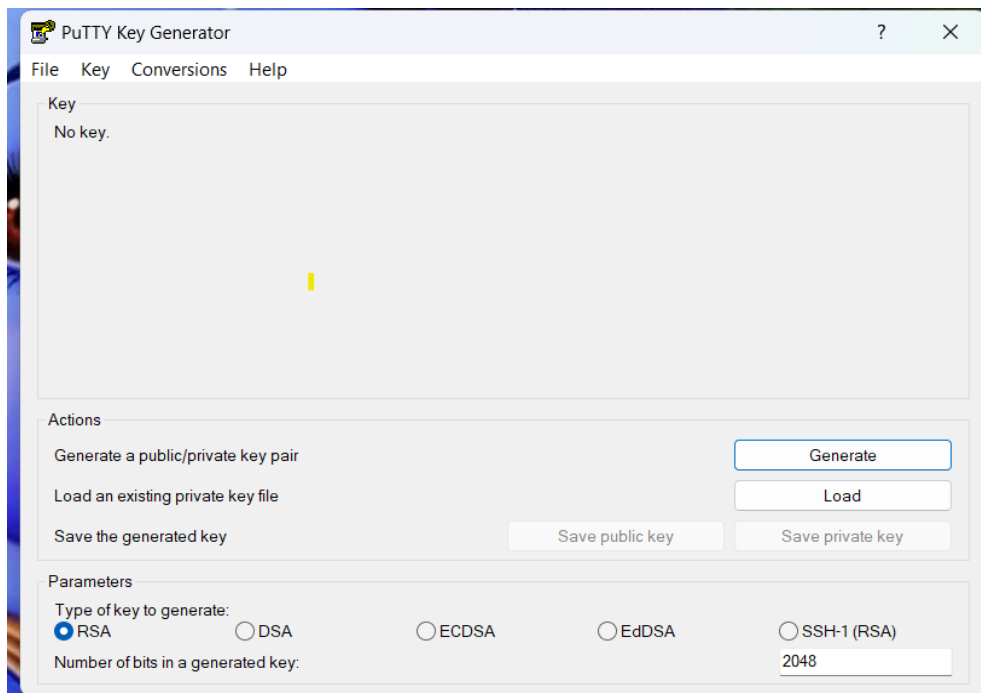
Click on Launch Instance.



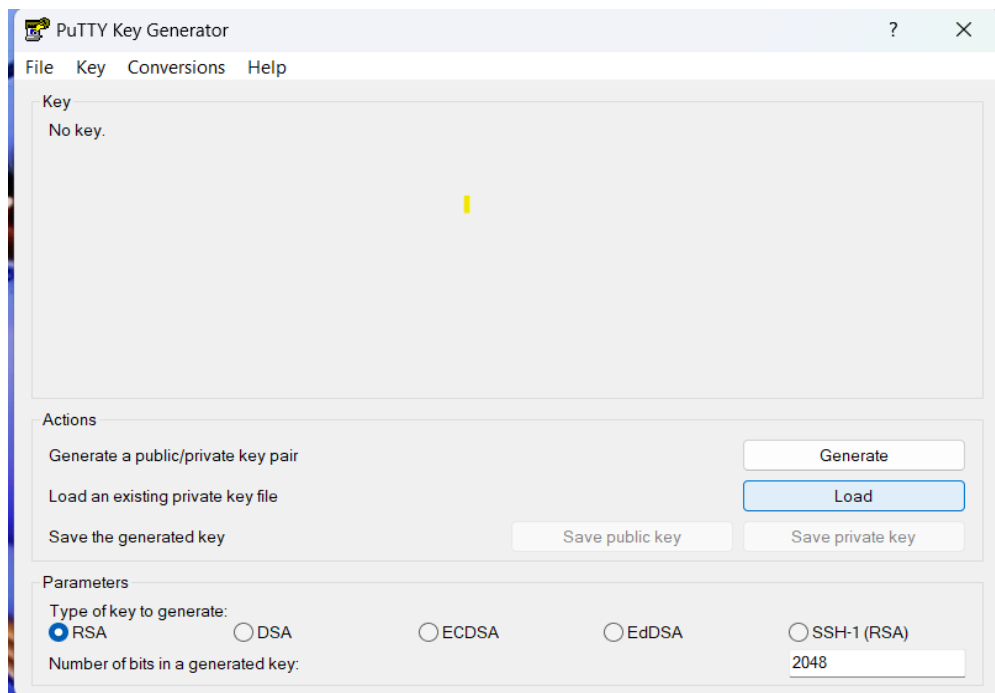
Instance was Created Successfully.



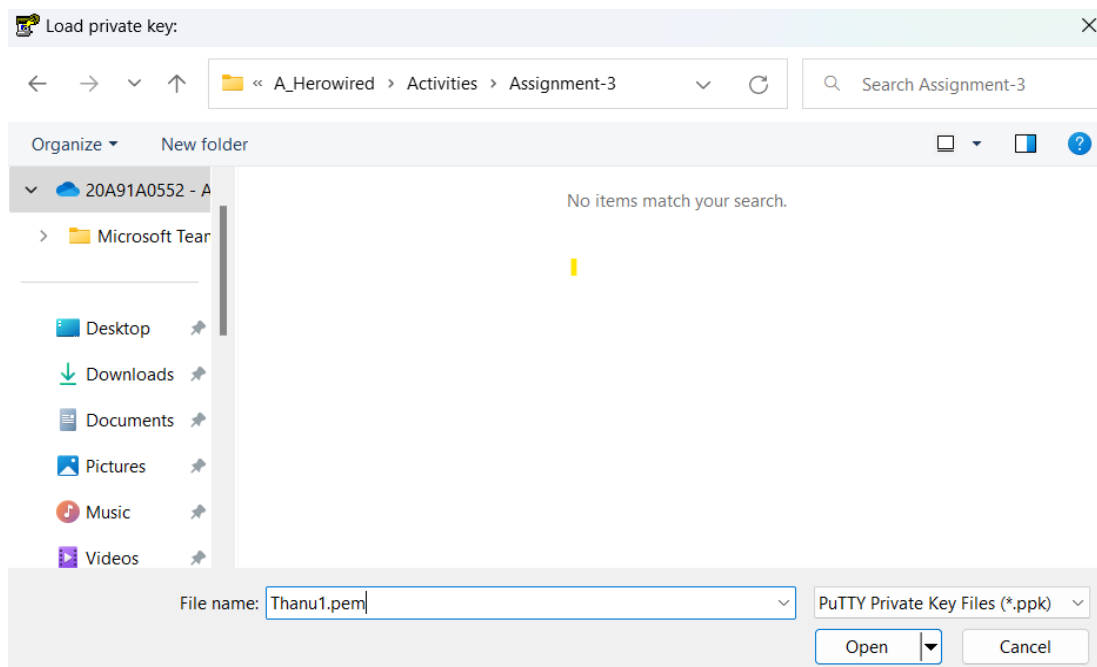
Open PuTTYgen and click on Generate.



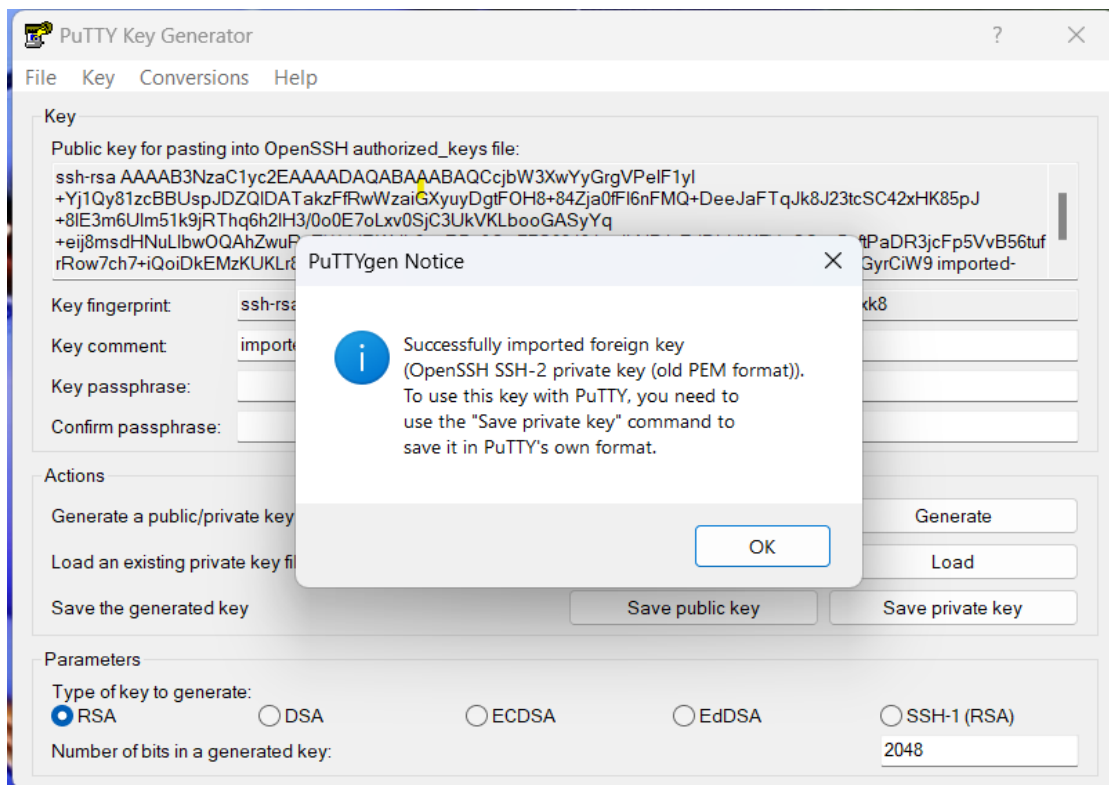
Type of key should be RSA and click on load.



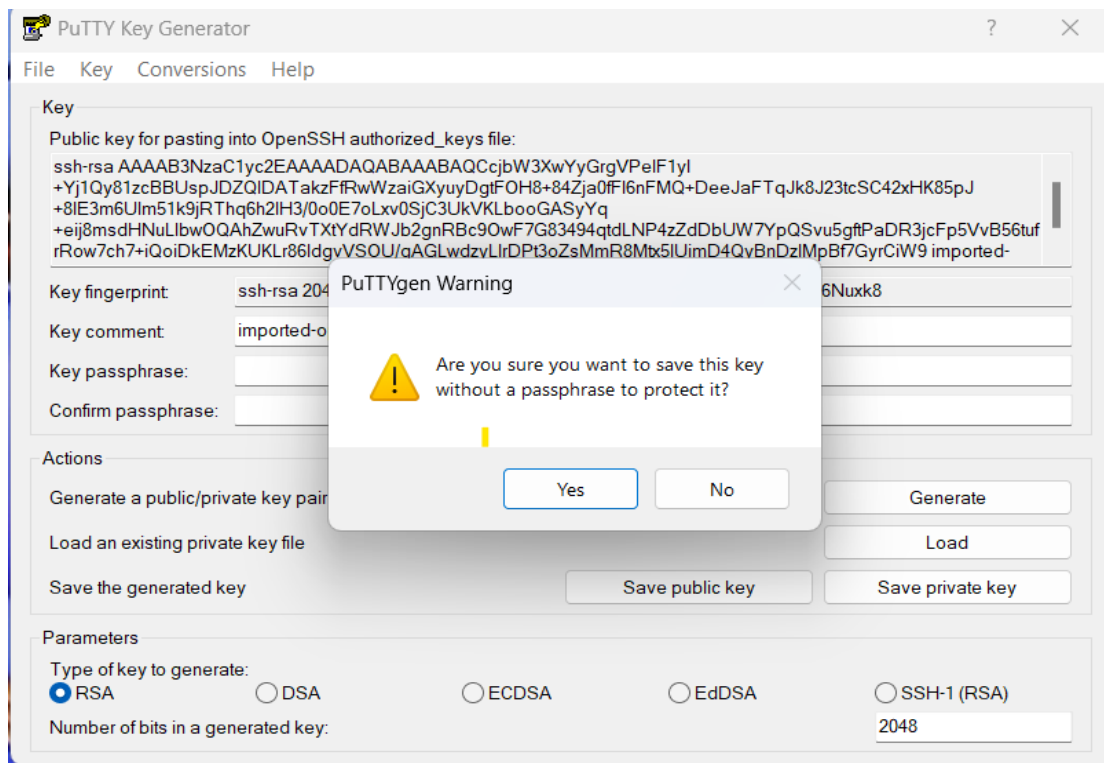
Select ".pem" key ,which was created while Creating EC2 instance.



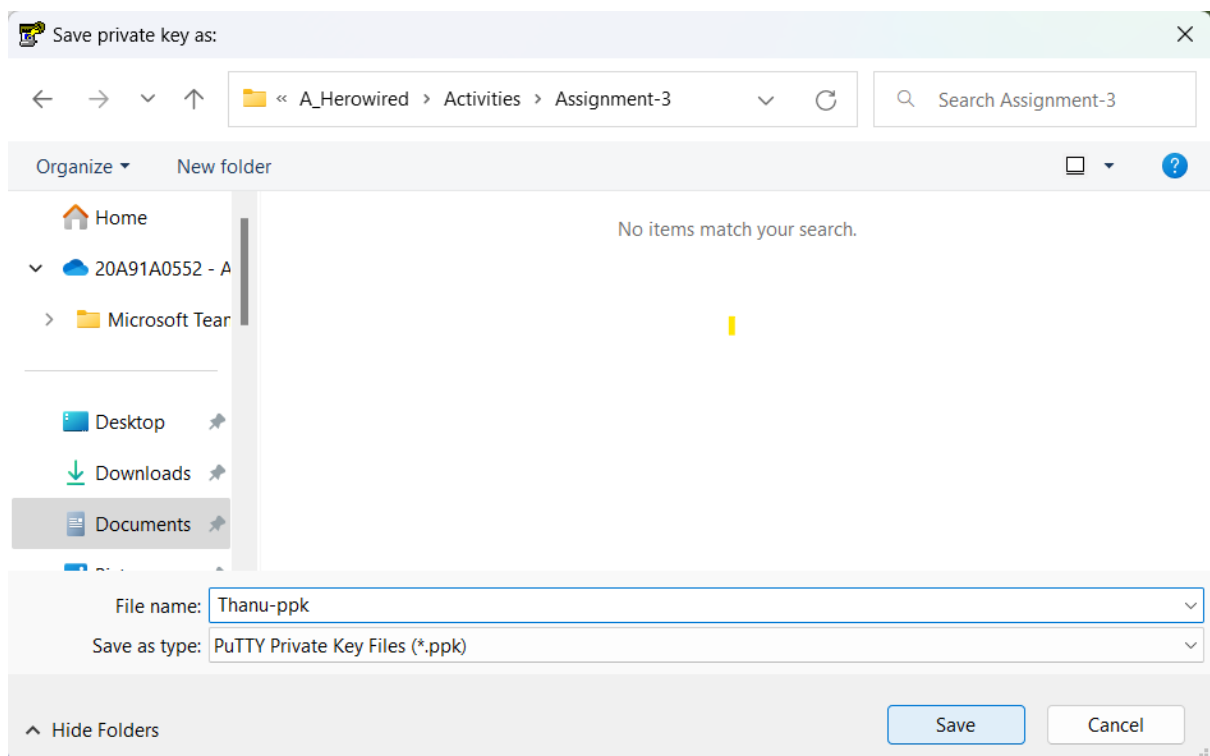
Click on OK.



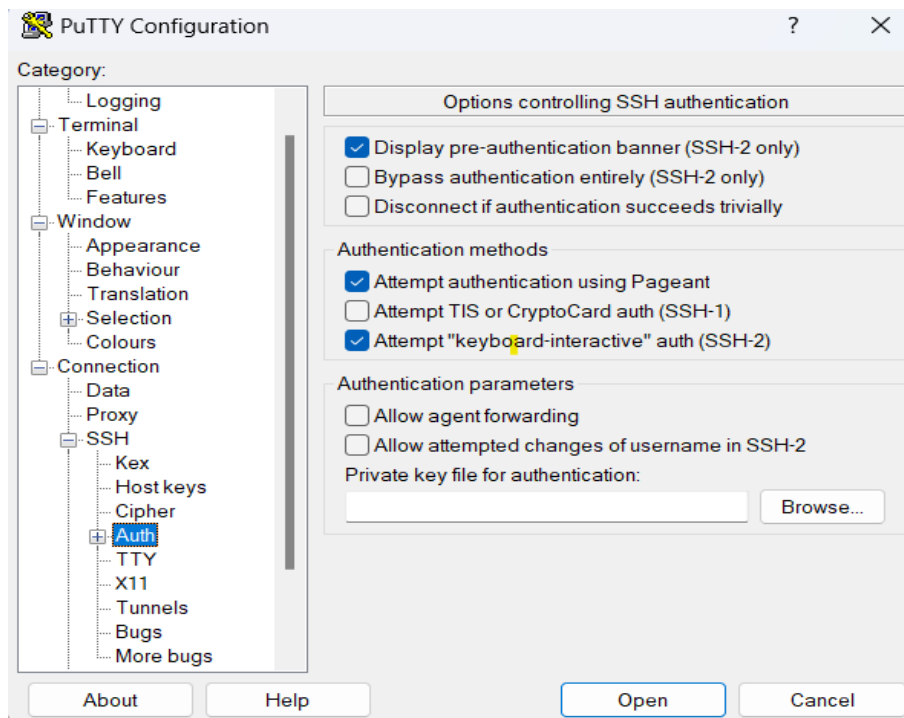
Click on save private key and then click on yes.



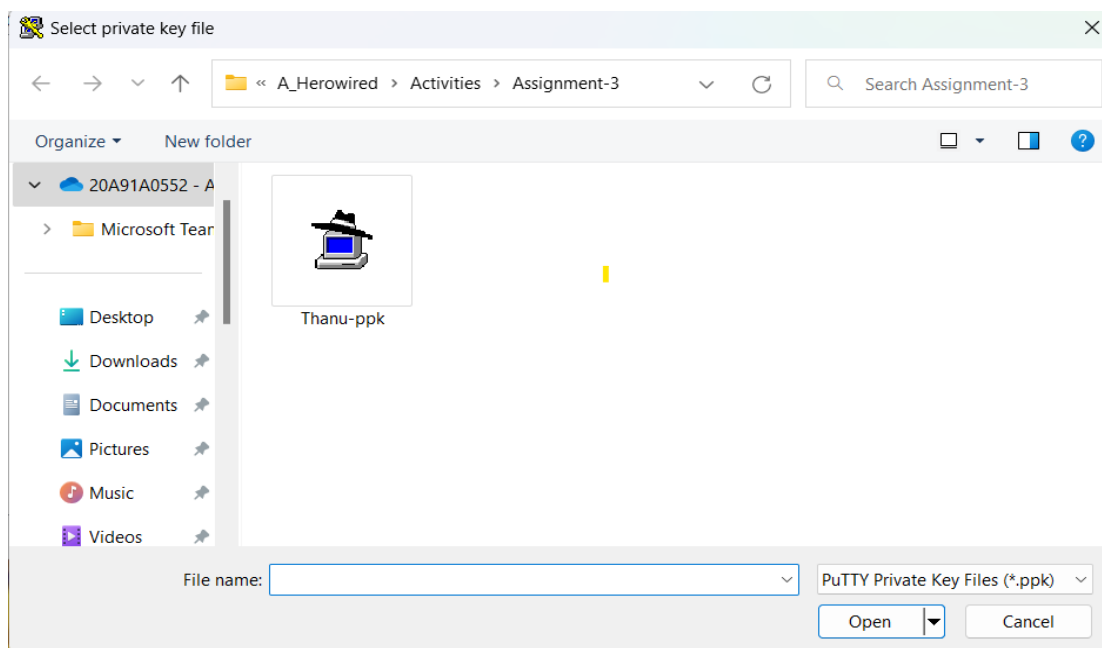
Then ".ppk" file was created with name Thanu-ppk.



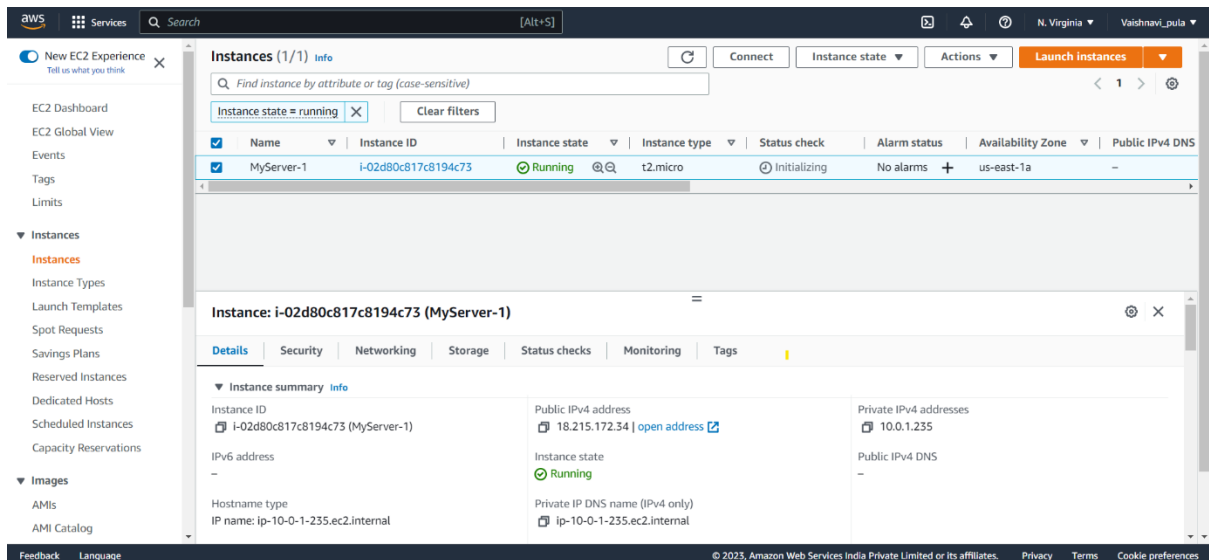
Now close PuTTYgen and open PuTTY . Double click on SSH and then select Auth.



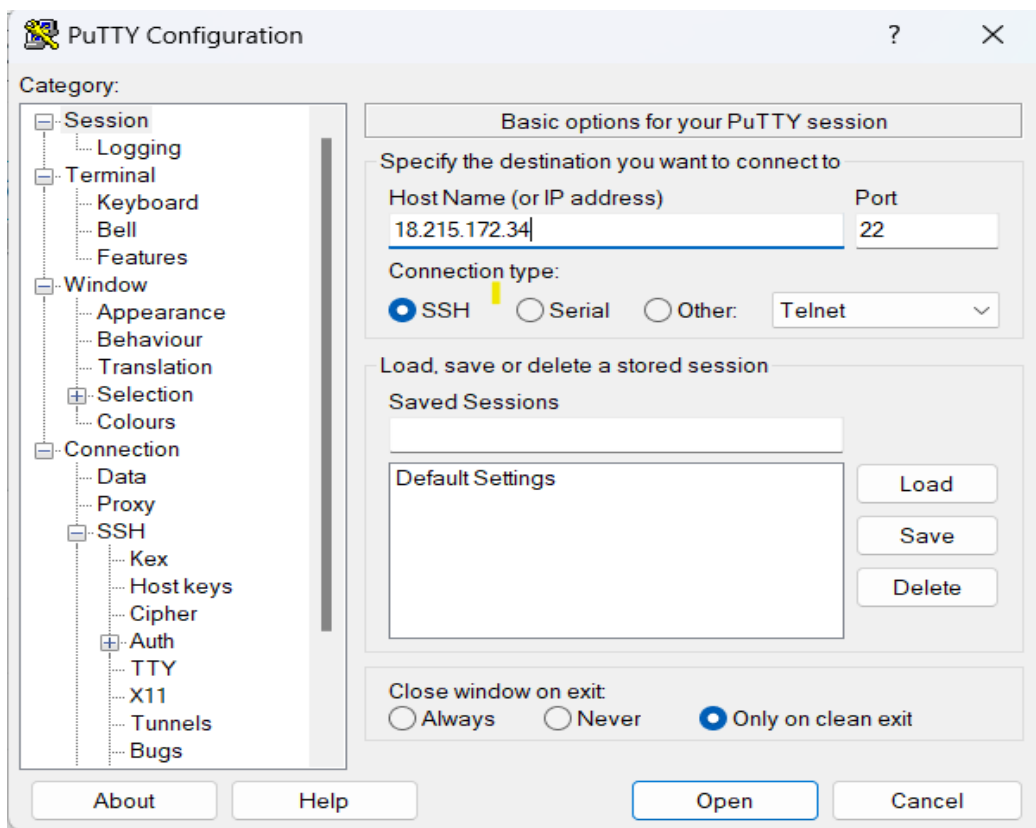
Give the "Thanu-ppk.ppk" file as private key file for authentication.



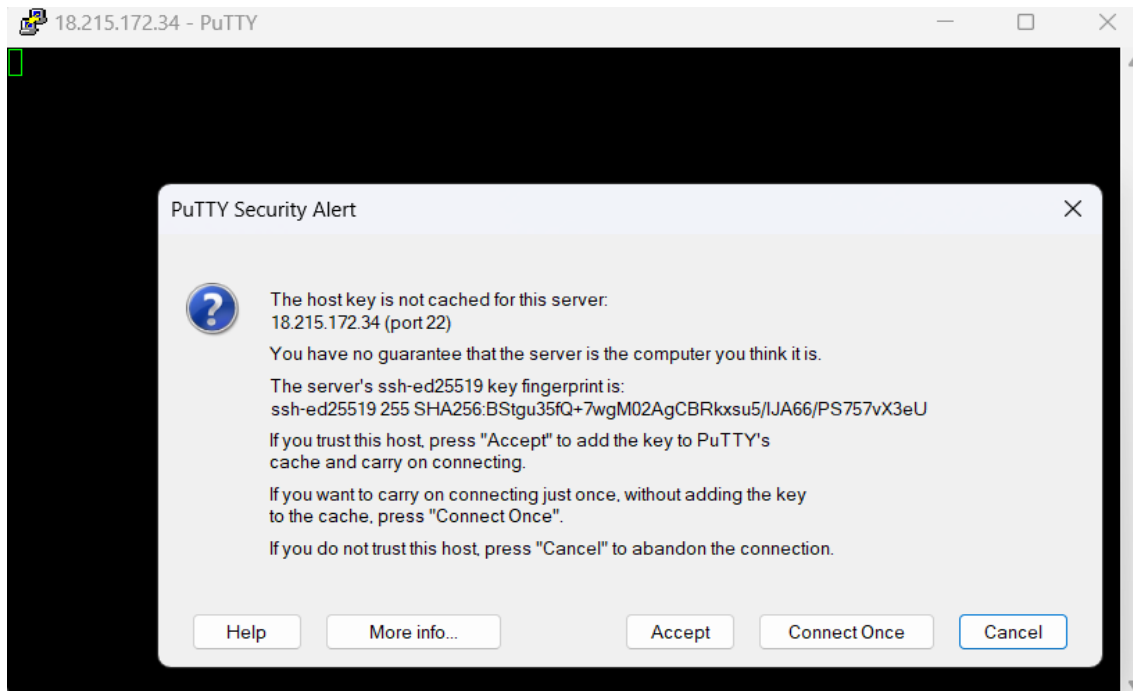
Now copy the IP address of EC2 instance created previously.



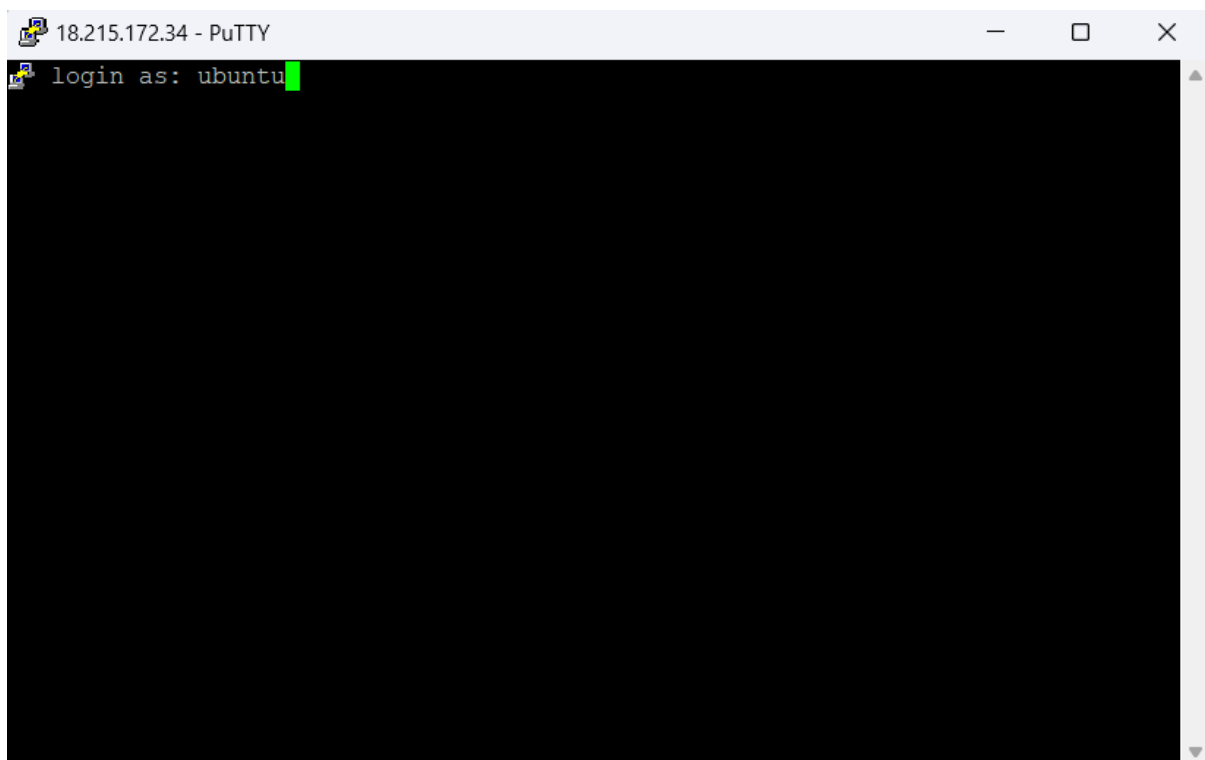
Paste it in the Session Host Name.



Click on Accept.



Then give username as follows.



```

ubuntu@ip-10-0-1-235: ~
login as: ubuntu
Authenticating with public key "imported-openssh-key"
Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 5.15.0-1028-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Thu Mar  2 16:29:18 UTC 2023

System load:  0.080078125      Processes:            97
Usage of /:   19.8% of 7.57GB   Users logged in:     0
Memory usage: 19%              IPv4 address for eth0: 10.0.1.235
Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-10-0-1-235:~$

```

Use “sudo apt update” to update.

```

ubuntu@ip-10-0-1-235: ~
The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-10-0-1-235:~$ sudo apt update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [107 kB]
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]
Get:7 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [680 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 c-n-f Metadata [286 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [217 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse Translation-en [112 kB]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 c-n-f Metadata [8372 B]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [939 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [203 kB]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [13.6 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [680 kB]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [106 kB]
Get:17 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 c-n-f Metadata [584 B]
Get:18 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [877 kB]
Get:19 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [172 kB]
Get:20 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [17.9 kB]
Get:21 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [9692 B]
Get:22 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [3260 B]
Get:23 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [444 B]

```

Install NodeJS using “sudo apt install nodejs”.

```
ubuntu@ip-10-0-1-235:~$ sudo apt install nodejs
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  javascript-common libc-ares2 libjs-highlight.js libnode72 nodejs-doc
Suggested packages:
  apache2 | lighttpd | httpd npm
The following NEW packages will be installed:
  javascript-common libc-ares2 libjs-highlight.js libnode72 nodejs nodejs-doc
0 upgraded, 6 newly installed, 0 to remove and 37 not upgraded.
Need to get 13.7 MB of archives.
After this operation, 53.9 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 javascript-common all 11+nmul [5936 B]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 libjs-highlight.js all 9.18.5+dfsg1-1 [367 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libc-ares2 amd64 1.18.1-lubuntu0.22.04.1 [45.1 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 libnode72 amd64 12.22.9~dfsg-lubuntu3 [10.8 MB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 nodejs-doc all 12.22.9~dfsg-lubuntu3 [2409 kB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 nodejs amd64 12.22.9~dfsg-lubuntu3 [122 kB]
Fetched 13.7 MB in 0s (42.4 MB/s)
Selecting previously unselected package javascript-common.
(Reading database ... 63605 files and directories currently installed.)
Preparing to unpack .../0-javascript-common_11+nmul_all.deb ...
Unpacking javascript-common (11+nmul) ...
Selecting previously unselected package libjs-highlight.js.
Preparing to unpack .../1-libjs-highlight.js_9.18.5+dfsg1-1_all.deb ...
Unpacking libjs-highlight.js (9.18.5+dfsg1-1) ...
Selecting previously unselected package libc-ares2:amd64.
Preparing to unpack .../2-libc-ares2_1.18.1-lubuntu0.22.04.1_amd64.deb ...
Unpacking libc-ares2:amd64 (1.18.1-lubuntu0.22.04.1) ...
Selecting previously unselected package libnode72:amd64.
Preparing to unpack .../3-libnode72_12.22.9~dfsg-lubuntu3_amd64.deb ...
Unpacking libnode72:amd64 (12.22.9~dfsg-lubuntu3) ...
Selecting previously unselected package nodejs-doc.
Preparing to unpack .../4-nodejs-doc_12.22.9~dfsg-lubuntu3_all.deb ...
Unpacking nodejs-doc (12.22.9~dfsg-lubuntu3) ...
Selecting previously unselected package nodejs.
Preparing to unpack .../5-nodejs_12.22.9~dfsg-lubuntu3_amd64.deb ...
Unpacking nodejs (12.22.9~dfsg-lubuntu3) ...
Unpacking nodejs (12.22.9~dfsg-lubuntu3) ...
Setting up javascript-common (11+nmul) ...
Setting up libc-ares2:amd64 (1.18.1-lubuntu0.22.04.1) ...
Setting up libnode72:amd64 (12.22.9~dfsg-lubuntu3) ...
Setting up libjs-highlight.js (9.18.5+dfsg1-1) ...
Setting up nodejs (12.22.9~dfsg-lubuntu3) ...
update-alternatives: using /usr/bin/nodejs to provide /usr/bin/js (js) in auto mode
Setting up nodejs-doc (12.22.9~dfsg-lubuntu3) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

No services need to be restarted.

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.
```

Check status of Nodejs using node -v.

```
ubuntu@ip-10-0-1-235:~$ node -v
v12.22.9
ubuntu@ip-10-0-1-235:~$
```