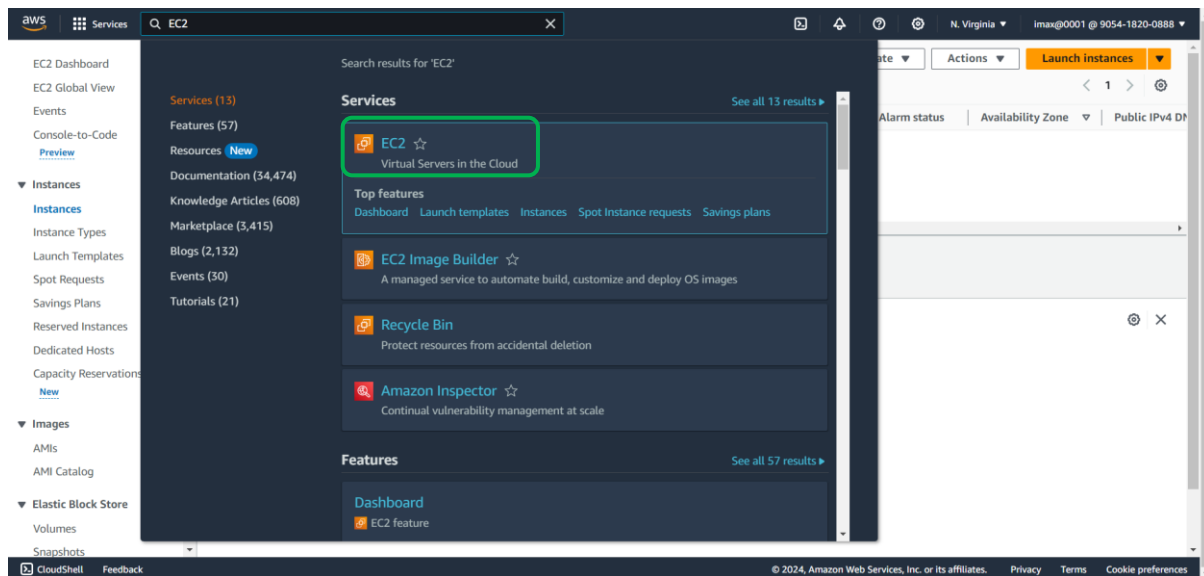
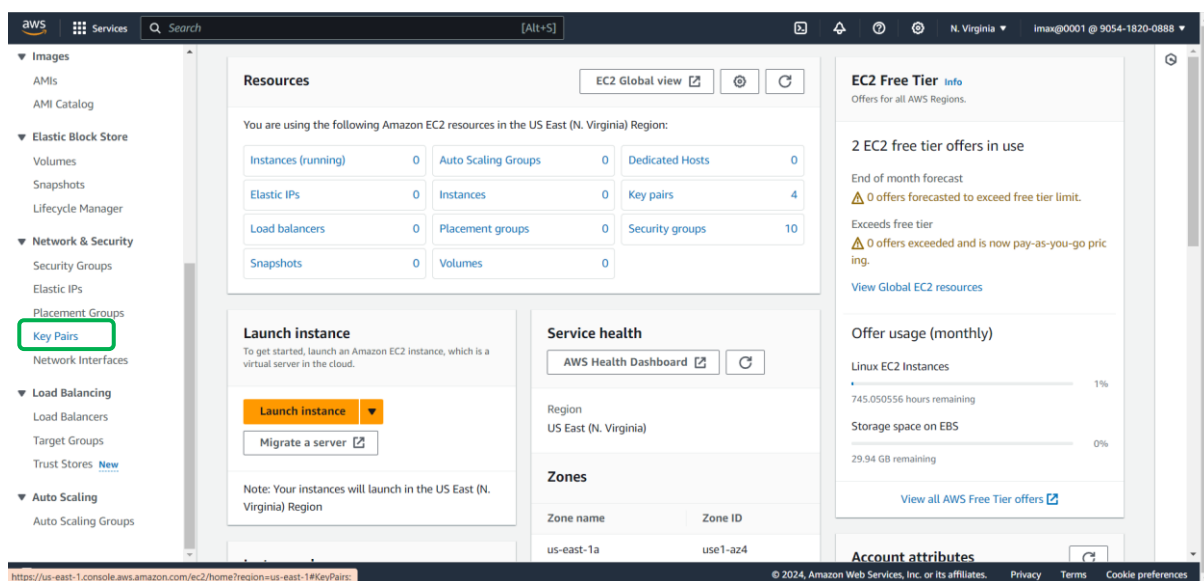


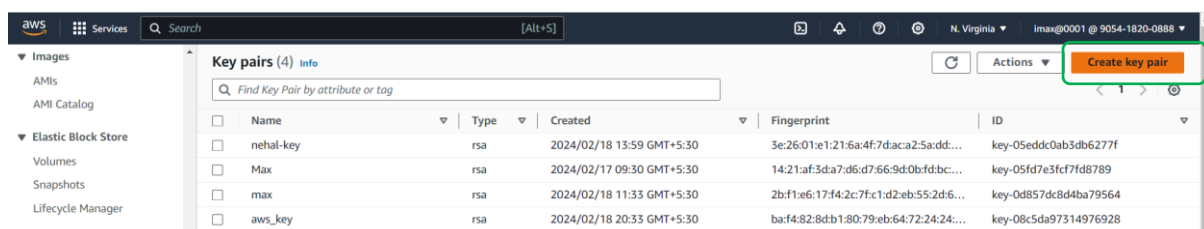
1. In the Management Console type EC2 in the search box and select EC2



2. In the EC2 dashboard on the left side come down to Network and Security, We are going to select Key Pair



3. Then Select Create key pair




4. Give our Key pair Name(my-ec2key), Key type is RSA and under Private key format make sure you select the .pem, after that click on create Key pair

5. We successfully create key pair

Name	Type	Created	Fingerprint	ID
my-ec2key	rsa	2024/02/24 20:22 GMT+5:30	db:39:cc:44:d7:16:b0:49:5c:48:a6:77:ff:34:2...	key-0bc6ed...
nehal-key	rsa	2024/02/18 13:59 GMT+5:30	3e:26:01:e1:21:6a:4f:7d:aca2:5a:dda9:32:b...	key-05eddc...
my-sshkey	rsa	2024/02/25 08:14 GMT+5:30	83:6e:1f:24:ff:c7:1c:1bc0:20:49:2c:79:efa3:...	key-01b4e6...
Max	rsa	2024/02/17 09:30 GMT+5:30	14:21:af:3da7:d6:d7:66:9d:0b:fd:bc01:42:8...	key-05fd7e...
max	rsa	2024/02/18 11:33 GMT+5:30	2b:f1:e6:17:f4:2c:7f:c1:d2:eb:55:2d:63:92:0...	key-0d857...
aws_key	rsa	2024/02/18 20:33 GMT+5:30	ba:f4:82:8db1:80:79:eb:64:72:24:24:60:3f:3...	key-08c5da...
ec2-ssh	rsa	2024/02/25 17:31 GMT+5:30	b9:77:b6:30:59:ba:c2:46:50:25:15:45:fa:1b:c...	key-08d70...

Any time we create key pair two keys will be generated; the key we are seeing in the management Console this is called the public key.

And this is the key we upload to our EC2 instance when launch it the key that is downloaded to My Computer this is private key and this is the key we need to be able to ssh into our EC2 instance(That is 1st thing we need to create a key pair and the format of the keypair needs to be pem

6. Open PowerShell on our computer> Click the start menu here then type PowerShell you are going to see the windows PowerShell icon  Select it

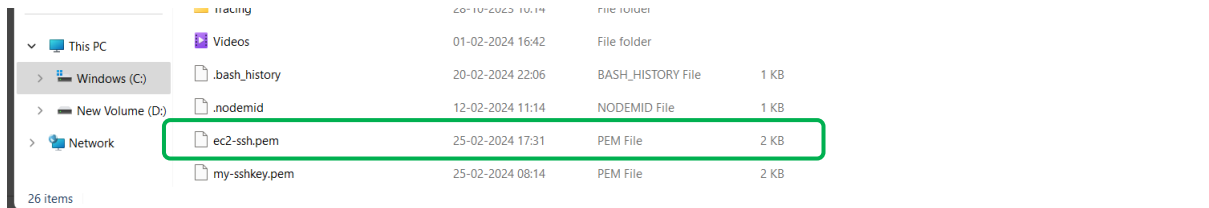
```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\nehal>
```

Here this is the current folder my PowerShell is in so this is saying my current folder is the admin folder in my computer if I go to the C driver there will be a users folder in C drive and in that users folder there will be an Admin folder(nehal)

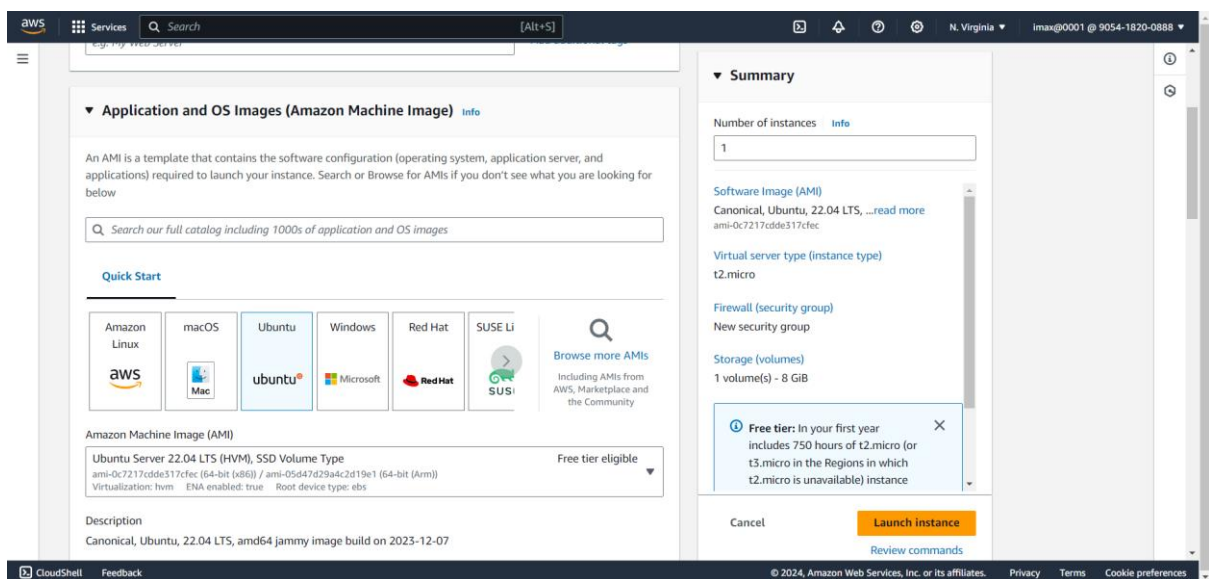
7. Then the pem file we downloaded to our computer we have to put it in this admin folder



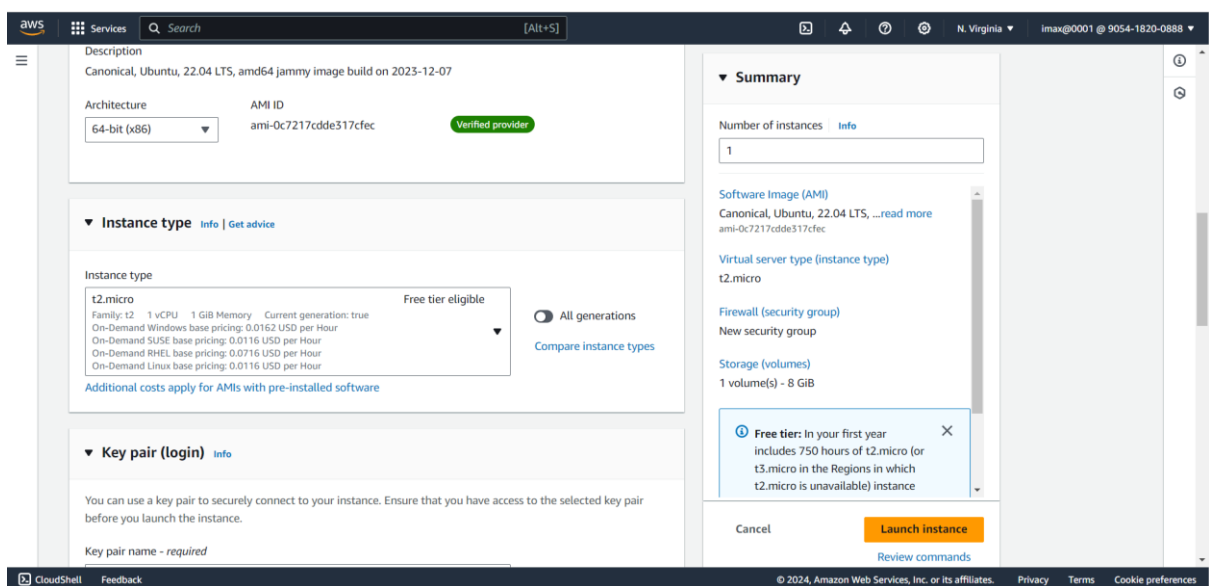
Once it done that just close it

8. Now we need to do is launch our EC2 instance> going to dashboard >on EC2 dashboard I am going to launch a new instance, click Launch Instance

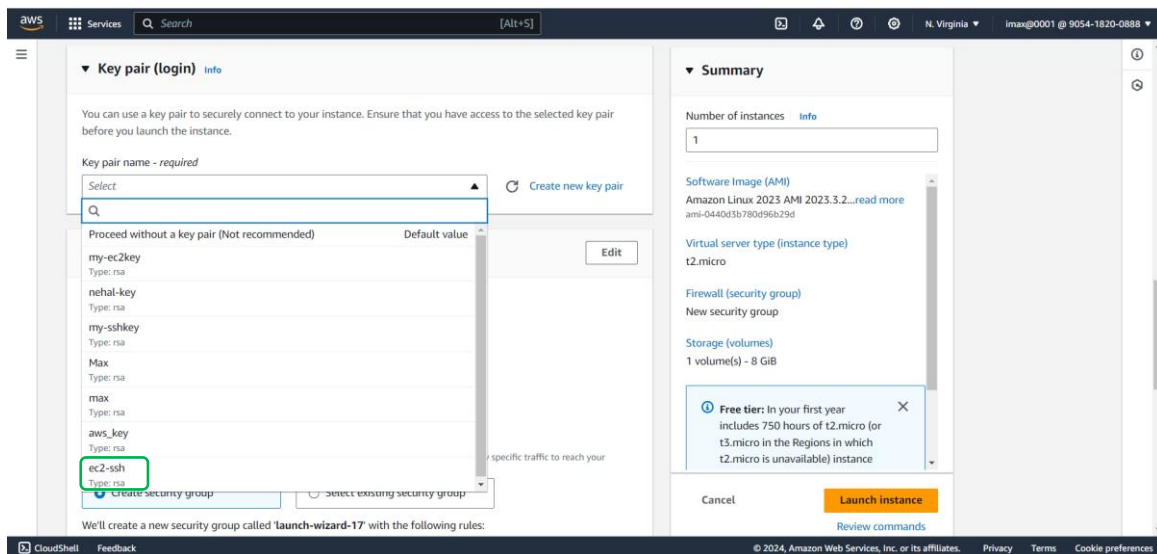
9. Select Ubuntu (Amazon Machine Image)



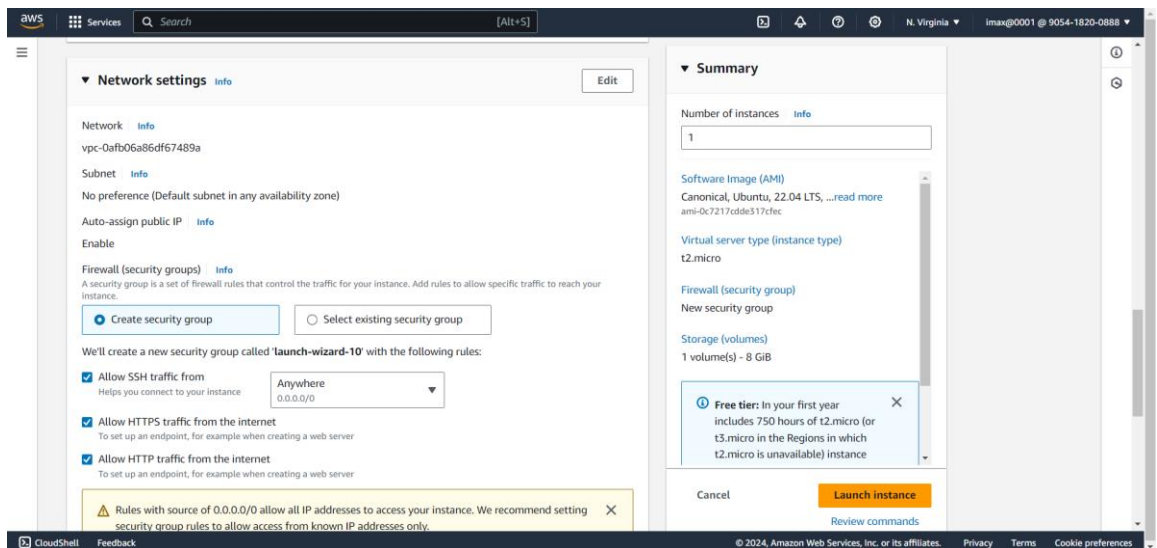
Instance type is t2. micro



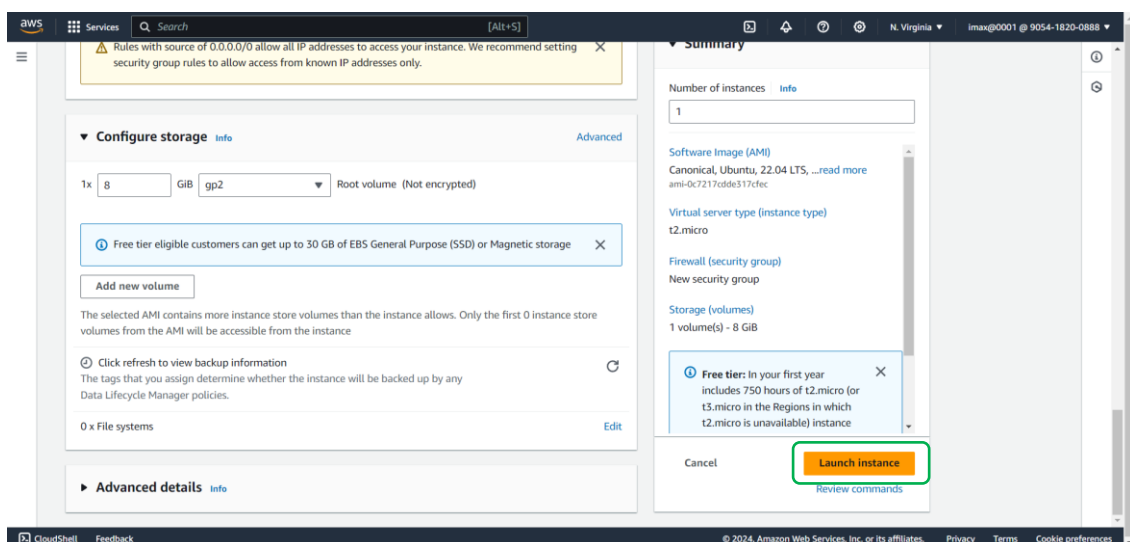
Select we created key pair



Select default Network Settings



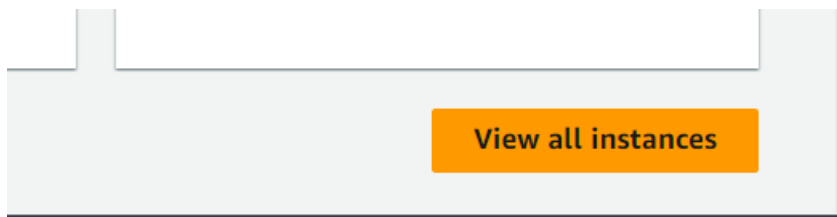
Select default Configure Storage and click on Launch instance



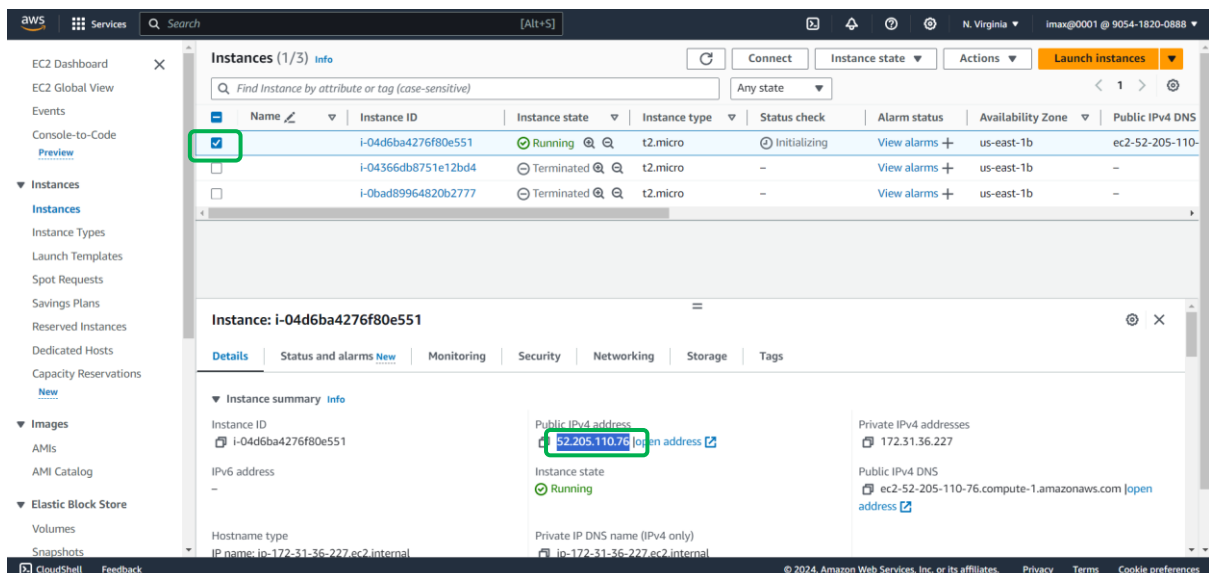
Successfully launce the instance



Then View all instance



Once the state has changed to running then click on instance checkbox and copy the public Ip



10. we are going to open PowerShell (Once we open the windows PowerShell remember that the current directory, we are in needs to be the same directory where we put the pem file in my case I put my pem file in the admin(nehal) directory and that is the current directory I am in)

So to SSH into my EC2 instance type “ssh -i ec2-ssh.pem ubuntu@52.205.110.76” press enter

```
ubuntu@ip-172-31-36-227: ~  
Windows PowerShell  
Copyright (C) Microsoft Corporation. All rights reserved.  
  
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows  
  
PS C:\Users\nehal> ssh -i ec2-ssh.pem ubuntu@52.205.110.76  
The authenticity of host '52.205.110.76 (52.205.110.76)' can't be established.  
ED25519 key fingerprint is SHA256:LnQ3mS9ag8xu/dDm2wDcfzC7bW25T+6HoiDRz104jc.  
This key is not known by any other names.  
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes  
Warning: Permanently added '52.205.110.76' (ED25519) to the list of known hosts.  
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 6.2.0-1017-aws x86_64)  
  
 * Documentation:  https://help.ubuntu.com  
 * Management:    https://landscape.canonical.com  
 * Support:       https://ubuntu.com/advantage  
  
System information as of Sun Feb 25 12:15:47 UTC 2024  
  
System load:  0.2861328125    Processes:           100  
Usage of /:   20.6% of 7.57GB    Users logged in:     0  
Memory usage: 21%             IPv4 address for eth0: 172.31.36.227  
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.
```

```
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-172-31-36-227:~$ |
```

11. Generating key type “ssh-keygen” ;generating on that particular this location

```
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-172-31-36-227:~$ ssh-keygen  
Generating public/private rsa key pair.  
Enter file in which to save the key (/home/ubuntu/.ssh/id_rsa):
```

After that press 3 times enter; Now the keys are generated

```
Windows PowerShell
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PS C:\Users\nehal> ssh-keygen
Generating public/private ed25519 key pair.
Enter file in which to save the key (C:\Users\nehal\.ssh/id_ed25519):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in C:\Users\nehal\.ssh/id_ed25519
Your public key has been saved in C:\Users\nehal\.ssh/id_ed25519.pub
The key fingerprint is:
SHA256:wLzNRGF1bInoIVhgZxgtltYF8MvcZfvGm96BrFvrvk nehal@LAPTOP-QB7DT0CU
The key's randomart image is:
+--[ED25519 256]--+
|+.+B=BB0o|
|o+++=o.=.|
|o+o+.*|
|o+...o0|
|=S.+|
|..+|
|..*|
|..B|
|+XE|
+-----[SHA256]-----+
PS C:\Users\nehal>
```

12. Type "dir" : we will see the hidden folder called .ssh

```

| | ..B|
| | +XE|
+-----[SHA256]-----+
PS C:\Users\nehal> dir

Directory: C:\Users\nehal


Mode                LastWriteTime         Length Name
----                -
d-----          22-11-2023           22:23      .cache
d-----          13-10-2023           23:06     .eclipse
d-----          15-12-2023            09:43    .lemminx
d-----          28-10-2023           22:57       .m2
d-----          15-02-2024           10:23       n?
d-----          25-02-2024           18:41     .ssh
d-----          01-01-2024           19:41   .vscode
d-r-----        12-10-2023           17:08     Contacts
d-r-----        12-10-2023           17:11     Documents
d-r-----        25-02-2024           17:34     Downloads
d-r-----        13-10-2023           22:56     eclipse
d-r-----        13-10-2023           23:08  eclipse-workspace
d-r-----        12-10-2023           17:08     Favorites
d-r-----        12-10-2023           17:08     Links
d-r-----        12-10-2023           17:08     Music
dar--l          25-02-2024           16:51     OneDrive
d-----        25-02-2024           16:54  OpenSSH-Win64
d-----        29-01-2024            09:39     Postman
d-r-----        12-10-2023           17:08     Saved Games
d-r-----        12-10-2023           17:27     Searches
d-----        28-10-2023           10:14     Tracing
d-r-----        01-02-2024           16:42     Videos
-a-----        20-02-2024           22:06    681 .bash_history
-a-----        12-02-2024           11:14     36 .nodemid
-a-----        25-02-2024           17:31   1674 ec2-ssh.pem
-a-----        25-02-2024           08:14   1674 my-sshkey.pem

PS C:\Users\nehal>
```

13. Type "dir .ssh": we can see file 'id_ed25519' and 'id_ed25519.pub'

Once these files are generated this file, we can copy the contents of this files into something called authentication on remote server it will take care of setting up the password as login between the windows machine and remote server

```
PS C:\Users\nehal> dir .ssh
```

Directory: C:\Users\nehal\.ssh

Mode		LastWriteTime	Length	Name
----		-----	----	----
-a----	25-02-2024	18:40	411	id_ed25519
-a----	25-02-2024	18:41	104	id_ed25519.pub
-a----	25-02-2024	17:45	3229	known_hosts
-a----	25-02-2024	17:45	2478	known_hosts.old

