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MSC(CS) Part I

Cloud Computing Practical Assignment No 1

Working and Implementation of Infrastructure as a service Launch EC2 Instance(Windows)- AWS Platform.

First of all open Virtual Lab. After opening the lab, you will get an interface like Fig 1.

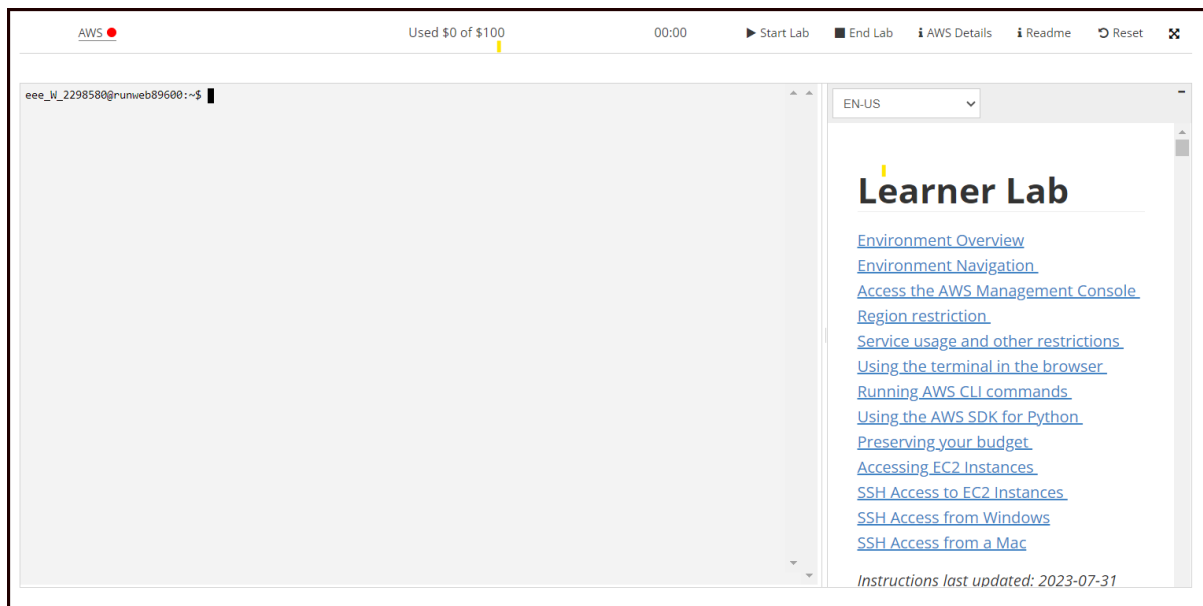


Fig 1

Then click on the Start Lab button. When the circle icon to the right of the AWS link in the upper-left corner turns green, it indicates that the lab environment is ready to use this we can see in Fig 2. To launch the AWS Management Console in a new tab, select the AWS link

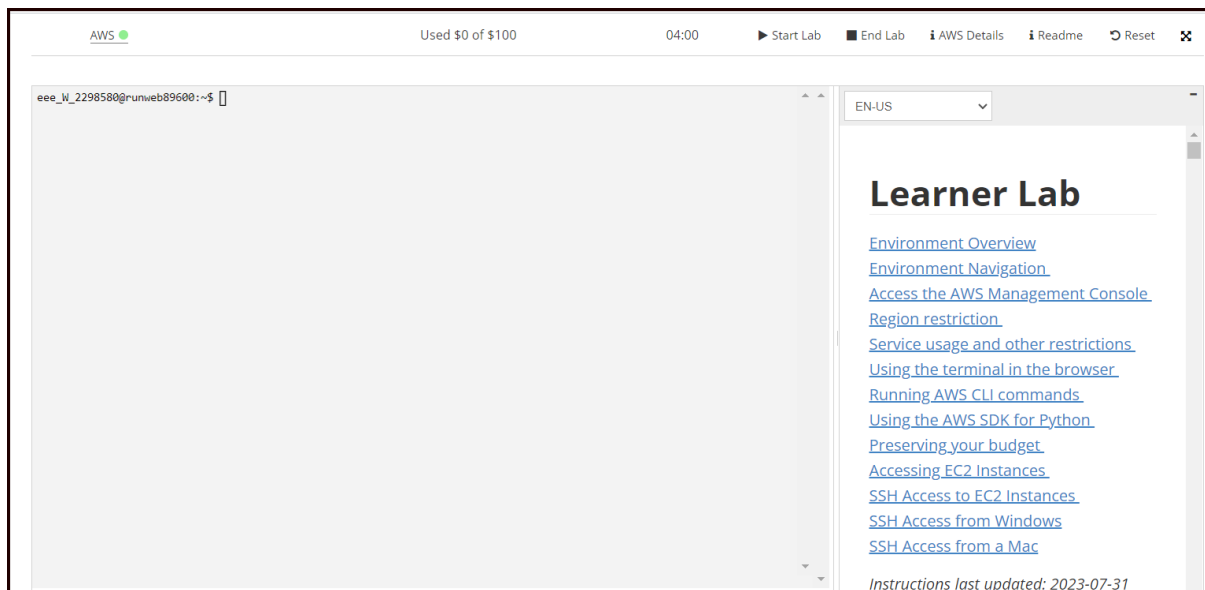


Fig 2

After selecting AWS link new console is open on new tab which we can see in Fig 3. In that we select the EC2 (Elastic Cloud Computing) service. You can see that service in Fig 3. If you have used it before then you can see that service in recently visited service. If you don't see EC2 service then follow the path Services => Compute => EC2.

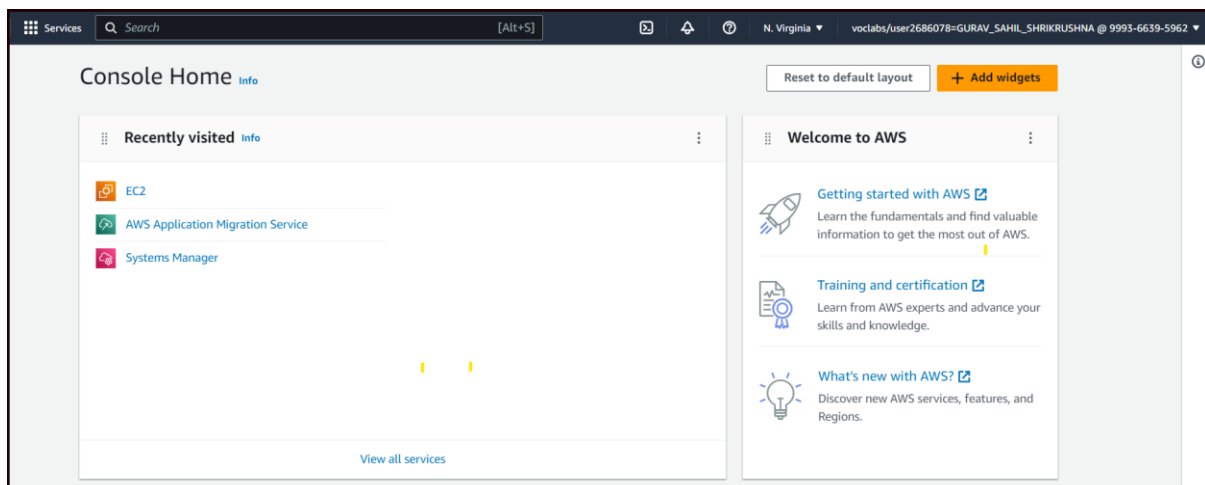


Fig 3

After selecting the EC2 service the new interface will be shown like in Fig 4. In that click on Launch Instance.

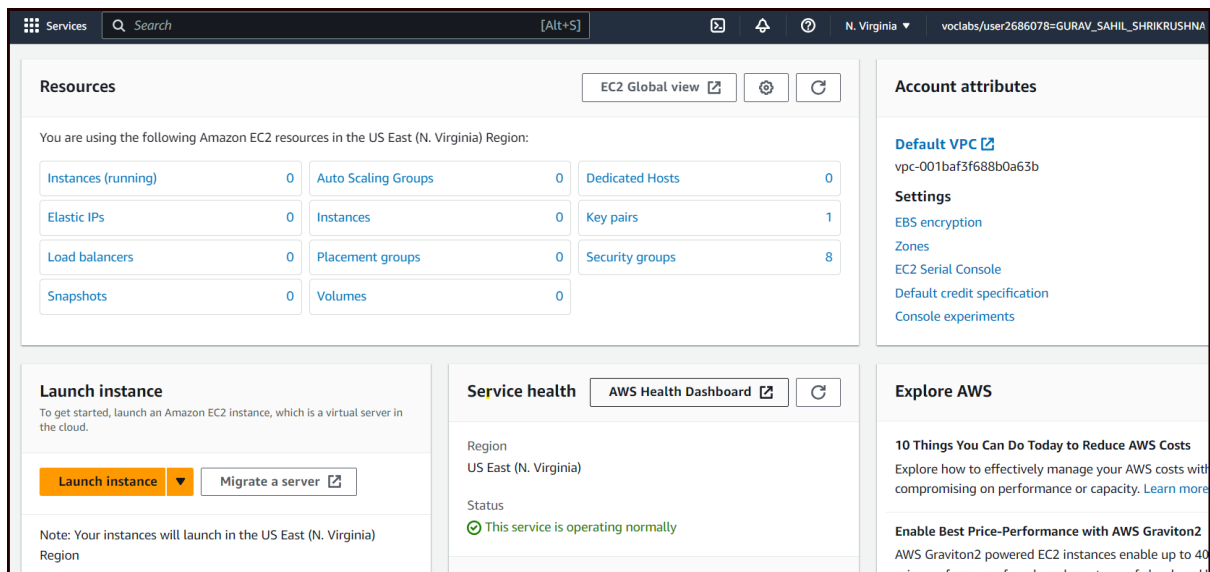


Fig 4

After clicking on Launch Instance some information regarding that instance will appear which we need to fill. That we can see in Fig 5.

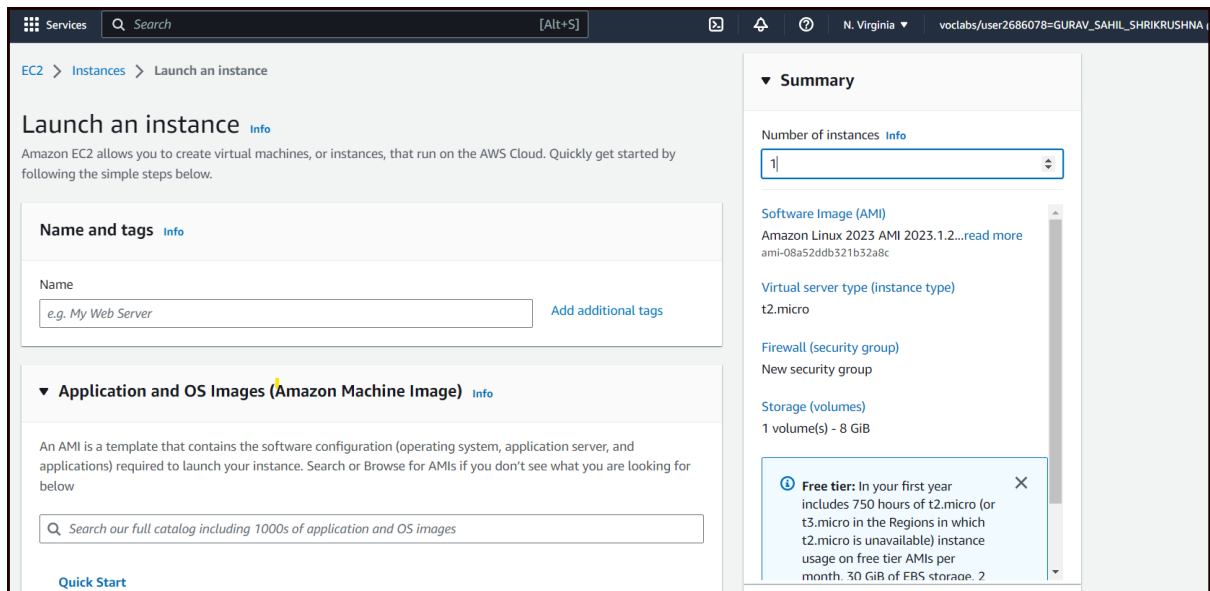


Fig 5

If we create more than one instance then how can we identify our instance? For that reason inside name and tags we write some name for instance so later we can identify them. so here in Fig 6 you can see i named it Window. Then we need to select the Amazon Machine Image. In this we can specify which operating system (OS) and application server you need to launch in your instance. Here I select Windows.

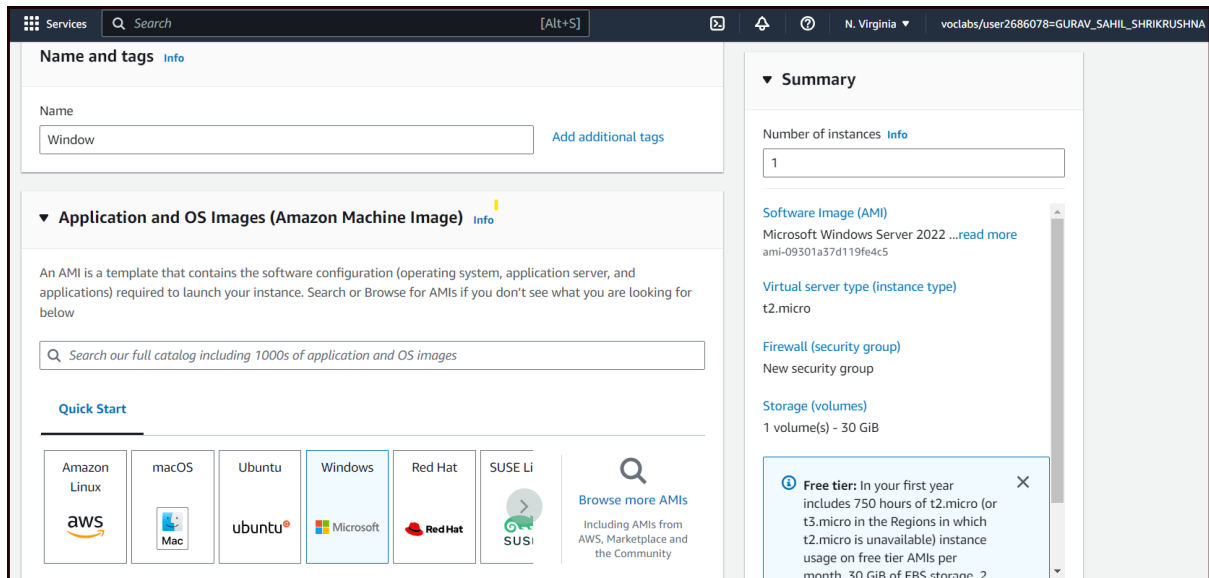


Fig 6

After scrolling the page we will see other details like Fig 7. In instance type we can choose our computing power, memory, networking or storage requirements. Here I have selected default instance type. In t2.micro instance type features 1 virtual CPU and 1 GiB memory. Fig 7 below instance type has key pair (login) it is used for securely connect to your instance. It is a set of security credentials that you use to prove your identity when connecting to an Amazon EC2 instance. There default key pair is available but I will create new key pair for windows EC2 instance. For this click on "Create New Key Pair".

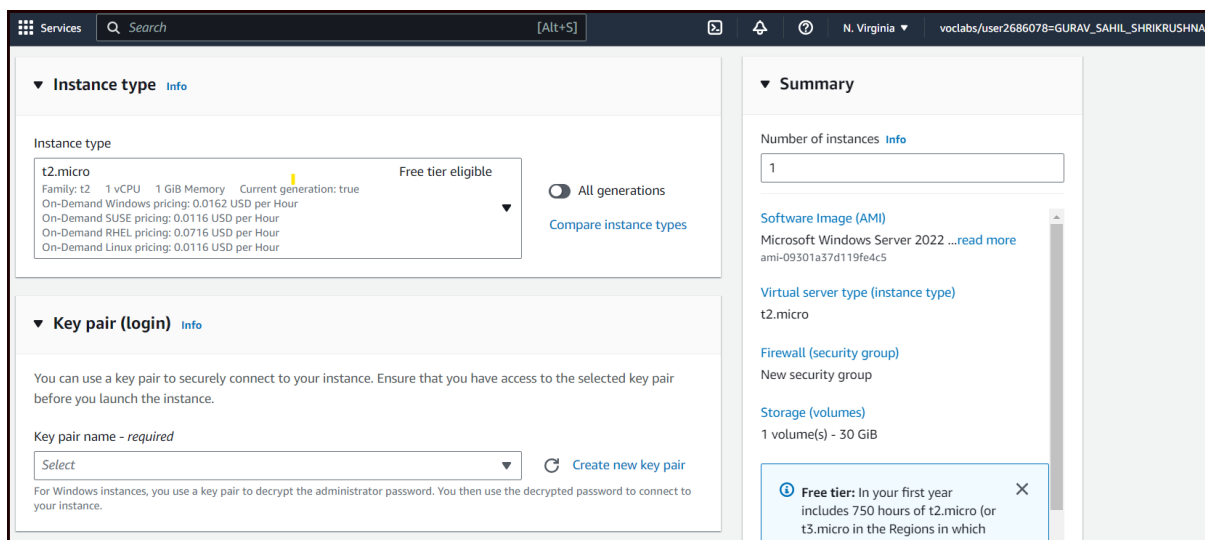


Fig 7

After clicking on "Create New Key Pair" we will get an interface like Figure 8. We can create a number of keys. To identify the key later, we need to give it a name. So here I will give name window_key. Other options we choose according to our usage. Here I use default values. Then click "Generate Key Pair".

Create key pair ✕

Key pair name
Key pairs allow you to connect to your instance securely.

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type

RSA
RSA encrypted private and public key pair

ED25519
ED25519 encrypted private and public key pair (Not supported for Windows instances)

Private key file format

.pem
For use with OpenSSH

.ppk
For use with PuTTY

⚠ When prompted, store the private key in a secure and accessible location on your computer. You will need it later to connect to your instance. [Learn more](#)

Cancel **Create key pair**

Fig 8

After clicking on "Generate Key Pair" we get the key. we can see in figure 9.

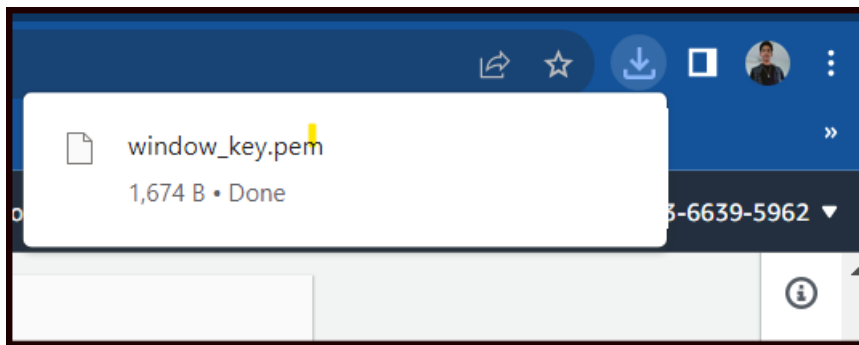


Fig 9

After downloading the key we will get an interface like Figure 10. We haven't changed anything in that network setting, it's default

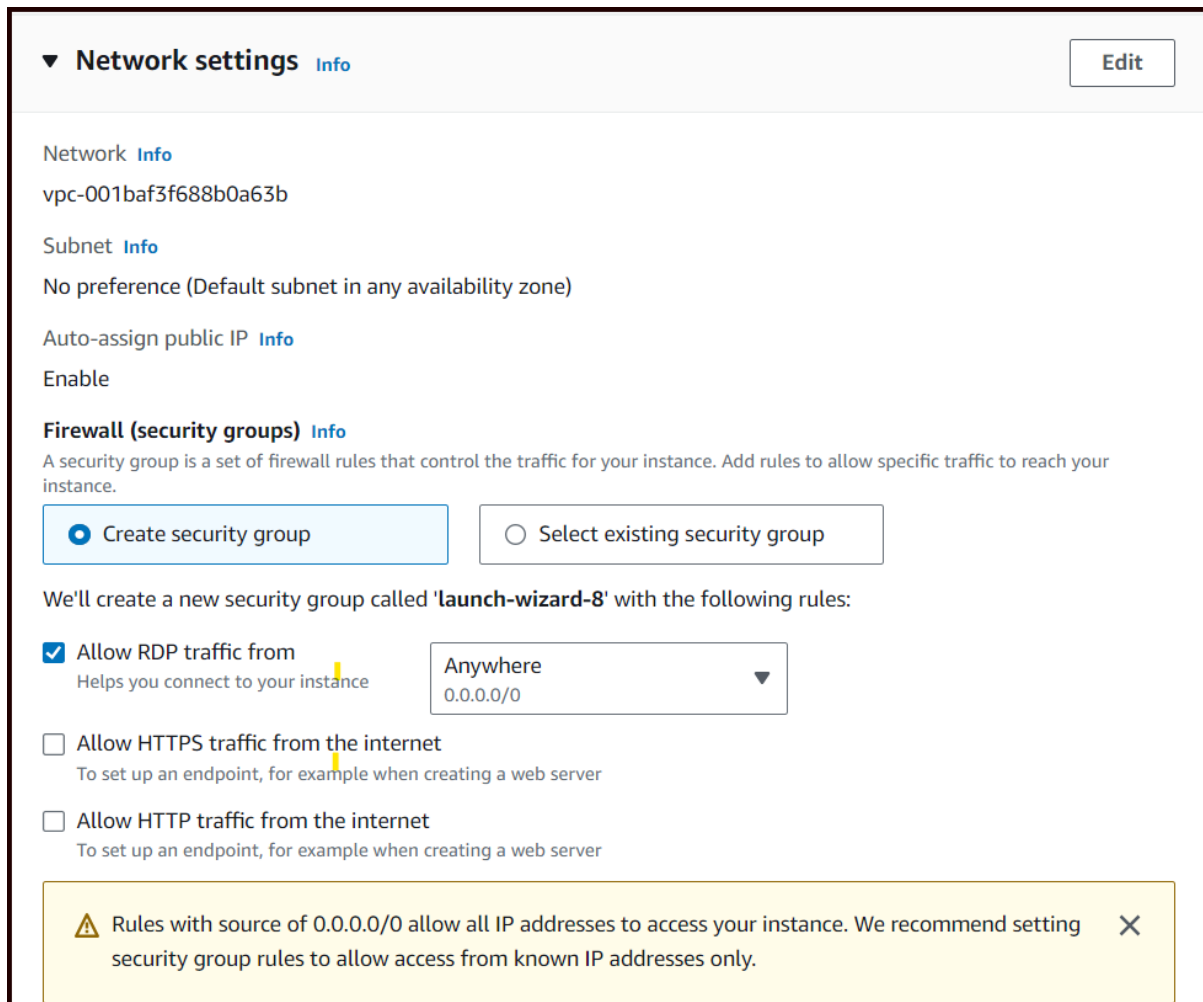


Fig 10

After setting the network, we will get the interface like Figure 11. We have not changed anything in that configuration storage, it is default. Then click on "Launch instance".

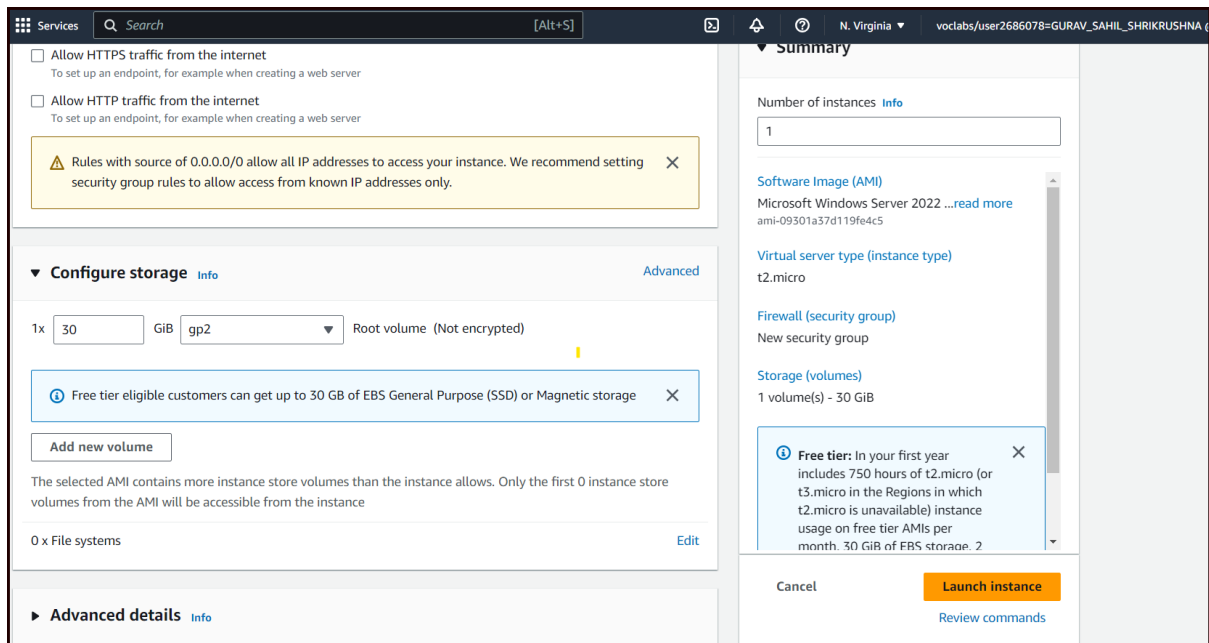


Fig 11

After clicking on "Launch Instance" if the instance creation is successful then we get a message on the interface like Fig 12. Then click on Instances.

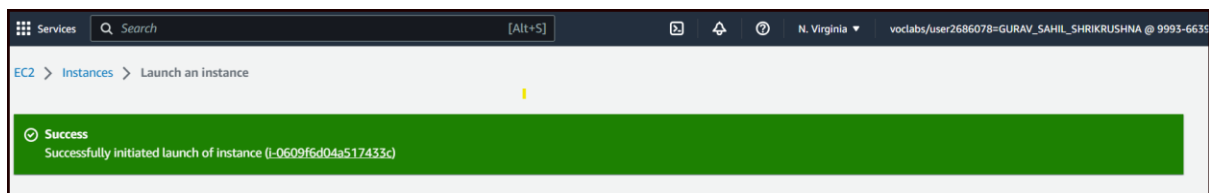


Fig 12

After clicking on "Instances". we can see in the Fig 13 windows instance is created

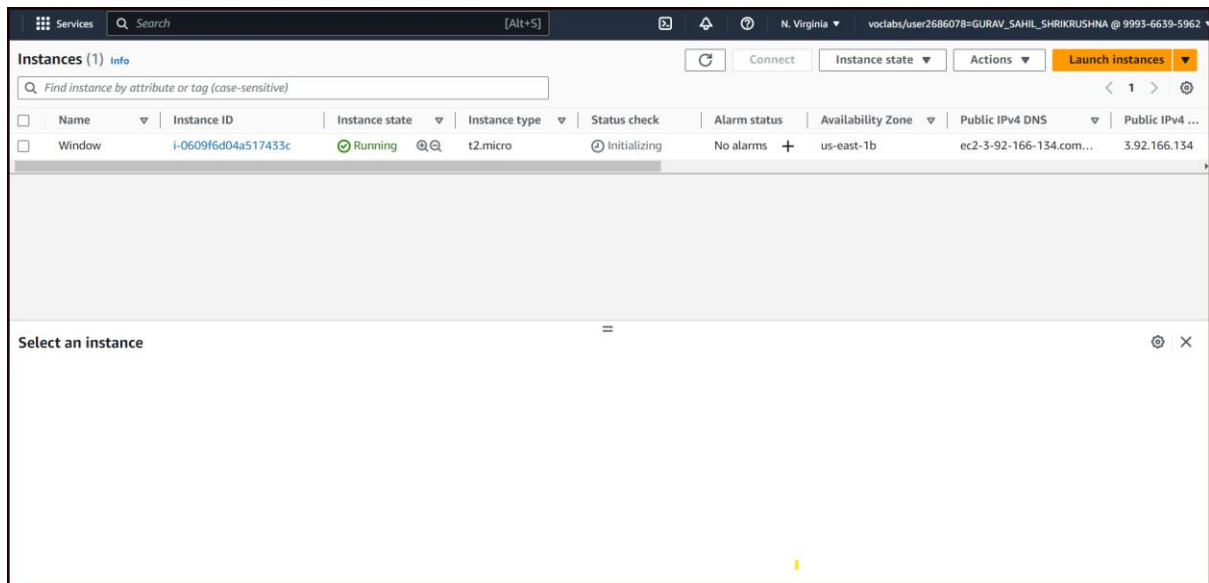


Fig 13

Click on the check box of the given example as in Figure 14 to see the details of the instance. In that we can see information regarding instance details, Security, networking, storage, status check, Monitoring and tags. But in status check we can see that the instance is initializing.

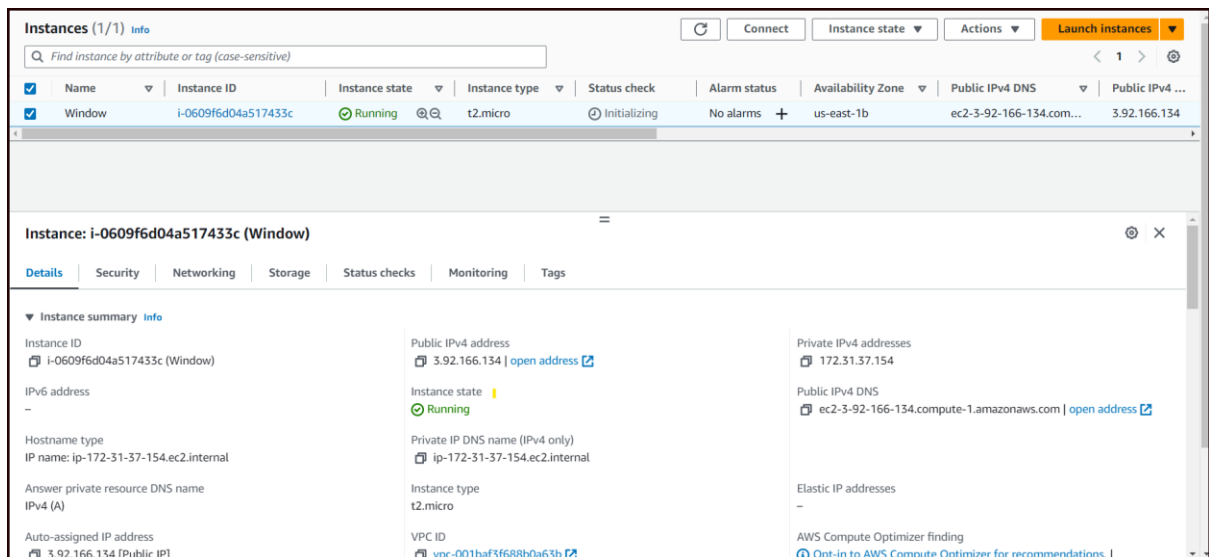


Fig 14

After the initialization is completed, we get a “status check” like Fig 15. Then click on “connect” button.

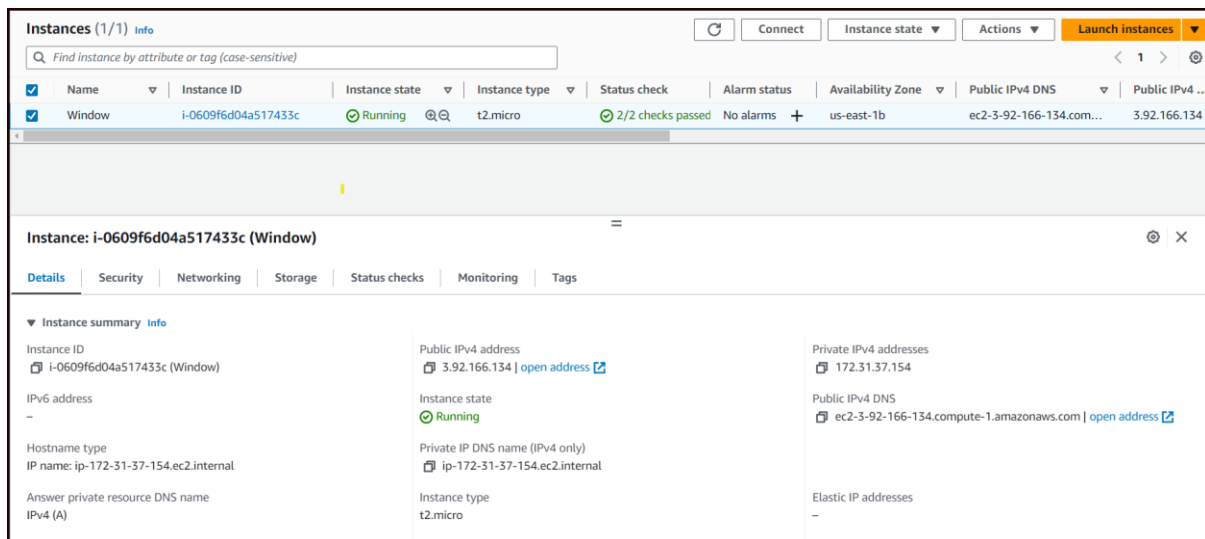


Fig 15

After the clicking “connect” button we get interface like Fig 16. Then click on “RDP client”.

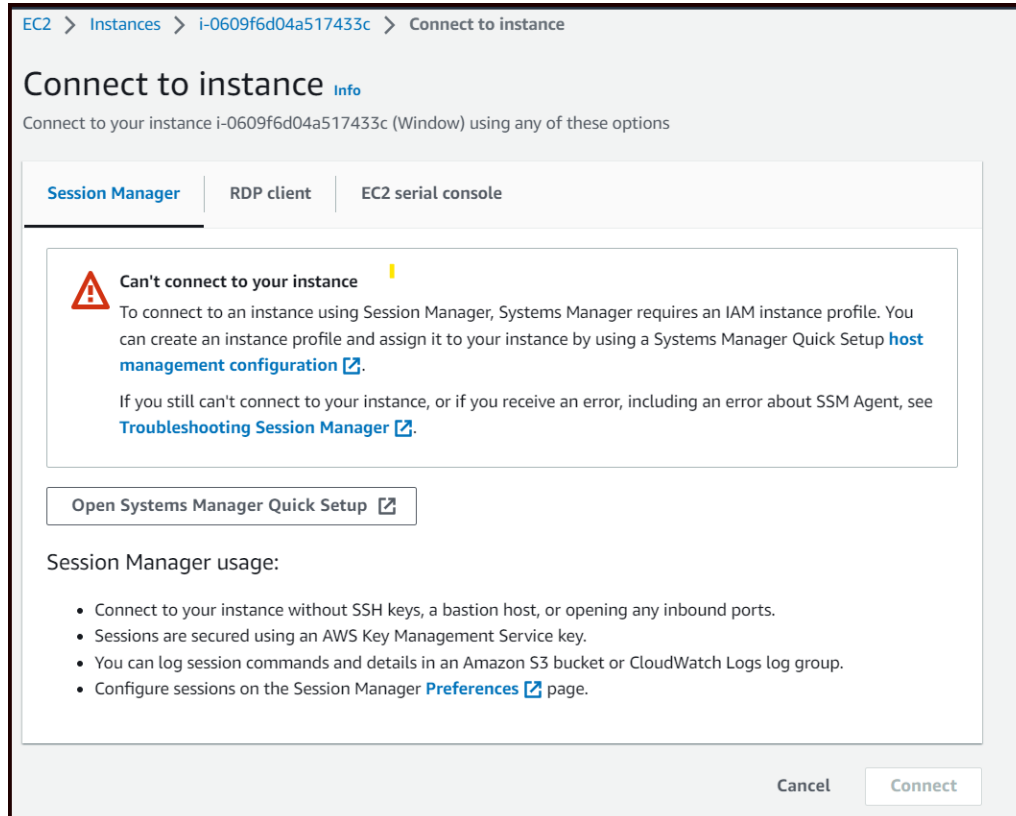


Fig 16

After clicking on RDP client we get interface like Fig 17. Then we click on “Download remote desktop file”. After downloading remote desktop file like Fig 18. Click on “Get password”.

The screenshot shows the AWS Management Console interface for connecting to an EC2 instance via RDP. At the top, there are three tabs: "Session Manager", "RDP client" (which is selected), and "EC2 serial console". Below the tabs, the "Instance ID" is displayed as "i-0609f6d04a517433c (Window)". Under "Connection Type", there are two options: "Connect using RDP client" (selected with a blue radio button) and "Connect using Fleet Manager" (unselected with a grey radio button). The "Connect using RDP client" option includes a sub-instruction: "Download a file to use with your RDP client and retrieve your password." The "Connect using Fleet Manager" option includes a sub-instruction: "To connect to the instance using Fleet Manager Remote Desktop, the SSM Agent must be installed and running on the instance. For more information, see [Working with SSM Agent](#)". Below these options, a text block states: "You can connect to your Windows instance using a remote desktop client of your choice, and by downloading and running the RDP shortcut file below:". This is followed by a button labeled "Download remote desktop file". Below the button, a text block says: "When prompted, connect to your instance using the following details:". This is followed by two fields: "Public DNS" with the value "ec2-3-92-166-134.compute-1.amazonaws.com" and "User name" with the value "Administrator". Below these fields, there is a "Password" field and a "Get password" button. At the bottom, there is a light blue information box with an information icon and the text: "If you've joined your instance to a directory, you can use your directory credentials to connect to your instance."

Fig 17

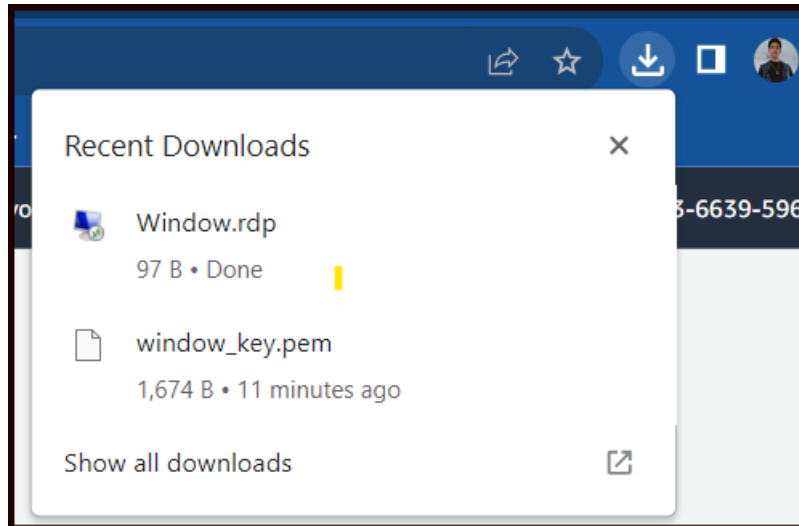


Fig 18

After clicking on "Get password" we get interface like Fig 19. In that click on "Upload private key file" and select the file that we have downloaded on Fig 9

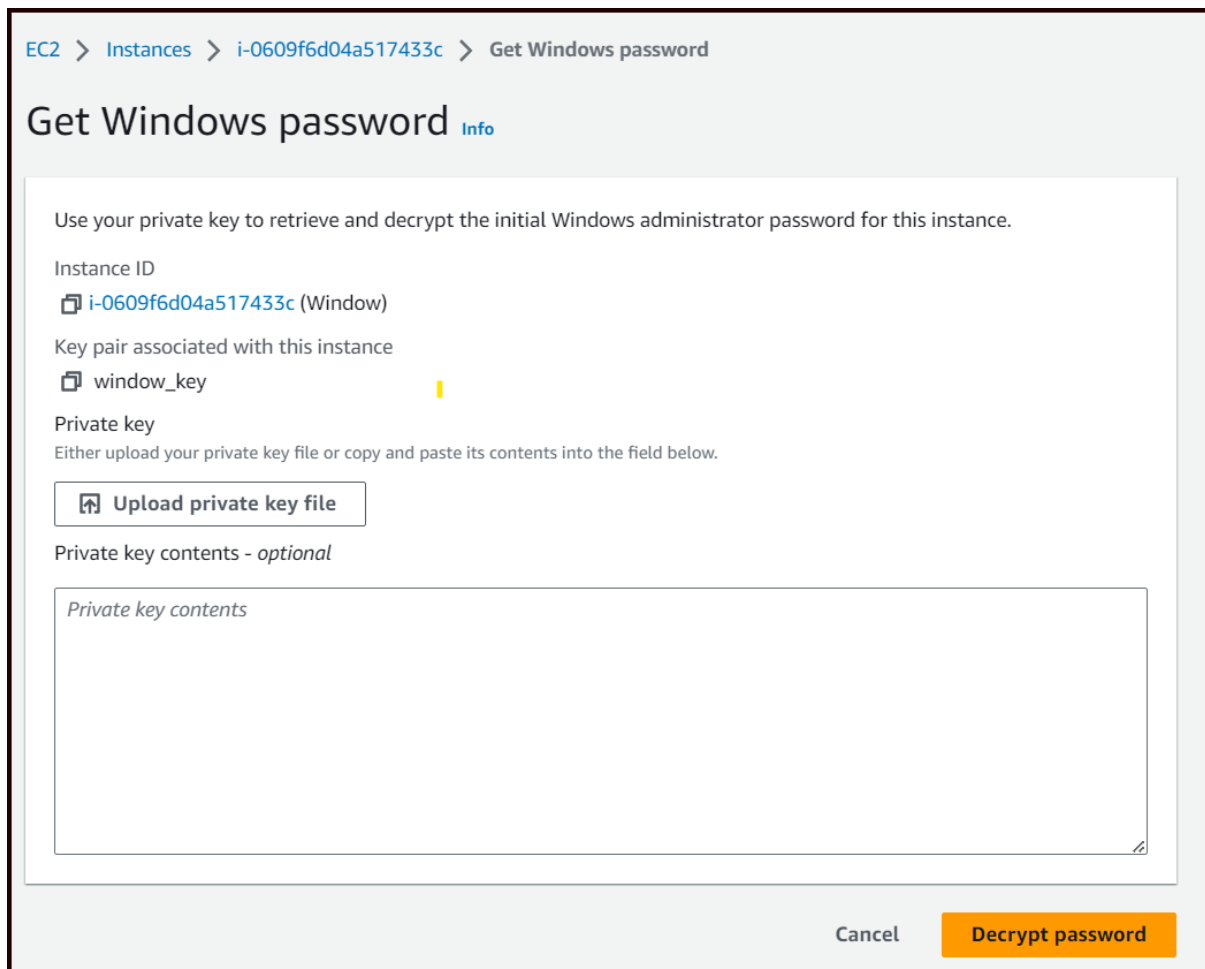


Fig 19

After uploading file we get interface like Fig 20. Then click on "Decrypt password".

Get Windows password [Info](#)

Use your private key to retrieve and decrypt the initial Windows administrator password for this instance.

Instance ID
i-0609f6d04a517433c (Window)

Key pair associated with this instance
window_key

Private key
Either upload your private key file or copy and paste its contents into the field below.

[Upload private key file](#)

window_key.pem
1.674KB

Private key contents - optional

```
-----BEGIN RSA PRIVATE KEY-----
MIIEowIBAAKCAQEArOwDRGwafXBD+f0BAtaZ2WkComUMjW+BCEmuizvrC5Wdq00P
/YIfSRfz0McE/ZCalcP8CmzCj7w3ldwIN75mjs1nJfLmU4IRXh+C3kNER5SA5Rb
nngM6JG2+6VTUJgiZeeYLYiMTDUZcn9XeGSXlaEpdE4FoFw9jEUx4o9fYe/QgK
7iMp1pESH3q/+eq7llsdNT+E8DqCnNk0FYoiah3TIw8t7BA/b2T2ef000lVtu363
rqfXk8yeqfK7TjWE0ULcMIFboGVaNbPYvhpvdbtdtcybbKe5JvT0wkjc/gyYvBfX
DZz3ieD3qPfl/s+InwIX5jVHsYhSXABwIbuk9wIDAQABAoIBAAG1s7KRfxGOcp2e
KsxkYtELgMMqTJ15ZMU4NUmbJg/PQufWsznGd5i5a+e8kAgRzfV9lpjXynSxX7ot
-----
```

Cancel **Decrypt password**

Fig 20

When we click on "Decrypt Password" we get the password which is shown in figure 21.

Session Manager | **RDP client** | EC2 serial console

Instance ID
i-0609f6d04a517433c (Window)

Connection Type

Connect using RDP client
Download a file to use with your RDP client and retrieve your password.

Connect using Fleet Manager
To connect to the instance using Fleet Manager Remote Desktop, the SSM Agent must be installed and running on the instance. For more information, see [Working with SSM Agent](#)

You can connect to your Windows instance using a remote desktop client of your choice, and by downloading and running the RDP shortcut file below:

[Download remote desktop file](#)

When prompted, connect to your instance using the following details:

Public DNS
ec2-3-92-166-134.compute-1.amazonaws.com

User name
Administrator

Password
YSryk4pA*X77)(U8i-k*wckTN(NhOiPA)

[If you've joined your instance to a directory, you can use your directory credentials to connect to your instance.](#)

Fig 21

Then open the file that we downloaded in Figure 18. Then we get an interface like Figure 22. Click on "Connect" button.

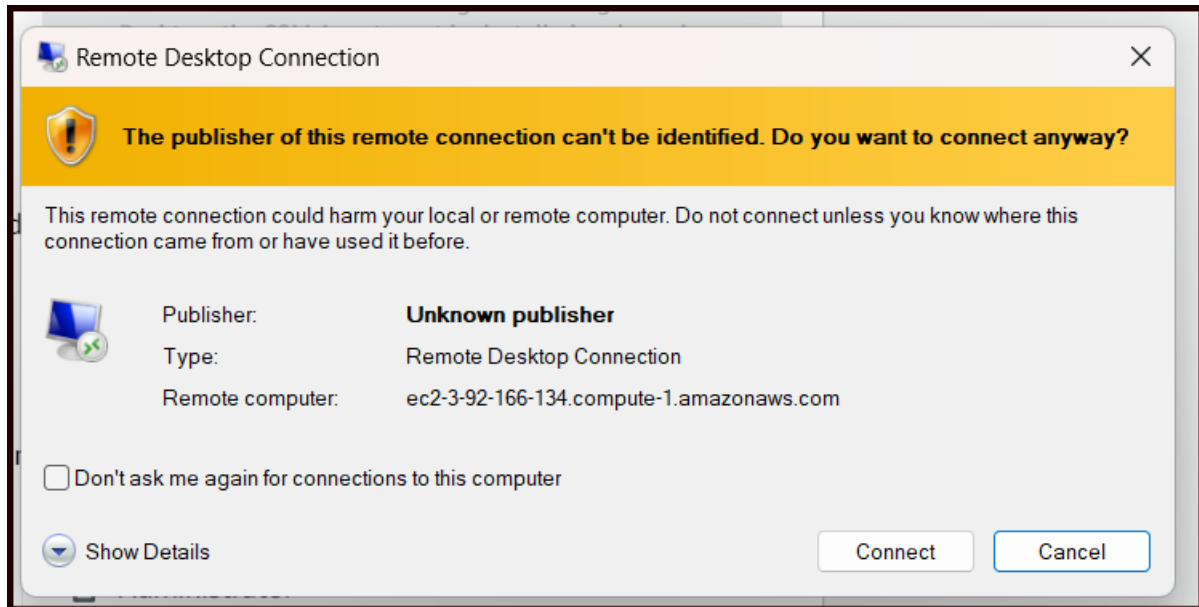


Fig 22

After clicking on the "Connect" button, we get an interface similar to Figure 23. In this we have to enter the password which is shown in figure 21. After inserting password click on "ok" button.

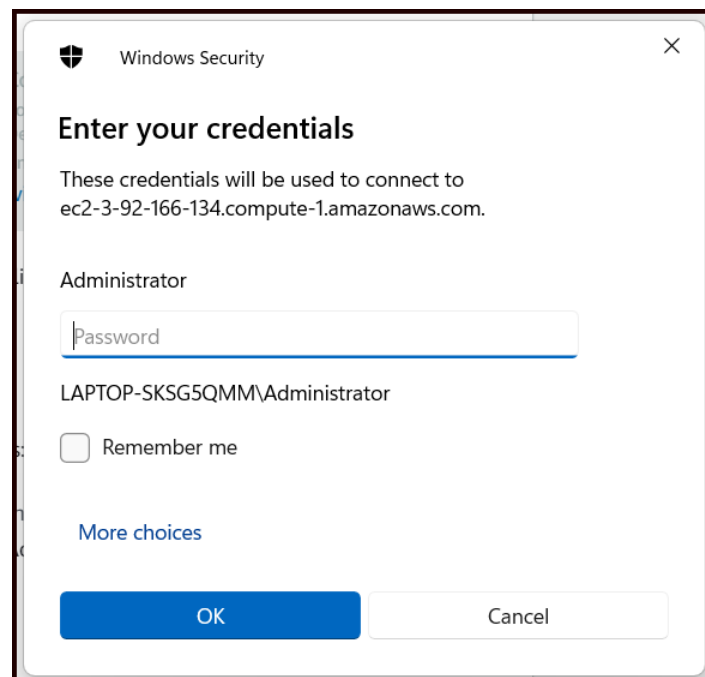


Fig 23

After the Fig 23 we get the interface similar to Fig 24. Click on “Yes”

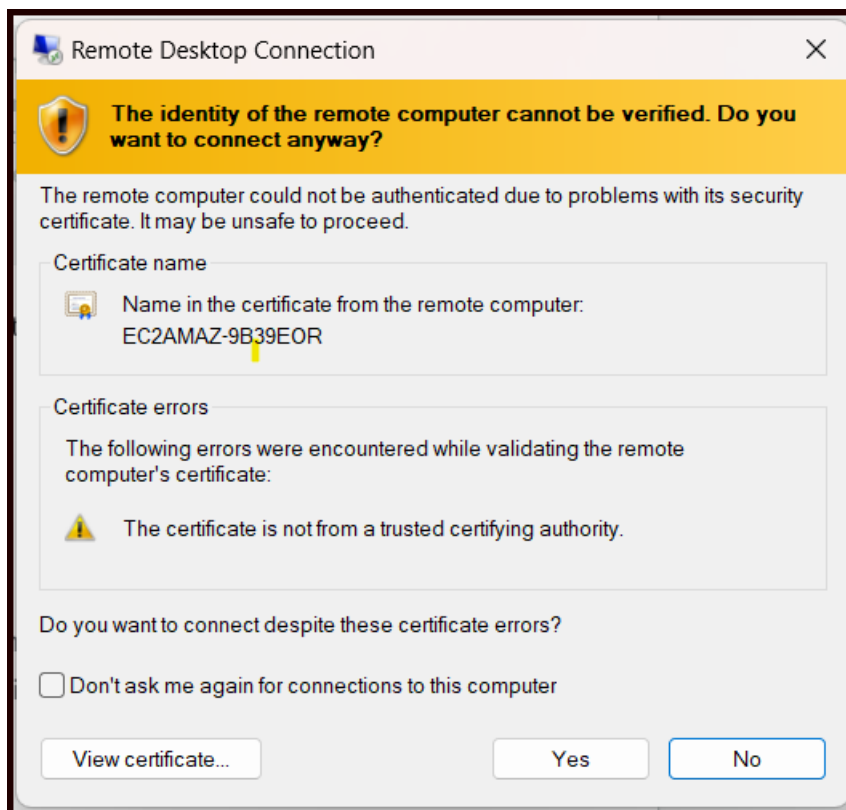


Fig 24

After clicking on “yes”. Then windows instance is created successfully as in Fig 25.

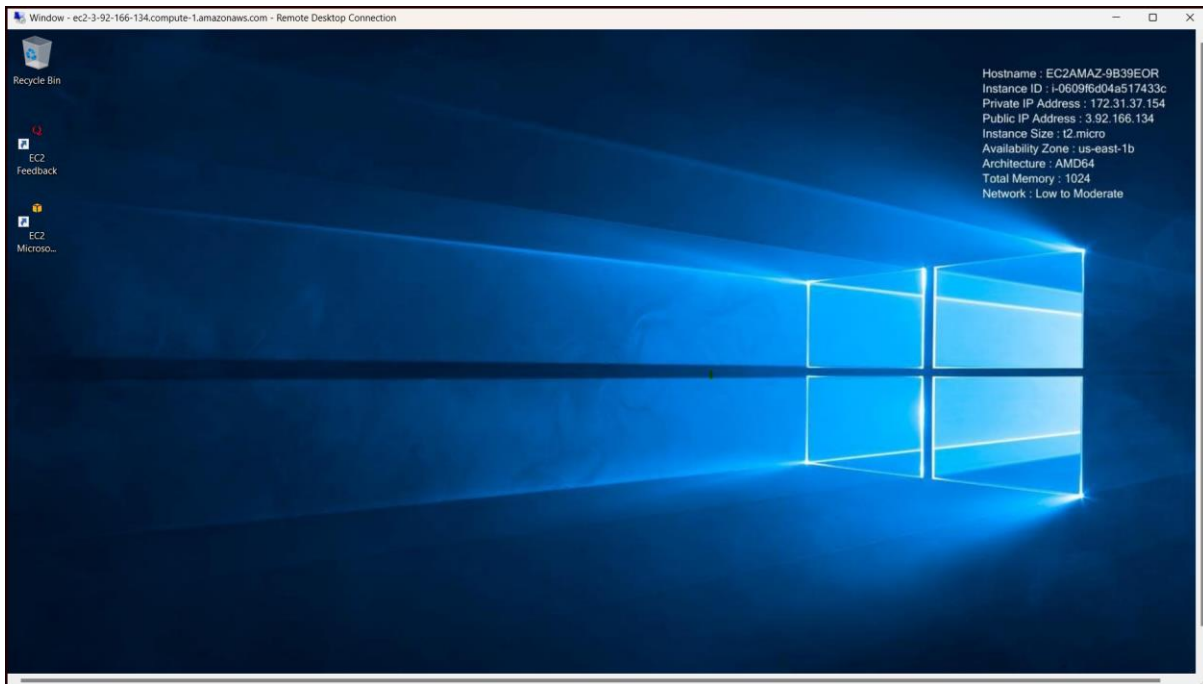


Fig 25

After closing instance similar to Fig 26 interface is showing. Then click on “Instances”.

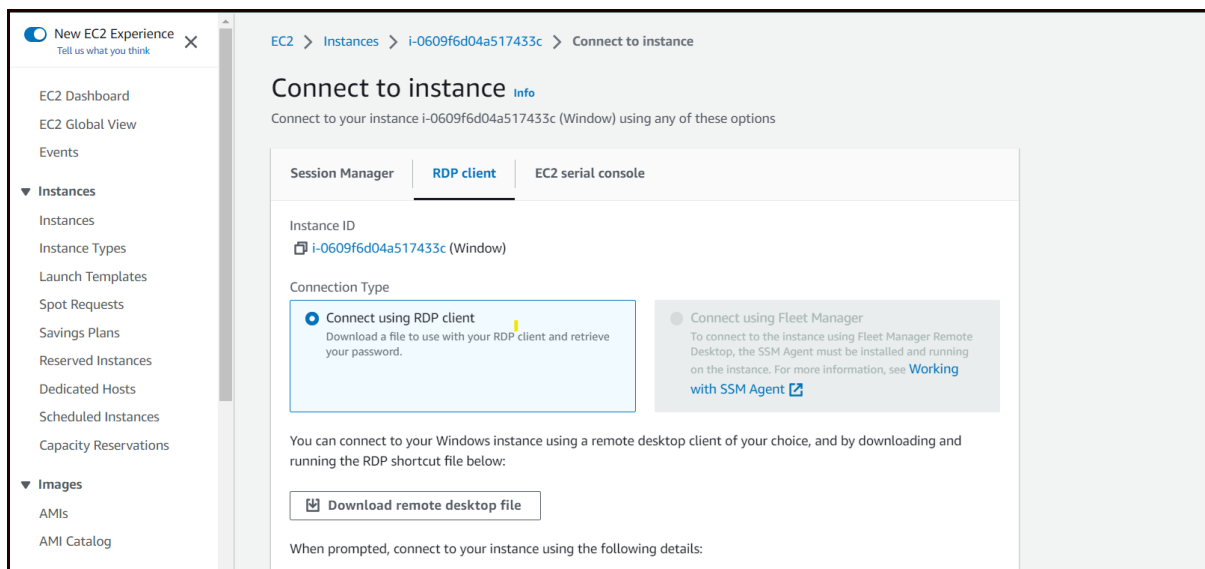


Fig 26

We get an interface like in Fig 27. Then click on "Instance State" select the option as per your choice. Here I select "Terminate Instance".

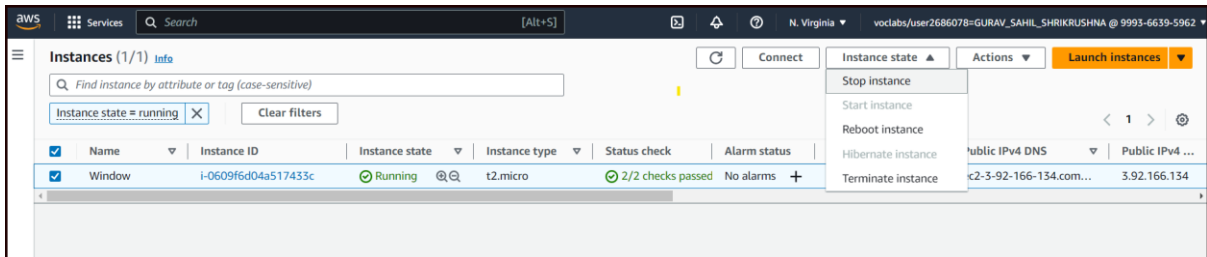


Fig 27

After successfully terminating the instance we get a message similar to Fig 28

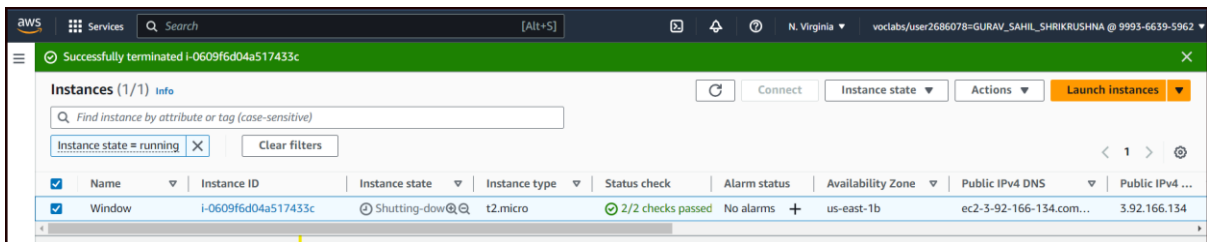


Fig 28