

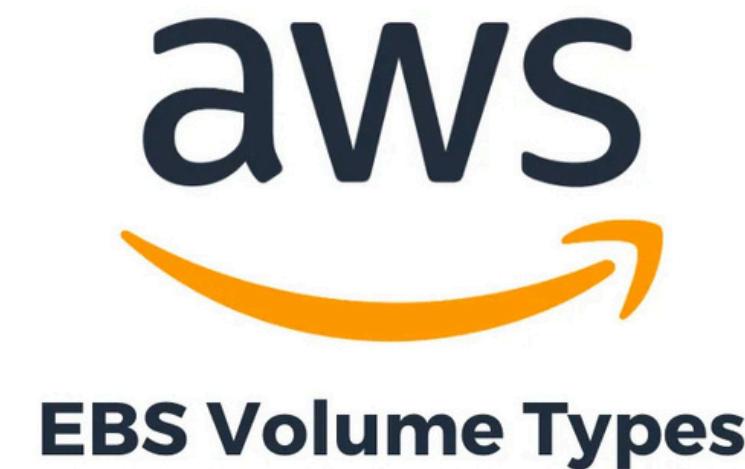
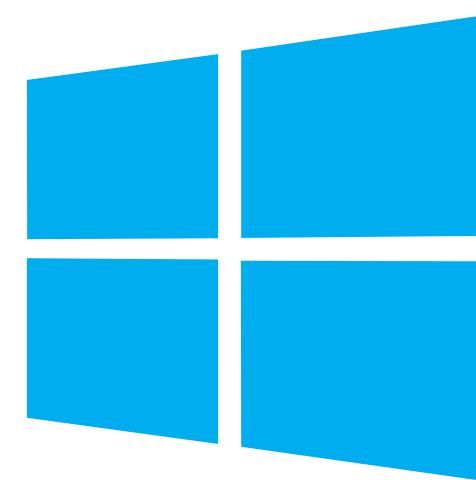
AWS Cloud Training

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Department of Computer Science and Engineering

Name: Vijayananth S L

III - CSE



Launch an instance [Info](#)

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

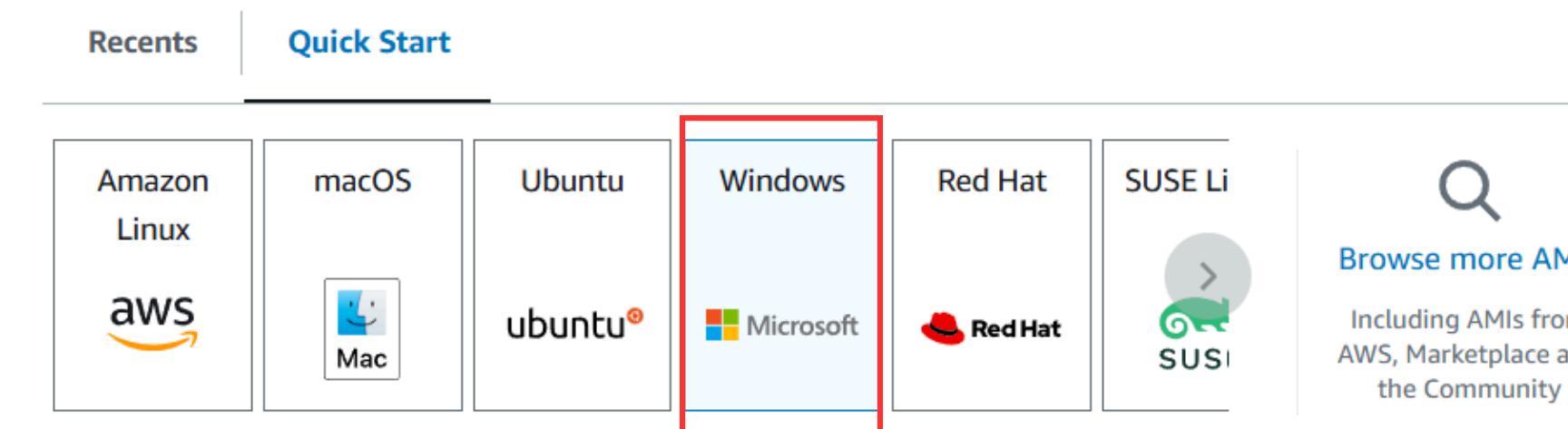
Name and tags [Info](#)

Name

test_1

Add additional tags

Create new EC2 Instance. I named EC2 as “**test_1**”



Browse more AMIs
Including AMIs from AWS, Marketplace and the Community

Choose **Windows OS**



Mumbai vijay_vj

Asia Pacific (Mumbai)	ap-south-1
Asia Pacific (Osaka)	ap-northeast-3
Asia Pacific (Seoul)	ap-northeast-2
Asia Pacific (Singapore)	ap-southeast-1
Asia Pacific (Sydney)	ap-southeast-2
Asia Pacific (Tokyo)	ap-northeast-1

I have chosen **Aisa Pacific (Mumbai)**. You can opt which ever availability zone you want.

▼ Instance type [Info](#) | [Get advice](#)

Instance type

t2.micro
Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Linux base pricing: 0.0124 USD per Hour
On-Demand Windows base pricing: 0.017 USD per Hour
On-Demand RHEL base pricing: 0.0268 USD per Hour
On-Demand SUSE base pricing: 0.0124 USD per Hour

Free tier eligible

All generations

[Compare instance types](#)

Additional costs apply for AMIs with pre-installed software

Create key pair X

Key pair name

Key pairs allow you to connect to your instance securely.

test1_key

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

Root volume of **30gb** will be allocated in windows

NOTE* If you are in free tier always opt for free instance type..

Give name for key pair and select **.pem** file type.

▼ Configure storage [Info](#)

[Advanced](#)

1x GiB Root volume (Not encrypted)

 Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage

X

Launch instance

Click on **Launch Instance**

Status checks Info

Status checks detect problems that may impair i-070d280117454b1a7 (test_1) from running your applications.

System status checks

 **System reachability check passed**

Instance status checks

 **Instance reachability check passed**

Check for the status and wait until it get
passed.

Now let's look into creating **EBS VOLUME**

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity

Reservations New

▼ Images

AMIs

AMI Catalog

▼ Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

▼ Network & Security

Security Groups

Elastic IPs

Placement Groups

Select **Volume** under Elastic Block Store.

Volume settings

Volume type | [Info](#)

General Purpose SSD (gp3)



- Select volume type as
General Purpose SSD (gp3 and gp2)

Size (GiB) | [Info](#)

23

Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

IOPS | [Info](#)

3000

Min: 3000 IOPS, Max: 16000 IOPS. The value must be an integer.

Throughput (MiB/s) | [Info](#)

125

Min: 125 MiB, Max: 1000 MiB. Baseline: 125 MiB/s.

Availability Zone | [Info](#)

ap-south-1b



- Make sure that location of both Instance and Volume remain Same

Snapshot ID - optional | [Info](#)

Don't create volume from a snapshot



Select **don't create volume from snapshot**

Encryption | [Info](#)

Use Amazon EBS encryption as an encryption solution for your EBS resources associated with your EC2 instances.

Encrypt this volume

Snapshot summary [Info](#)



① Click refresh to view backup information

The volume type that you select and the tags that you assign determine whether the volume will be backed up by any Data Lifecycle Manager policies.

Cancel

Create volume

Click on **Create Volume**

Size	IOPS	Throughput	Snapshot ID	Created	Availability Zone	Volume state
30 GiB	100	-	snap-0f8c3ab...	2024/10/17 08:58 GMT+5:...	ap-south-1b	In-use
30 GiB	100	-	snap-0f8c3ab...	2024/10/17 09:46 GMT+5:...	ap-south-1b	In-use
15 GiB	3000	125	-	2024/10/17 10:39 GMT+5:...	ap-south-1b	Available

The screenshot shows the AWS Lambda console. On the left, there is a sidebar with the following actions listed:

- Actions ▾
- Create volume** (highlighted in orange)
- Modify volume
- Create snapshot
- Create snapshot lifecycle policy
- Delete volume
- Attach volume** (highlighted with a red box)
- Detach volume
- Force detach volume
- Manage auto-enabled I/O
- Manage tags
- Fault injection

- Now you can see the volume has been created but **Not in Use**.
- Select the volume you want to attach and under **Actions** select **Attach volume**.

The screenshot shows the AWS Lambda console. At the top, it says "Basic details". Below that, the "Volume ID" is listed as "vol-0bae55d455d3de32e". The "Availability Zone" is set to "ap-south-1b". Under "Instance", the dropdown menu shows "i-070d280117454b1a7" (highlighted with a red box). A note below says "Only instances in the same Availability Zone as the selected volume are displayed." At the bottom, the "Device name" is set to "xvdb". A note at the very bottom says "Recommended device names for Windows: /dev/sda1 for root volume. xvdf[0-p] for data volumes."

In my case it is **ap-south-1b**

- Select any of the available instances from instance **dropdown**.

Filter block devices					
	Volume ID	Device name	Volume size (GiB)	Attachment status	Attachment time
<input checked="" type="checkbox"/>	vol-03de184c90ae2d13d	/dev/sda1	30	Attached	2024/10/17 08:58 GMT+5:30
<input type="checkbox"/>	vol-0bae55d455d3de32e	xvdb	15	Attached	2024/10/17 10:42 GMT+5:30

Instances (1/1) Info						
Last updated less than a minute ago C Connect Instance state Actions Launch instances						
Find Instance by attribute or tag (case-sensitive) All states						
Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
<input checked="" type="checkbox"/> test_1	i-00d429d6c44e8019d	Running	t2.micro	2/2 checks passed	View alarms	ap-south-1b

Connect to instance [Info](#)

Connect to your instance i-00d429d6c44e8019d (test_2) using any of these options

[Session Manager](#) [RDP client](#) [EC2 serial console](#)

SSM Agent is not online

The SSM Agent was unable to connect to a Systems Manager endpoint to register itself with the service.

Session Manager usage:

- Connect to your instance without SSH keys, a bastion host, or opening any inbound ports.
- Sessions are secured using an AWS Key Management Service key.
- You can log session commands and details in an Amazon S3 bucket or CloudWatch Logs log group.
- Configure sessions on the Session Manager [Preferences](#) page.

You can now notice that New Volume has been **Attached**.

Now click on **Connect** button to access decrypted password.

Click on RDP Client

When prompted, connect to your instance using the following username and password:

Public DNS
 ec2-43-204-229-24.ap-south-1.compute.amazonaws.com

Password

i If you've joined your instance to a directory, you can use your directory credentials to connect to your instance.

Username [Info](#)
 Administrator

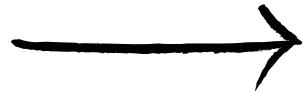
Use your private key to retrieve and decrypt the initial Windows administrator password for this instance.

Instance ID
 i-00d429d6c44e8019d (test_2)
Key pair associated with this instance
 test2_key

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

Private key contents - optional

Private key contents



Click on Get password

Upload your downloaded key from file manager.

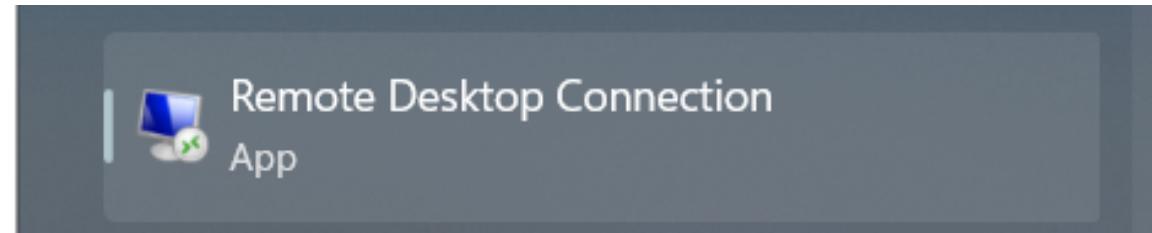
When prompted, connect to your instance using the following username and password:

Public DNS
 ec2-43-204-229-24.ap-south-1.compute.amazonaws.com

Password

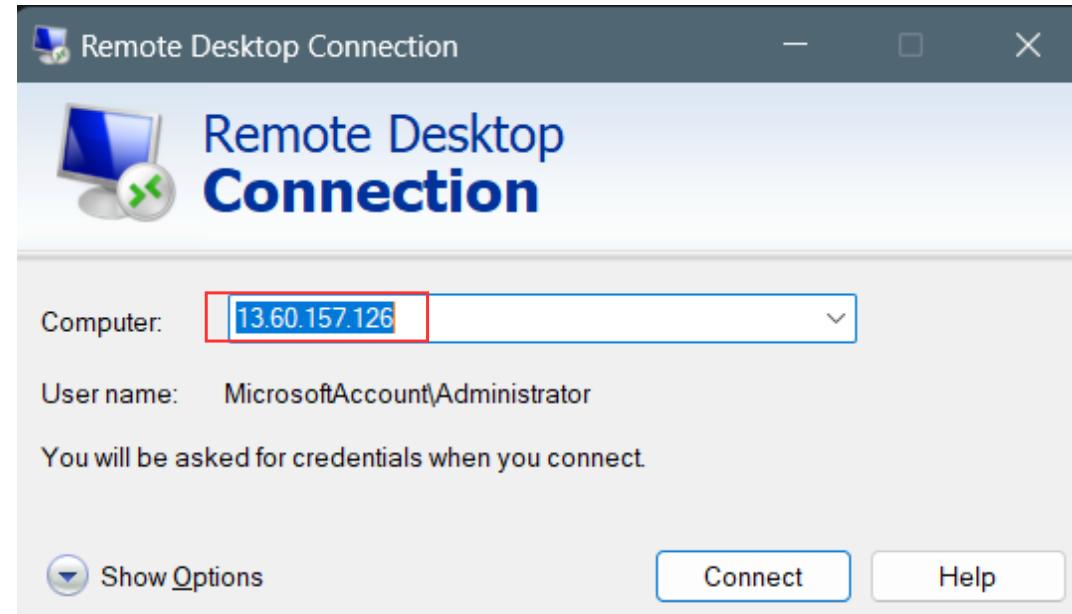
i If you've joined your instance to a directory, you can use your directory credentials to connect to your instance.

Username [Info](#)
 Administrator



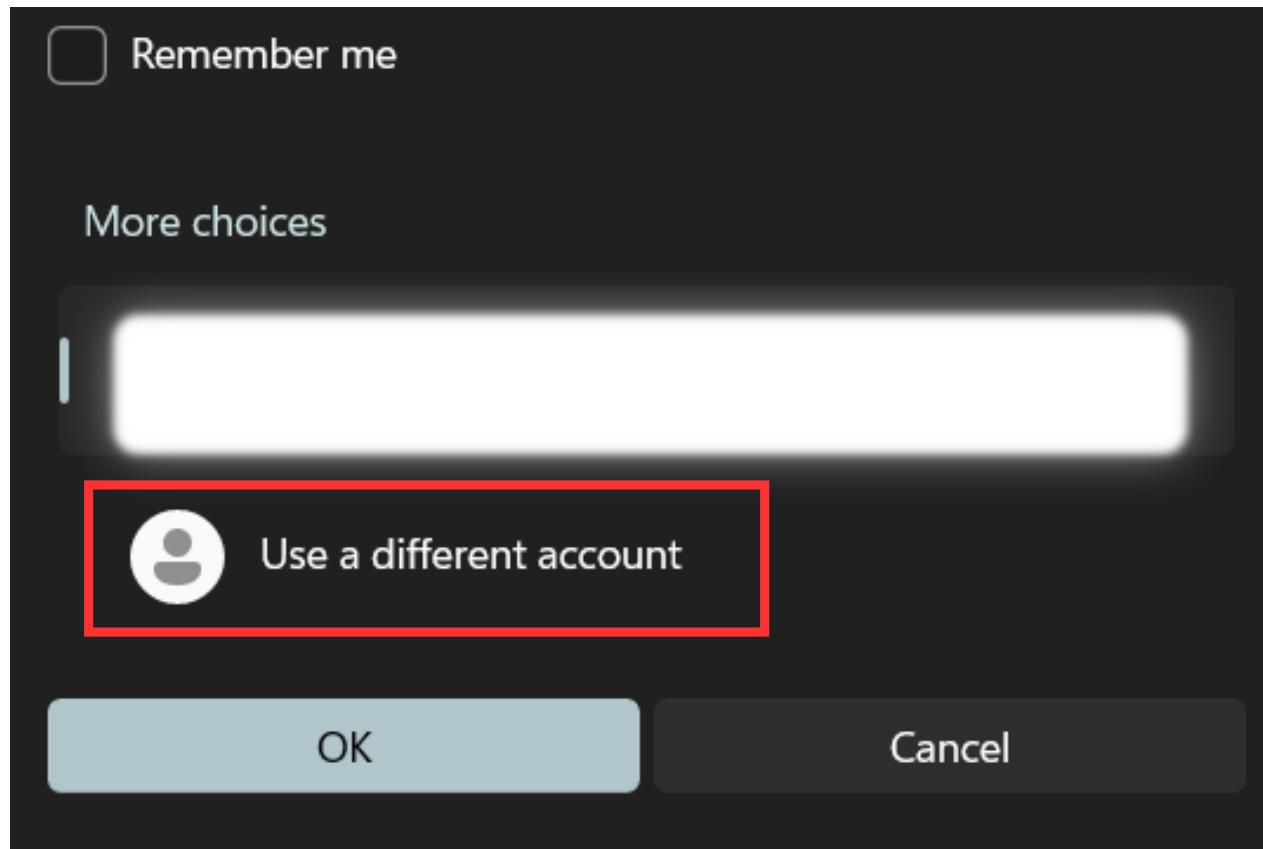
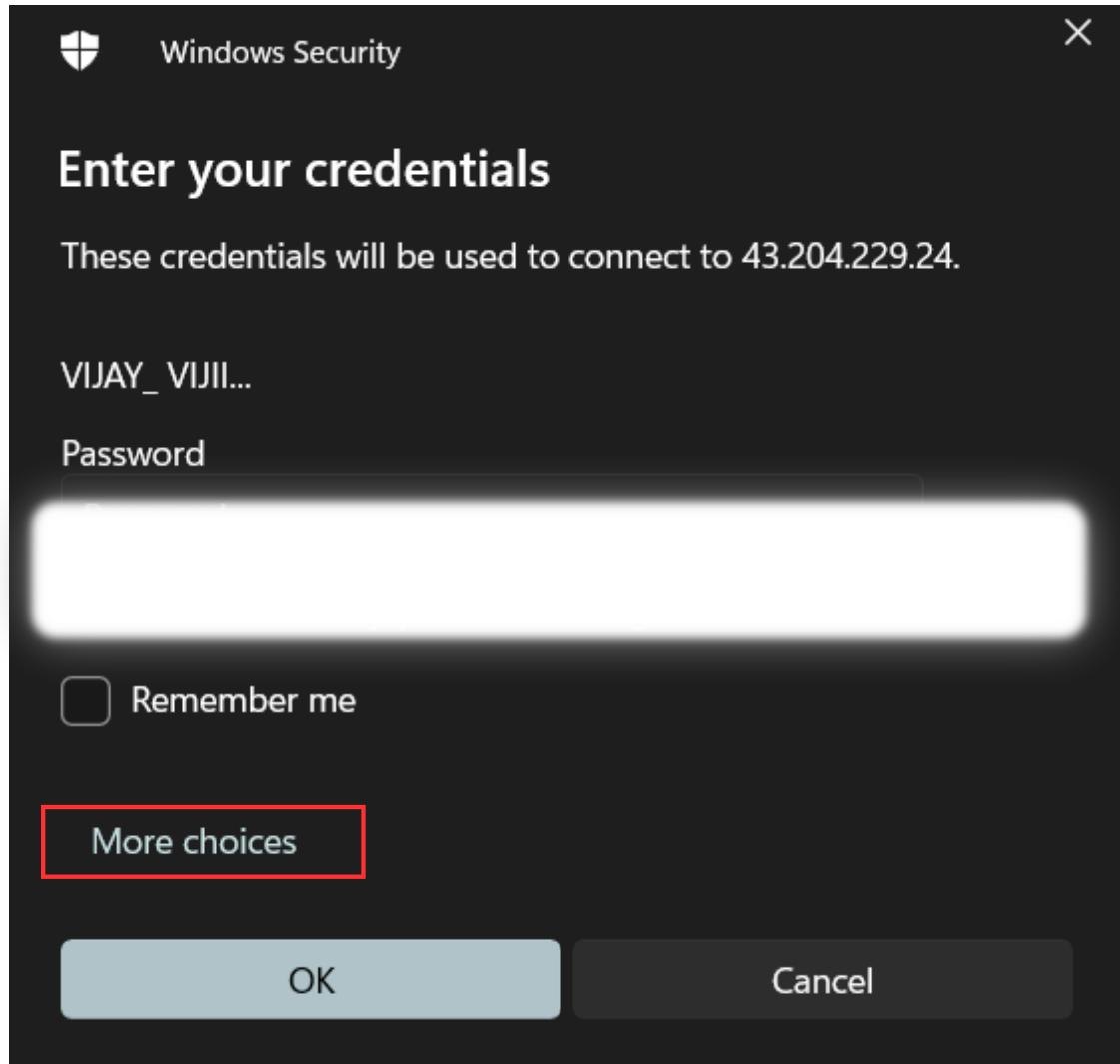
You can view your Decrypted password.

Search Remote Desktop Connection in search bar.



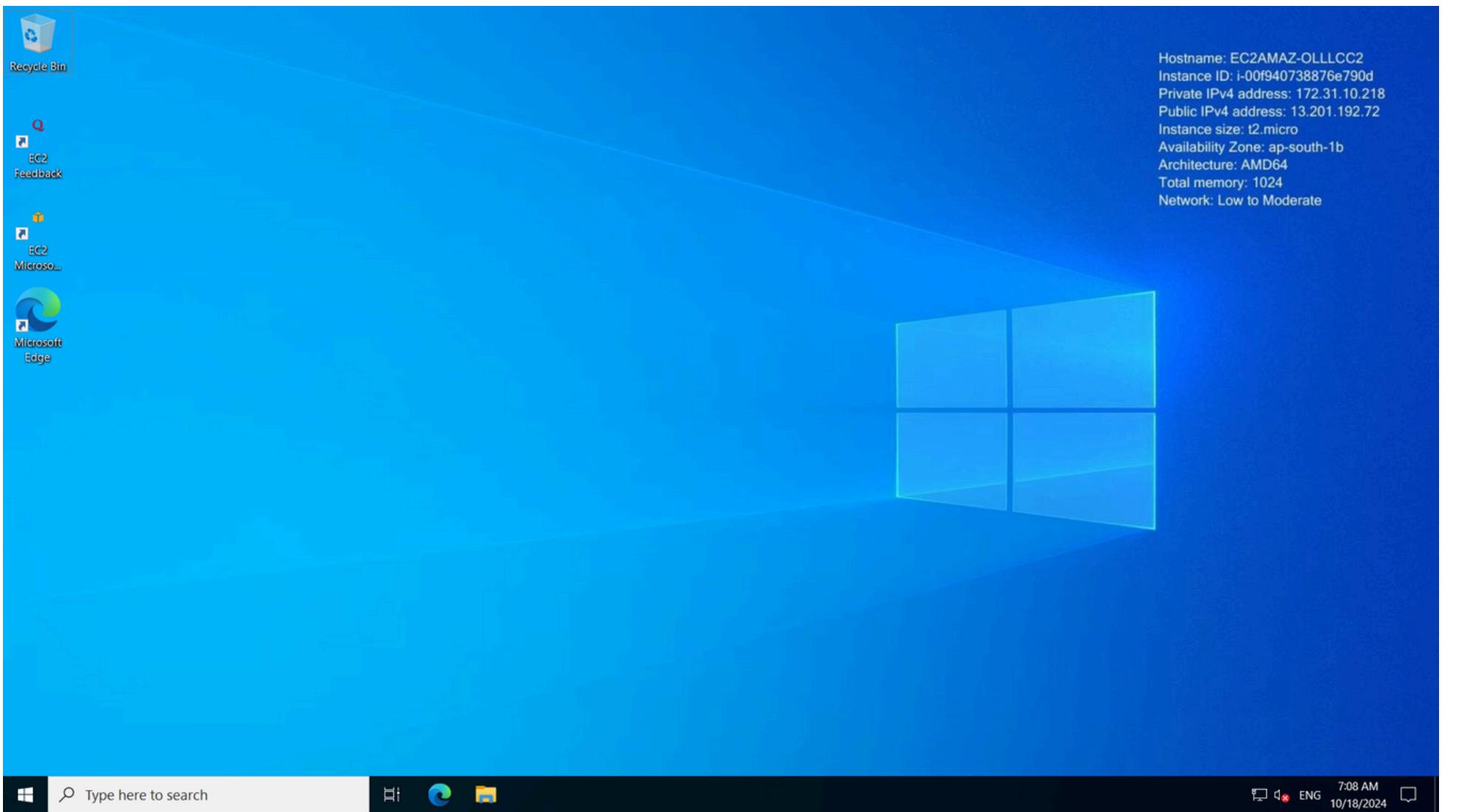
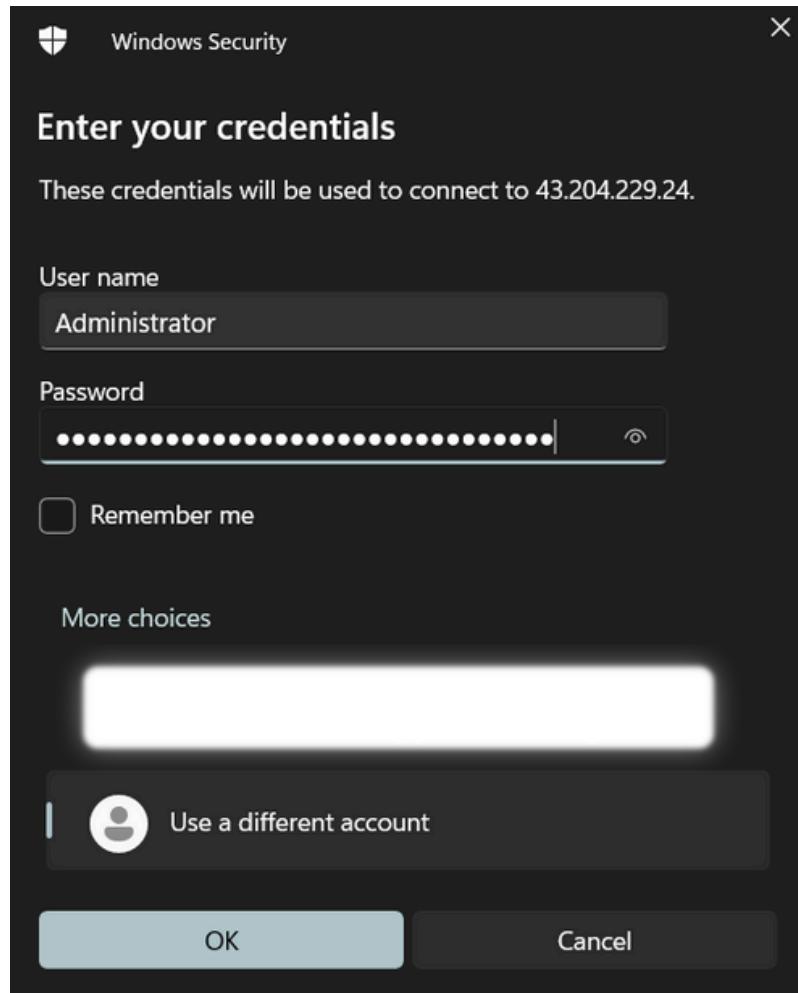
Window appears, asking your **Public IPv4 Address**.
-- IP is available at EC2 Instance Dashboard.

Then click **connect**.



Click on **Use a different account**

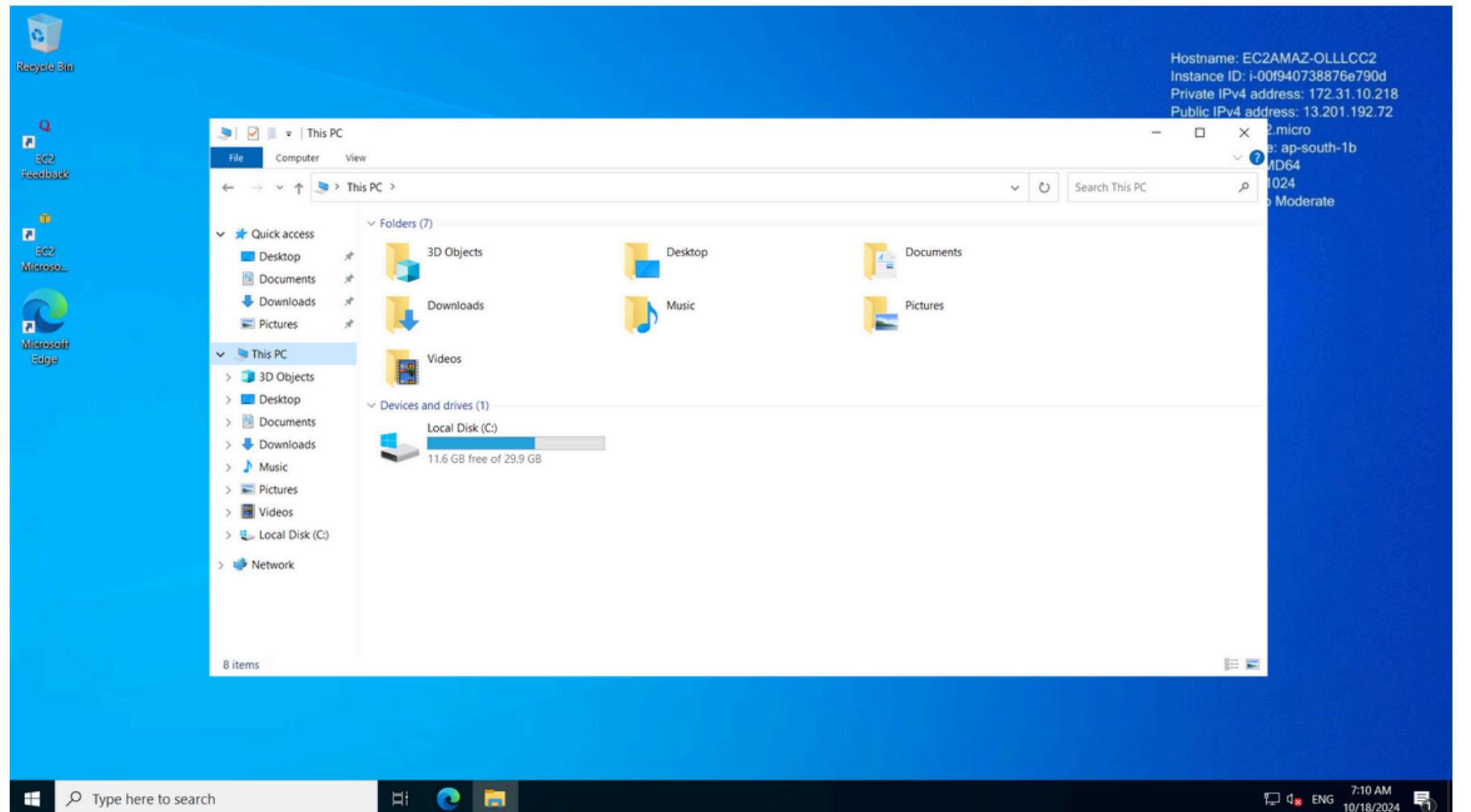
In default the user's account will be selected. So, Click on **more choices**



Type **Administrator** as Username and **password** from the Instance dashboard.

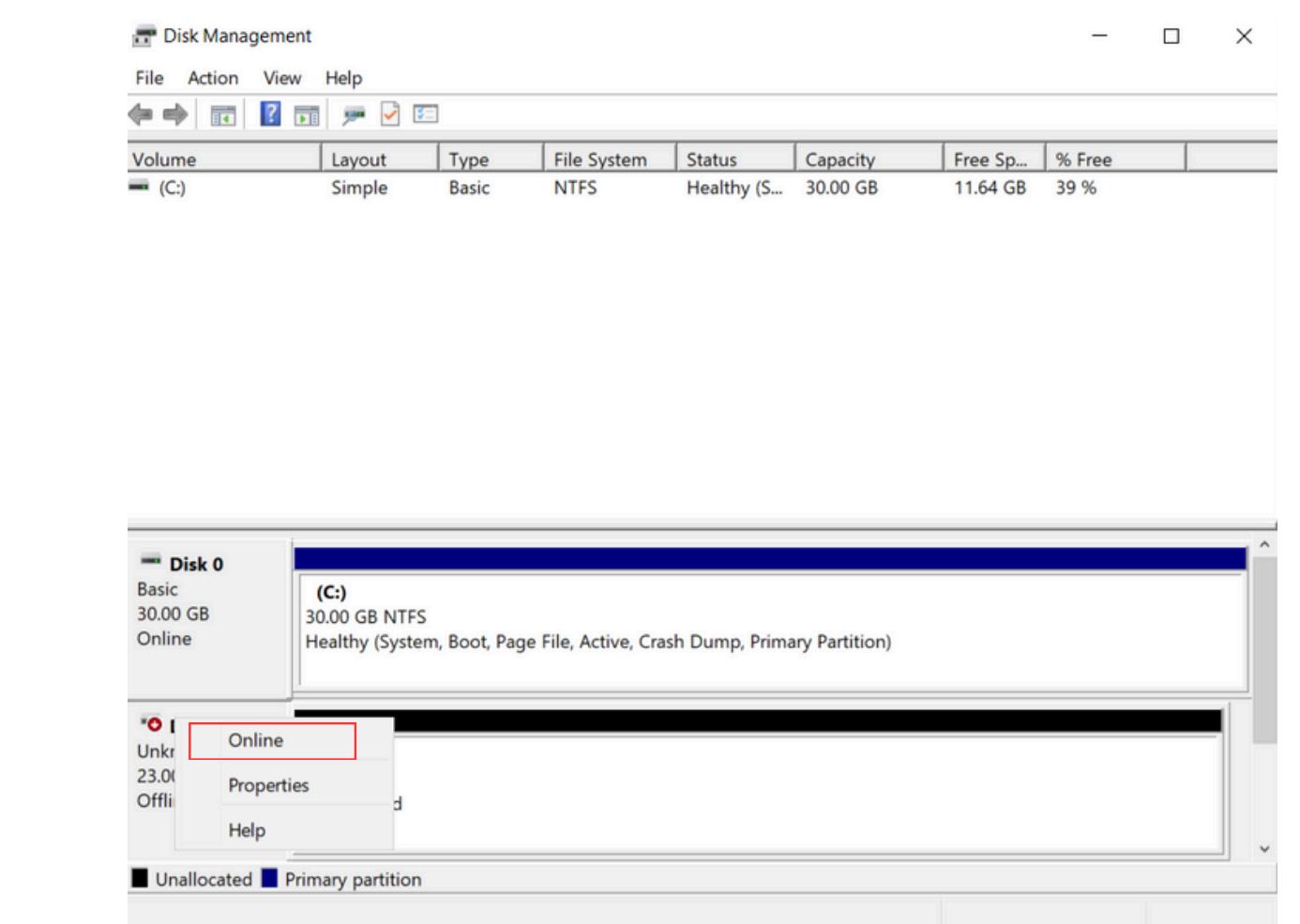
Then click **ok**.

The **Windows VM** is now available for usage.



We can see that only one drive is available, which is not enough. Let's expand the storage.

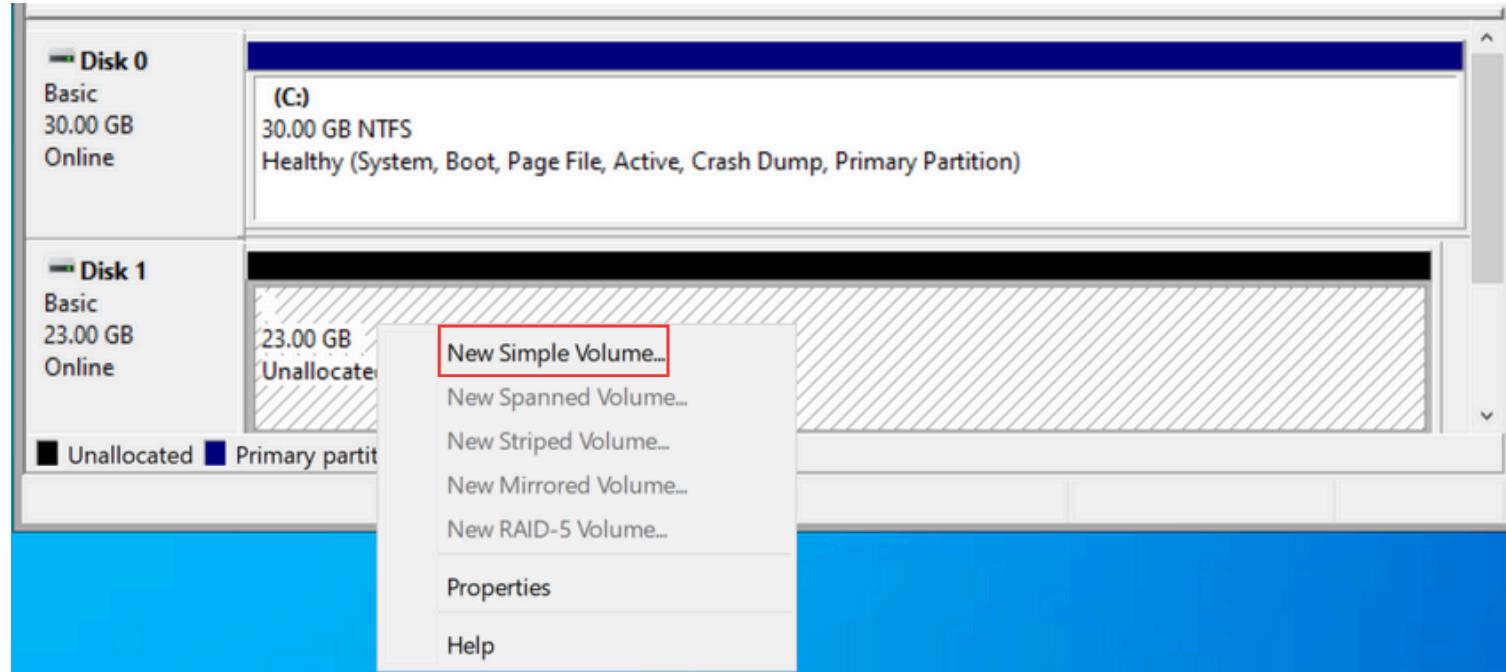
Open disk management by pressing **Win + R** and type ***diskmgmt.msc***



You can see there are 2 volumes/disk's where only one is allocated and another is **not allocated**

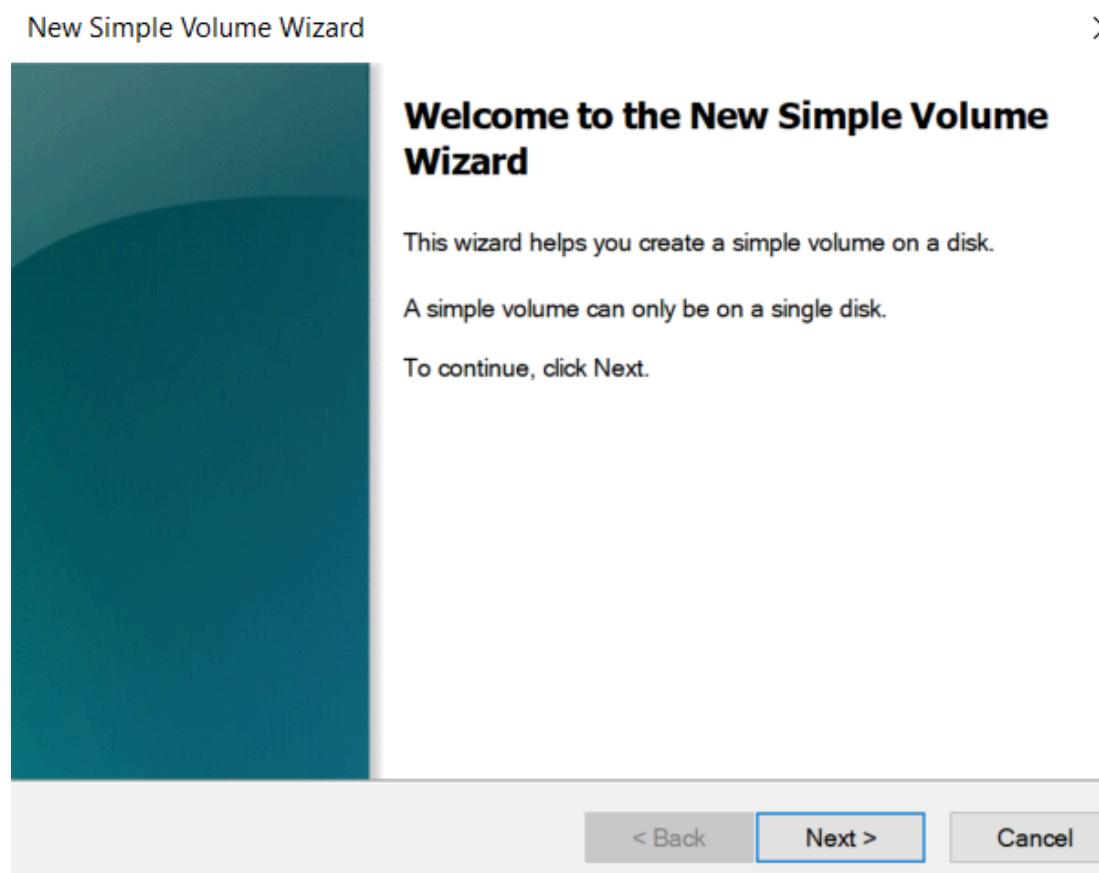
To allocate the new volume:

- **right click on text Disk 1**
- **Click Online**

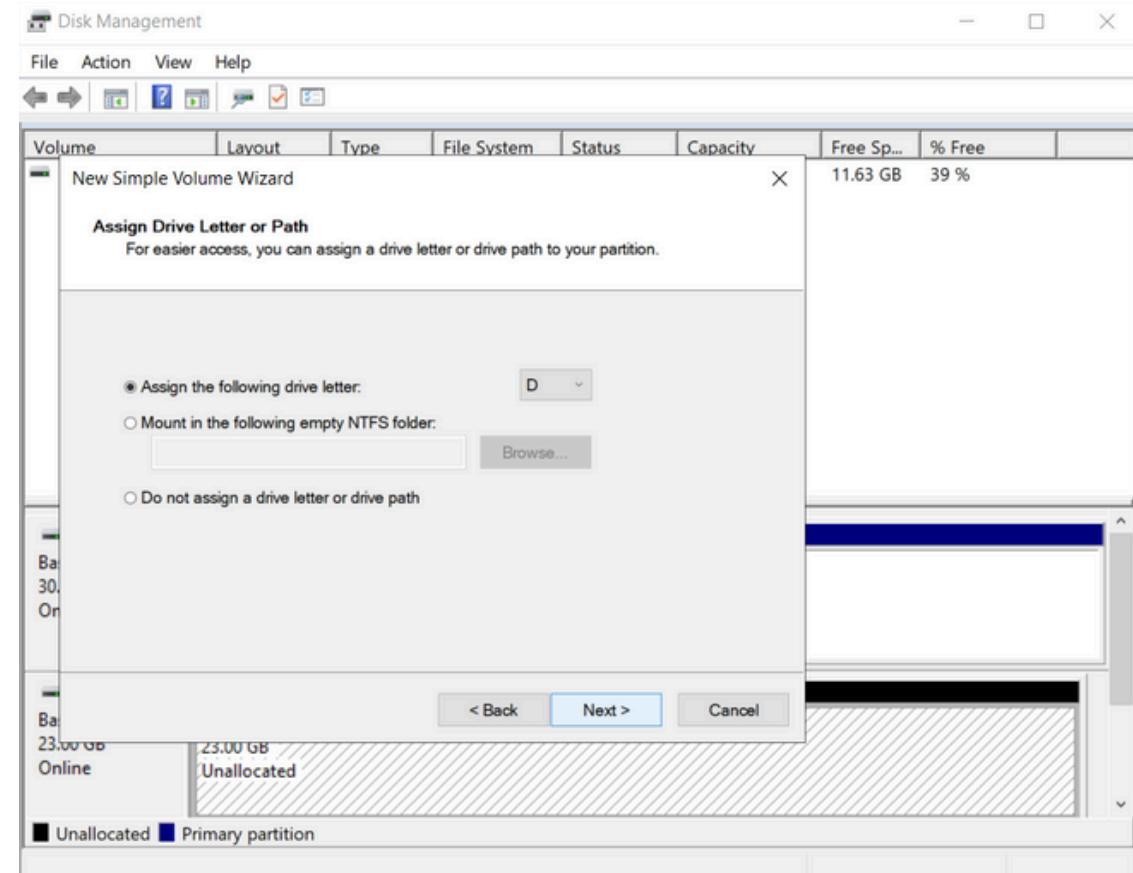


Again, right Click on Disk 1 and select Initialize Disk. Now the disk is available and ready for allocation.

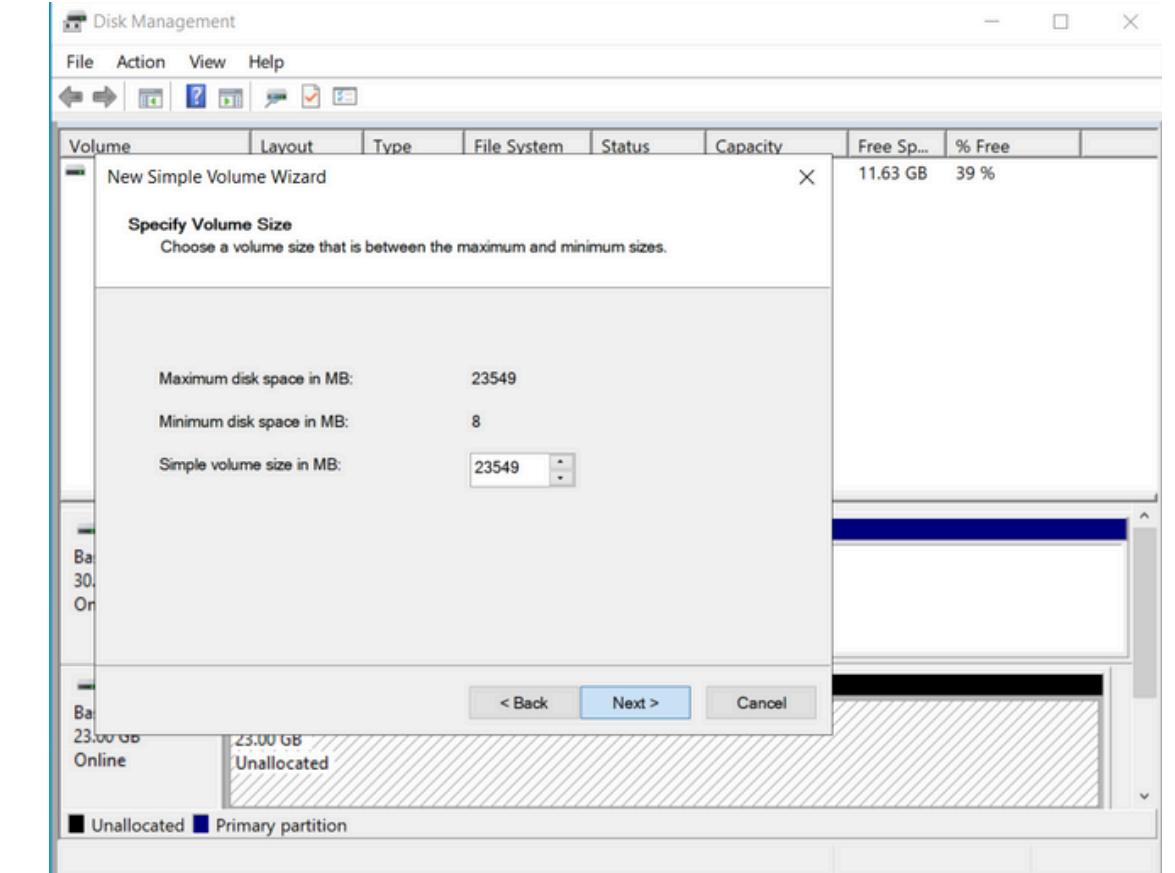
At last, Right click on Unallocated and select **New Simple Volume.**



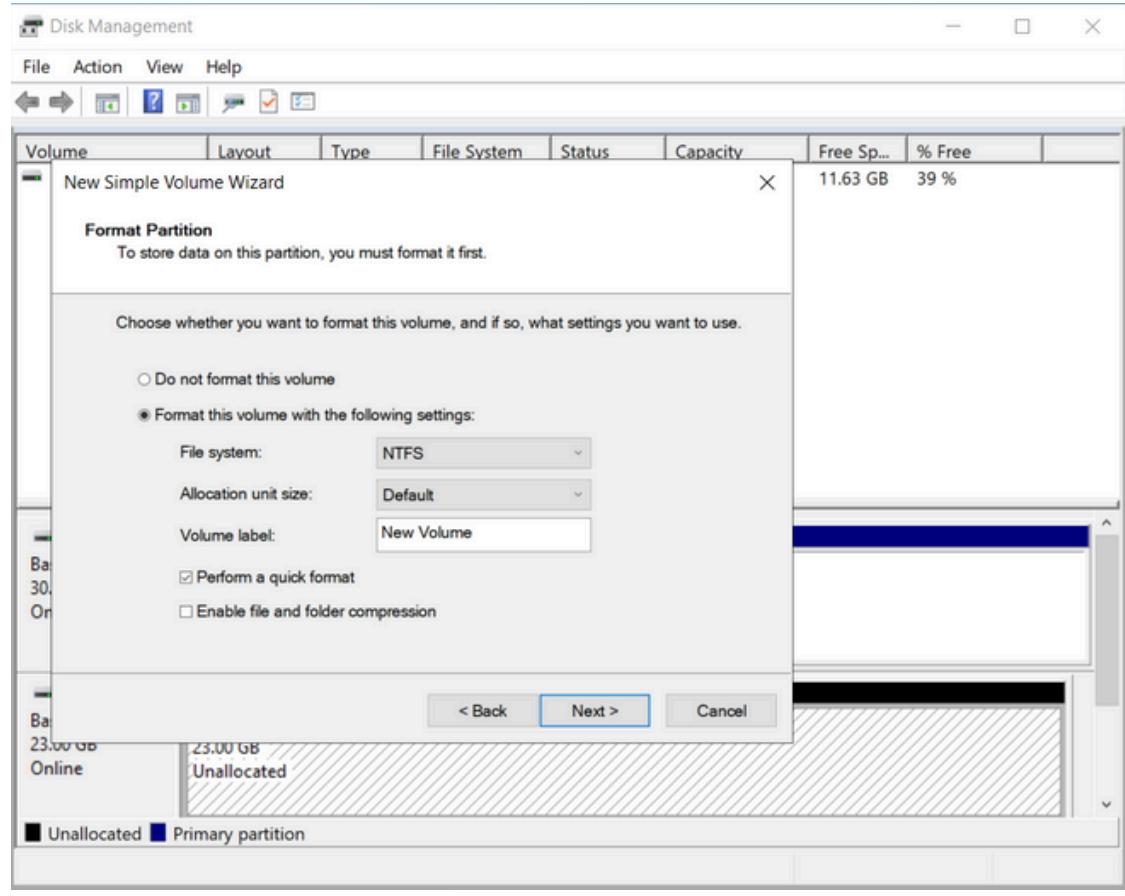
Click **Next**.



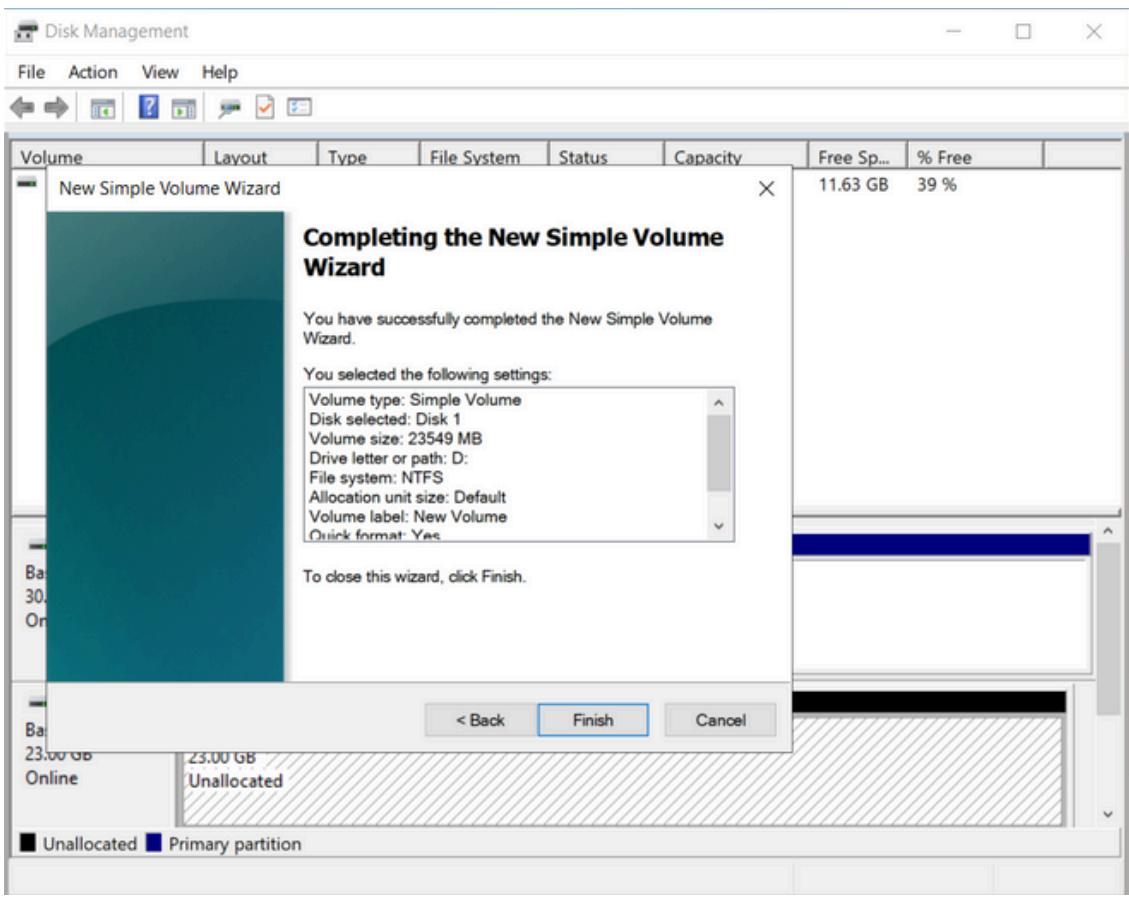
Assign the letter you want and Click **Next**.



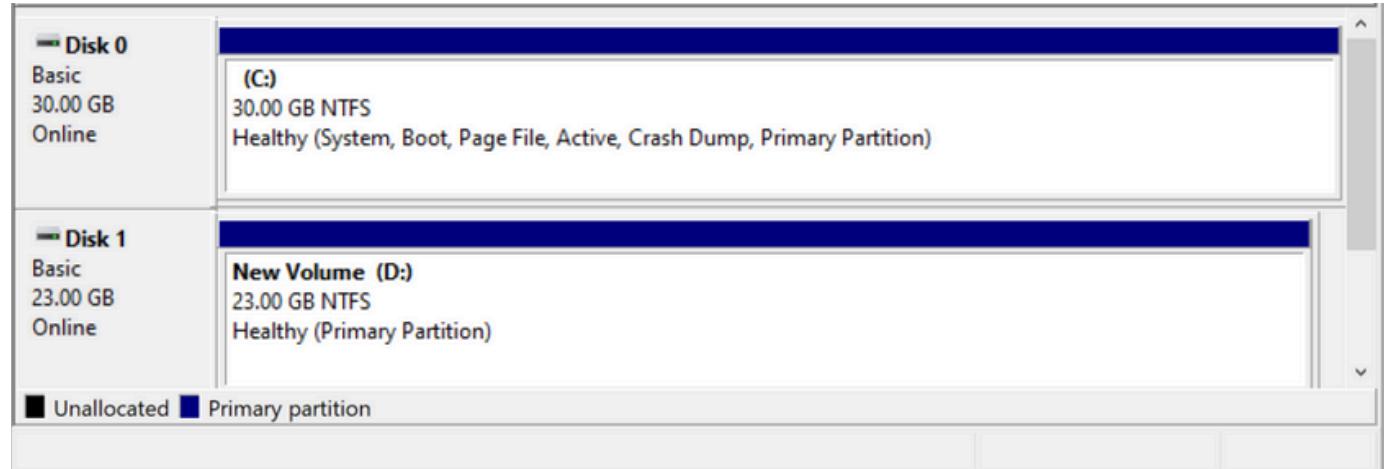
Click **Next**.



Give your own name or click **next**.



Click **Finish**.



New volume has been **allocated** and ready to store data.



The **New Volume (D)** contain the same storage as allocated in EBS Volume.

Volumes (2) Info

Search

	Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created
<input type="checkbox"/>	-	vol-00f827a6ce6ec7e7d	gp3	15 GiB	3000	125	-	2024/10/17 09:08 GM
<input type="checkbox"/>	-	vol-03de184c90ae2d13d	gp2	30 GiB	100	-	snap-0f8c3ab...	2024/10/17 08:58 GM

Actions ▾ Create volume

out ▾

- Modify volume
- Create snapshot
- Create snapshot lifecycle policy
- Delete volume
- Attach volume
- Detach volume
- Force detach volume
- Manage auto-enabled I/O
- Manage tags
- Fault injection ▾

Head back to Volume dashboard and click on **Actions** dropdown menu and select **Delete Volume**.

Delete vol-0bae55d455d3de32e? ×

⚠ After you delete a volume, its data is permanently deleted and the volume can no longer be attached to an instance.

Are you sure that you want to delete **vol-0bae55d455d3de32e**?

To confirm deletion, type *delete* in the field.

Cancel Delete

Note: If you are in free-tier do not forget to delete all your **Volume's and Instances** which you have used..

~ Thankyou!