

AWS Cloud and DevOps Training by Mr. Mahendran Selvakumar

Organized by KPR Institute of Engineering and Technology
Department of Computer Science and Engineering

Create and Attach an EBS Volume to a
Windows EC2 Instance



Sooriya N
III - CSE

1. Launching an EC2 Instance

Start by creating an EC2 instance in your desired region.

Ensure that the instance is running in a specific availability zone (e.g., us-east-1c).

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

[Add additional tags](#)


Recents

Quick Start


Amazon Linux




macOS




Ubuntu




Windows




Red Hat



SUSE Li




[Browse more AMIs](#)
Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Microsoft Windows Server 2022 Base
ami-0324a83b82023f0b3 (64-bit (x86))
Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible ▼

Create new EC2 Instance. I named EC2 as “winvolume”

Select Microsoft Windows Server as the operating system from the Amazon Machine Images (AMI) list.

▼ Instance type

Info | Get advice

Instance type

t2.micro

Free tier eligible

Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Windows base pricing: 0.0162 USD per Hour
On-Demand SUSE base pricing: 0.0116 USD per Hour
On-Demand RHEL base pricing: 0.026 USD per Hour
On-Demand Linux base pricing: 0.0116 USD per Hour

☐ All generations

[Compare instance types](#)

Additional costs apply for AMIs with pre-installed software

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

▼ Key pair (login)

Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - *required*

winvolume

▼

↻

[Create new key pair](#)

For Windows instances, you use a key pair to decrypt the administrator password. You then use the decrypted password to connect to your instance.

Give name for key pair and select .pem file type

▼ Configure storage

Info

Advanced

1x

30

GiB

gp2

▼

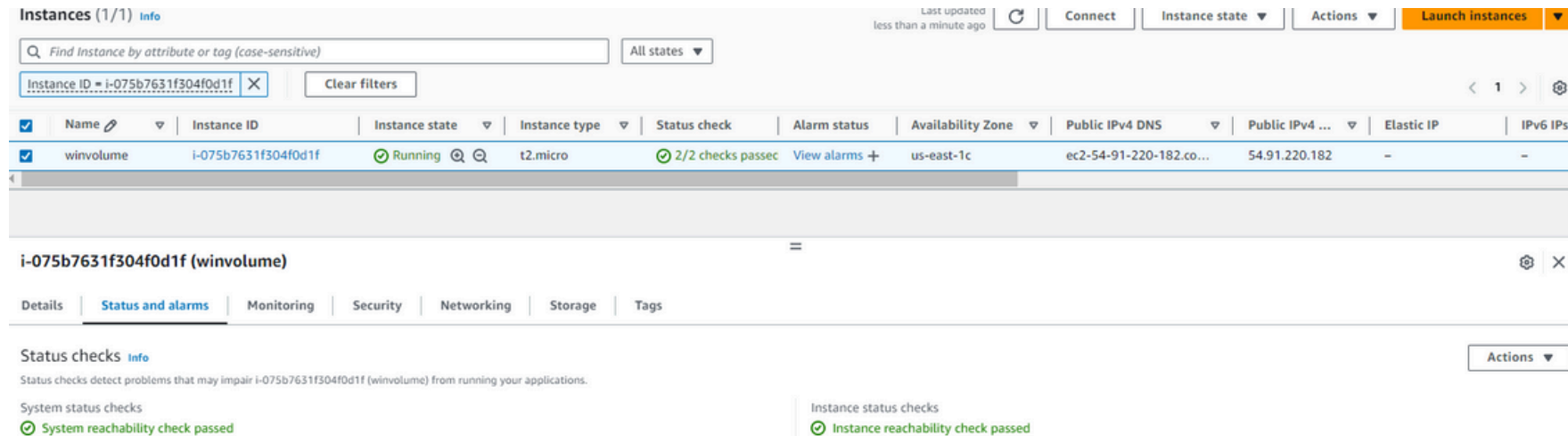
Root volume (Not encrypted)

i

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

×

Root volume of 30gb will be allocated in windows



Click on Launch Instance
Check for the status and wait until it get passed.

2. Creating an EBS Volume

- Navigate to Elastic Block Store and select Create Volume.
- Choose the volume type, typically General Purpose SSD (gp3 or gp2).
- Allocate the desired volume size (e.g., 15 GB).
- Make sure the availability zone is same for both instance and volume.
- Ensure the volume is not created from a snapshot.
- Click Create Volume to proceed.

Create volume [Info](#)

Create an Amazon EBS volume to attach to any EC2 instance in the same Availability Zone.

Volume settings

Volume type [Info](#)

General Purpose SSD (gp3) ▼

Size (GiB) [Info](#)

15

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](#)

us-east-1c ▼

Snapshot ID - optional [Info](#)

Don't create volume from a snapshot ▼

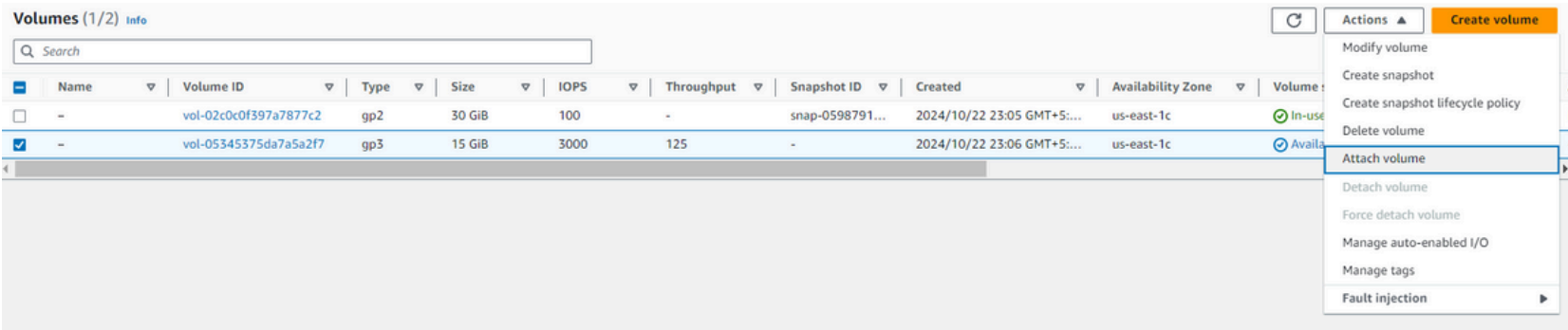
↺

Encryption [Info](#)

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

☐ Encrypt this volume

3: Attaching the Volume to the EC2 Instance



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.

Attach volume [Info](#)

Attach a volume to an instance to use it as you would a regular physical hard disk drive.

Basic details

Volume ID

vol-05345375da7a5a2f7

Availability Zone

us-east-1c

Instance [Info](#)

i-069030d5a8d3a13eb

Only instances in the same Availability Zone as the selected volume are displayed.

Device name [Info](#)

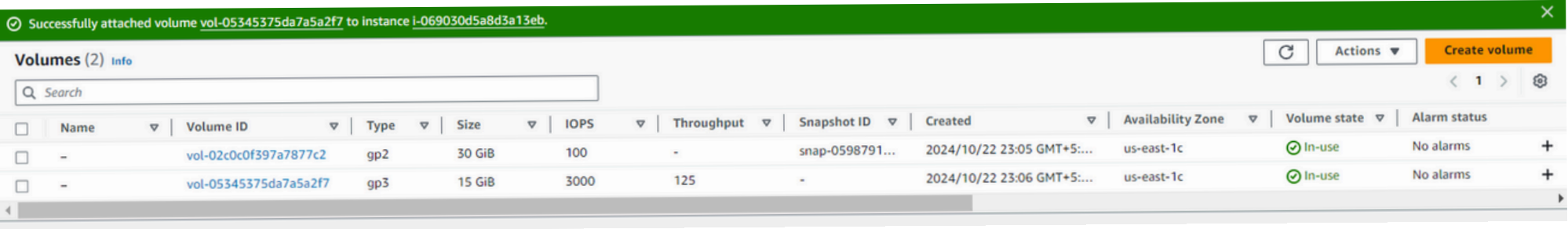
xvdb

Recommended device names for Windows: /dev/sda1 for root volume. xvd[f-p] for data volumes.

Cancel

Attach volume

Make sure that location of both Instance and Volume remain Same.
In my case it is us-east-1c.
You can now notice that New Volume has been Attached.



4. Connecting to the Instance

Access your EC2 instance through the chosen method (RDP or other).

Upload your .pem file and click Decrypt Password. AWS will provide the administrator password for RDP access.

Connect to instance [Info](#)

Connect to your instance i-069030d5a8d3a13eb (winvolume) using any of these options

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

Instance ID
i-069030d5a8d3a13eb (winvolume)

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 username and password:

Public DNS
ec2-107-21-140-118.compute-1.amazonaws.com

Username [Info](#)
Administrator

Password [Get password](#)

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

Cancel

Remote Desktop Connection

Remote Desktop Connection

Computer: ec2-107-21-140-118.compute-1.amazonaws.com

User name: None specified

You will be asked for credentials when you connect.

Show Options Connect Help

Windows Security

Enter your credentials

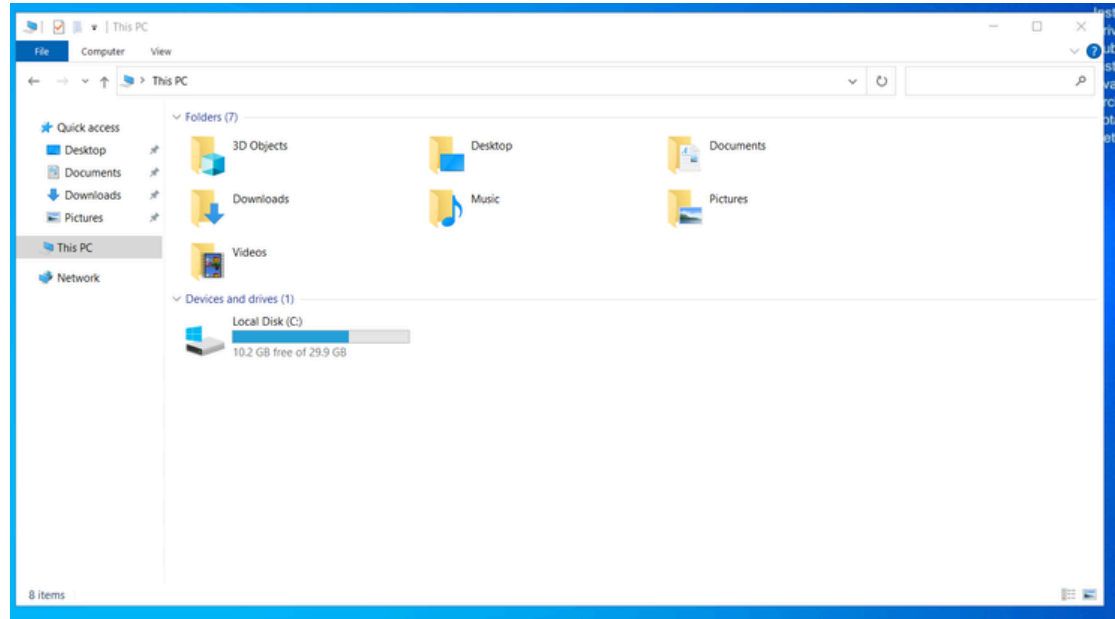
These credentials will be used to connect to ec2-107-21-140-118.compute-1.amazonaws.com.

User name
Administrator

Password
.....

☐ Remember me

OK Cancel

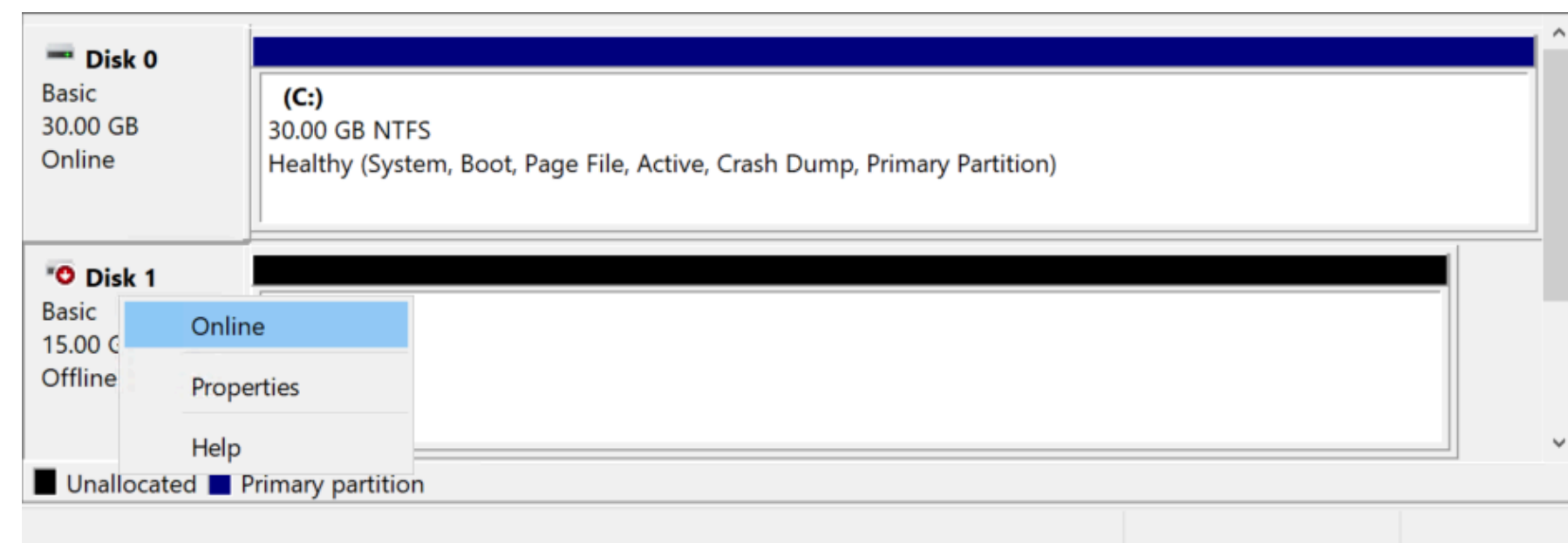
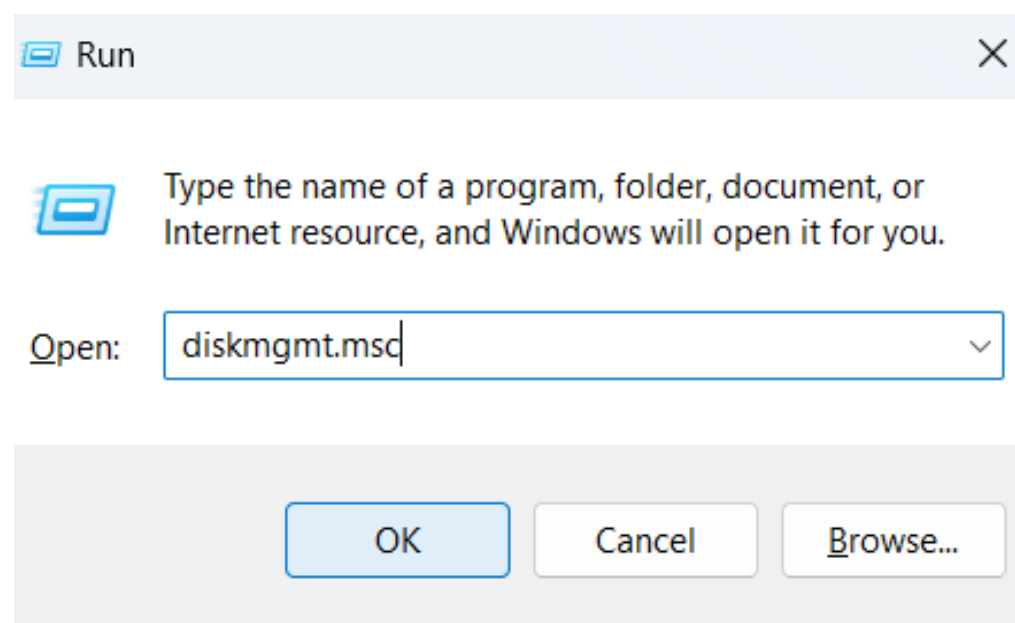


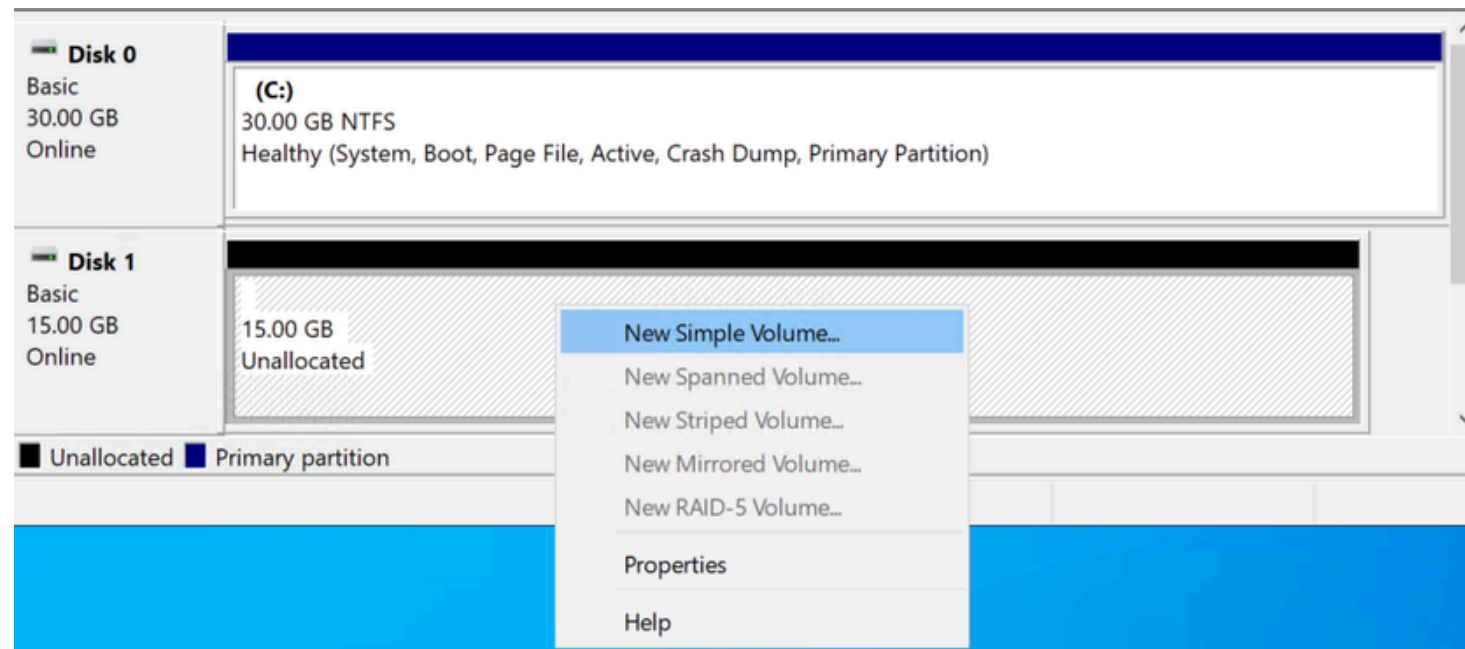
The Windows VM is now available for usage.
We can see that only one drive is available, which is not enough.
Let's expand the storage.

5. Configuring the Volume in Disk Management

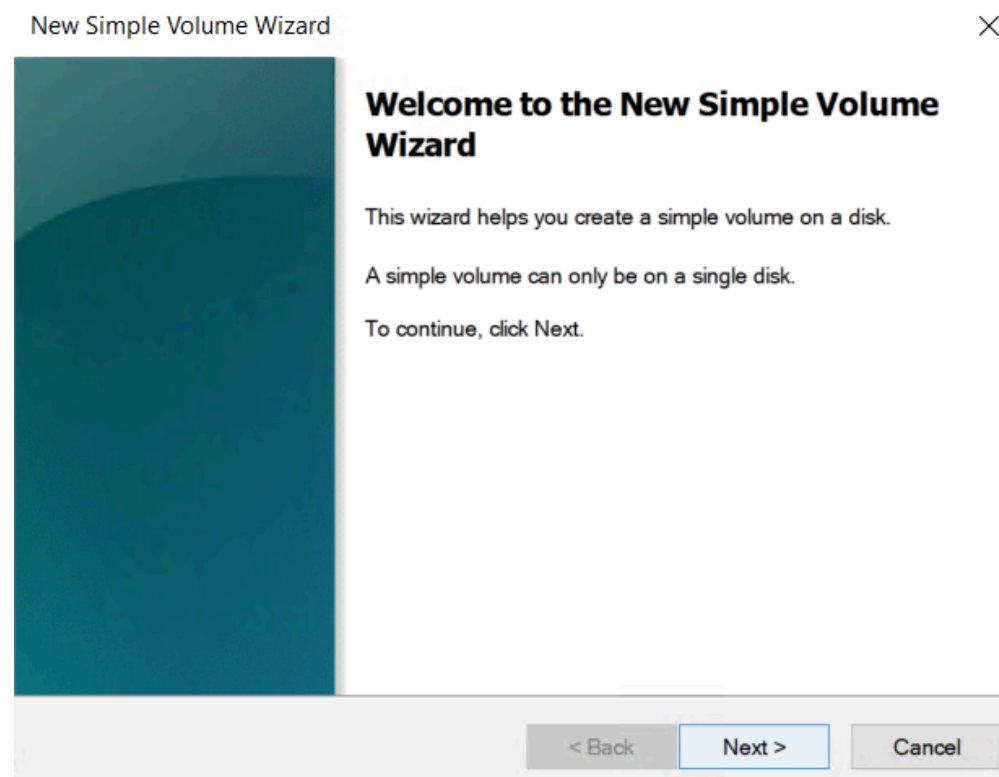
Press Win + R, type diskmgmt.msc, and open Disk Management.

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

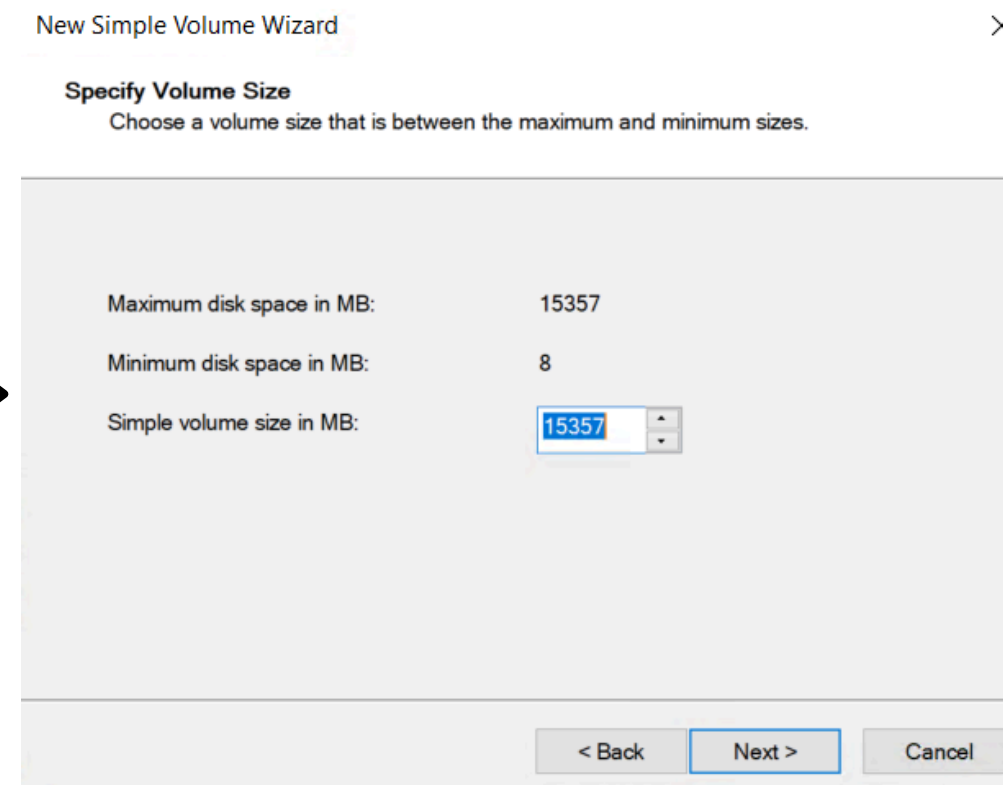




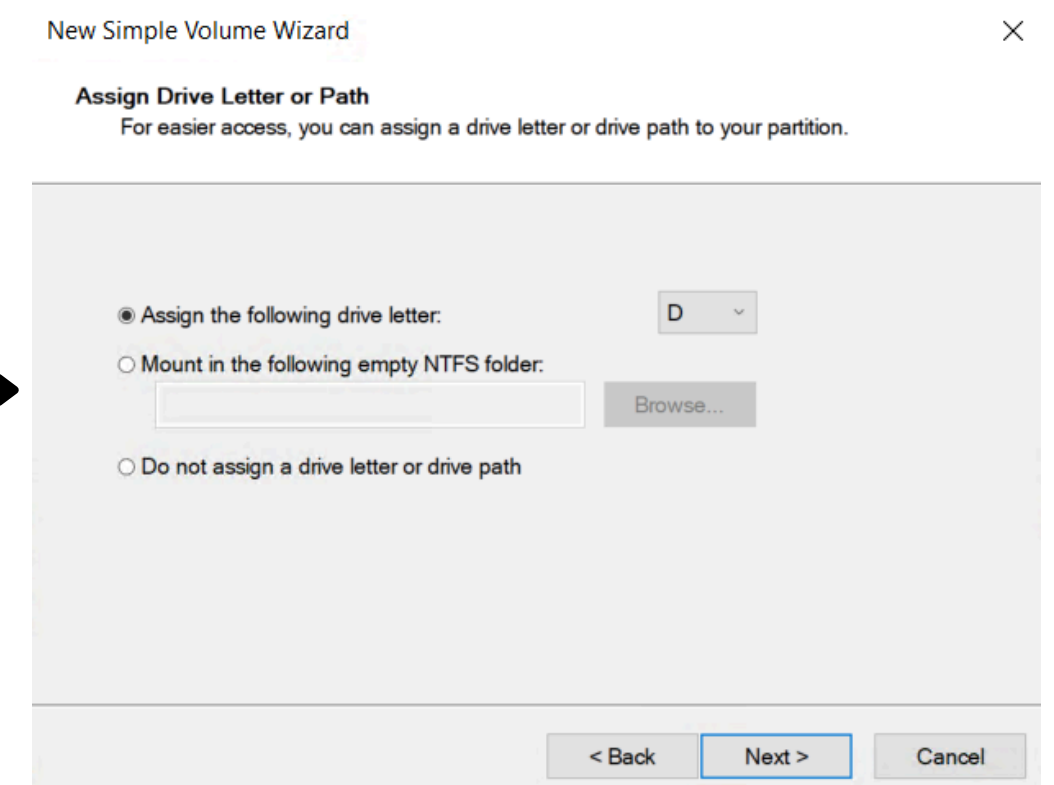
Again, right Click on Disk 1 and select Initialize Disk. Now the disk is available and ready for allocation. At last, Right click on Unallocated and select New Simple Volume.



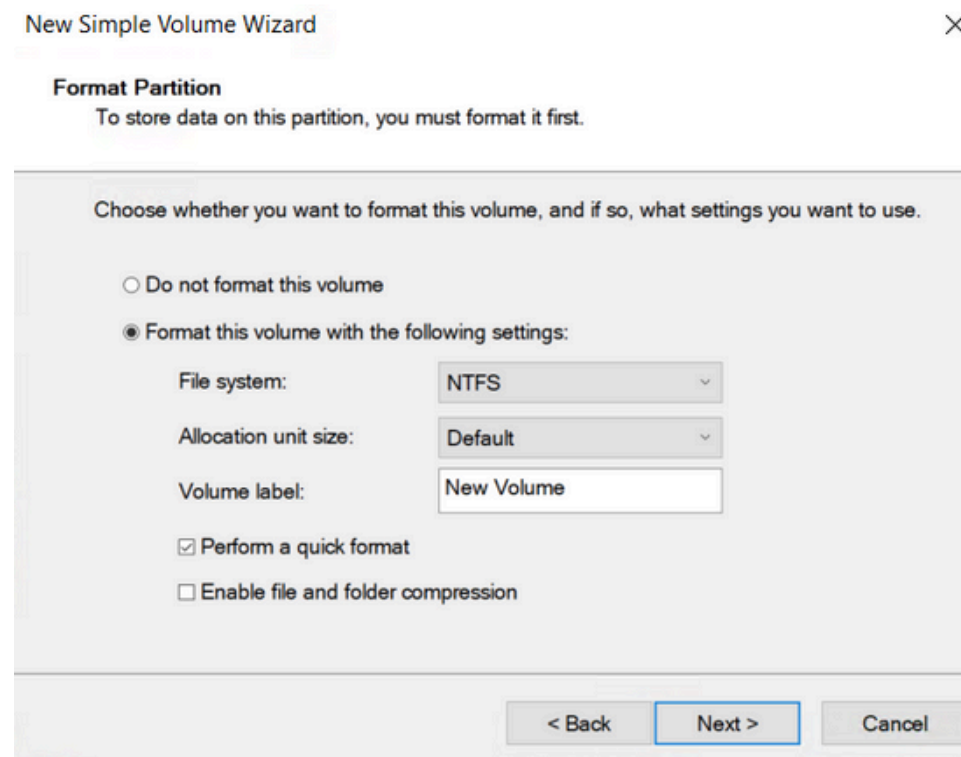
Click on “Next”



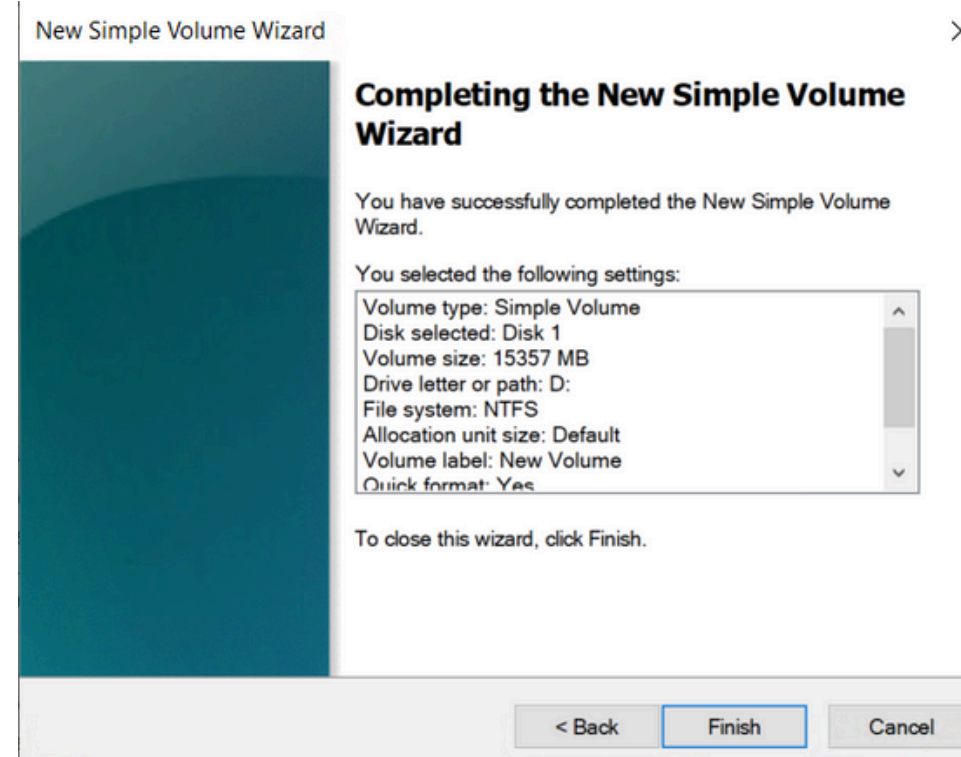
Click on “Next”



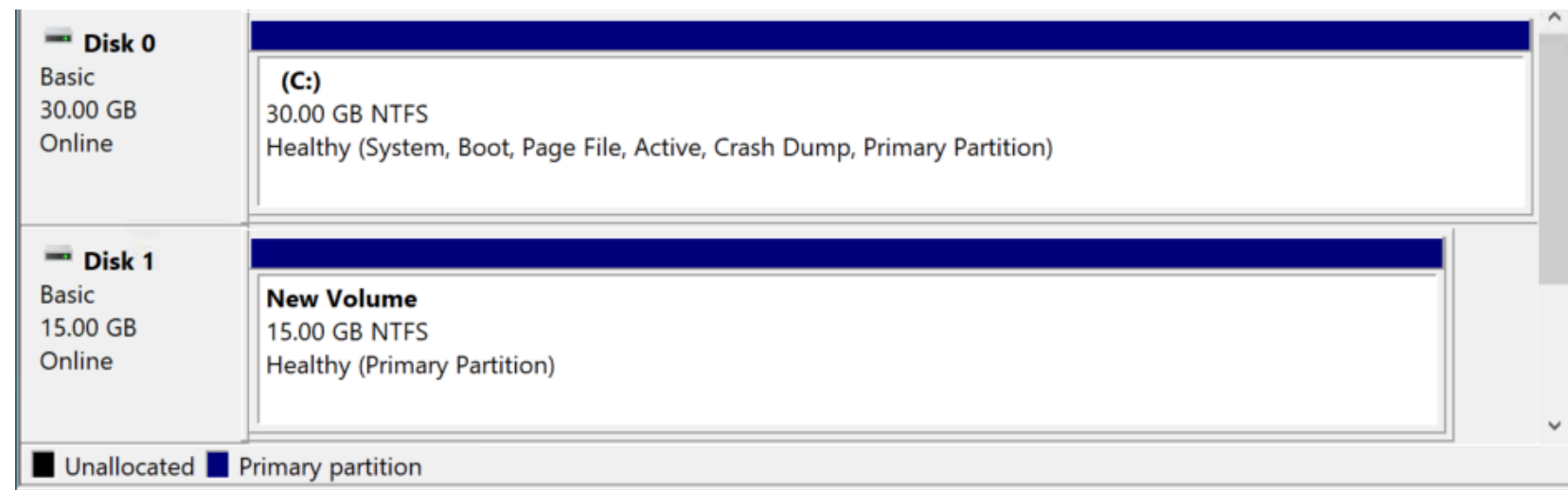
Click on “Next”



Name your drive & click on
“Next”



Click on “Finish”



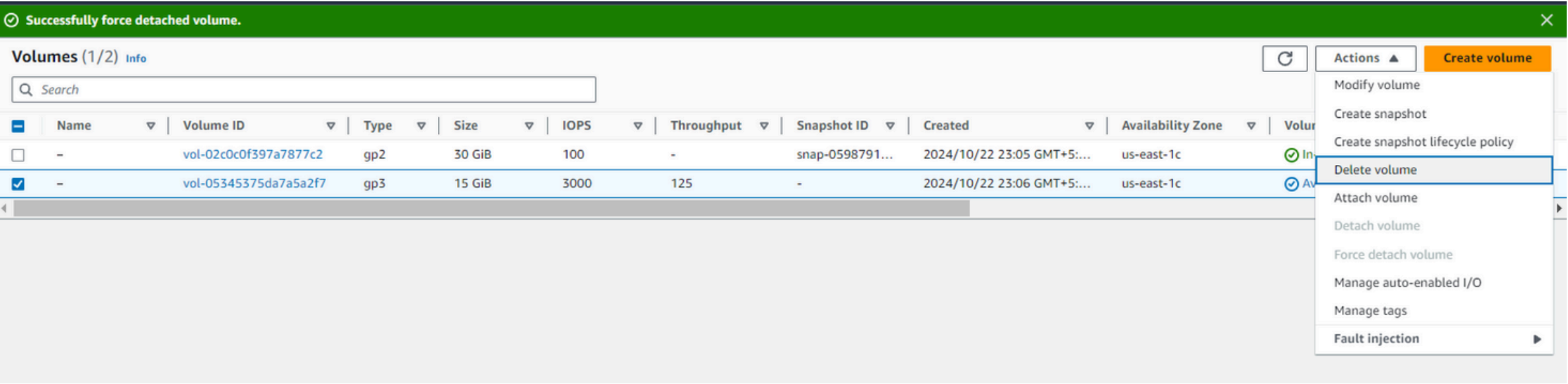
New volume has been allocated and ready to store data.



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

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

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



After deleting the volume it is automatically removed from the Volume dashboard.

