

## **Assignment 1: Launch Windows server 2019 machine with 30GB default harddisk after successful launch increase the disk size by 30 GB for both D drive and E drive**

1. Create a windows EC2 instance, by selecting the Microsoft Windows Server 2019 Base AMI .

The screenshot shows the AWS Management Console interface for Step 1: Choose an Amazon Machine Image (AMI). The search bar contains 'windows'. The results list several AMIs, including 'Microsoft Windows Server 2019 Base' and 'Microsoft Windows Server 2019 Base with Containers'. The 'Quick Start' section on the left shows 'My AMIs (0)', 'AWS Marketplace (920)', and 'Community AMIs (12067)'. The 'Free tier eligible' filter is selected.

2. Add a root storage of 30 GB to the instance.

The screenshot shows the AWS Management Console interface for Step 4: Add Storage. The table displays the root volume settings. The 'Add New Volume' button is visible. A note states: 'Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions.'

Volume Type	Device	Snapshot	Size (GiB)	Volume Type	IOPS	Throughput (MB/s)	Delete on Termination	Encryption
Root	/dev/sda1	snap-0116876d148458b42	30	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

3. In the “configure instance” tab, select the VPC and subnet. Also select “Enable” for Auto-assign Public IP, so that the instance has a Public IP and Public DNS.

The screenshot shows the 'Configure Instance Details' step in the AWS Management Console. The interface includes a top navigation bar with the AWS logo, a search bar, and user information. Below the navigation bar is a progress bar with seven steps: 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance (active), 4. Add Storage, 5. Add Tags, 6. Configure Security Group, and 7. Review. The main content area is titled 'Step 3: Configure Instance Details' and includes a sub-header 'Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.' The configuration options are as follows: Number of instances: 1; Purchasing option: Request Spot instances (unchecked); Network: vpc-09ae047ba266867ae | abc\_vpc; Subnet: subnet-0d27d55787f91affd | AppServer | us-east-1a; Auto-assign Public IP: Enable; Placement group: Add instance to placement group (unchecked); Capacity Reservation: Open; Domain join directory: No directory; IAM role: None. At the bottom right, there are buttons for 'Cancel', 'Previous', 'Review and Launch', and 'Next: Add Storage'.

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

Number of instances: 1 Launch into Auto Scaling Group

Purchasing option: ☐ Request Spot instances

Network: vpc-09ae047ba266867ae | abc\_vpc Create new VPC

Subnet: subnet-0d27d55787f91affd | AppServer | us-east-1a Create new subnet  
251 IP Addresses available

Auto-assign Public IP: Enable

Placement group: ☐ Add instance to placement group

Capacity Reservation: Open

Domain join directory: No directory Create new directory

IAM role: None Create new IAM role

Cancel Previous Review and Launch Next: Add Storage

4. Create a Security group, which has “all traffic” as inbound rule, so that the instance is accessible from anywhere.

The screenshot shows the 'Configure Security Group' step in the AWS Management Console. The interface includes a top navigation bar with the AWS logo, a search bar, and user information. Below the navigation bar is a progress bar with seven steps: 1. Choose AMI, 2. Choose Instance Type, 3. Configure Instance, 4. Add Storage, 5. Add Tags, 6. Configure Security Group (active), and 7. Review. The main content area is titled 'Step 6: Configure Security Group' and includes a sub-header 'A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. Learn more about Amazon EC2 security groups.' The configuration options are as follows: Assign a security group: Create a new security group (unchecked), Select an existing security group (checked); Inbound rules for sg-0354703b9053f6636 (Selected security groups: sg-0354703b9053f6636). The inbound rules table has columns: Type, Protocol, Port Range, Source, and Description. The rules are: All traffic (All, All, 0.0.0.0/0), All traffic (All, All, ::/0), and SSH (TCP, 22, 0.0.0.0/0). At the bottom right, there are buttons for 'Cancel', 'Previous', and 'Review and Launch'.

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group: ☐ Create a new security group  
☒ Select an existing security group

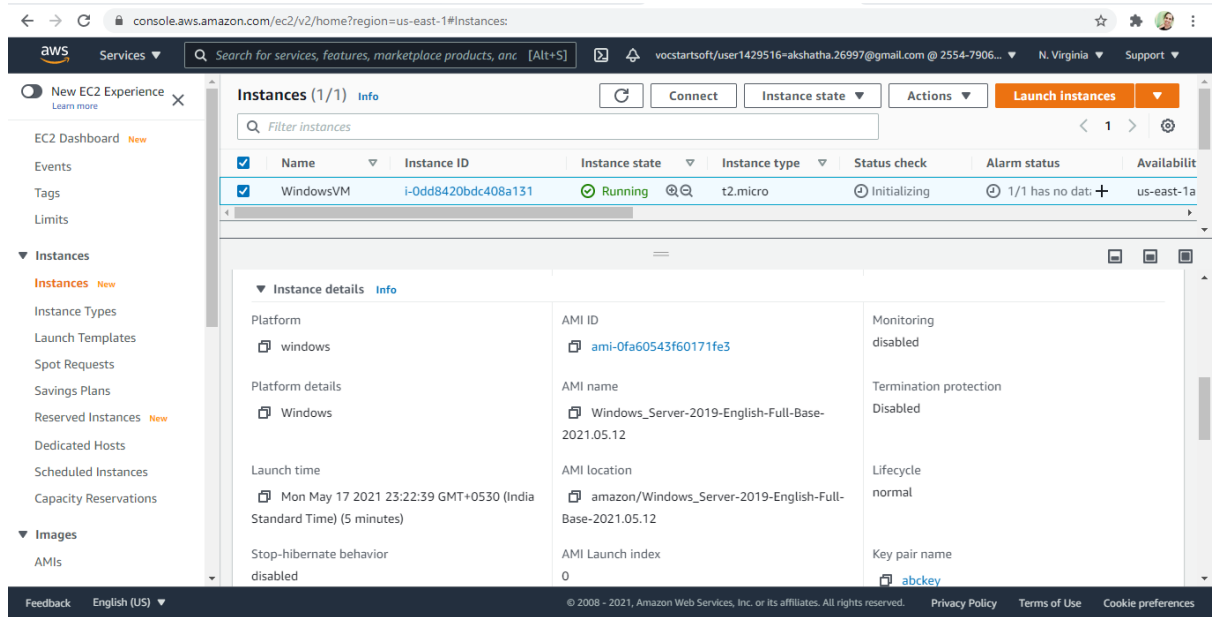
Security Group ID	Name	Description	Actions
sg-0354703b9053f6636	abcSG	launch-wizard-1 created 2021-05-06T23:37:16.180+05:30	<a href="#">Copy to new</a>
sg-034838d66b6c19b0c	default	default VPC security group	<a href="#">Copy to new</a>

Inbound rules for sg-0354703b9053f6636 (Selected security groups: sg-0354703b9053f6636)

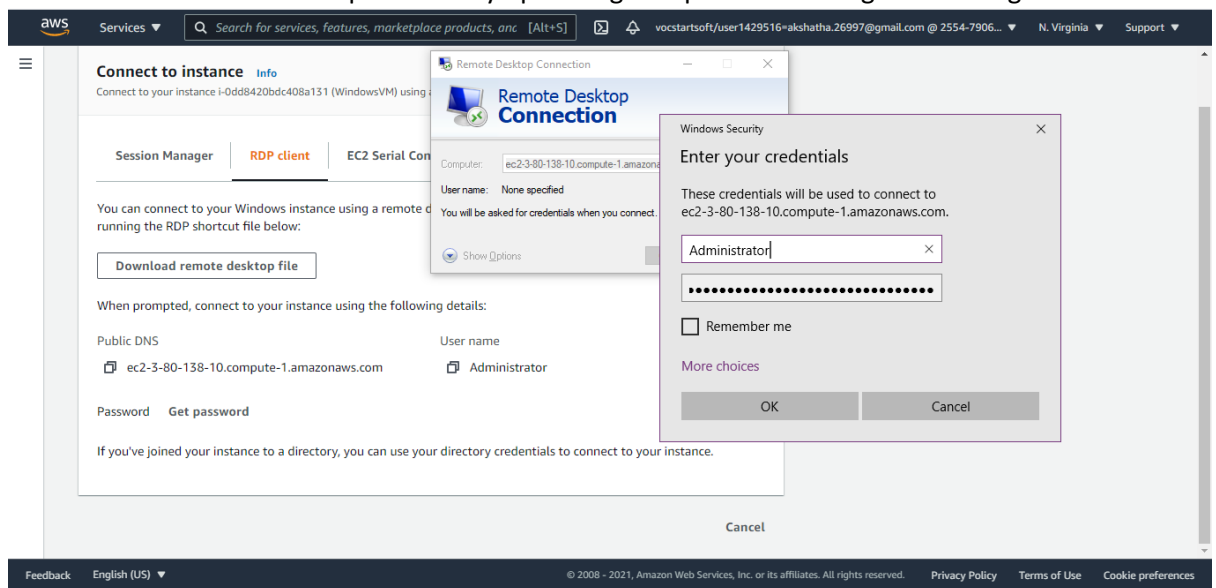
Type	Protocol	Port Range	Source	Description
All traffic	All	All	0.0.0.0/0	
All traffic	All	All	::/0	
SSH	TCP	22	0.0.0.0/0	

Cancel Previous Review and Launch

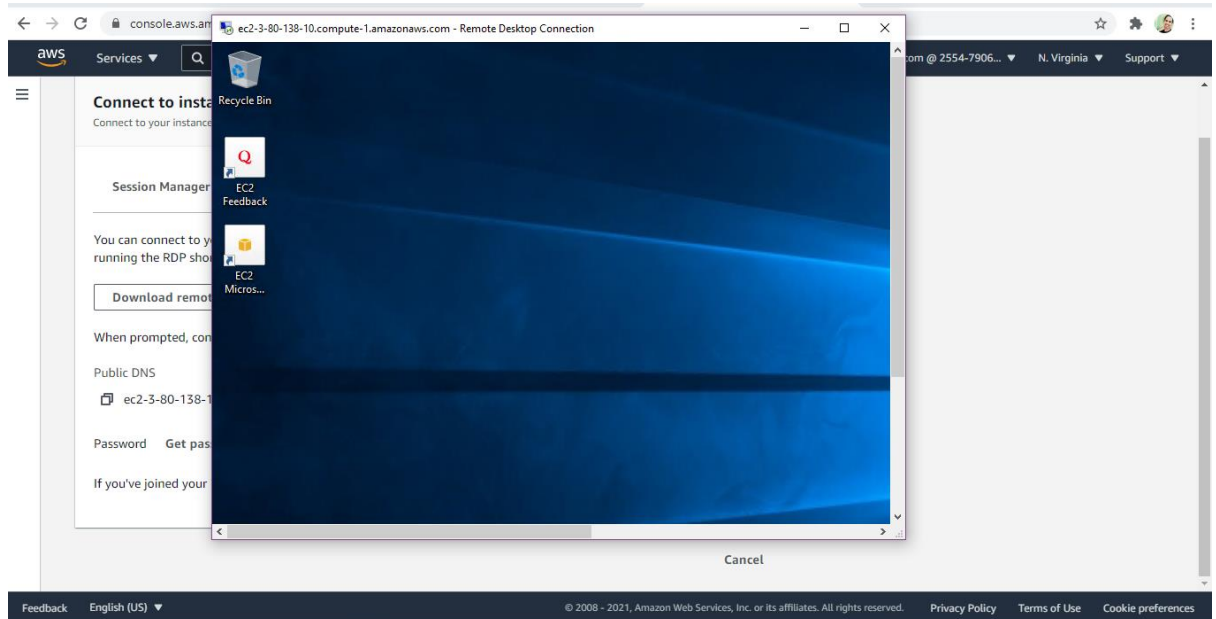
5. The Windows EC2 instance is successfully created.



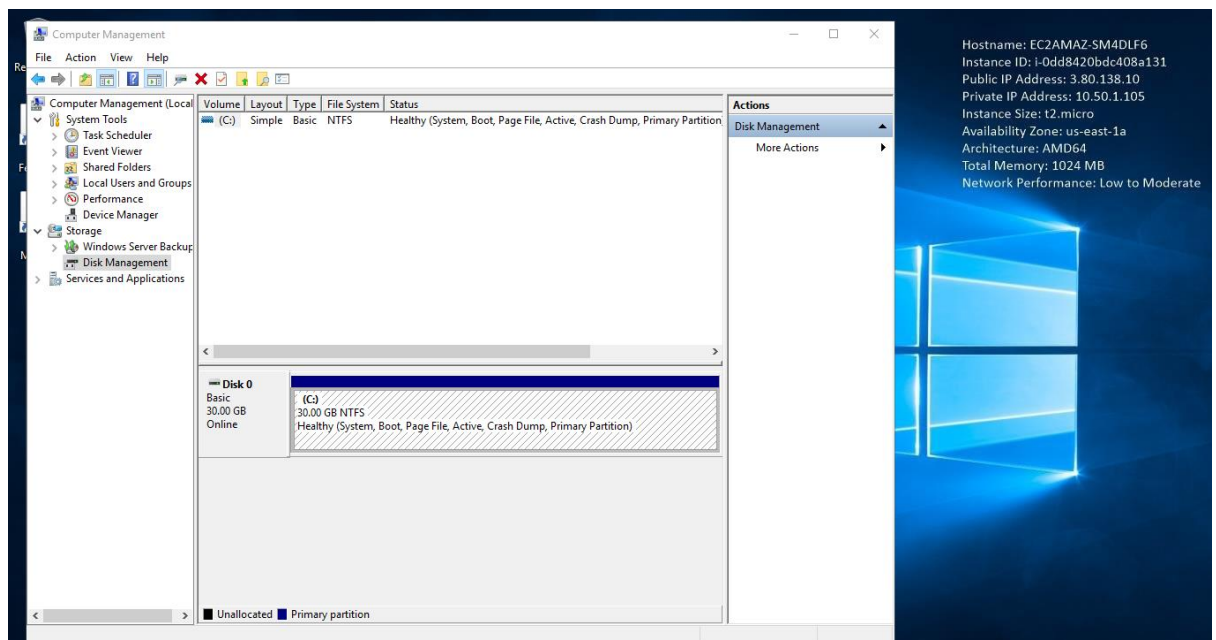
6. Get windows username and password by uploading the .pem file and login to it using RDP.



## 7. Successfully login to the windows instance



## 8. Check the disk storage of the windows instance in Computer Management -> Disk Management. It shows the 30 GB root volume which was created during the launch of the EC2 instance.



9. The Below snapshot shows the Volume which was created during the launch of the instance.

The screenshot shows the AWS Management Console interface. On the left, the navigation menu includes 'EC2 Dashboard', 'Events', 'Tags', 'Limits', 'Instances', 'Instances Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts', 'Scheduled Instances', 'Capacity Reservations', 'Images', and 'AMIs'. The main content area displays a table of EBS volumes. The first volume, 'WindowsVM', has a Volume ID of 'vol-0a90c4d8e97161e09', a size of 30 GiB, and is of type 'gp2'. Below the table, the details for this volume are shown, including its description, status checks, monitoring, and tags. The volume is currently in-use and attached to an instance.

Name	Volume ID	Size	Volume Type	IOPS	Throughput	Snapshot	Created	Availability Zone
WindowsVM	vol-0a90c4d8e97161e09	30 GiB	gp2	100	-	snap-0116876...	May 17, 2021 at 11:...	us-east-1a

**Volume: vol-0a90c4d8e97161e09 (WindowsVM)**

Description	
Volume ID	vol-0a90c4d8e97161e09
Alarm status	None
Snapshot	snap-0116876d148458b42
Availability Zone	us-east-1a
Encryption	Not Encrypted
KMS Key ID	
KMS Key Aliases	
KMS Key ARN	
Outposts ARN	-
Size	30 GiB
Created	May 17, 2021 at 11:22:40 PM UTC+5:30
State	In-use
Attachment information	i-0dd8420bdc408a131 (WindowsVM) /dev/sda1 (attached)
Volume type	gp2
Product codes	-
IOPS	100

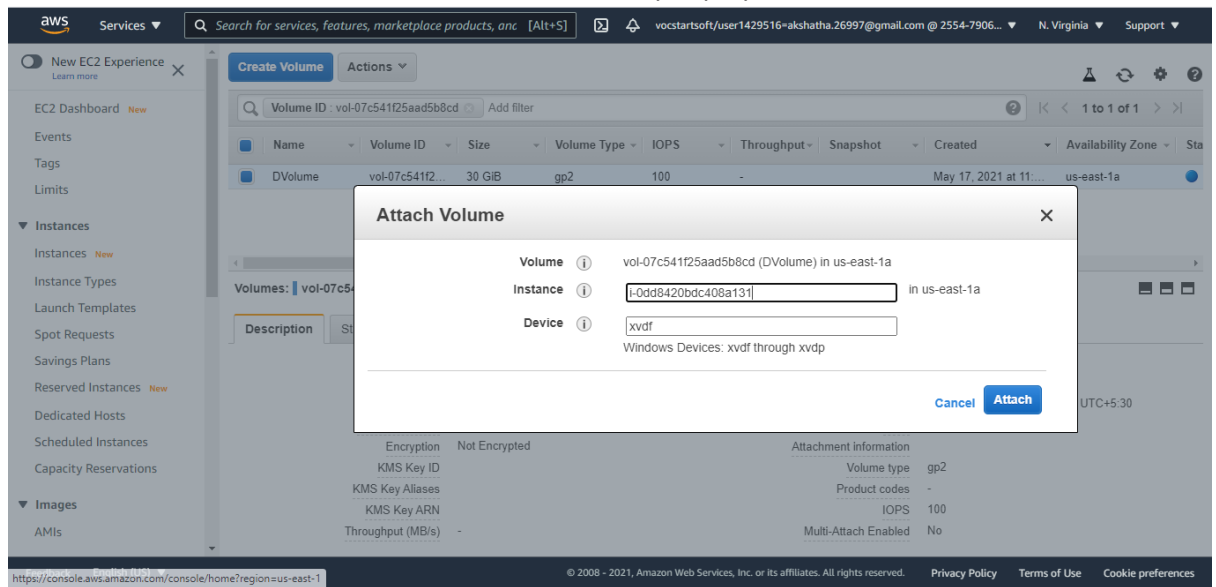
10. Create an additional volume of 30 GB as shown below.

The screenshot shows the 'Create Volume' form in the AWS Management Console. The form is titled 'Create Volume' and includes the following fields:

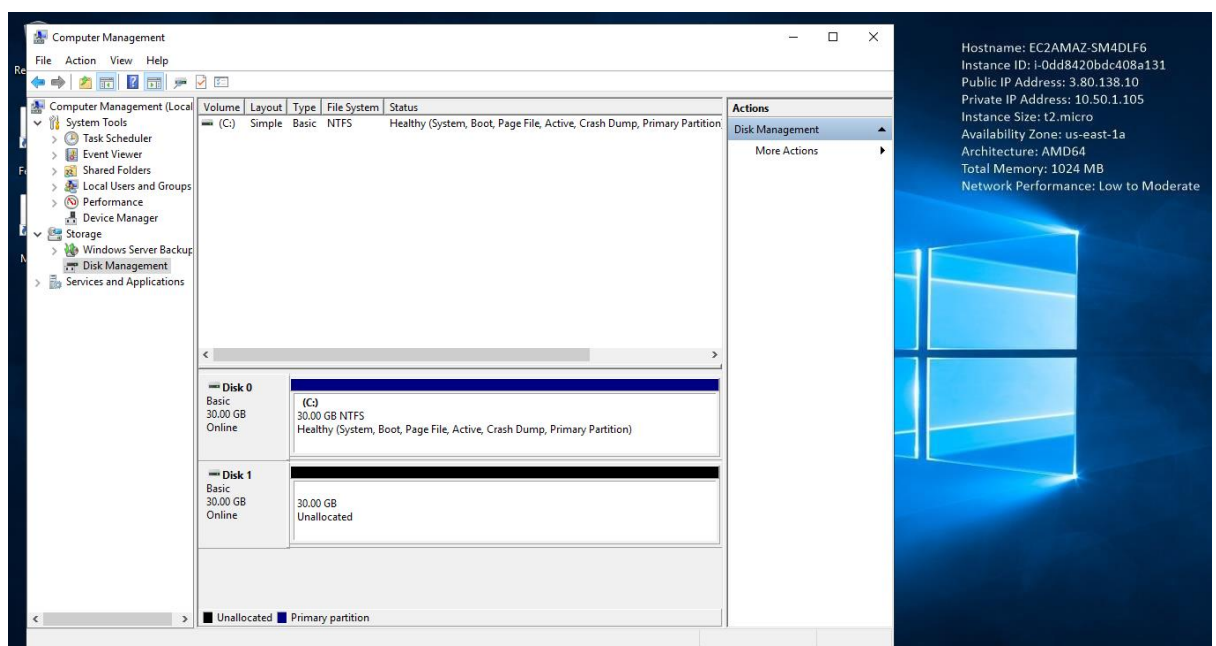
- Volume Type:** General Purpose SSD (gp2)
- Size (GiB):** 30 (Min: 1 GiB, Max: 16384 GiB)
- IOPS:** 100 / 3000 (Baseline of 3 IOPS per GiB with a minimum of 100 IOPS, burstable to 3000 IOPS)
- Throughput (MB/s):** Not applicable
- Availability Zone:** us-east-1a
- Snapshot ID:** Select a snapshot
- Encryption:** ☐ Encrypt this volume

At the bottom, there is a section for 'Key' and 'Value' with a note that the key can be up to 128 characters maximum and the value can be up to 256 characters maximum.

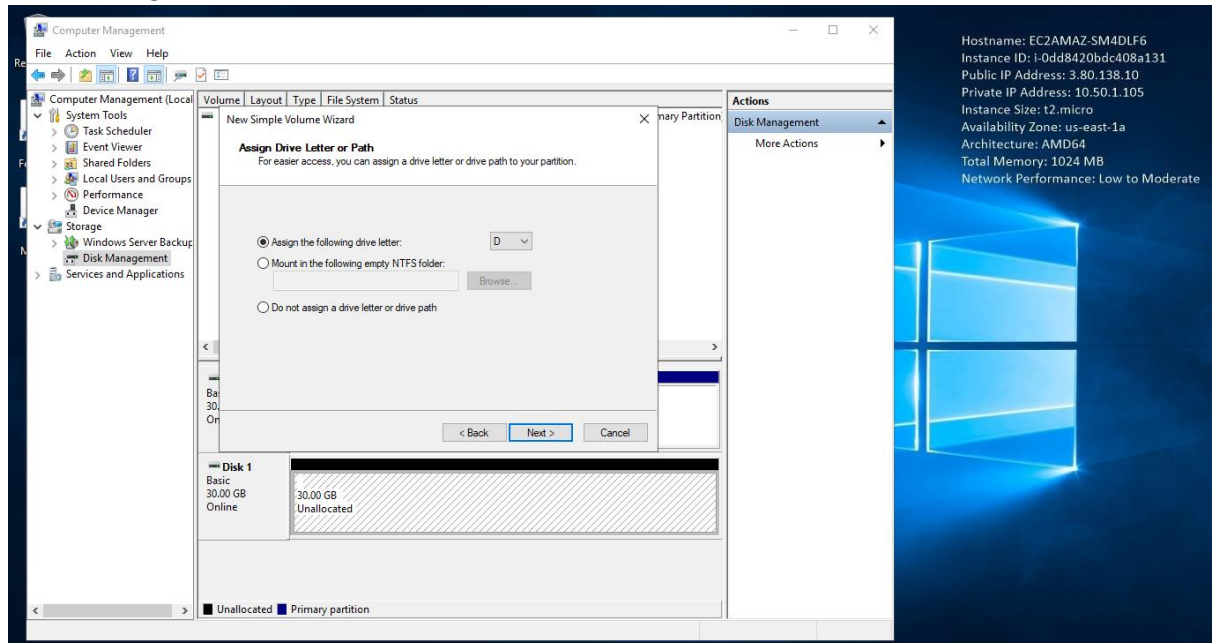
11. Attach the volume to the windows VM which is already deployed.



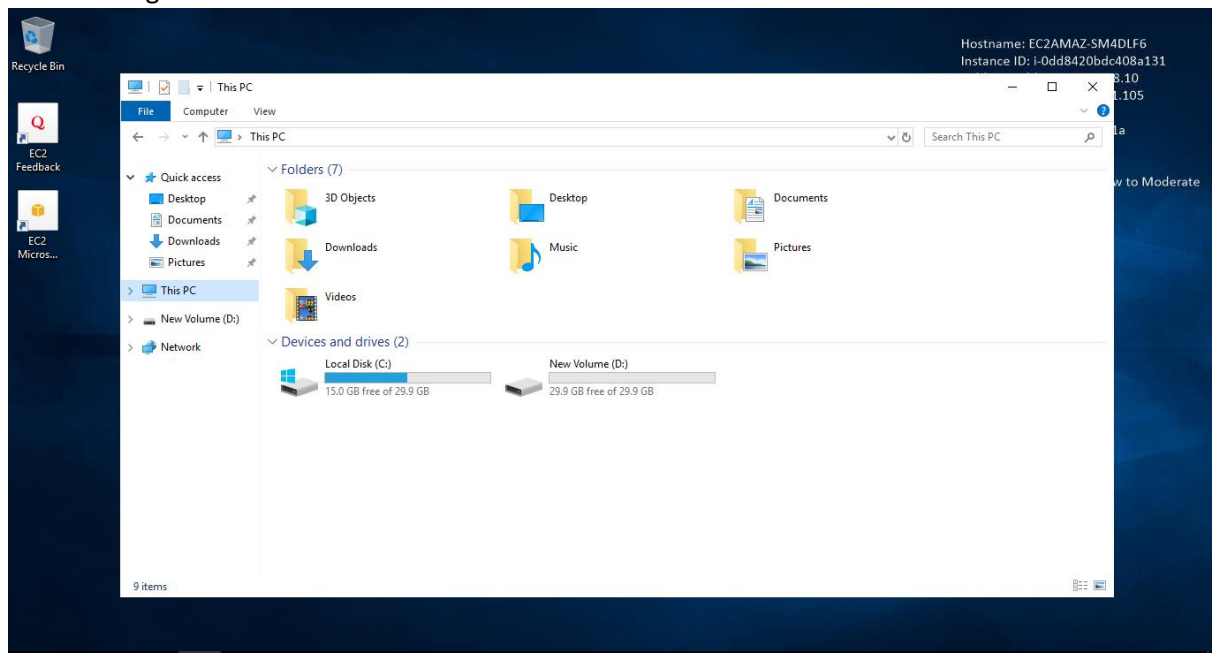
12. Now in the windows instance, the additional volume is shown as Disk1.



13. We can assign a Drive Letter to the Additional Volume. Let us choose 'D'



14. If we navigate to "This PC" of the windows instance, we can see C Drive and D Drive , Both of 30 GB storage .



## 15. Create one more additional volume with 30 GB

The screenshot shows the 'Create Volume' page in the AWS Management Console. The page is for the 'us-east-1' region. The 'Volume Type' is set to 'General Purpose SSD (gp2)'. The 'Size (GiB)' is set to '30'. The 'IOPS' is set to '100 / 3000'. The 'Throughput (MB/s)' is 'Not applicable'. The 'Availability Zone' is set to 'us-east-1a'. The 'Snapshot ID' is 'Select a snapshot'. The 'Encryption' checkbox is unchecked. The 'Key' field is empty, and the 'Value' field is empty. The page footer shows the AWS logo, 'Services', a search bar, and the user's email address 'vocstartsoft/user1429516@akshatha.26997@gmail.com'.

Volume Type: General Purpose SSD (gp2)

Size (GiB): 30 (Min: 1 GiB, Max: 16384 GiB)

IOPS: 100 / 3000 (Baseline of 3 IOPS per GiB with a minimum of 100 IOPS, burstable to 3000 IOPS)

Throughput (MB/s): Not applicable

Availability Zone: us-east-1a

Snapshot ID: Select a snapshot

Encryption: ☐ Encrypt this volume

Key: (128 characters maximum) Value: (256 characters maximum)

## 16. Attach the volume to the windows instance.

The screenshot shows the 'Attach Volume' dialog box in the AWS Management Console. The dialog box is titled 'Attach Volume'. It contains the following information:

- Volume: vol-0ee0ebe7a39922d4a (EVolume) in us-east-1a
- Instance: i-0dd6420bdc408a131 in us-east-1a
- Device: xvdg

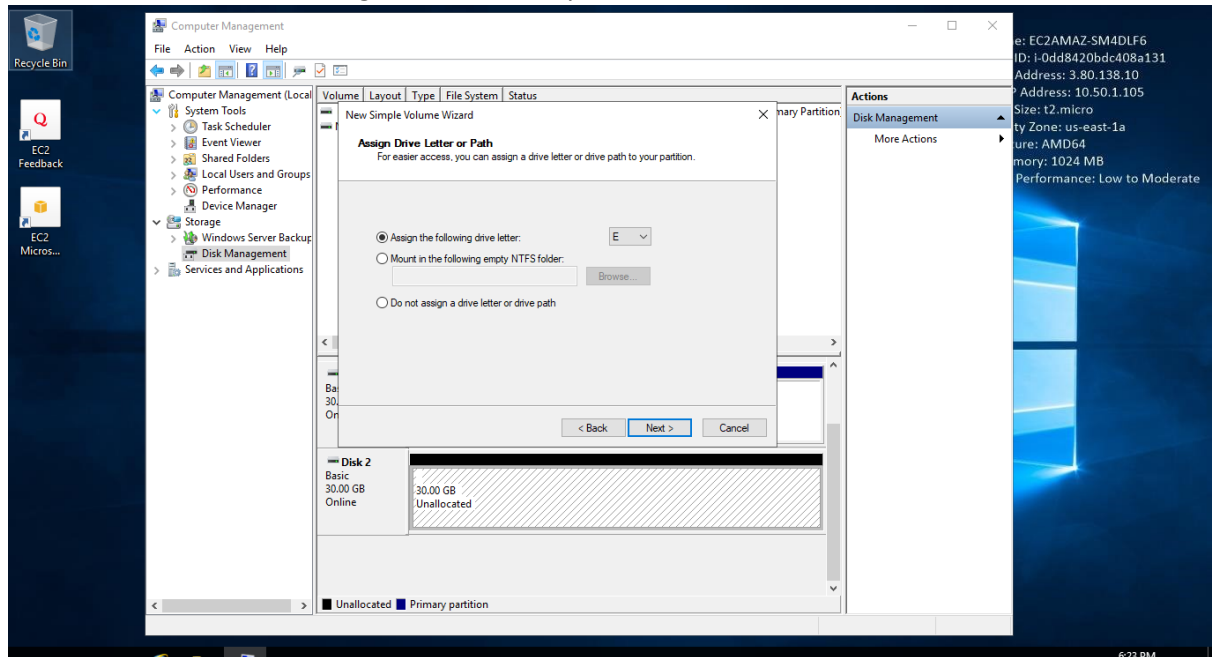
Windows Devices: xvdf through xvdp

Buttons: Cancel, Attach

The background shows the 'Volumes' page with a table of volumes. The table has columns: Name, Volume ID, Size, Volume Type, IOPS, Throughput, Snapshot, Created, Availability Zone, and Status. The volume 'vol-0ee0ebe7a39922d4a' is listed with a size of 30 GiB, volume type gp2, and IOPS of 100.



17. In the windows instance, Assign 'E' to the newly created Disk2.



18. By navigating to "This PC" of the windows instance, we can see 2 Additional Drives , D and E, both of 30 GB each.

