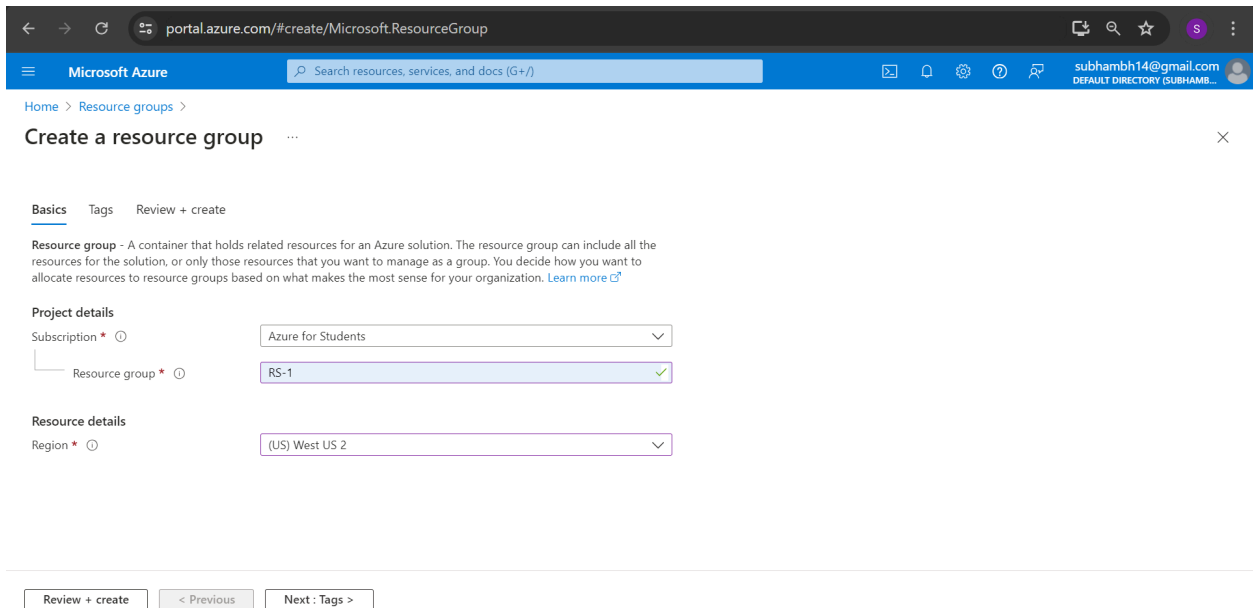


Disk addition & Permanent Mounting

To test the objective, we must repeat the steps to create a Resource Group and its necessary vnet and subnet.

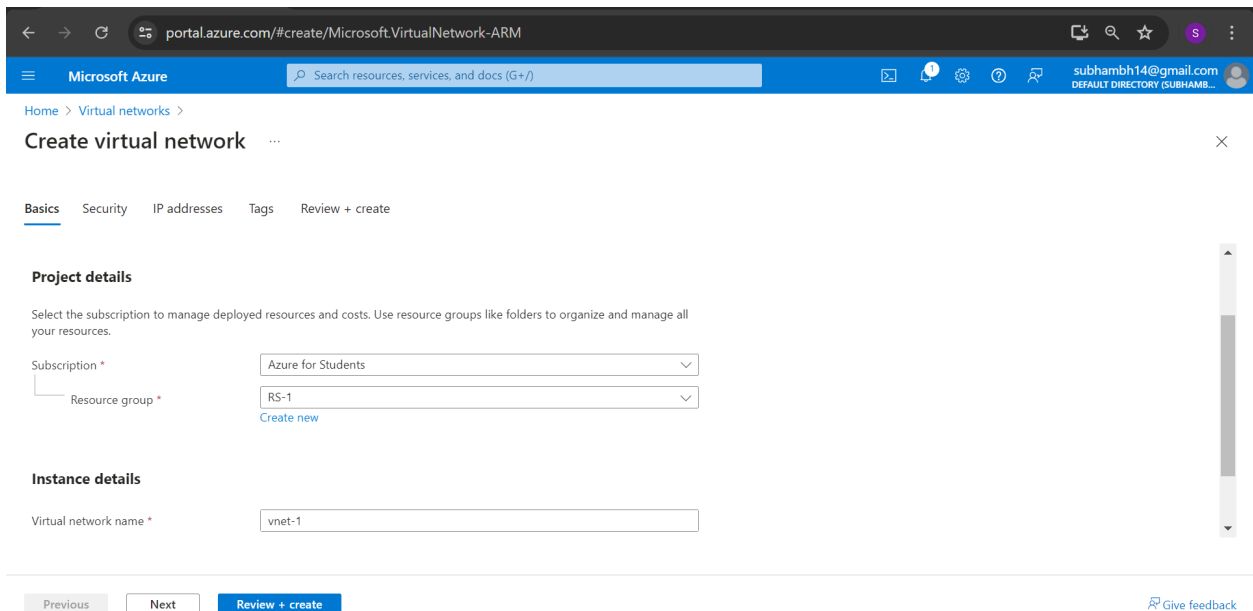
For Ubuntu;

Create a Resource Group



The screenshot shows the 'Create a resource group' page in the Azure portal. The breadcrumb navigation is 'Home > Resource groups >'. The page title is 'Create a resource group'. There are three tabs: 'Basics', 'Tags', and 'Review + create'. The 'Basics' tab is active. A description of a resource group is provided. Under 'Project details', the 'Subscription' is set to 'Azure for Students' and the 'Resource group' is 'RS-1'. Under 'Resource details', the 'Region' is set to '(US) West US 2'. At the bottom, there are three buttons: 'Review + create', '< Previous', and 'Next: Tags >'.

Create Virtual Network



The screenshot shows the 'Create virtual network' page in the Azure portal. The breadcrumb navigation is 'Home > Virtual networks >'. The page title is 'Create virtual network'. There are five tabs: 'Basics', 'Security', 'IP addresses', 'Tags', and 'Review + create'. The 'Basics' tab is active. A description of a virtual network is provided. Under 'Project details', the 'Subscription' is set to 'Azure for Students' and the 'Resource group' is 'RS-1'. Under 'Instance details', the 'Virtual network name' is 'vnet-1'. At the bottom, there are three buttons: 'Previous', 'Next', and 'Review + create'. A 'Give feedback' link is in the bottom right corner.

portal.azure.com/#create/Microsoft.VirtualNetwork-ARM

Microsoft Azure Search resources, services, and docs (G+)

subhambh14@gmail.com

Home > Virtual networks >

Create virtual network

Basics Security IP addresses Tags **Review + create**

[View automation template](#)

Basics

Subscription	Azure for Students
Resource Group	RS-1
Name	vnet-1
Region	West US 2

Security

Azure Bastion	Disabled
Azure Firewall	Disabled
Azure DDoS Network Protection	Disabled

[Previous](#) [Next](#) [Create](#) [Give feedback](#)

portal.azure.com/#@subhambh14gmail.onmicrosoft.com/resource/subscriptions/ca5224c7-5754-4288-91aa-9ba029f2951e/resourcegroups/...

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Home >

vnet-1

Virtual network

[Search](#) [Move](#) [Delete](#) [Refresh](#) [Give feedback](#)

Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Settings
- Monitoring
- Automation
- Help

Essentials

Resource group (move)	: RS-1	Address space	: 10.0.0.0/16
Location (move)	: West US 2	DNS servers	: Azure provided DNS service
Subscription (move)	: Azure for Students	Flow timeout	: Configure
Subscription ID	: ca5224c7-5754-4288-91aa-9ba029f2951e	BGP community string	: Configure
		Virtual network ID	: 54bdcff-5c5c-43d6-ab32-7815f3efd6ef

[Tags \(edit\)](#) : [Add tags](#) [JSON View](#)

Topology Properties **Capabilities (5)** Recommendations Tutorials

DDoS protection

Configure additional protection from distributed denial of service attacks.

● Not configured

Azure Firewall

Protect your network with a stateful L3-L7 firewall.

● Not configured

Peerings

Seamlessly connect two or more virtual networks.

● Not configured

Create a Virtual Machine with Ubuntu Image

portal.azure.com/#create/Microsoft.VirtualMachine-ARM

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DEFAULT DIRECTORY (SUBHAMB...

Home > Virtual machines >

Create a virtual machine

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription *

Resource group *
[Create new](#)

Instance details

Virtual machine name *

Region *

Availability options

Security type
[Configure security features](#)

Image *

< Previous Next : Disks > Review + create

[Give feedback](#)

portal.azure.com/#create/Microsoft.VirtualMachine-ARM

Microsoft Azure Search resources, services, and docs (G+/)

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DEFAULT DIRECTORY (SUBHAMB...

Home > Virtual machines >

Create a virtual machine

✓ Validation passed

Basics Disks Networking Management Monitoring Advanced Tags Review + create

Price

1 X Standard DS1 v2
by Microsoft
[Terms of use](#) | [Privacy policy](#)

Subscription credits apply
4.7421 INR/hr
[Pricing for other VM sizes](#)

TERMS

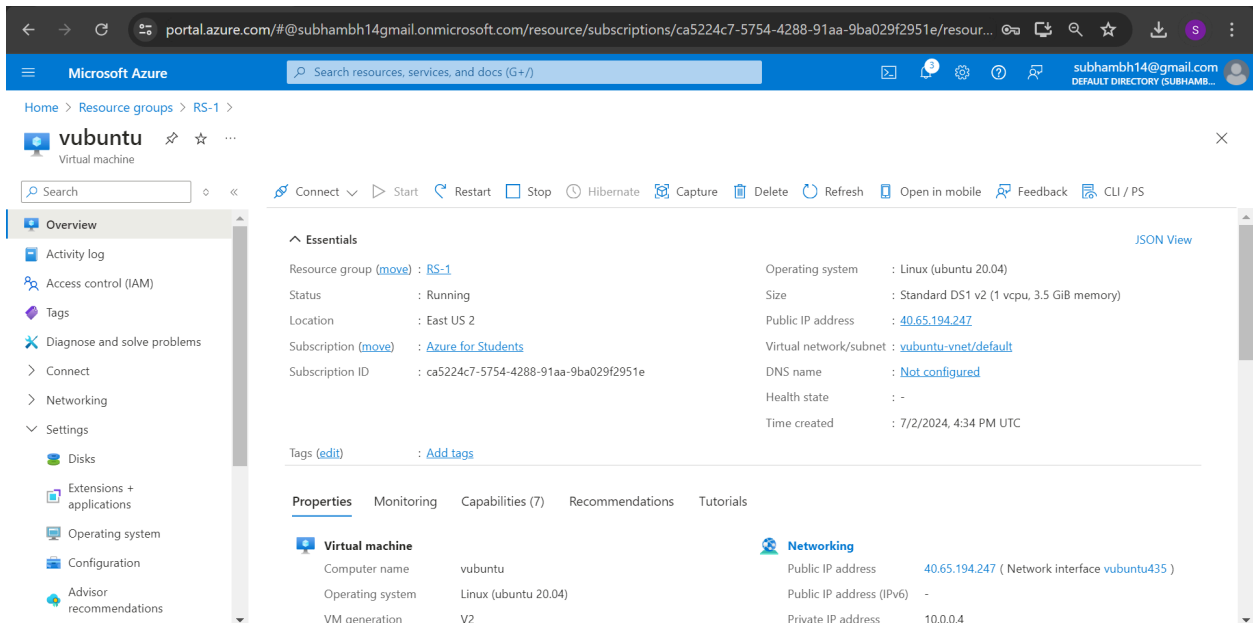
By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same

< Previous Next > Create

[Download a template for automation](#) [Give feedback](#)

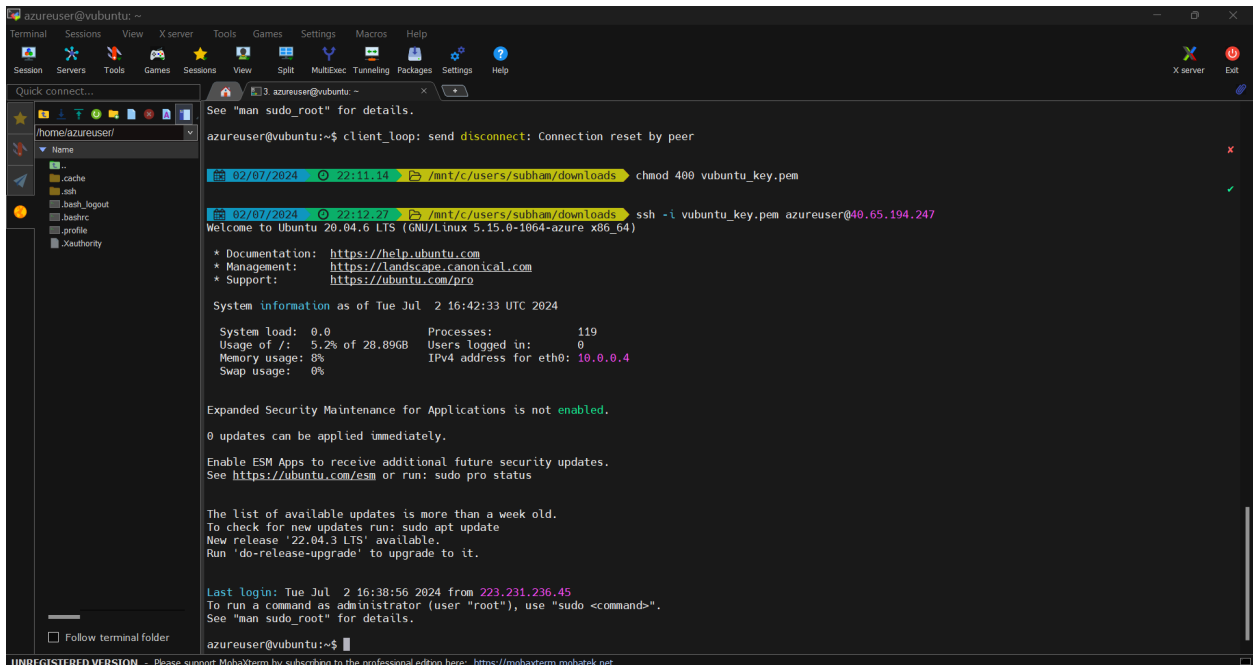
Click on Create and download the private key.

After Successful Deployment, go to resources.



Click on connect and open mobaxterm.

Connect to the VM using the SSH key.



Check the disk space using lsblk command.

```
root@vubuntu: ~  
System load: 0.0          Processes:              119  
Usage of /:  5.2% of 28.89GB Users logged in:       0  
Memory usage: 8%          IPv4 address for eth0: 19.0.0.4  
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  
New release '22.04.3 LTS' available.  
Run 'do-release-upgrade' to upgrade to it.  
  
Last login: Tue Jul  2 16:38:56 2024 from 223.231.236.45  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
azureuser@vubuntu:~$ sudo su  
root@vubuntu:/home/azureuser# cd  
root@vubuntu:~# ls  
snap  
root@vubuntu:~# lsblk  
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT  
loop0       7:0      0   64M  1 loop /snap/core20/2318  
loop1       7:1      0  91.9M  1 loop /snap/lxd/24861  
loop2       7:2      0  38.8M  1 loop /snap/snapd/21759  
sda         8:0      0   30G  0 disk  
└─sda1      8:1      0  29.9G  0 part /  
└─sda14     8:14     0    4M  0 part  
└─sda15     8:15     0  106M  0 part /boot/efi  
sdb         8:16     0    7G  0 disk  
└─sdb1      8:17     0    7G  0 part /mnt  
sr0        11:0     1   628K  0 rom  
root@vubuntu:~#
```

Come back to the Virtual machine in the cloud and update the disk size by creating a new disk.

portal.azure.com/#@subhambh14gmail.onmicrosoft.com/resource/subscriptions/ca5224c7-5754-4288-91aa-9ba029f2951e/resourcegr...

Microsoft Azure Search resources, services, and docs (G+)

subhambh14@gmail.com
DEFAULT DIRECTORY (SUBHAMB...

Home > CreateVm-canonical.0001-com-ubuntu-server-focal-2-20240702215943 | Overview > vubuntu

vubuntu | Disks

Virtual machine

Search Refresh Additional settings Feedback Troubleshoot

Networking

Settings

Disks

Extensions + applications

Operating system

Configuration

Advisor recommendations

Properties

Locks

Availability + scale

Security

Backup + disaster recovery

Operations

Swap OS disk

Disk name	Storage type	Size (GiB)	Max IOPS	Max throughput (...)	Encryption
vubuntu_disk1_8bfb1474bead4119a538dfd	Premium SSD LRS	30	120	25	SSE with PMK

Data disks

Filter by name

Showing 1 of 1 attached data disks

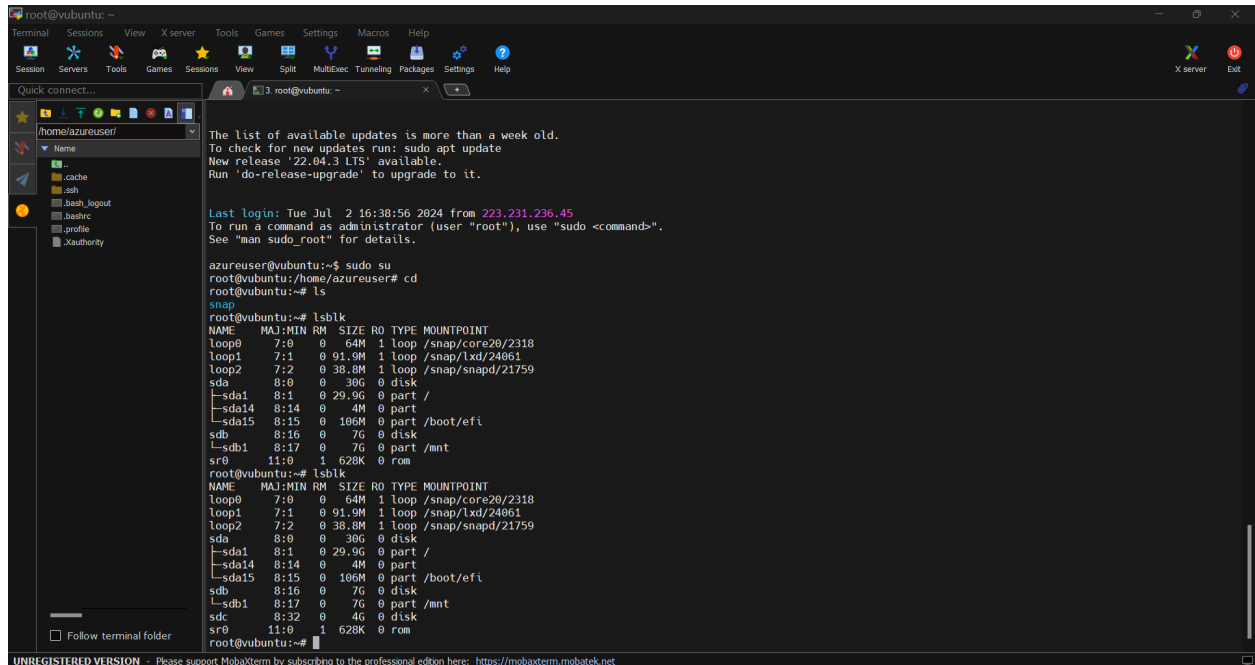
+ Create and attach a new disk Attach existing disks

LUN	Disk name	Storage type	Size (GiB)	Max IOPS	Max throughput (...)	Encryption
0	linux-extra	Premium SSD LRS	4	120	25	SSE with PMK

Apply Discard changes

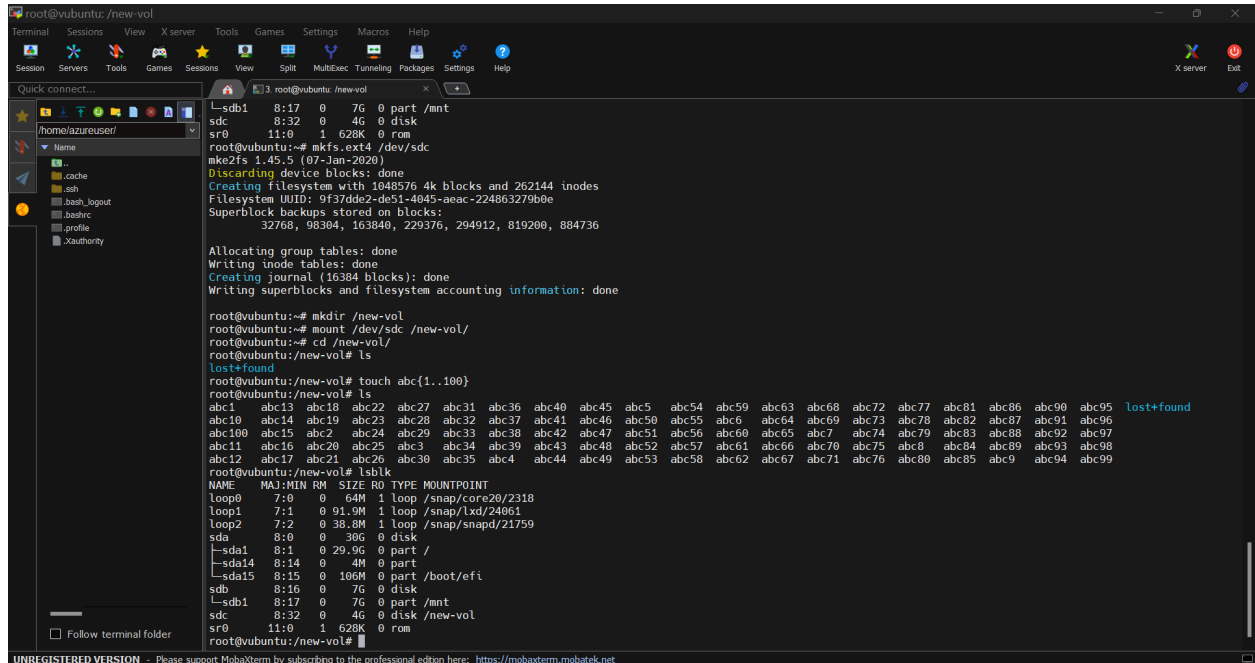
See the changes using the lsblk command.

Create a new Folder and mount the new disk using the mount command.



The screenshot shows a terminal window with the following content:

```
root@vubuntu: ~  
Terminal Sessions View X server Tools Games Settings Macros Help  
Quick connect...  
/home/azureuser/  
Name  
cache  
ssh  
bash_logout  
bashrc  
profile  
xauthority  
Follow terminal folder  
The list of available updates is more than a week old.  
To check for new updates run: sudo apt update  
New release '22.04.3 LTS' available.  
Run 'do-release-upgrade' to upgrade to it.  
  
Last login: Tue Jul 2 16:38:56 2024 from 223.231.236.45  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
azureuser@vubuntu:~$ sudo su  
root@vubuntu:/home/azureuser# cd  
root@vubuntu:~# ls  
snap  
root@vubuntu:~# lsblk  
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINT  
loop0 7:0 0 64M 1 loop /snap/core20/2318  
loop1 7:1 0 91.9M 1 loop /snap/lxd/24061  
loop2 7:2 0 38.8M 1 loop /snap/snapd/21759  
sda 8:0 0 30G 0 disk  
├─sda1 8:1 0 29.9G 0 part /  
├─sda14 8:14 0 4M 0 part  
└─sda15 8:15 0 106M 0 part /boot/efi  
sdb 8:16 0 7G 0 disk  
└─sdb1 8:17 0 7G 0 part /mnt  
sr0 11:0 1 628K 0 rom  
root@vubuntu:~# lsblk  
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINT  
loop0 7:0 0 64M 1 loop /snap/core20/2318  
loop1 7:1 0 91.9M 1 loop /snap/lxd/24061  
loop2 7:2 0 38.8M 1 loop /snap/snapd/21759  
sda 8:0 0 30G 0 disk  
├─sda1 8:1 0 29.9G 0 part /  
├─sda14 8:14 0 4M 0 part  
└─sda15 8:15 0 106M 0 part /boot/efi  
sdb 8:16 0 7G 0 disk  
└─sdb1 8:17 0 7G 0 part /mnt  
sdc 8:32 0 4G 0 disk  
sr0 11:0 1 628K 0 rom  
root@vubuntu:~#
```



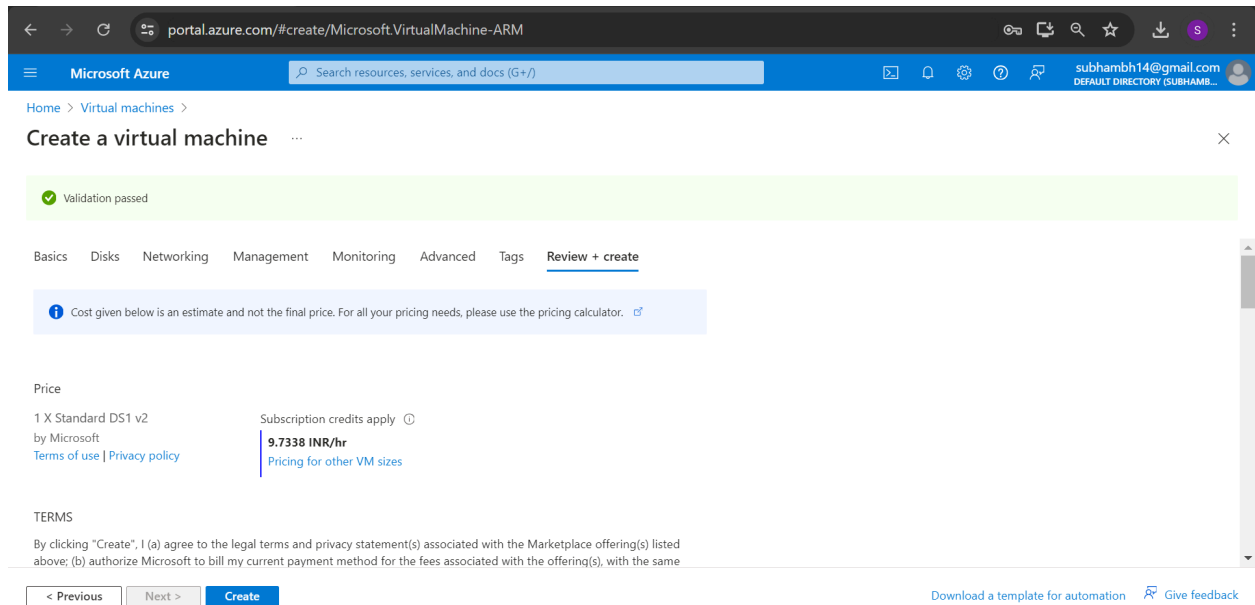
The screenshot shows a terminal window with the following content:

```
root@vubuntu: /new-vol  
Terminal Sessions View X server Tools Games Settings Macros Help  
Quick connect...  
/home/azureuser/  
Name  
cache  
ssh  
bash_logout  
bashrc  
profile  
xauthority  
Follow terminal folder  
└─sdb1 8:17 0 7G 0 part /mnt  
sdc 8:32 0 4G 0 disk  
sr0 11:0 1 628K 0 rom  
root@vubuntu:~# mkfs.ext4 /dev/sdc  
mkfs 1.45.5 (67.3an-2020)  
Discarding device blocks: done  
Creating filesystem with 1048576 4k blocks and 262144 inodes  
Filesystem UUID: 9f37dde2-de51-4045-aeac-224863279b0e  
Superblock backups stored on blocks:  
32768, 98304, 163840, 229376, 294912, 819200, 884736  
  
Allocating group tables: done  
Writing inode tables: done  
Creating journal (16384 blocks): done  
Writing superblocks and filesystem accounting information: done  
  
root@vubuntu:~# mkdir /new-vol  
root@vubuntu:~# mount /dev/sdc /new-vol/  
root@vubuntu:~# cd /new-vol/  
root@vubuntu:/new-vol# ls  
lost+found  
root@vubuntu:/new-vol# touch abc{1..100}  
root@vubuntu:/new-vol# ls  
abc1 abc13 abc18 abc22 abc27 abc31 abc36 abc40 abc45 abc5 abc54 abc59 abc63 abc68 abc72 abc77 abc81 abc86 abc90 abc95 lost+found  
abc10 abc14 abc19 abc23 abc28 abc32 abc37 abc41 abc46 abc50 abc55 abc60 abc64 abc69 abc73 abc78 abc82 abc87 abc91 abc96  
abc100 abc15 abc2 abc24 abc29 abc33 abc38 abc42 abc47 abc51 abc56 abc60 abc65 abc7 abc74 abc79 abc83 abc88 abc92 abc97  
abc11 abc16 abc20 abc25 abc3 abc34 abc39 abc43 abc48 abc52 abc57 abc61 abc66 abc70 abc75 abc8 abc84 abc89 abc93 abc98  
abc12 abc17 abc21 abc26 abc30 abc35 abc4 abc44 abc49 abc53 abc58 abc62 abc67 abc71 abc76 abc80 abc85 abc9 abc94 abc99  
root@vubuntu:/new-vol# lsblk  
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINT  
loop0 7:0 0 64M 1 loop /snap/core20/2318  
loop1 7:1 0 91.9M 1 loop /snap/lxd/24061  
loop2 7:2 0 38.8M 1 loop /snap/snapd/21759  
sda 8:0 0 30G 0 disk  
├─sda1 8:1 0 29.9G 0 part /  
├─sda14 8:14 0 4M 0 part  
└─sda15 8:15 0 106M 0 part /boot/efi  
sdb 8:16 0 7G 0 disk  
└─sdb1 8:17 0 7G 0 part /mnt  
sdc 8:32 0 4G 0 disk /new-vol  
sr0 11:0 1 628K 0 rom  
root@vubuntu:/new-vol#
```

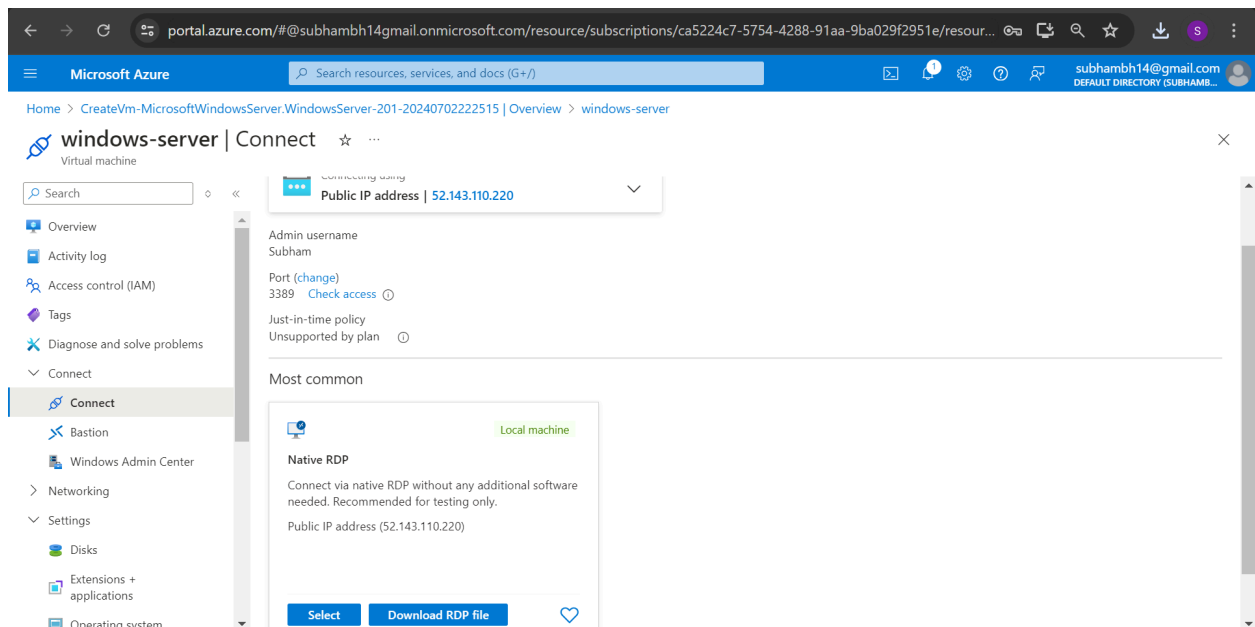
After saving a file in the new directory, reconnect the VM and check if the files are available in the directory.

For Windows;

Repeat the same steps to create a Virtual Machine with Windows.

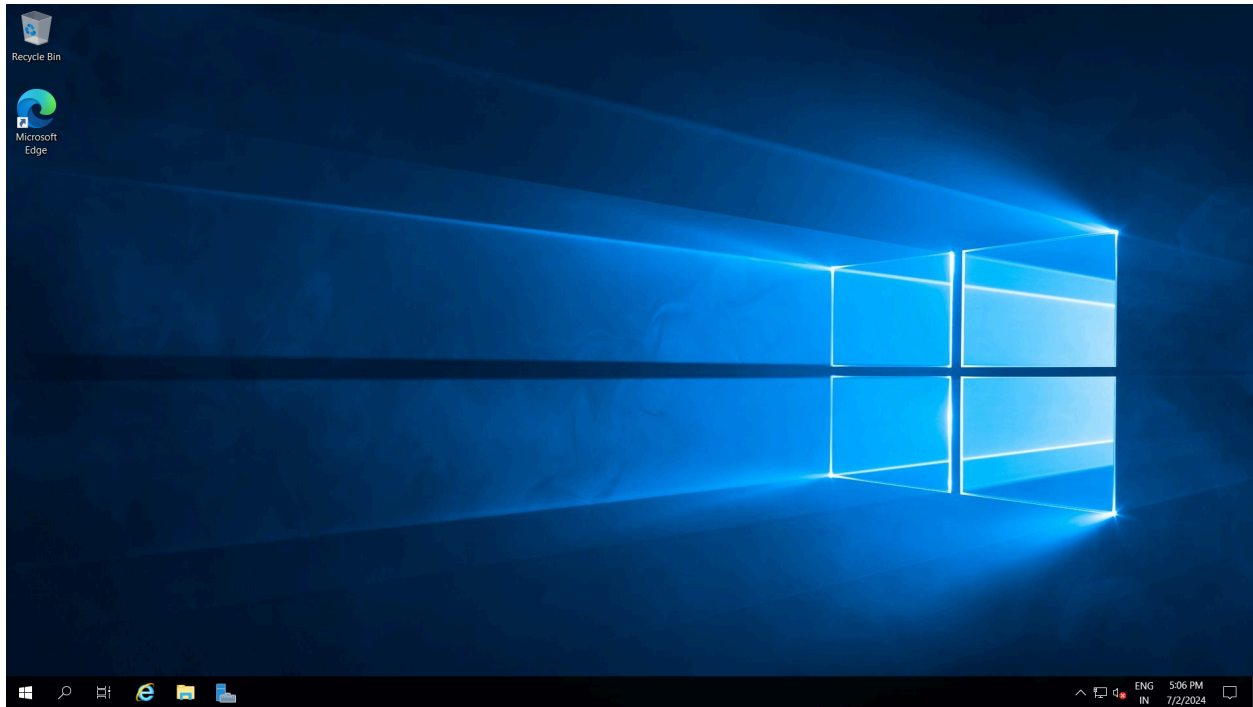


After successful deployment, click on Connect.

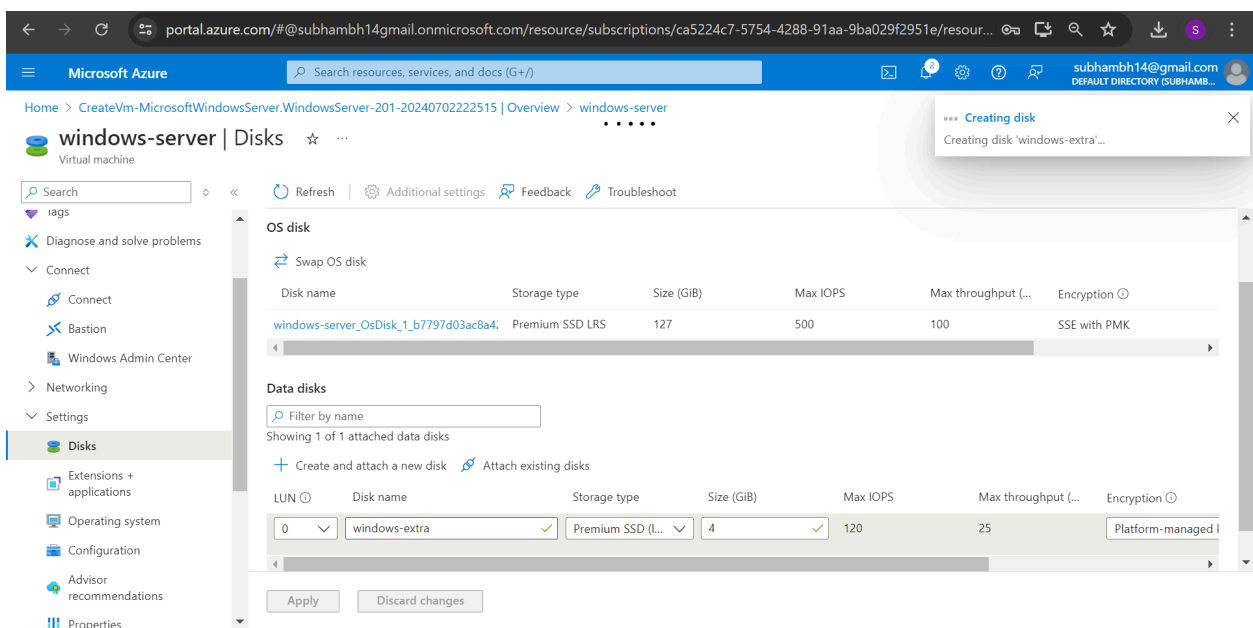


Download the RDP file and open it.

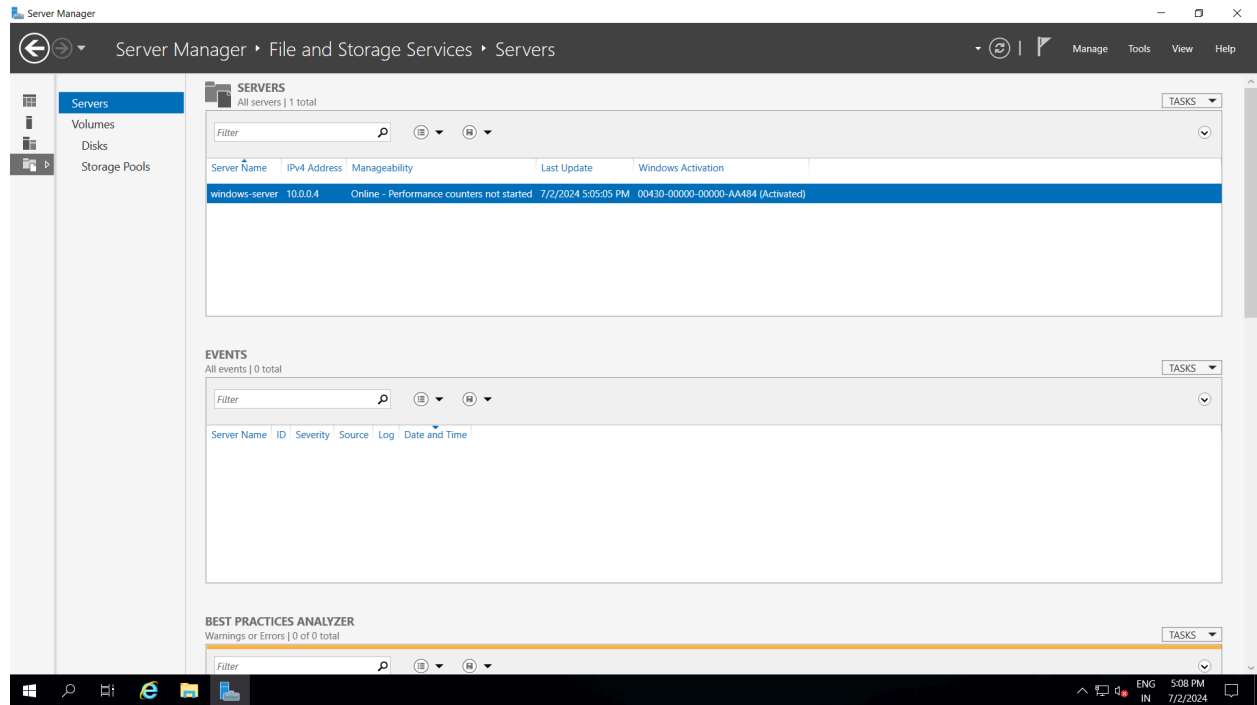
Fill in the username and password.
The remote system shall open up.



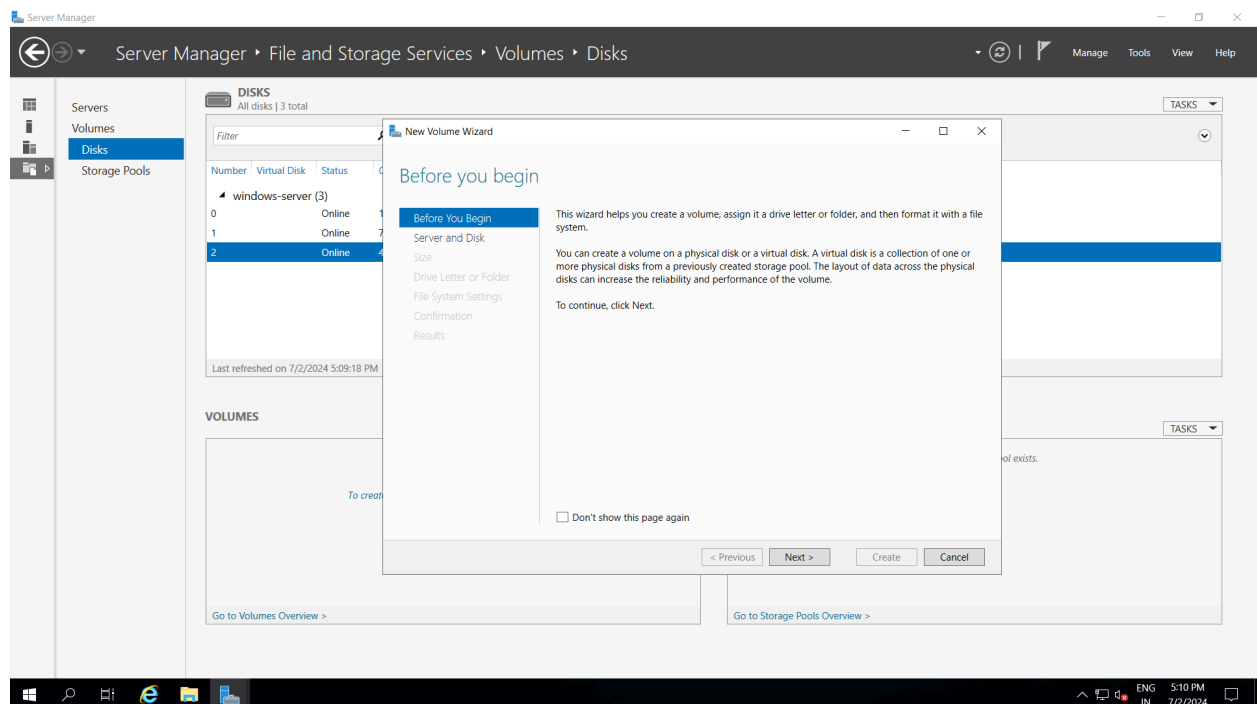
Check for disk space. Return to the local system and create a new disk space in the same virtual machine.

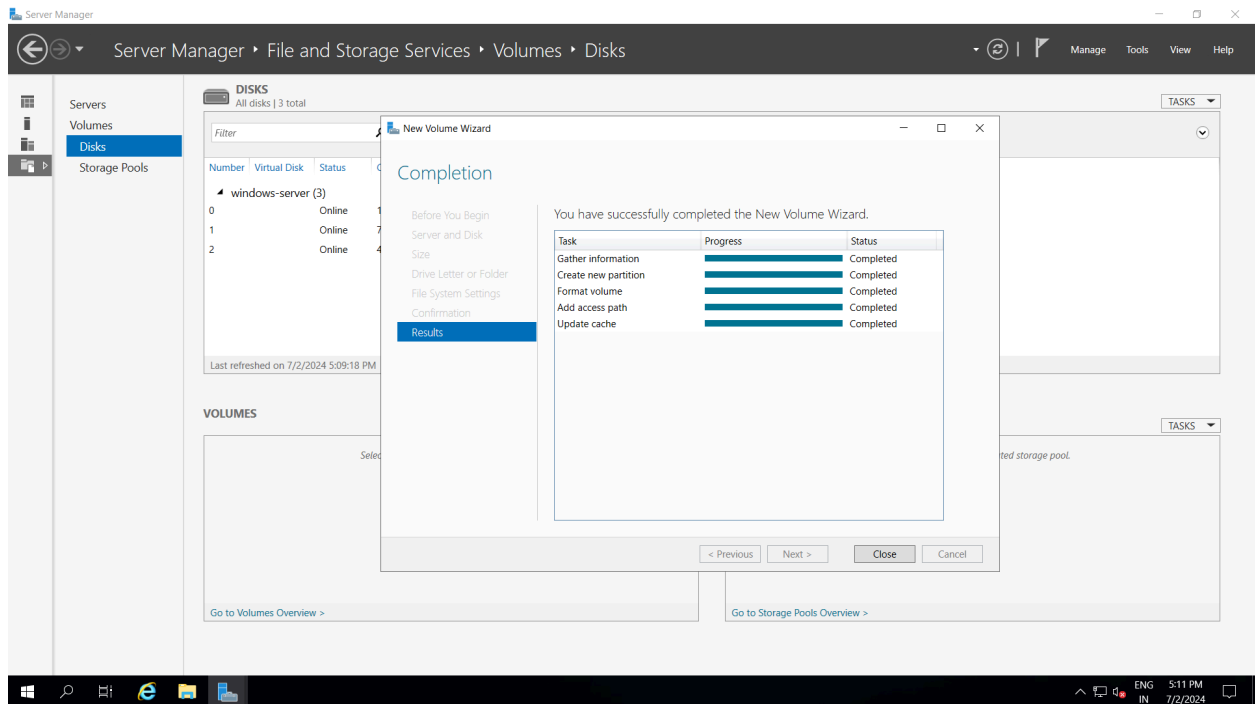


Come back to the remote system and go to the server manager and check for unknown disk space.

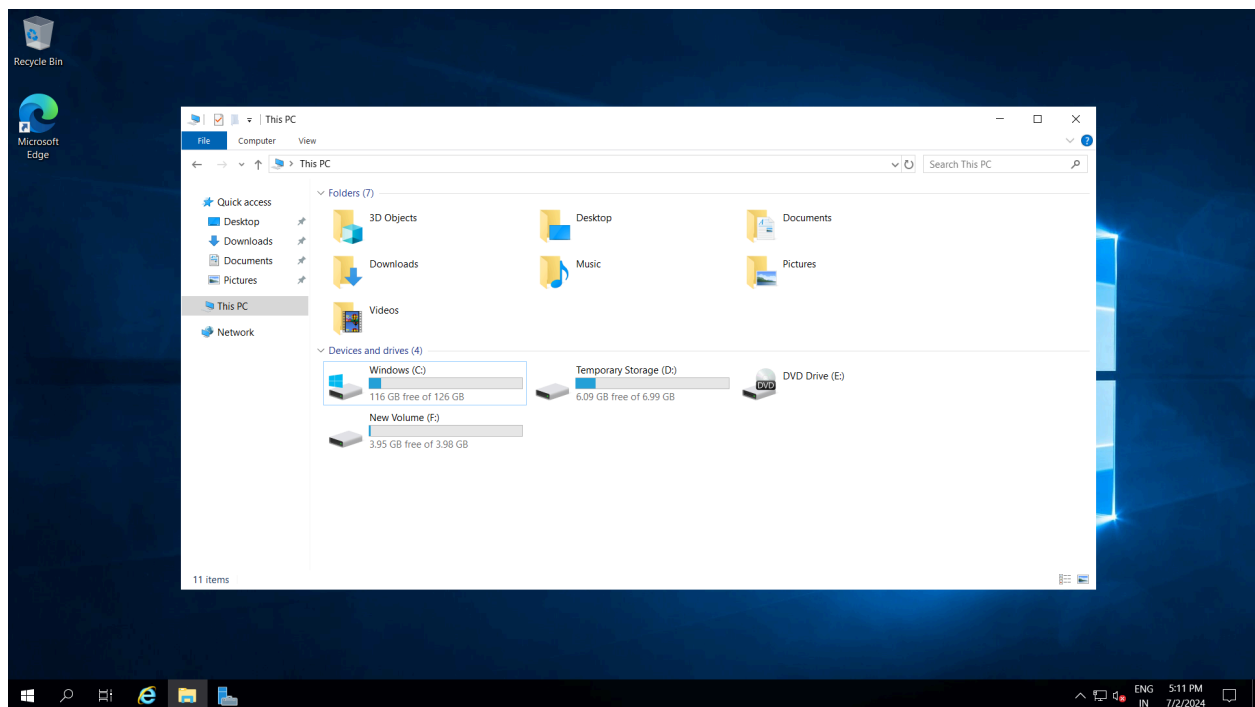


Complete the process by filling in the needed information.





Check For the new disk space.



portal.azure.com/#@subhambh14gmail.onmicrosoft.com/resource/subscriptions/ca5224c7-5754-4288-91aa-9ba029f2951e/resour...

Microsoft Azure Search resources, services, and docs (G+)

subhambh14@gmail.com DEFAULT DIRECTORY (SUBHAMBH...)

Home > Resource groups >

Resource groups

Default Directory (subhambh14gmail.onmicrosoft.com)

+ Create Manage view ...

Filter for any field...

Name ↑↓

- NetworkWatcherRG
- RS-1

Overview

- Activity log
- Access control (IAM)
- Tags
- Resource visualizer
- Events
- Settings
- Cost Management
- Monitoring
- Automation
- Help

RS-1 Resource group

Search

+ Create Manage view ... Delete resource group Refresh Export to CSV Open query ...

resources recommendations

Filter for any field... Type equals all Location equals all Add filter

Showing 1 to 15 of 15 records. Show hidden types No grouping

List view

<input type="checkbox"/> Name ↑↓	Type ↑↓	Location ↑↓	
<input type="checkbox"/> linux-extra	Disk	East US 2	...
<input type="checkbox"/> vubuntu	Virtual machine	East US 2	...
<input type="checkbox"/> vubuntu-ip	Public IP address	East US 2	...
<input type="checkbox"/> vubuntu-nsg	Network security group	East US 2	...
<input type="checkbox"/> vubuntu-vnet	Virtual network	East US 2	...
<input type="checkbox"/> vubuntu435	Network Interface	East US 2	...

< Page 1 of 1 >

Give feedback

After all the tasks are completed, delete the Resource group.