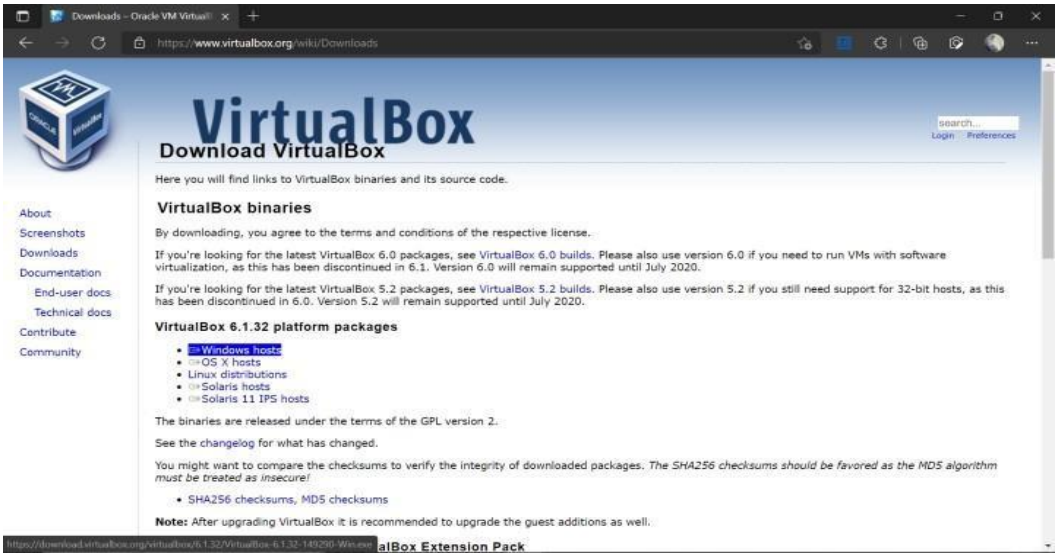
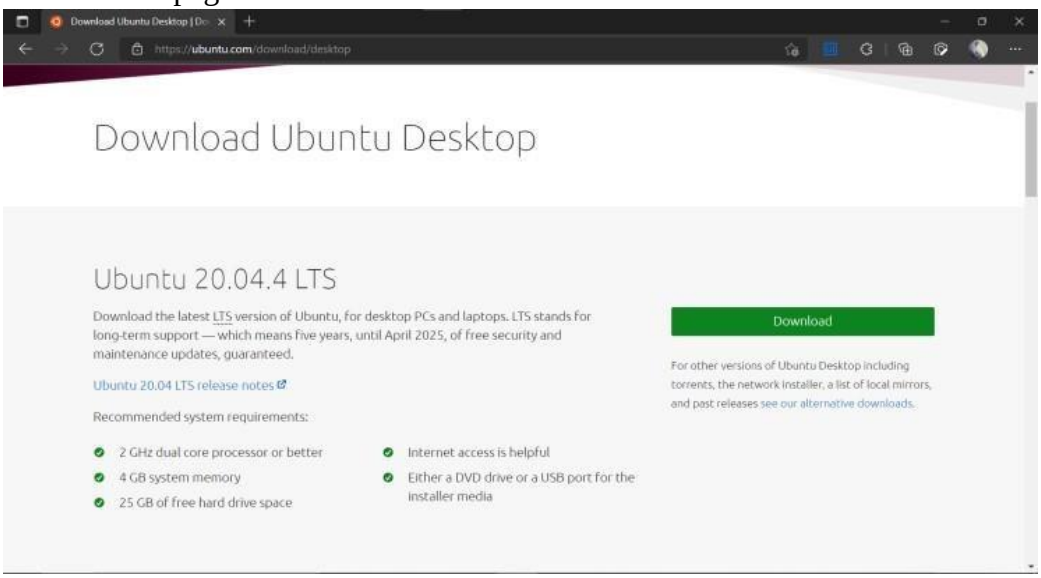
Q1. Install Virtual box and making Ubuntu And Window Virtual Machine. Ubuntu

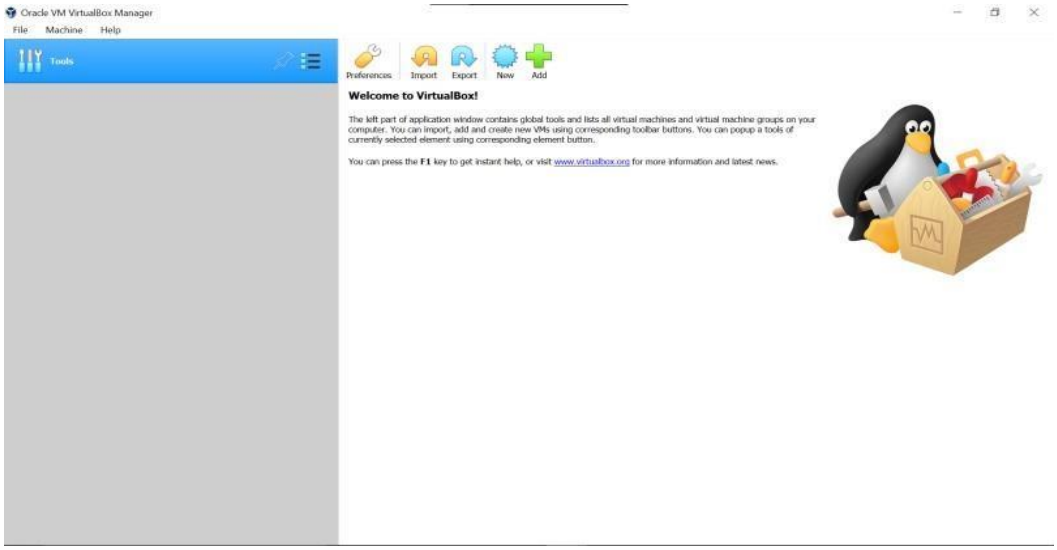
Step-1: Download VirtualBox for Windows and install it on your computer



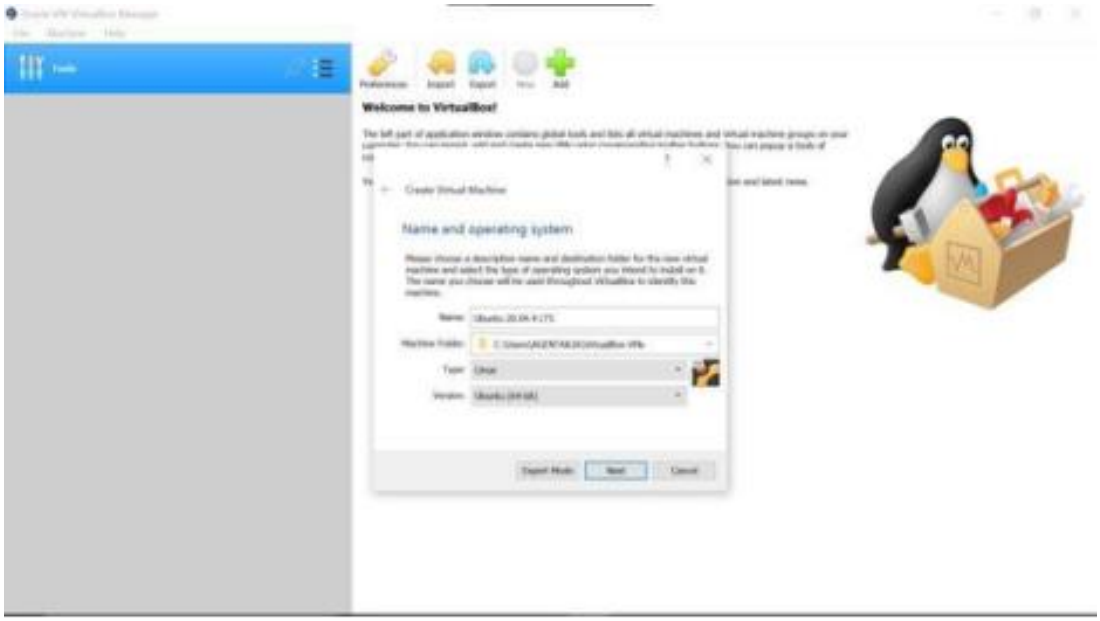
Step-2: Download the Ubuntu ISO file you want to install from the Ubuntu download page.



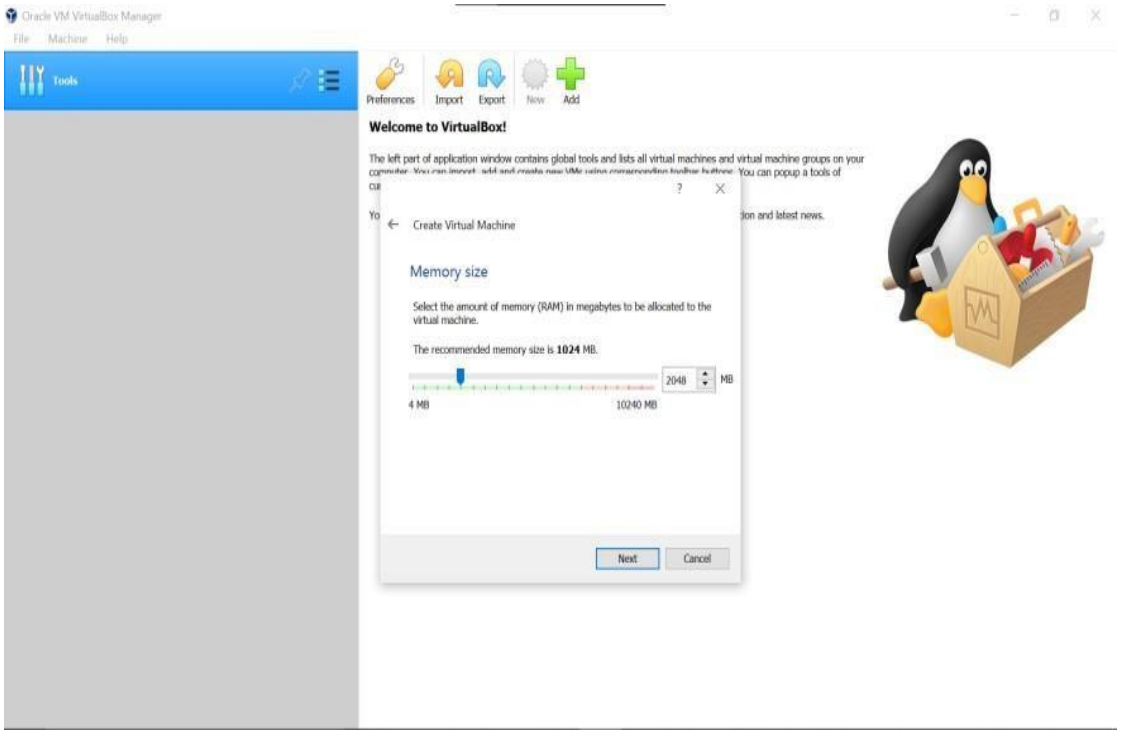
Step-3: Open VirtualBox and select New in the top taskbar.



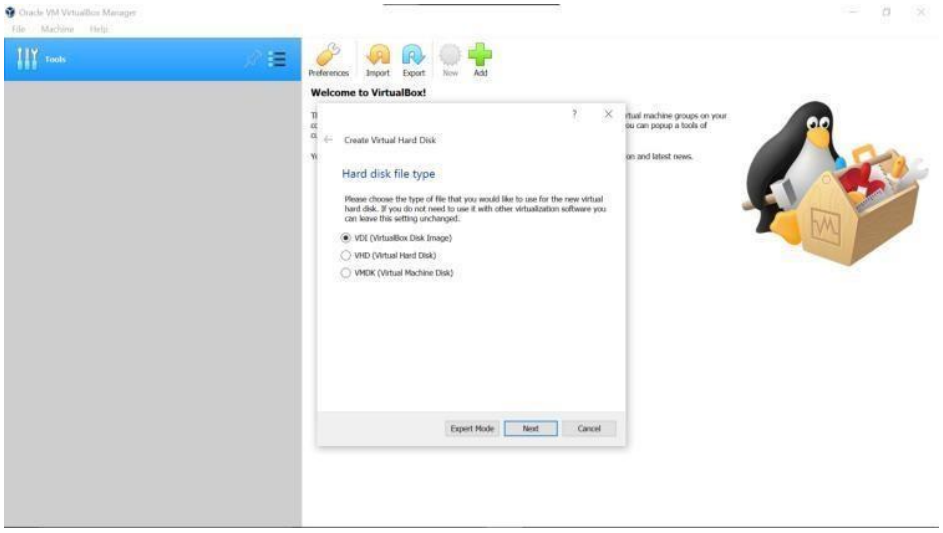
Step-4: Give your VM a name, choose Linux as the Type, then choose Ubuntu as the Version and select Next.



Step-5. Choose how much RAM you want to assign to the virtual machine and select Next. The recommended minimum is 1024 MB.

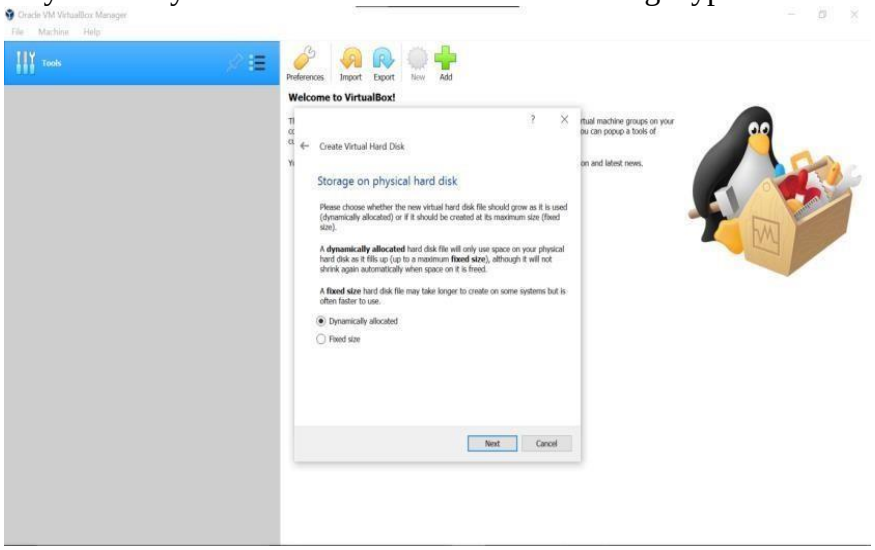


Step-6: Choose Create a virtual hard disk now and select Create.
Step-7: Choose VDI (VirtualBox Disk Image) and select Next.



Note on (VDI): Normally, Oracle VM VirtualBox uses its own container format for guest hard disks. This is called a Virtual Disk Image (VDI) file. This format is used when you create a new virtual machine with a new disk.

Step-8: Choose Dynamically allocated or Fixed size for the storage type and select Next

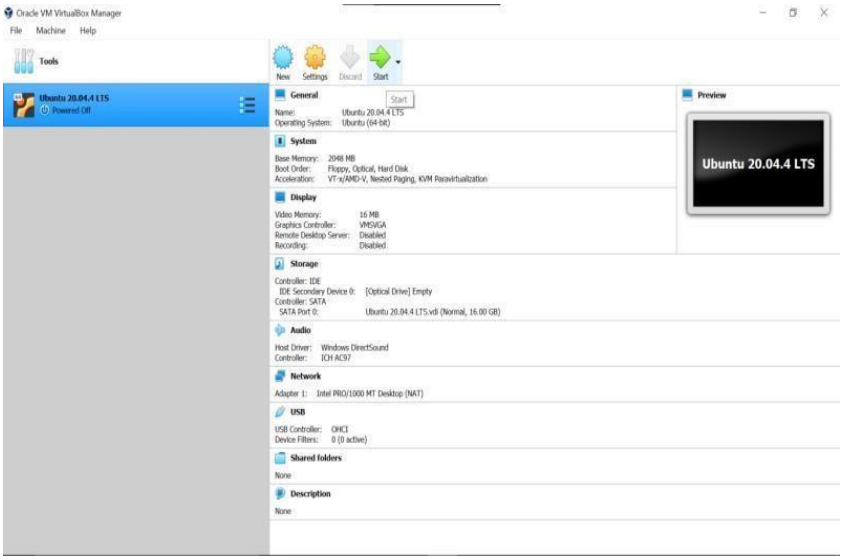


Tip: A fixed size disk performs better because the virtual machine doesn't have to increase the file size as you install software.

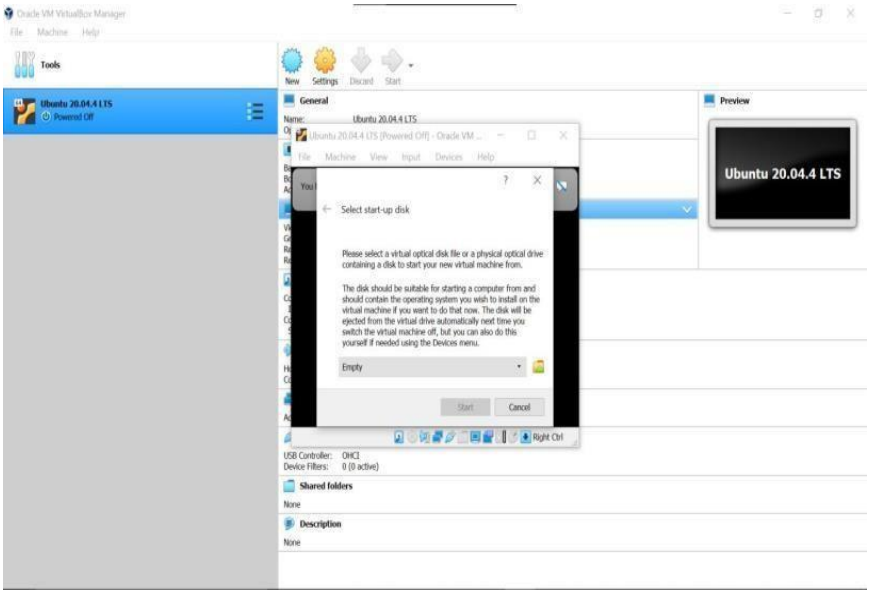
Step-9: Choose how much space you wish to set aside for Ubuntu and select Create.

Note: The amount of space you allocate for your virtual machine determines how much room you must install applications, so set aside a sample amount.

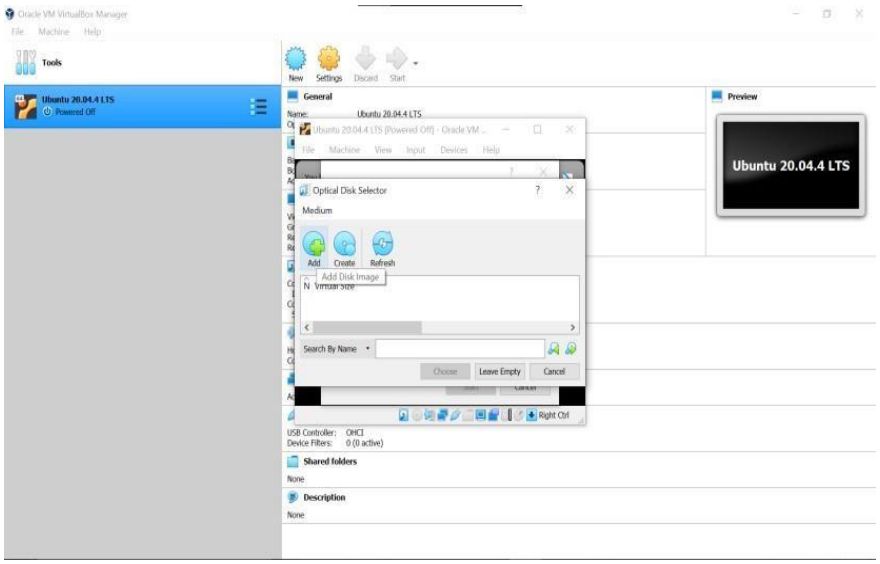
Step-10: The name of your virtual machine will now appear on the left side of the VirtualBox manager. Select Start in the toolbar to launch your VM.



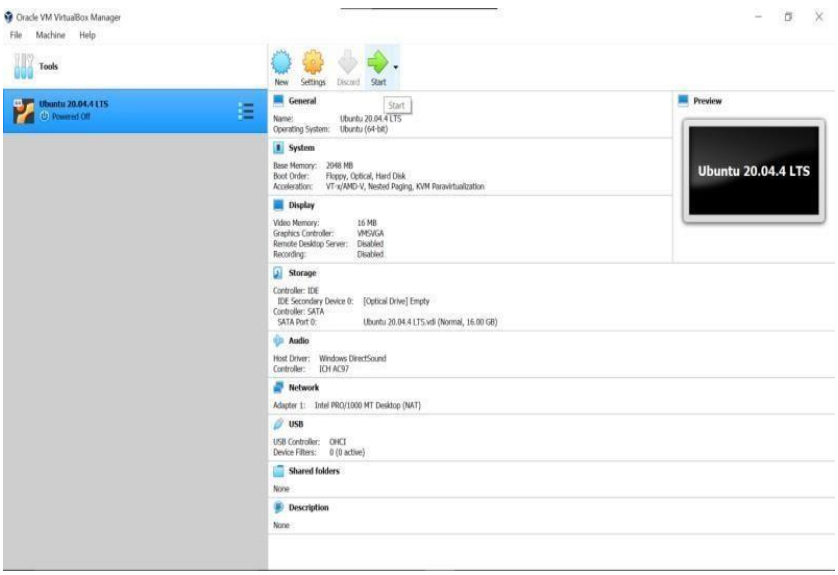
Step-11: This is the point where you need to choose the Ubuntu ISO file you downloaded earlier. If the VM doesn't automatically detect it, select the folder next to the Empty field.

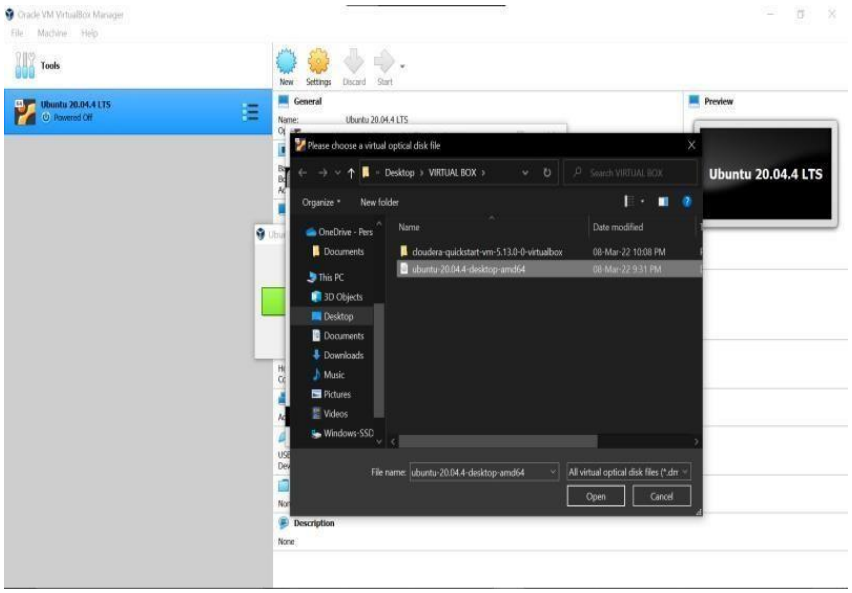


Step-12: Select Add in the window that pops up.

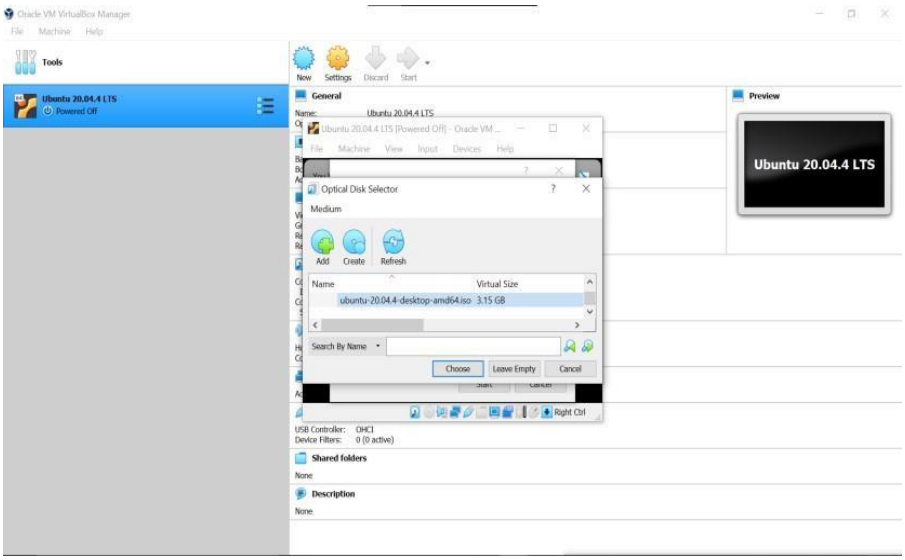


Step-13: Choose your Ubuntu disk image and select Open.

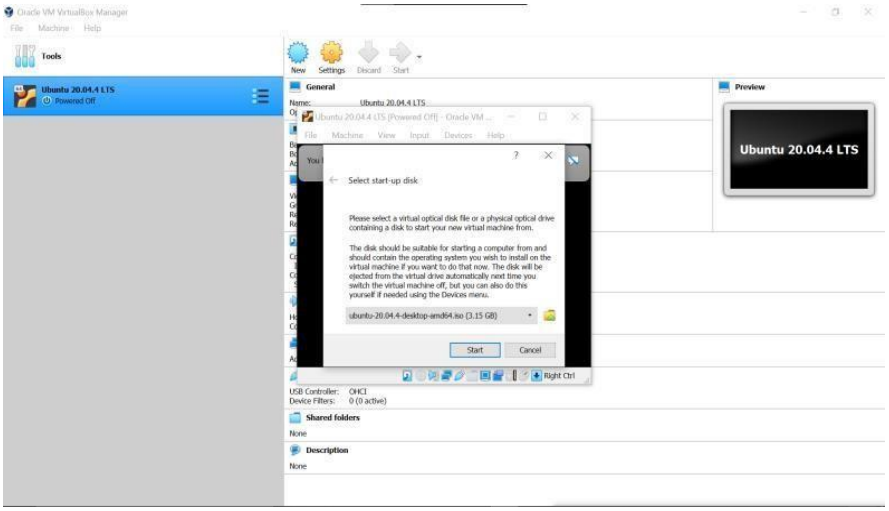




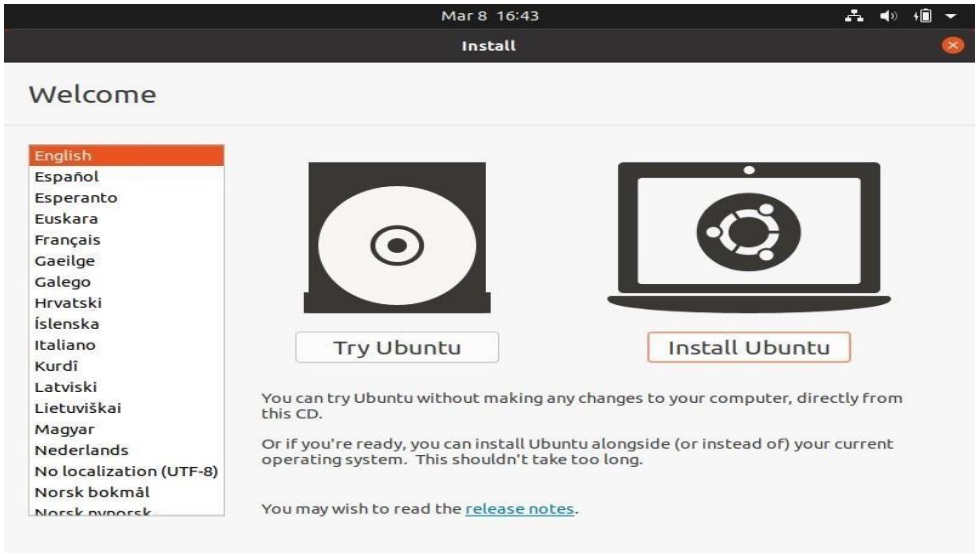
Step-14: - Select Choose



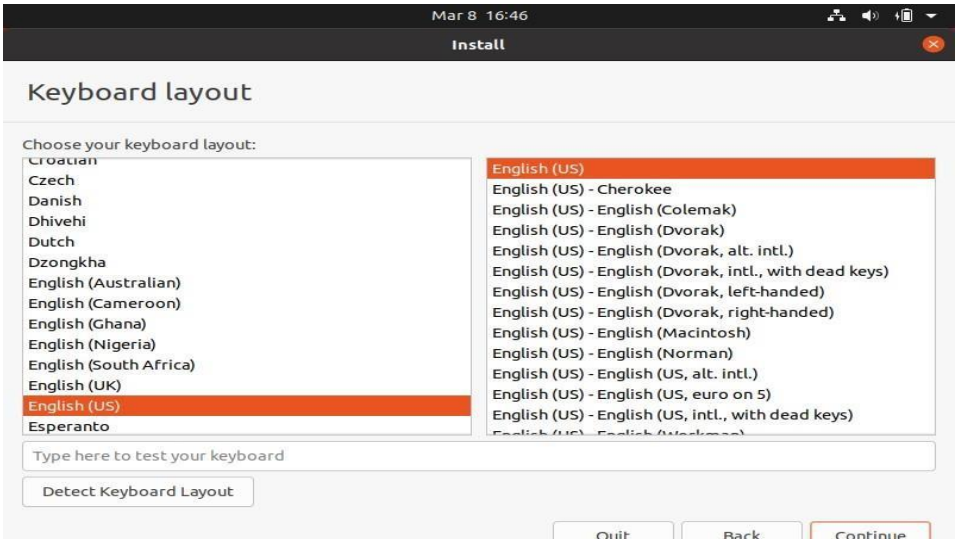
Step-15: Select Start.



Step-16: Your VM will now boot into a live version of Ubuntu. Choose your language and select Install Ubuntu



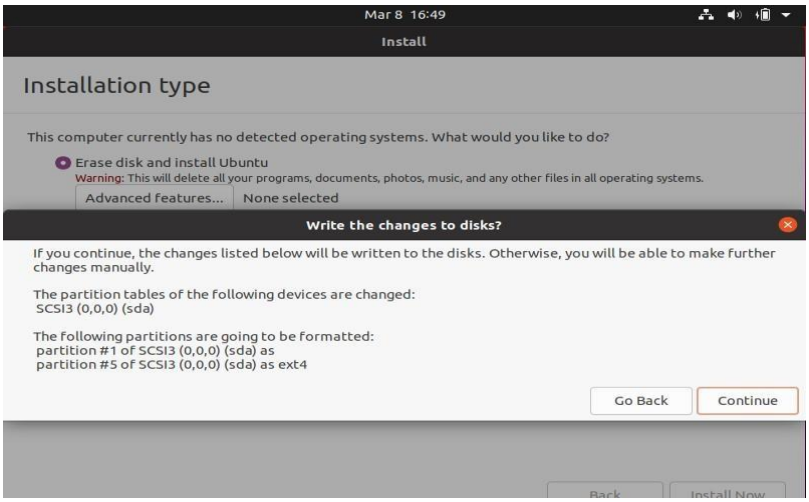
Step-17: Choose your keyboard layout and select Continue.



Step-18: Choose Normal installation or Minimal installation, then select Continue.

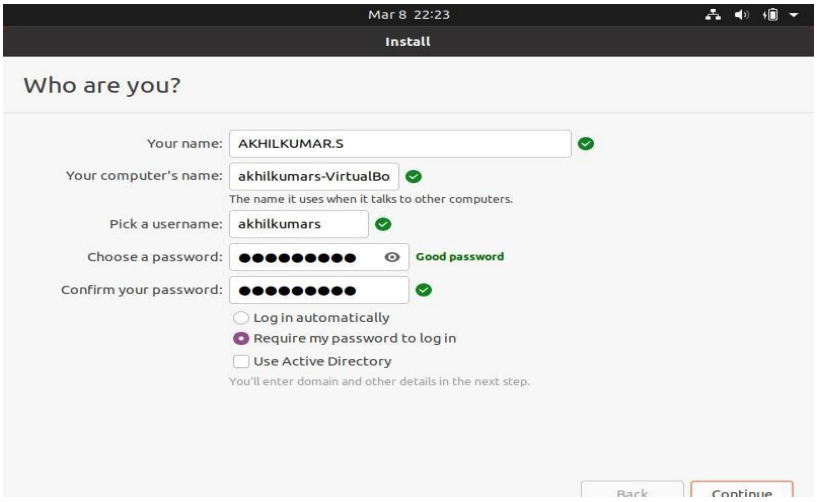
Step-19: Choose Erase disk and install Ubuntu and select Install Now, then select Continue to ignore the warning.

Note: This step will not erase your computer's physical hard drive; it only applies to the virtual machine.

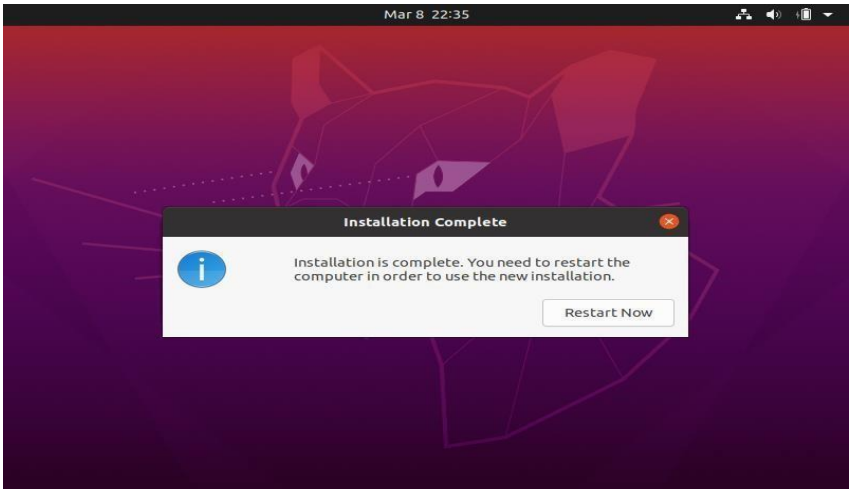


Step-20: - Choose your time zone on the map, then select Continue.

Step-21: - Set up your user account and select Continue.

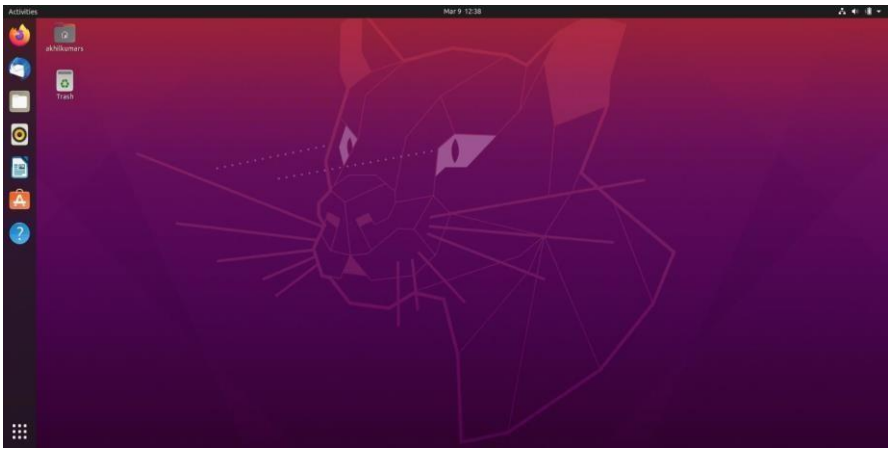


Step-22: - Select Restart Now.



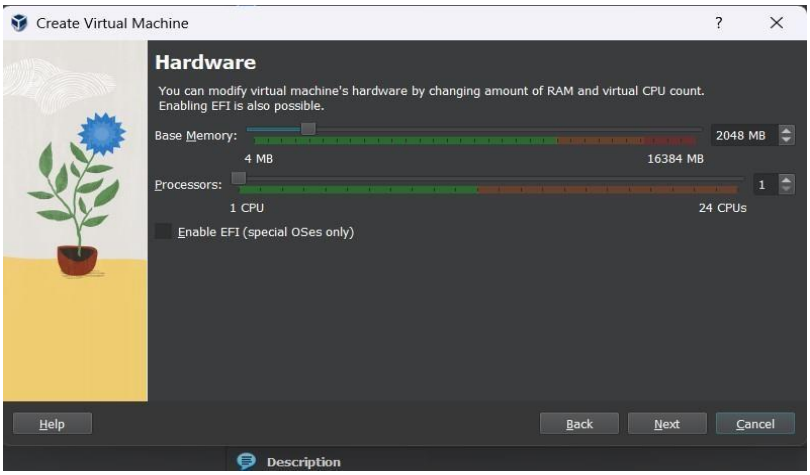
Step-23: - After restarting your VM and booting into Ubuntu, you may notice that the desktop doesn't scale correctly if you choose to view it in full-screen mode. You can fix this problem by selecting the VBox_Gas icon to install VirtualBox Guest Additions.

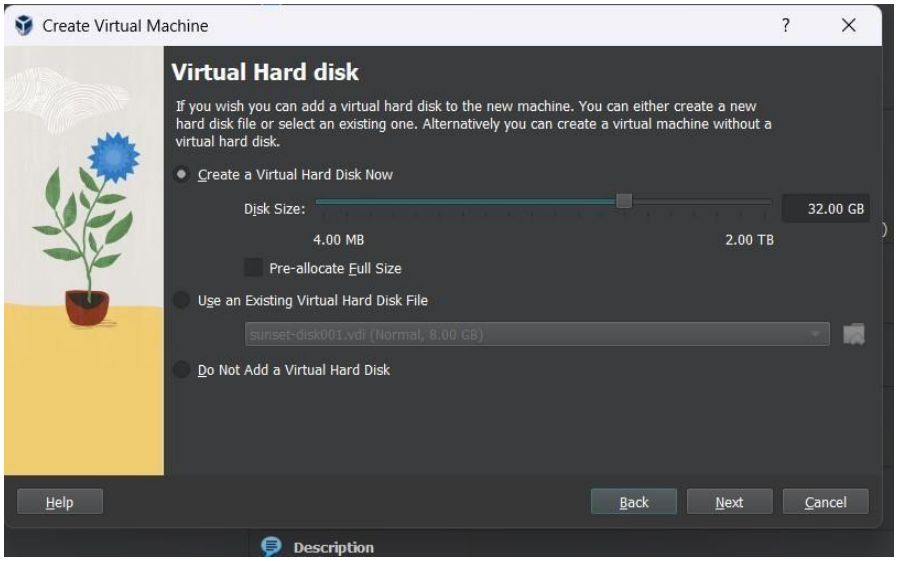
Output:



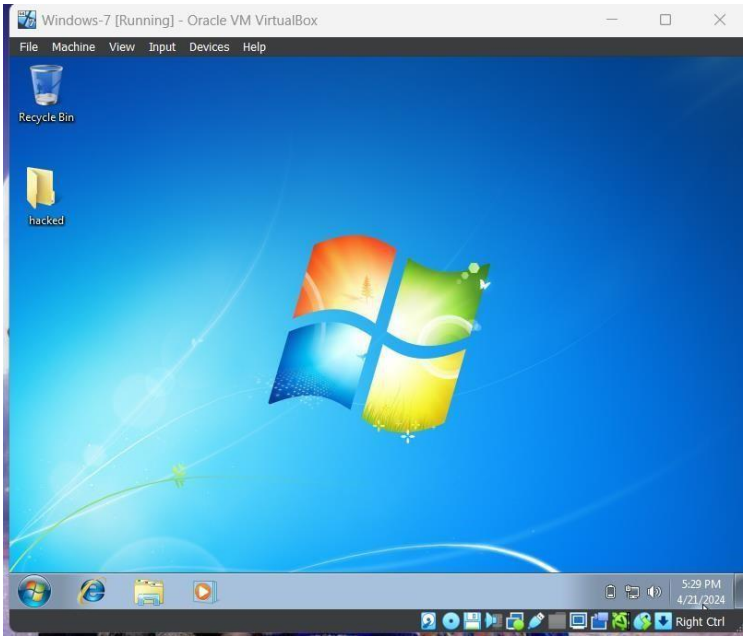
Windows:

Similarly, Follow the same steps above to Build Windows Virtual Machine.




Create Virtual Machine
Virtual Hard disk
If you wish you can add a virtual hard disk to the new machine. You can either create a new hard disk file or select an existing one. Alternatively you can create a virtual machine without a virtual hard disk.
Create a Virtual Hard Disk Now
Disk Size:
32.00 GB
4.00 MB
2.00 TB
Pre-allocate Full Size
Use an Existing Virtual Hard Disk File
sunset-disk001.vdi (Normal, 8.00 GB)
Do Not Add a Virtual Hard Disk
Help
Back
Next
Cancel
Description

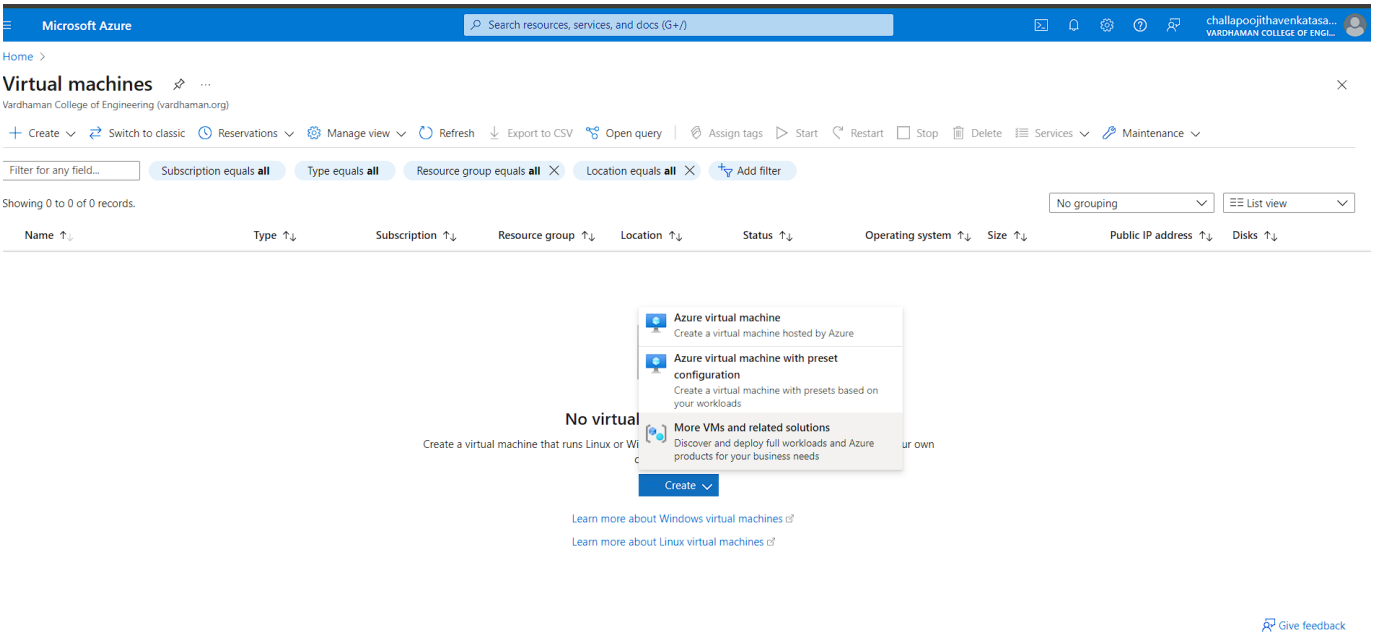
Output:


Windows-7 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Recycle Bin
hacked
5:29 PM
4/21/2024
Right Ctrl

Q2) Create a Windows Virtual Machine in Microsoft Azure

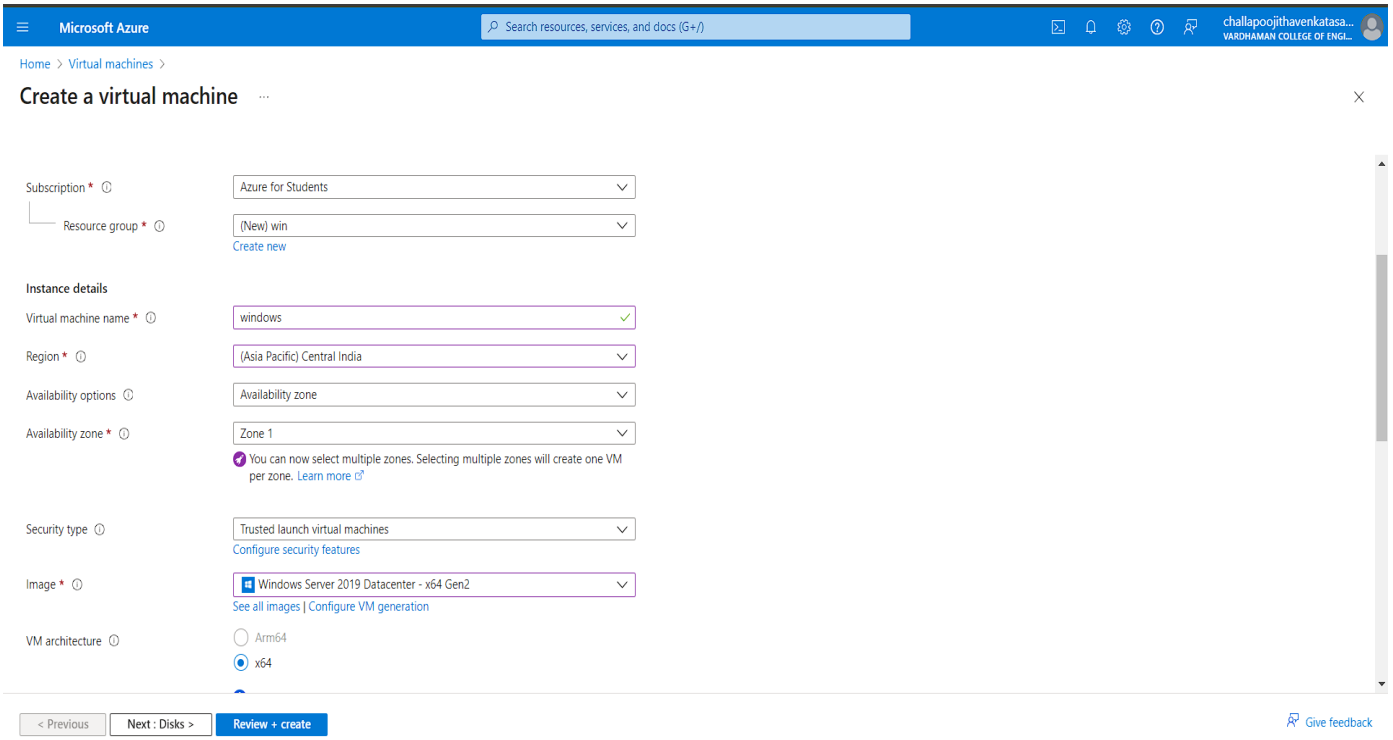
Step-1: Sign in to your Microsoft Azure account.

Step-2: Go To Virtual machine, and click on “Create” to create a window virtual machine.

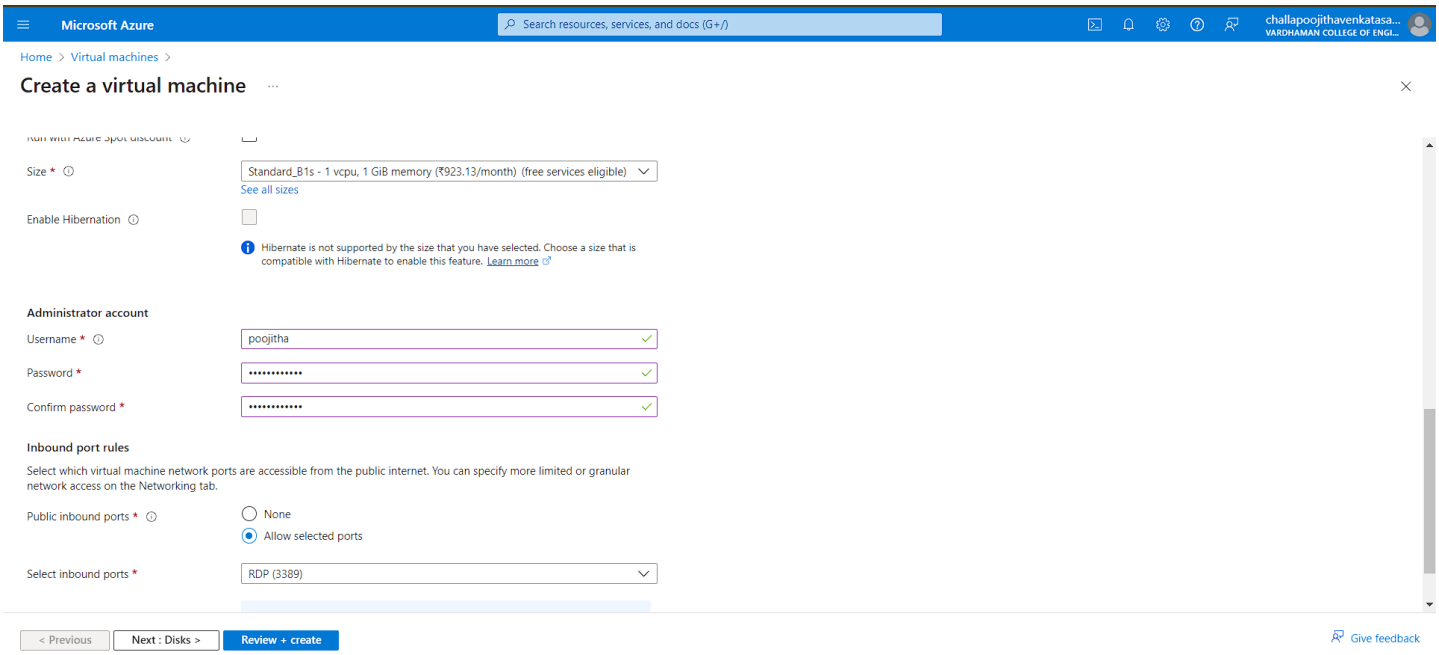


Step-3: Fill the details in that window by creating a “Resource Group”, Select Region as: Asia(Central India) and select the appropriate image.

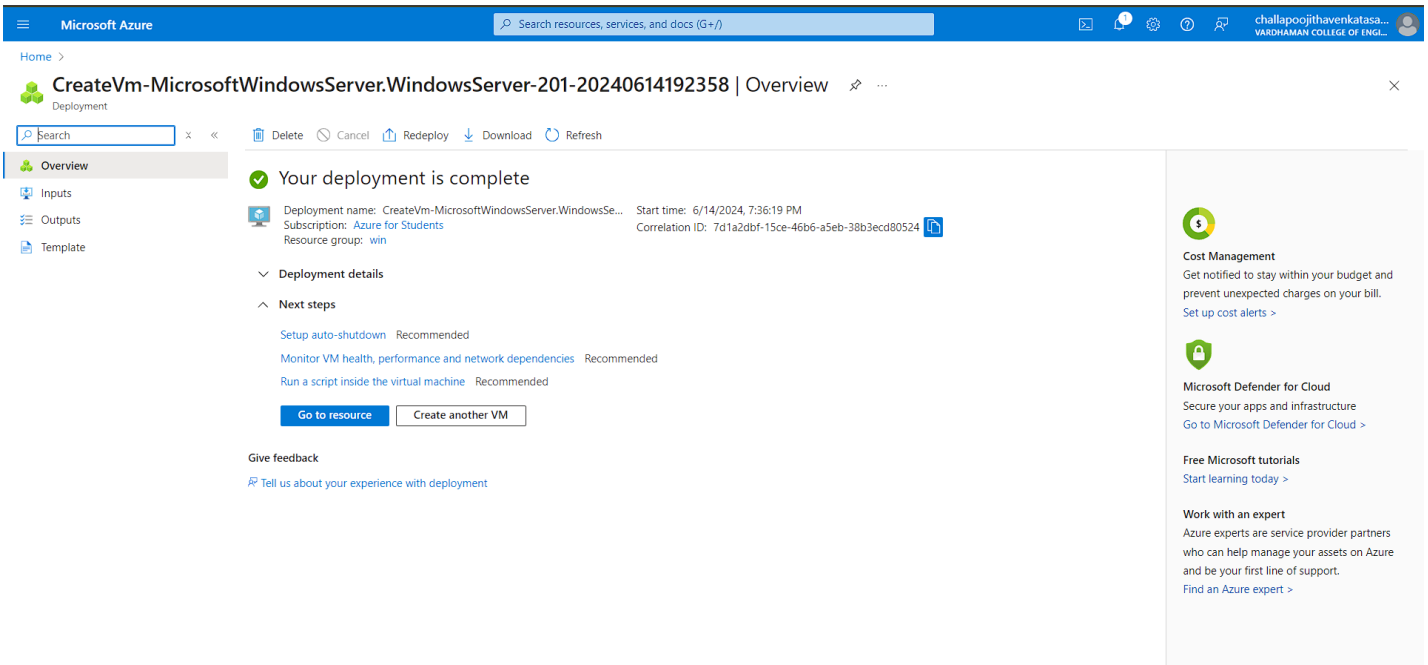
Select the disk storage and so on.



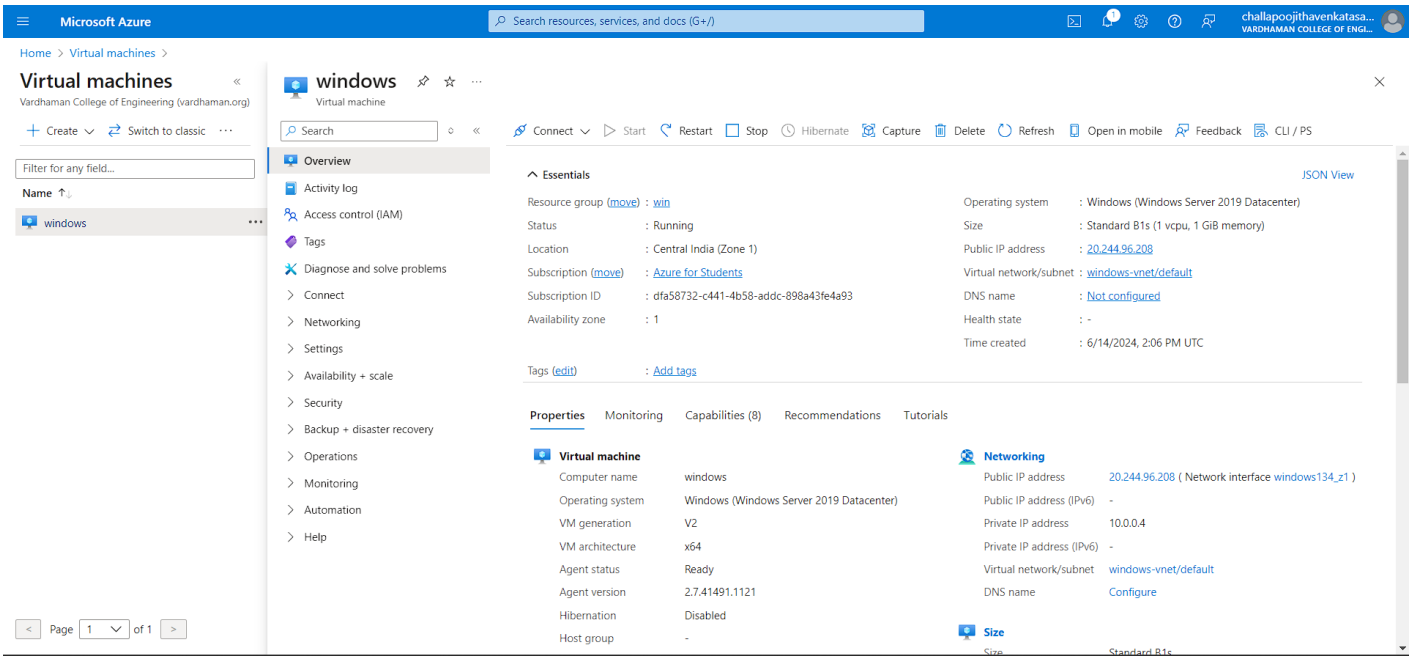
Step -4: Give the username and password and select the ports. After that click on “Create + Review”



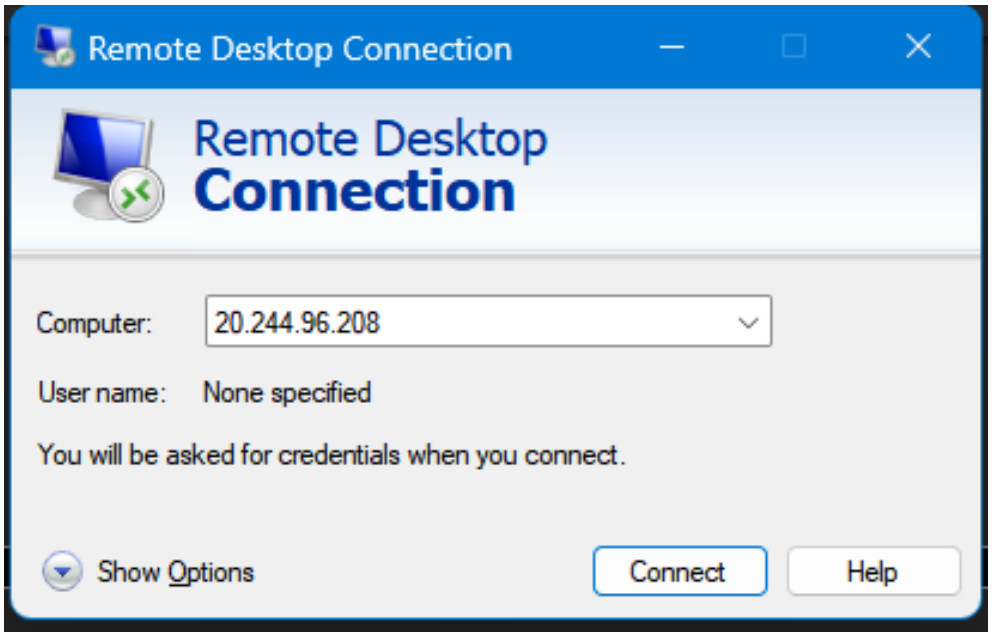
Virtual machine is deployed successfully.



Step-5: Copy the public IP Address of that created virtual machine.

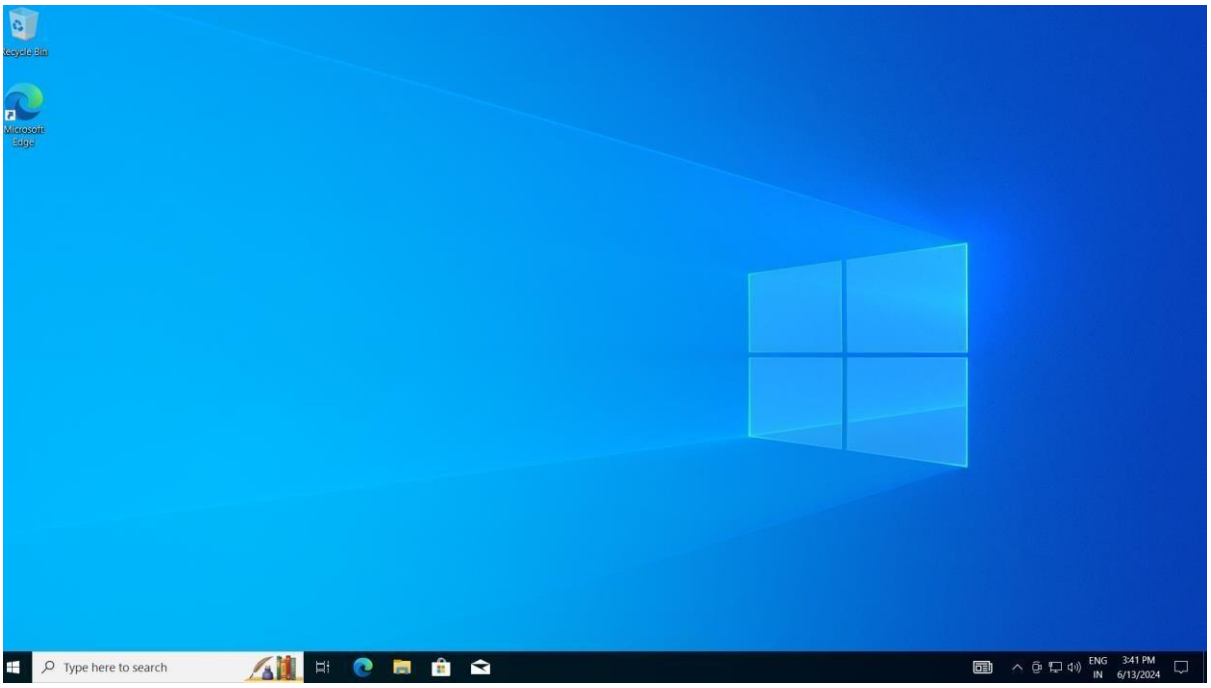


Step-6: Open remote desktop connection(RDP) and enter the copied IP address.



Step-7: By using that copied IP Address open the window virtual machine through remote desktop connection.

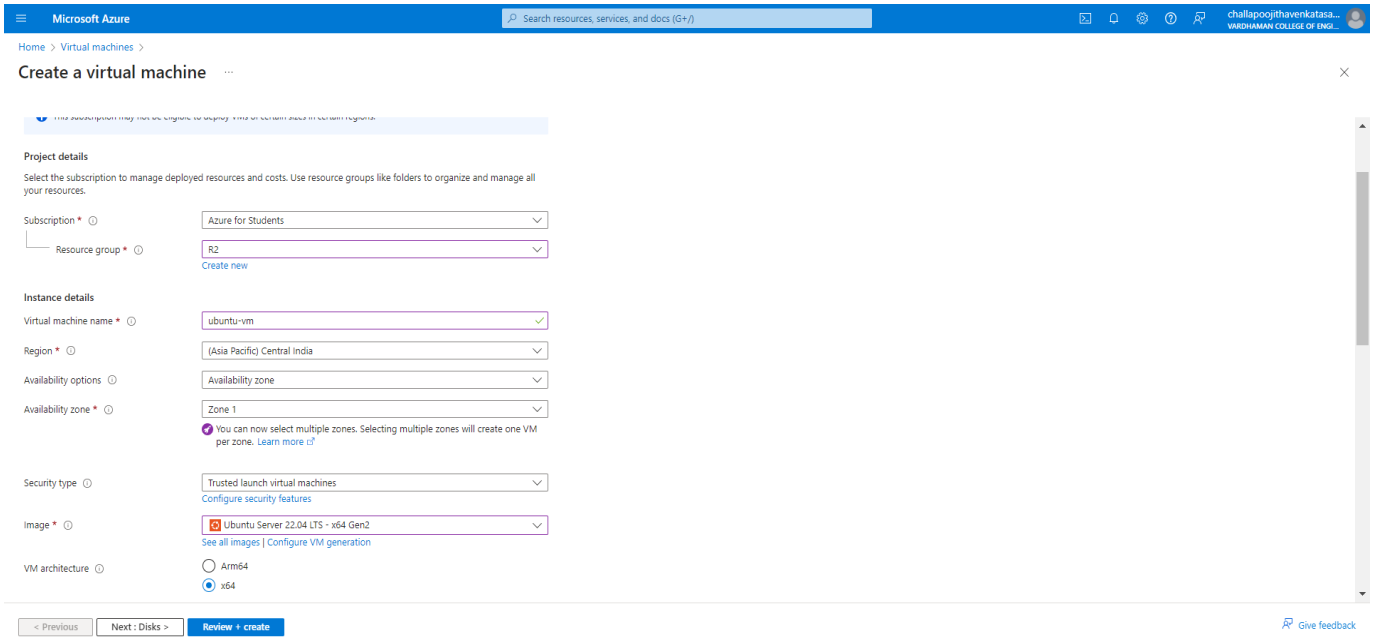
Output:



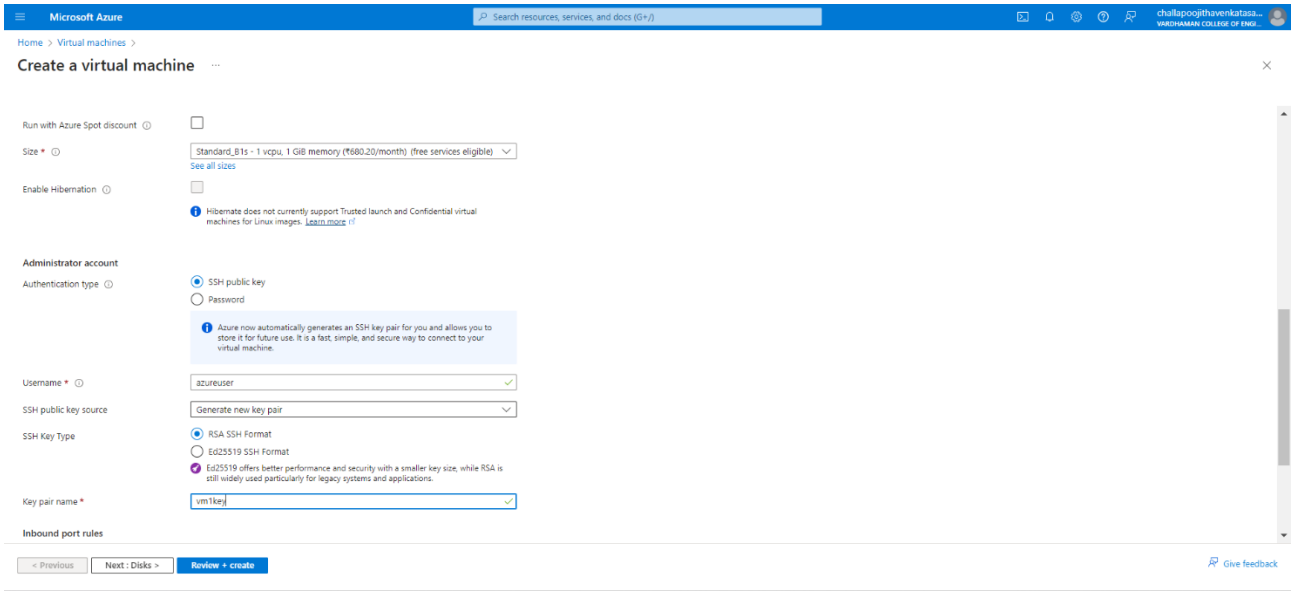
Q3) Create a Ubuntu Virtual Machine in Microsoft Azure

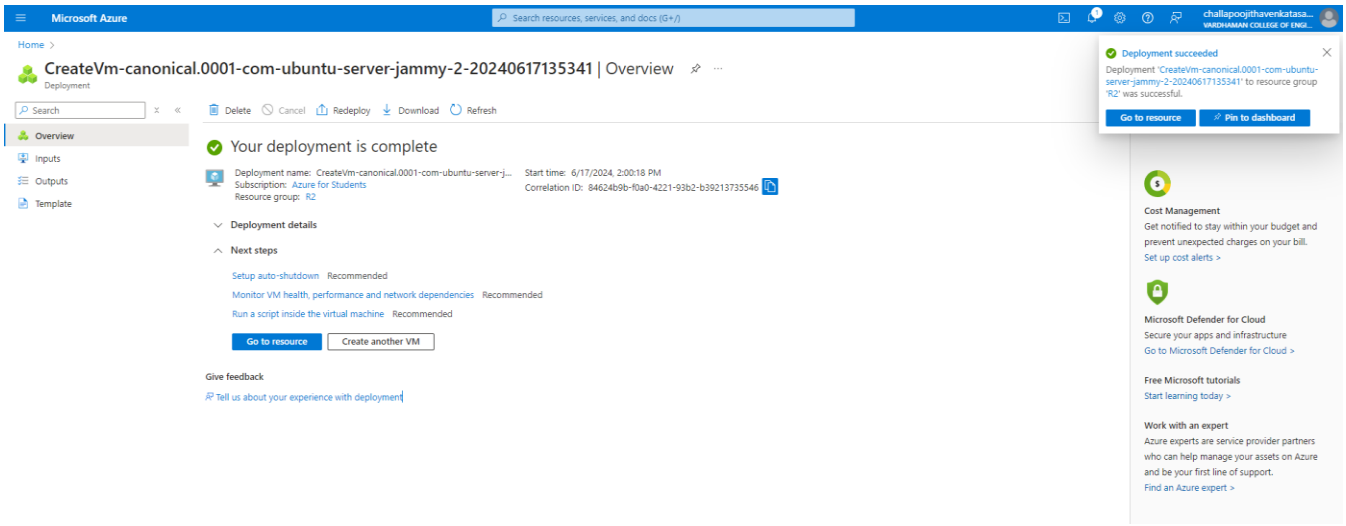
Step-1: Sign in to your Microsoft Azure account.

Step-2: Go To Virtual machine, and click on "Create" to create a window virtual machine.

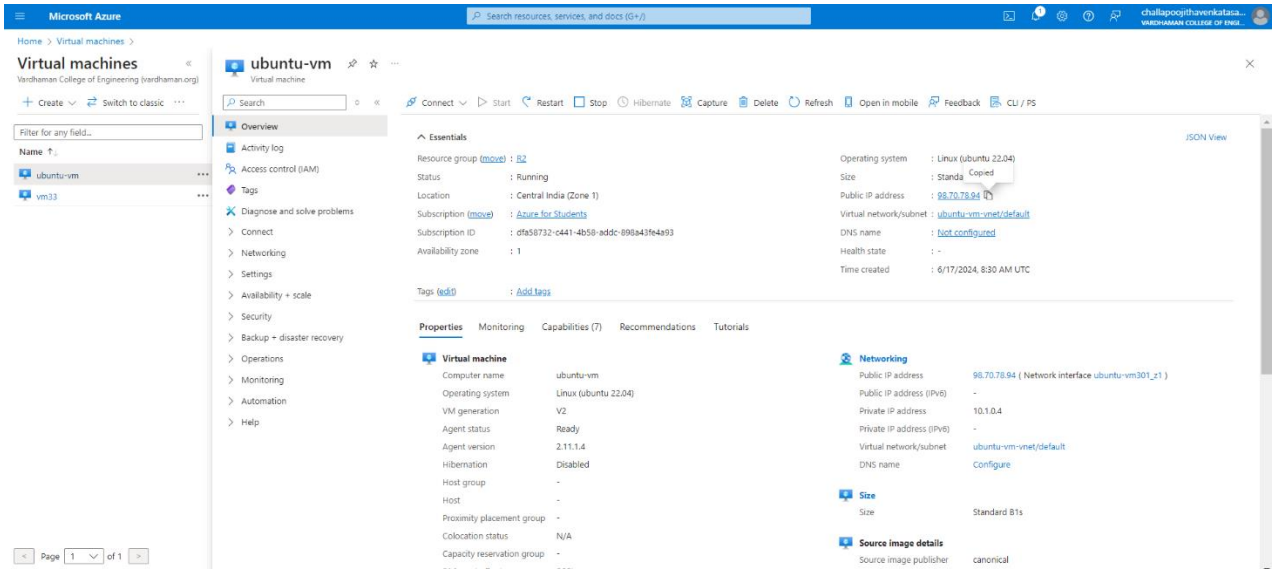


Step-3: Fill the details in that ubuntu by creating a "Resource Group", Zone: Asia, Image: ubuntu, select "SSH", Select the disk storage and so on. After that click on "Create + Review". And Finally click on "Create".

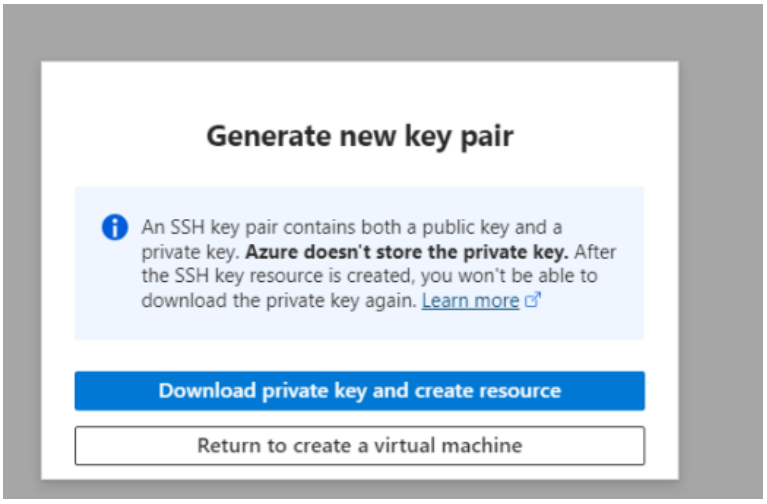




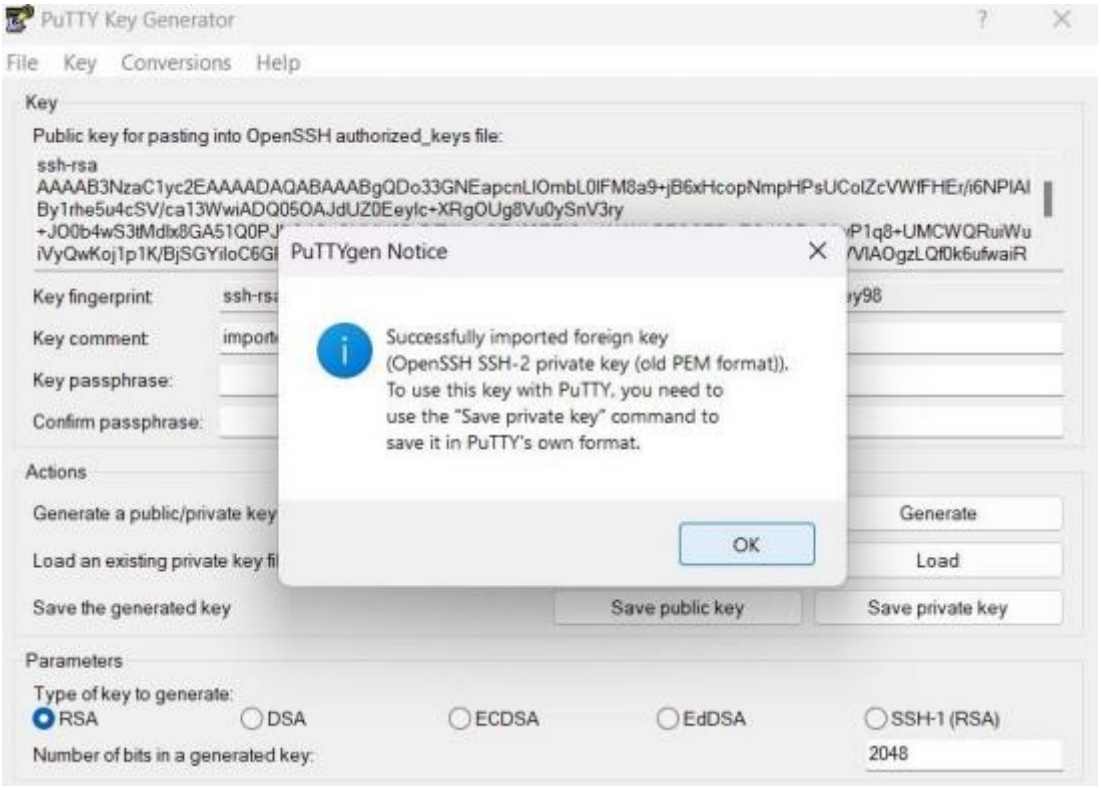
Step-4: Firstly, copy the public IP Address of that created virtual machine



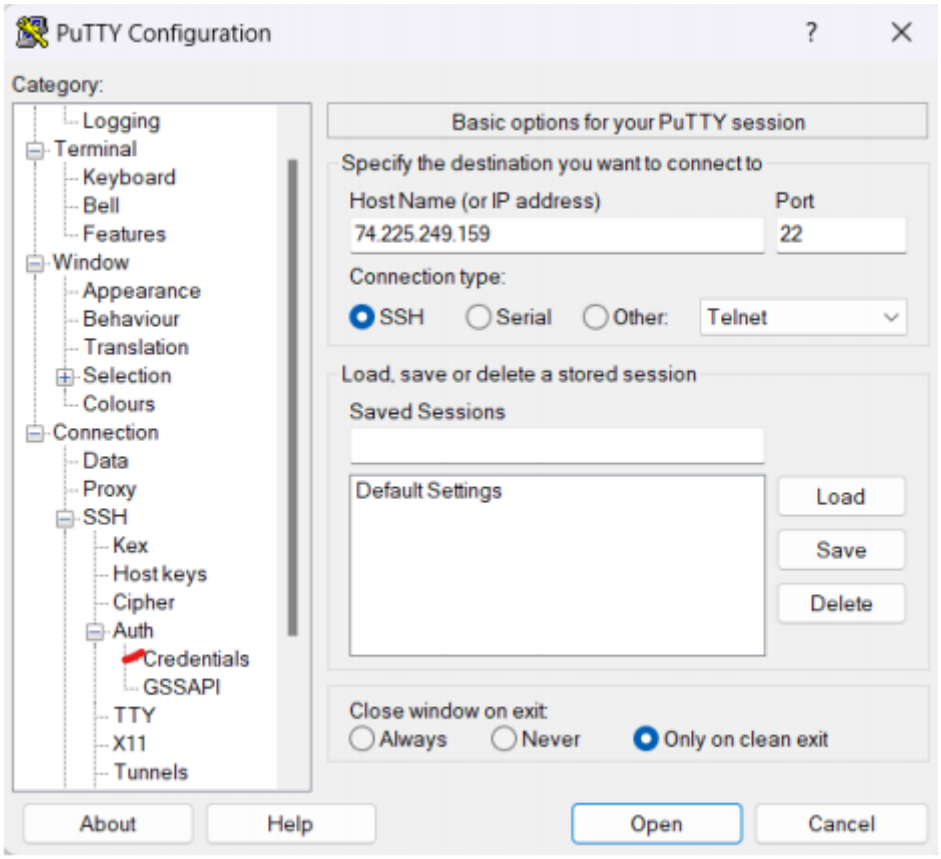
Step-5: After Deployment is over, Go to the remote desktop connection



Step-6: Go to putty gen and click on load the key generator that you have downloaded.



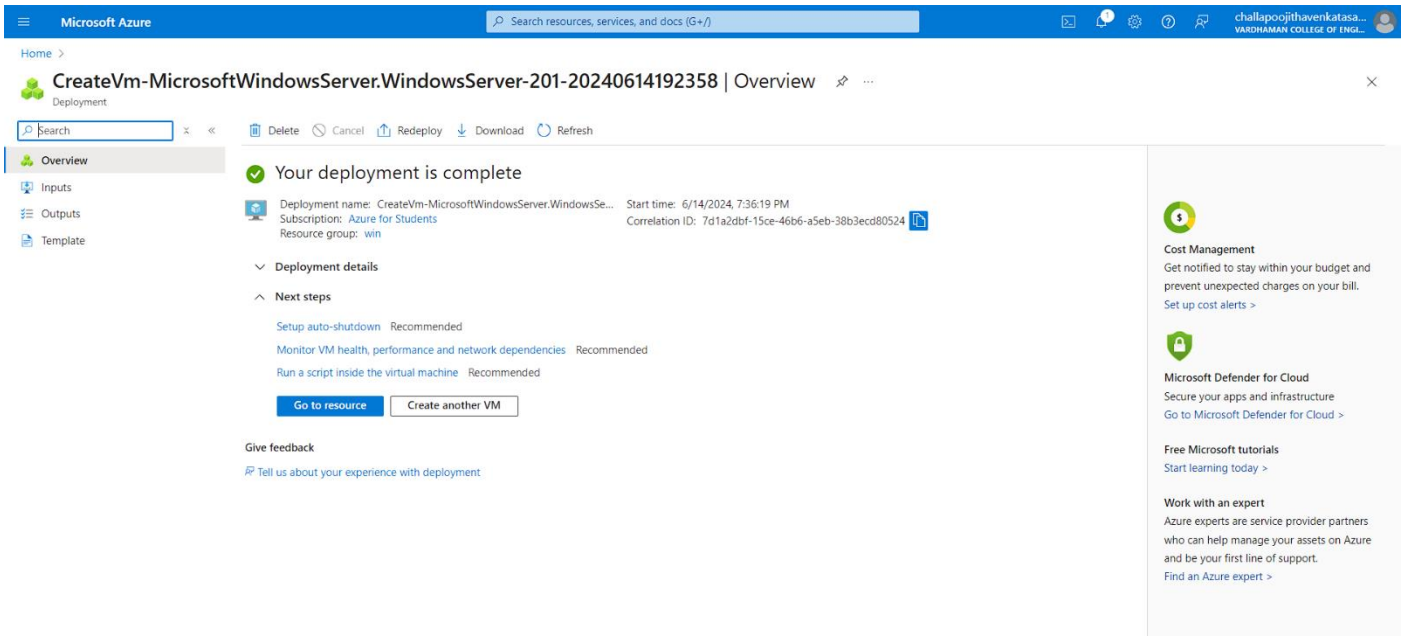
Step-7: In putty, put the Copied IP Adress into it, and then go to ssh->auth->credentials And the put the generated private key.



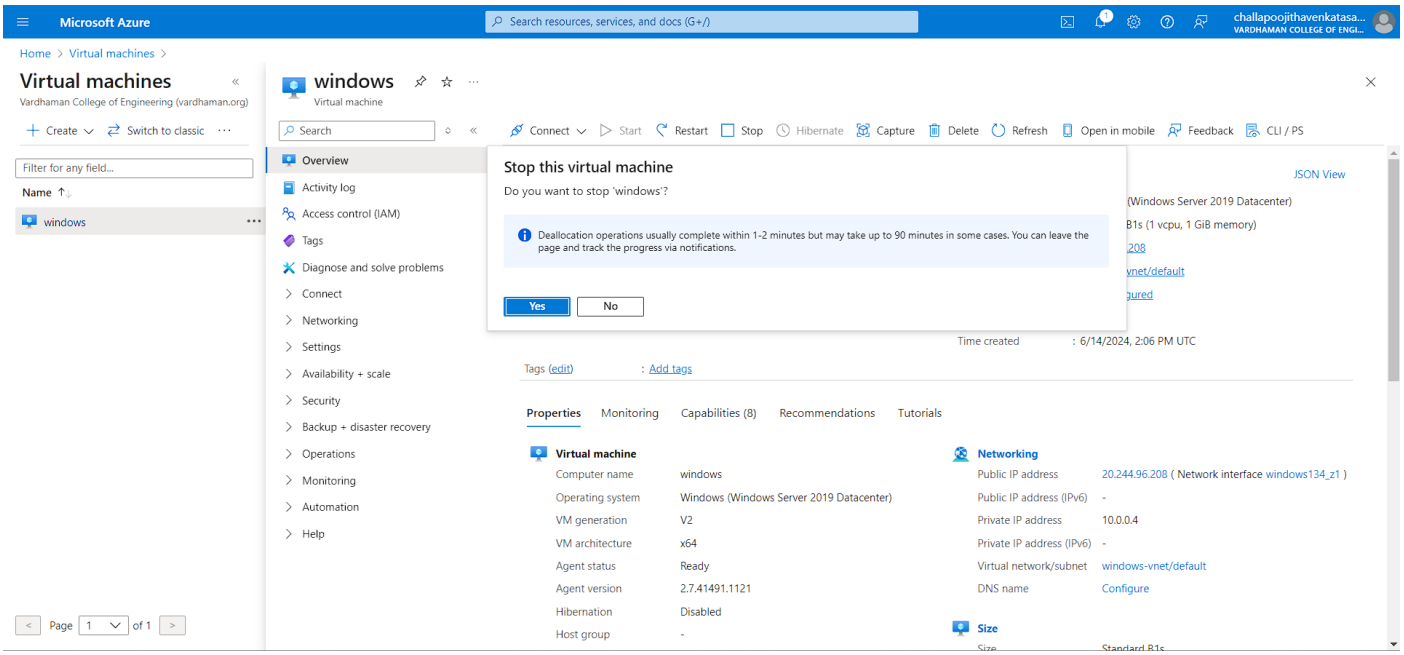
Step-8: A login page will be opened in that type your username and you will be into the Ubuntu
Step-9: After this delete its resource group and virtual machine.
Output:

4Q) Create a Virtual machine and do scale up in Azure.

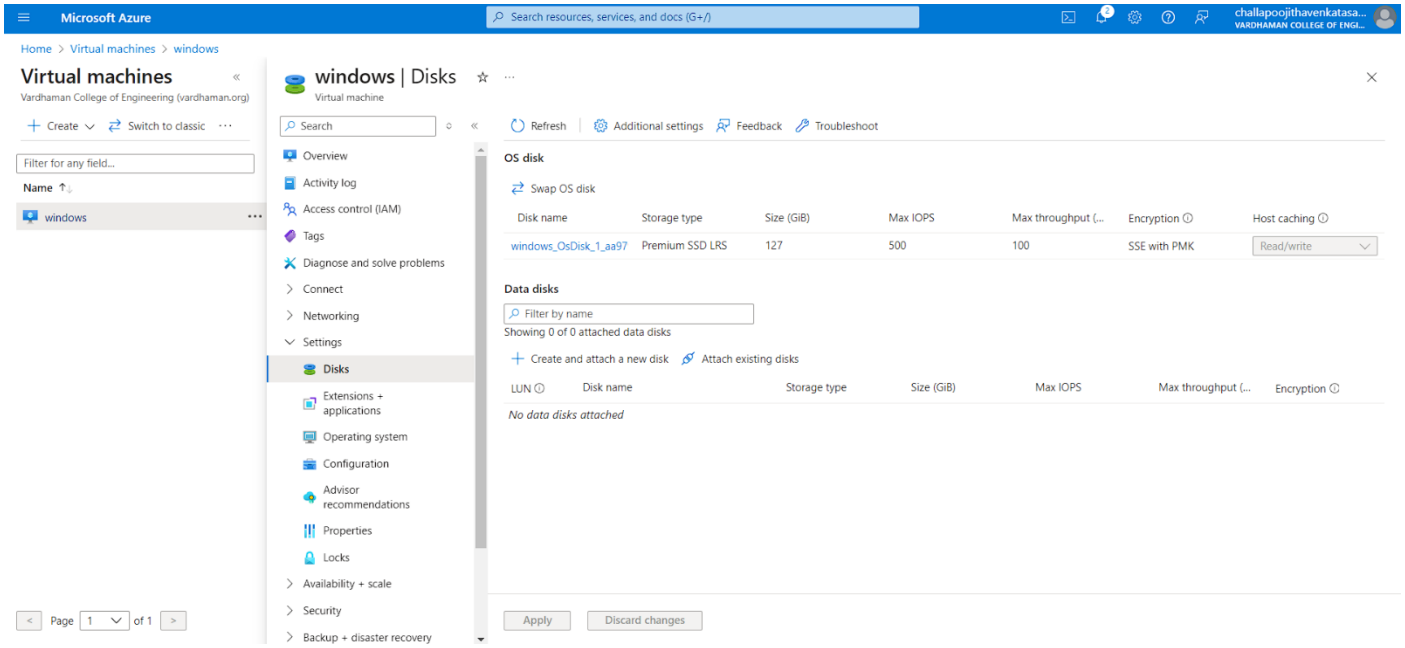
Step-1: Create a virtual machine (ubuntu or windows).



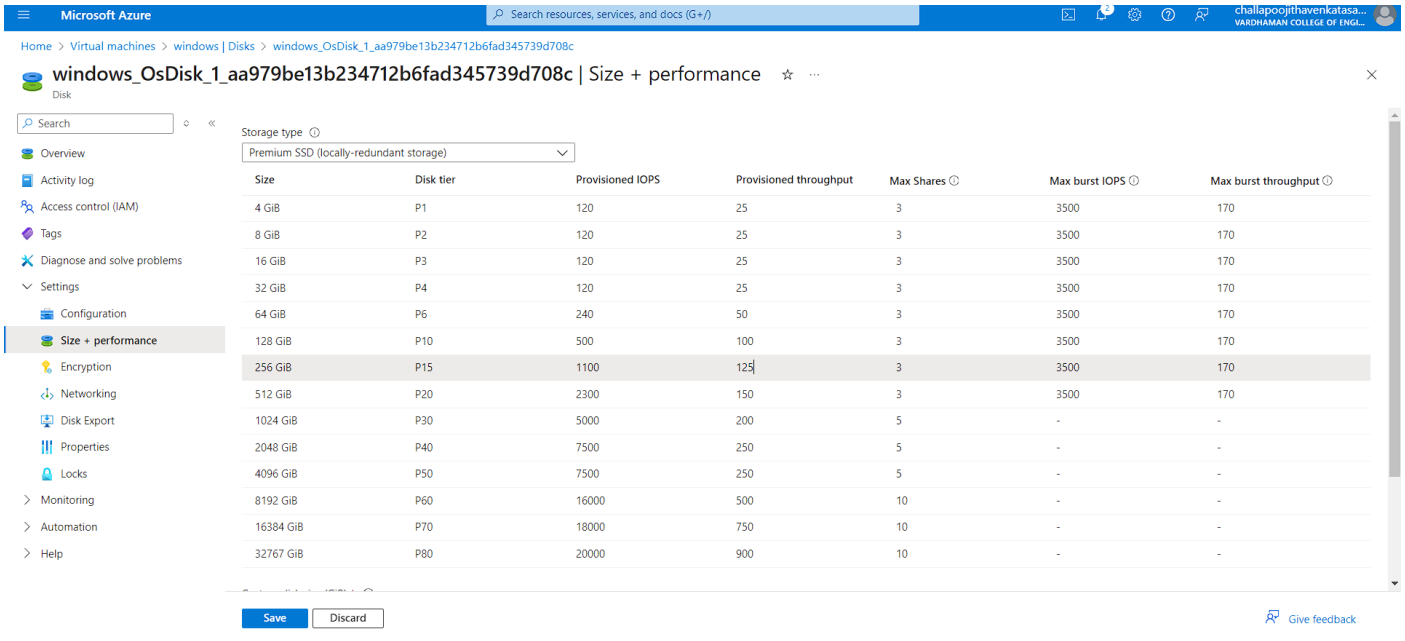
Step-2: After deployment of VM stop VM for scaling



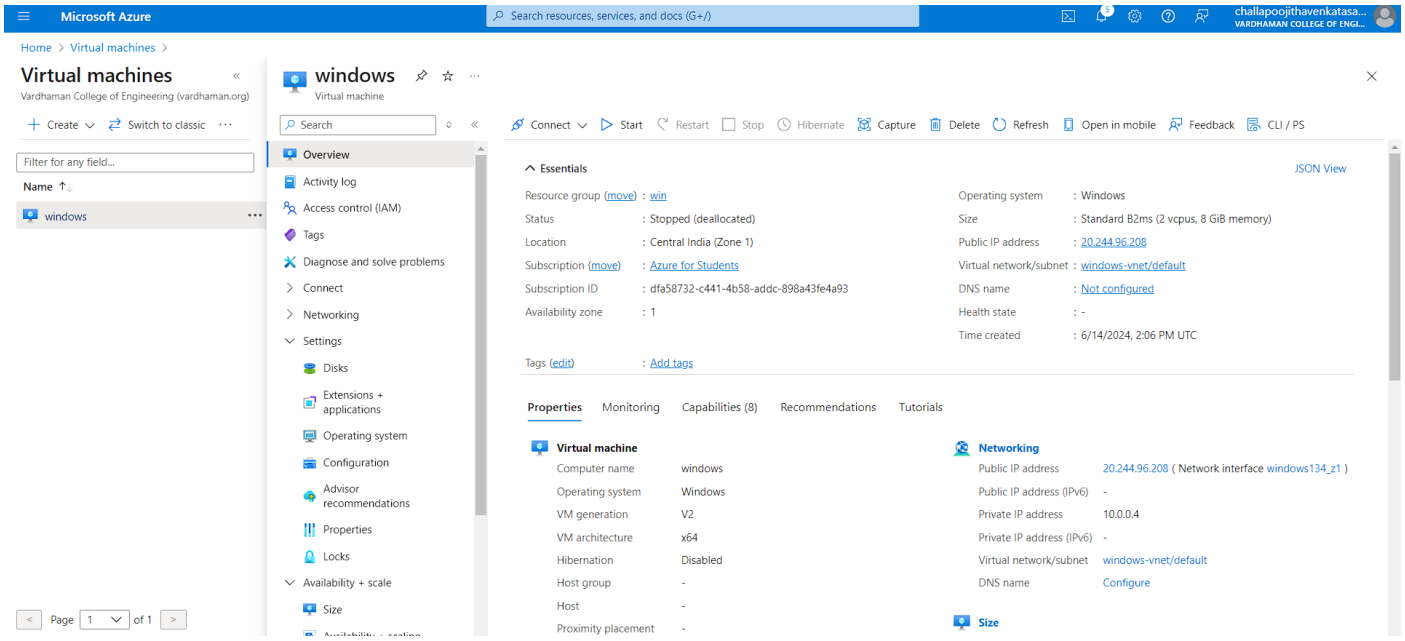
Step-3: On the left side there will be settings and click on disks.



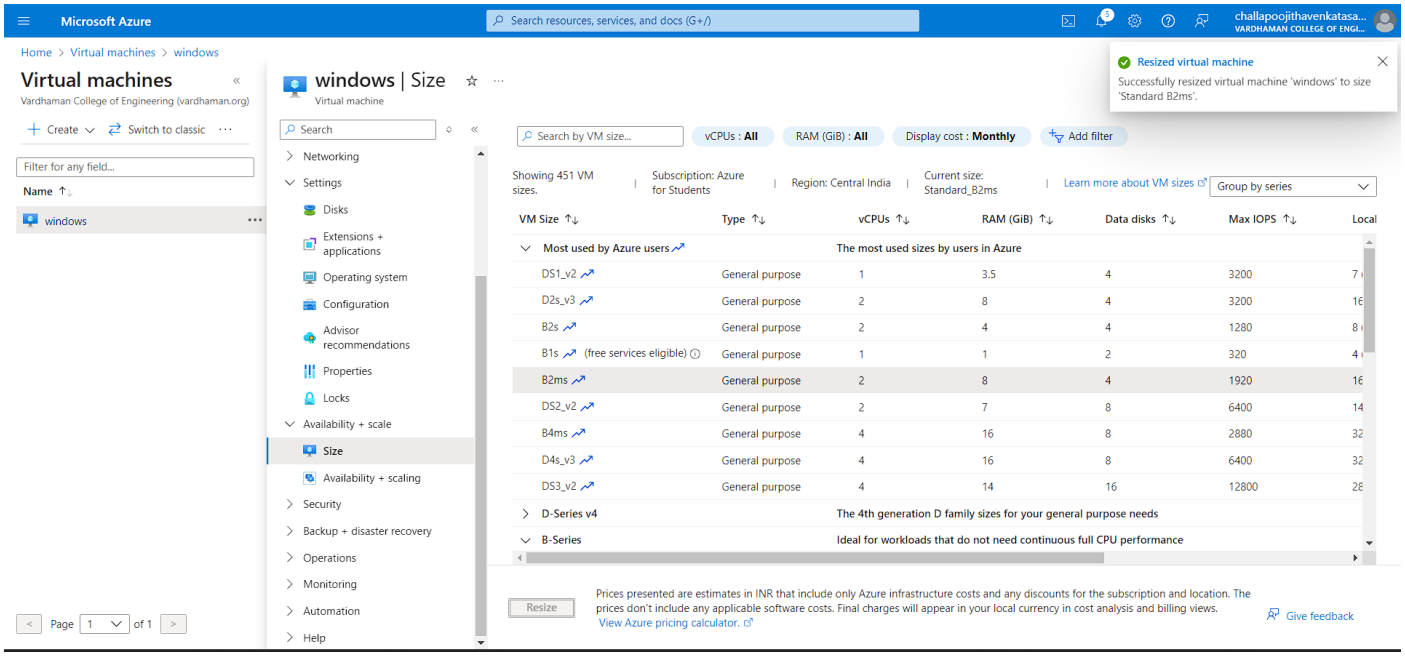
Step-4: click on disk name and select your preferred size, save it.



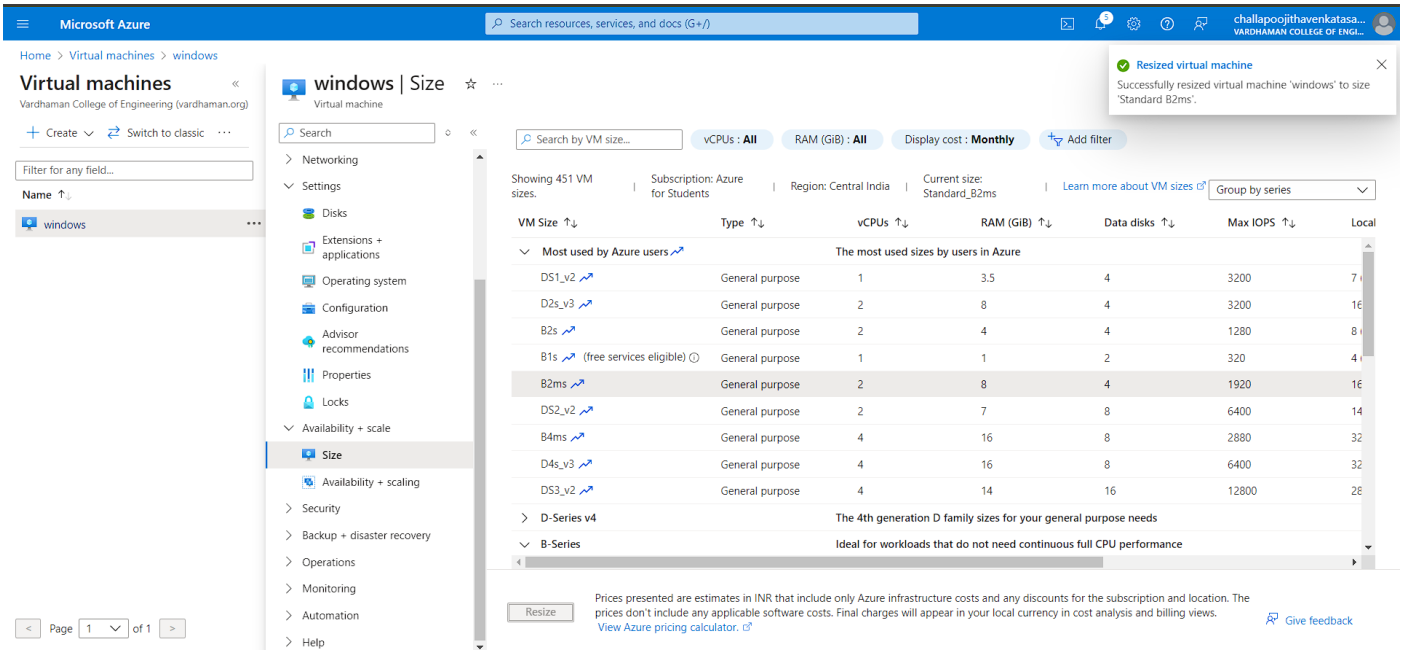
Step-5: Go back to the VM that is created and click on overview we can see the disk size is updated.



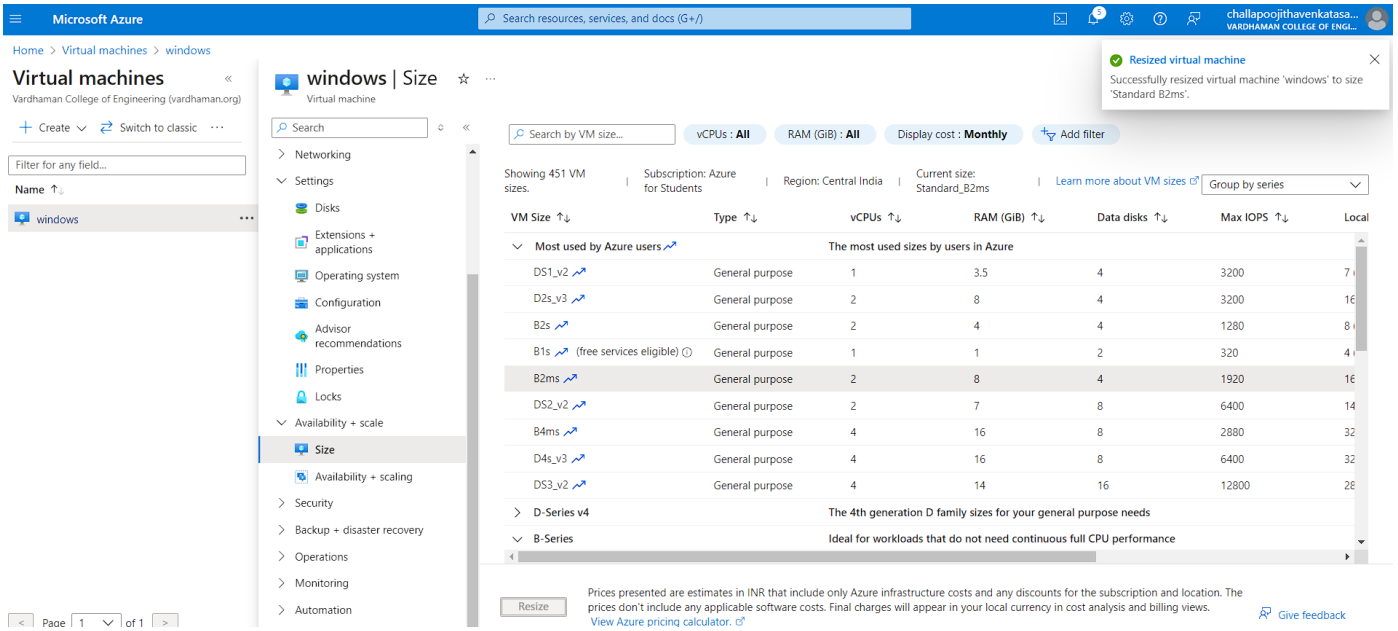
Step-6: Click on the left side there will be select + performance and click on size.



Step-7: Click on disk name and select your preferred ram size, save it.

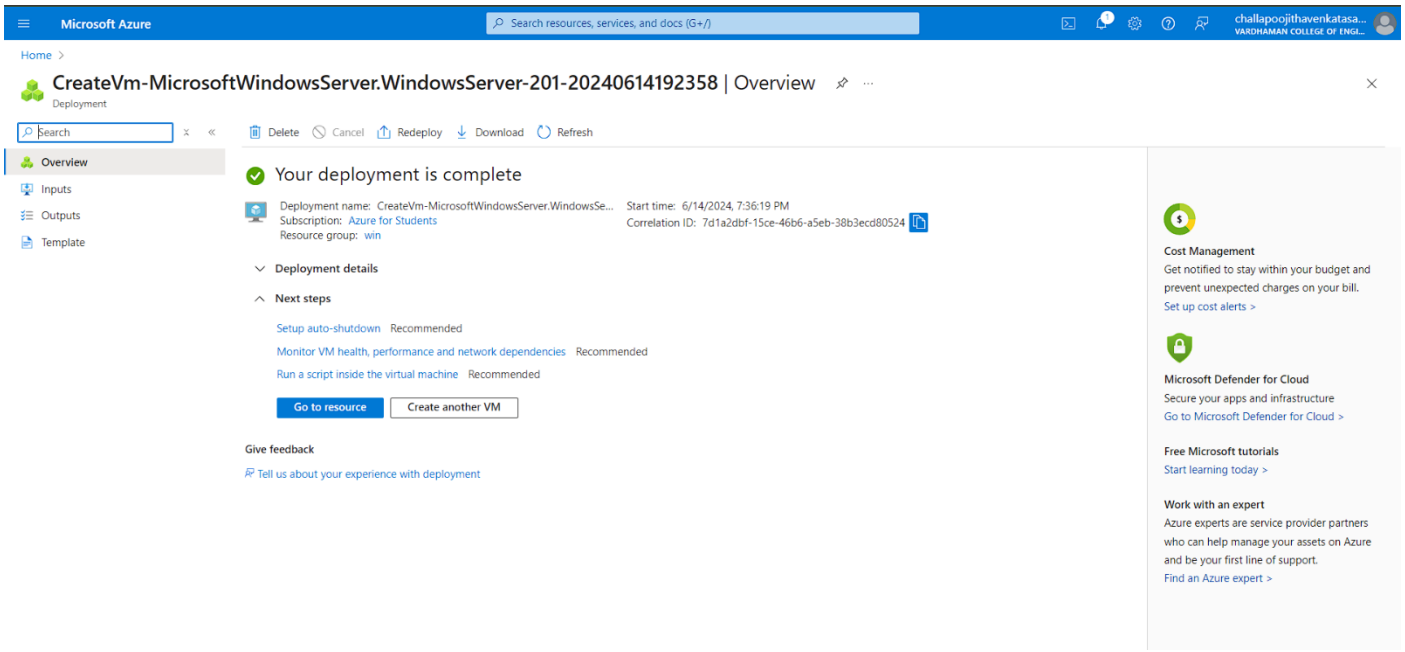


Step-8: We can see that the scaling is done successfully.

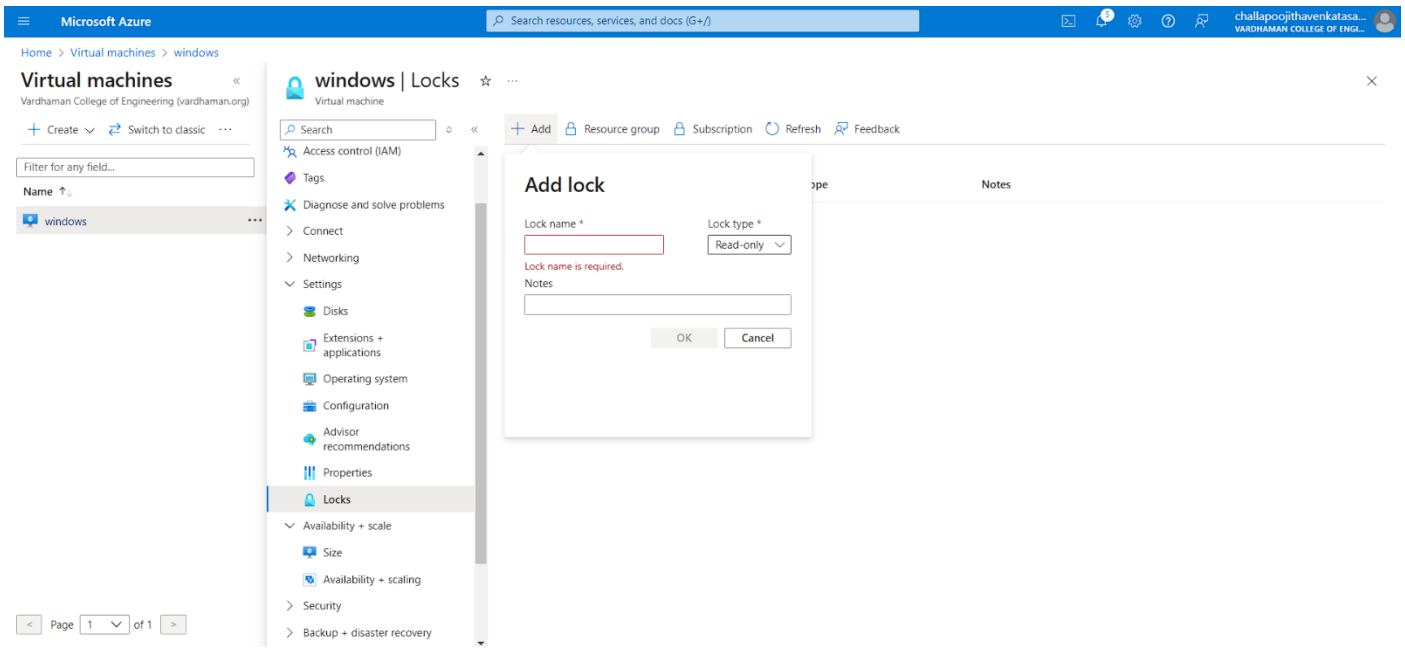


Q5) Create a Virtual machine and do lock for VM in AZURE.

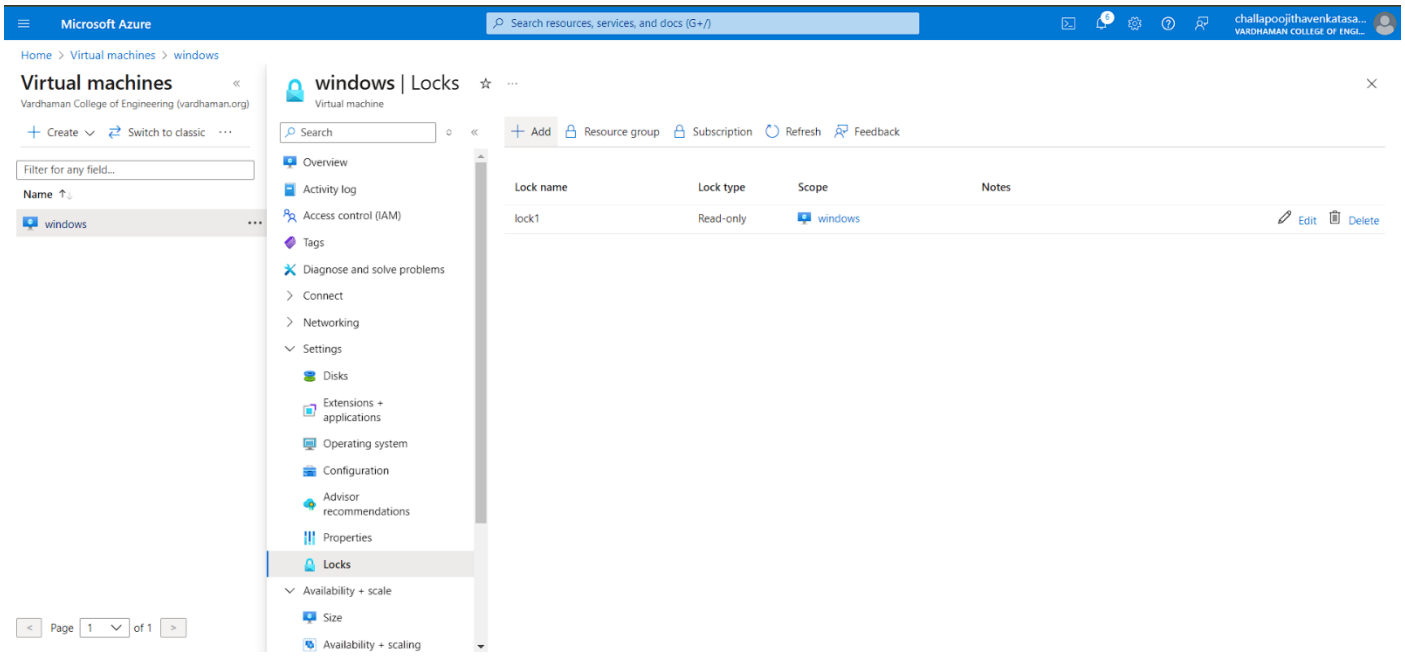
Step-1: Create a virtual machine (ubuntu or windows).



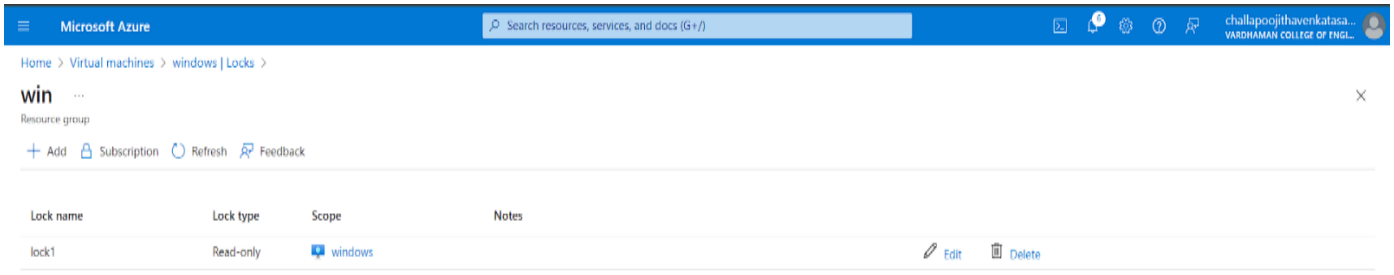
Step-2: On the left side there will be settings and click on locks, give lock name and select lock type.



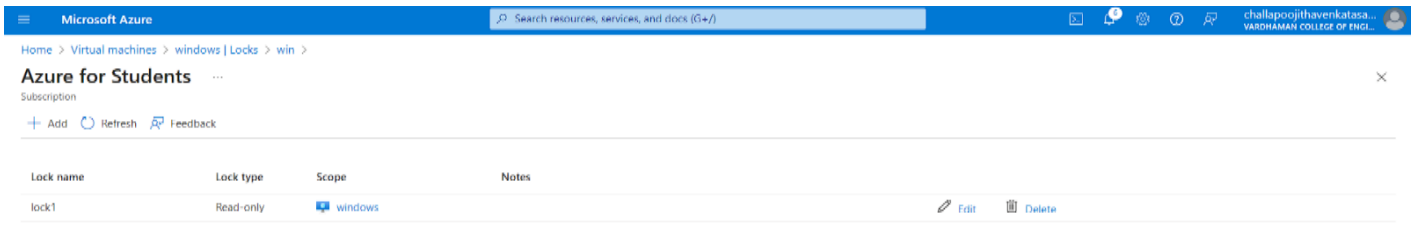
Step-3: click on ok. Lock is applied for VM.



Step-4: Similarly lock is applied for resource group named “win”.



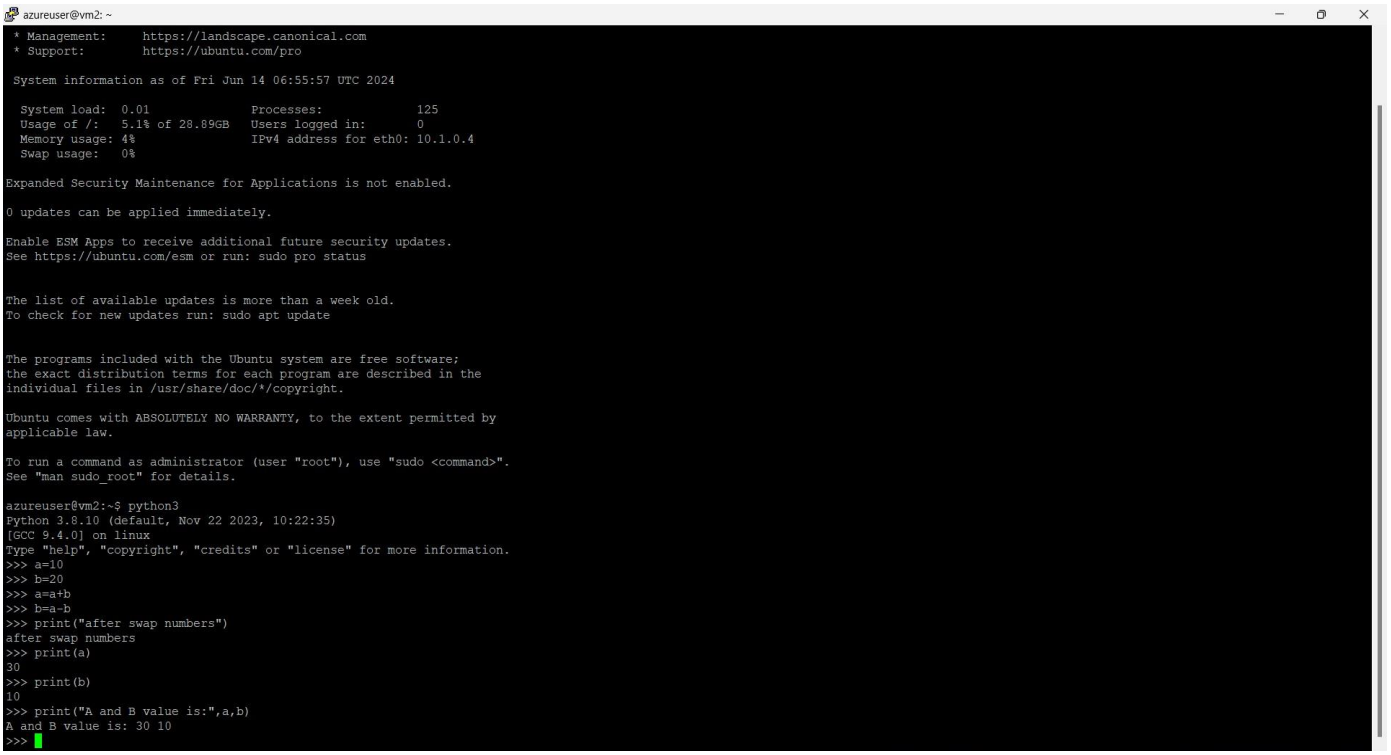
Step-5: Similarly lock is applied for subscription.



Q6) Create Ubuntu VM and run a python program in it.

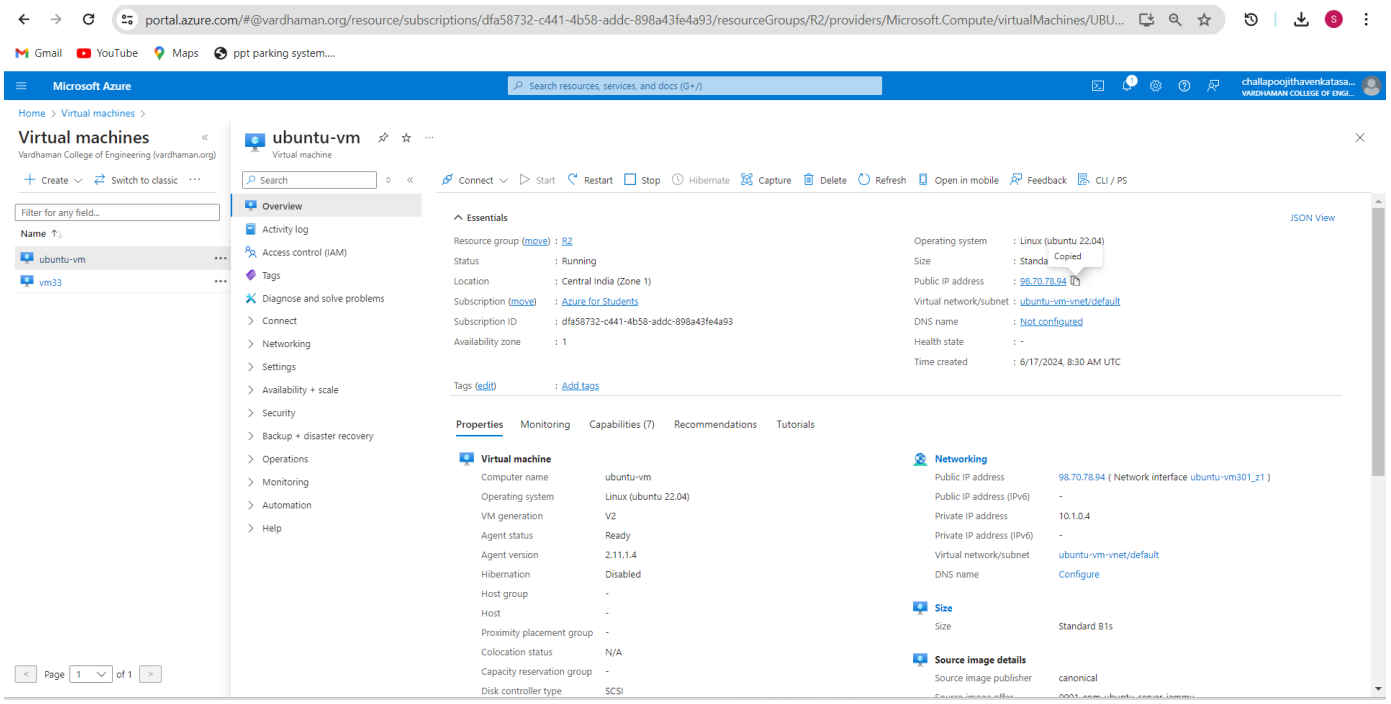
Step-1: Create a ubuntu virtual machine using SSH key same as previous experiment.

Step-2: Login with your username and type python3, write your python program and execute it.

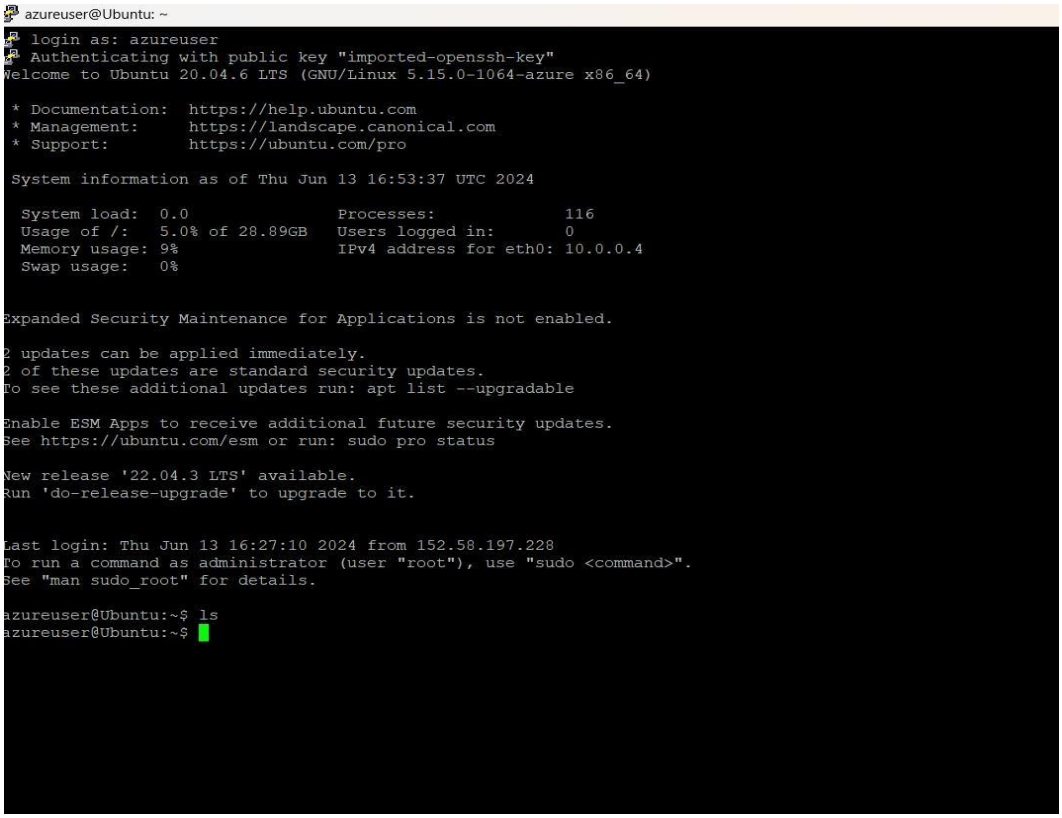


Q7) Create a Ubuntu VM and transfer files using WinScp.

Step-1: Create a ubuntu virtual machine using SSH as previous experiment and copy public IP address.

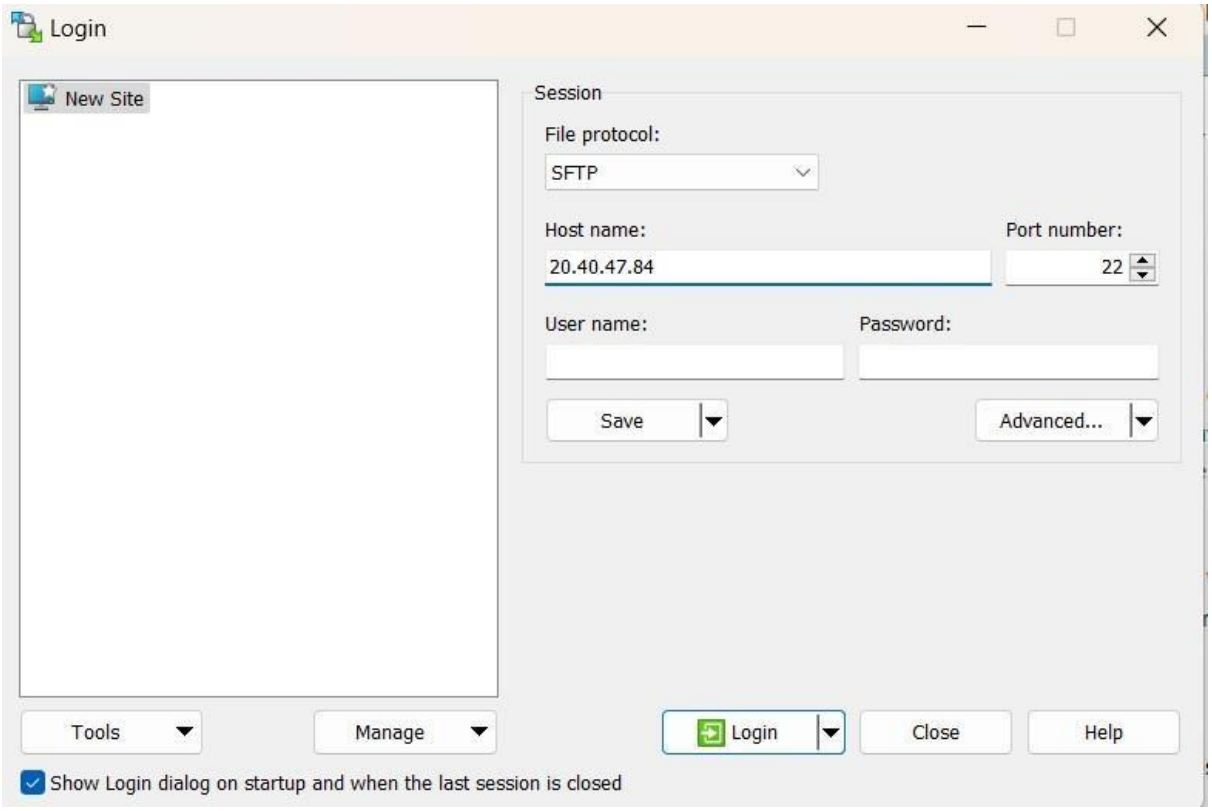


Step-2: Login into your ubuntu VM using PUTTY and type ls command as you can see nothing.

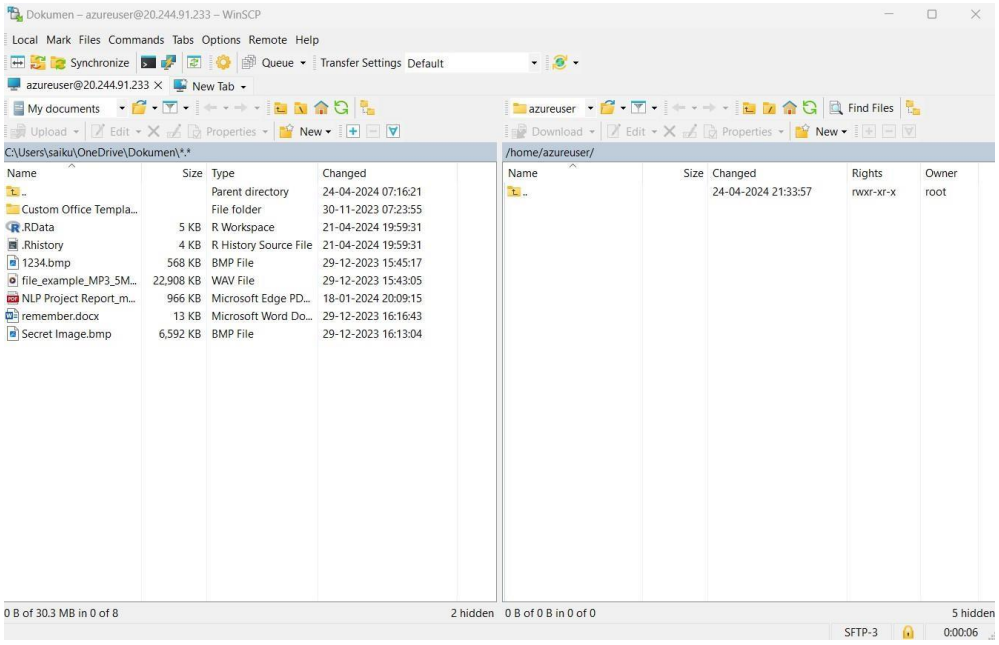


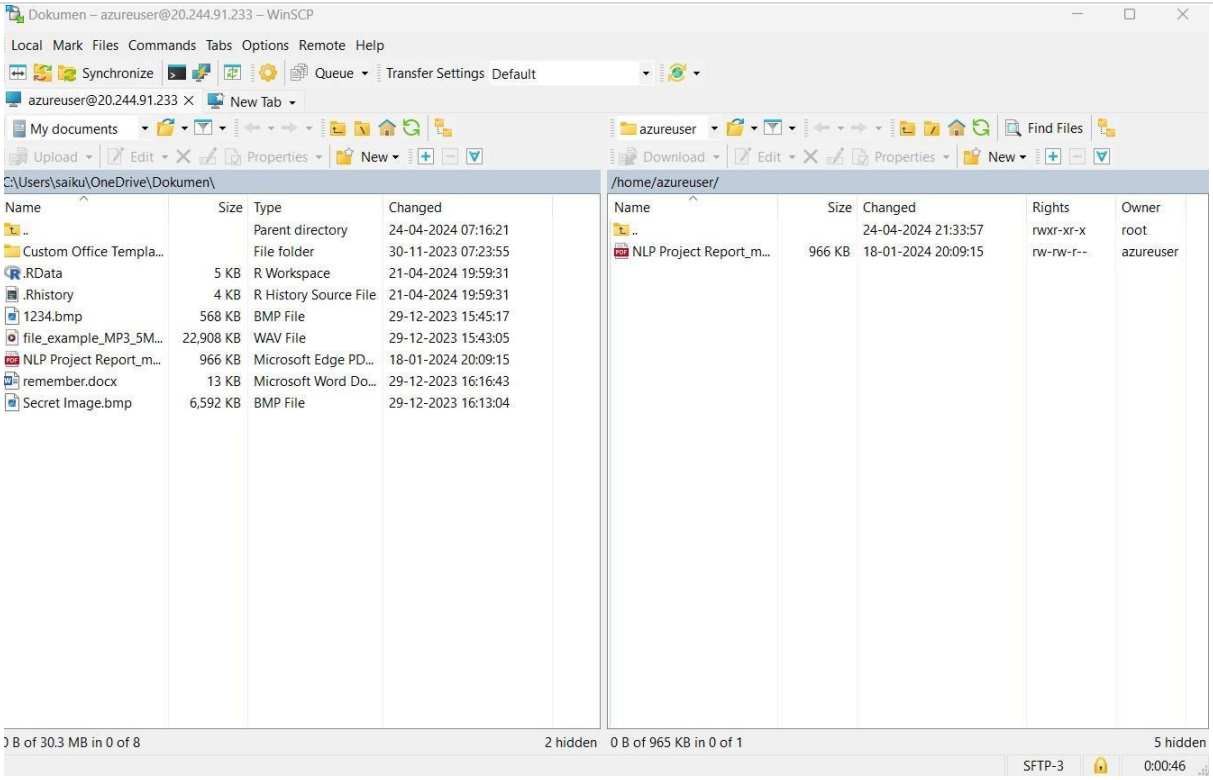
Step-3: Open WinScp at right bottom you can see Advanced option->SSH>Authentication->In that drag private key file and click on ok.

At last Login into your account using public IP address and username in WinScp.

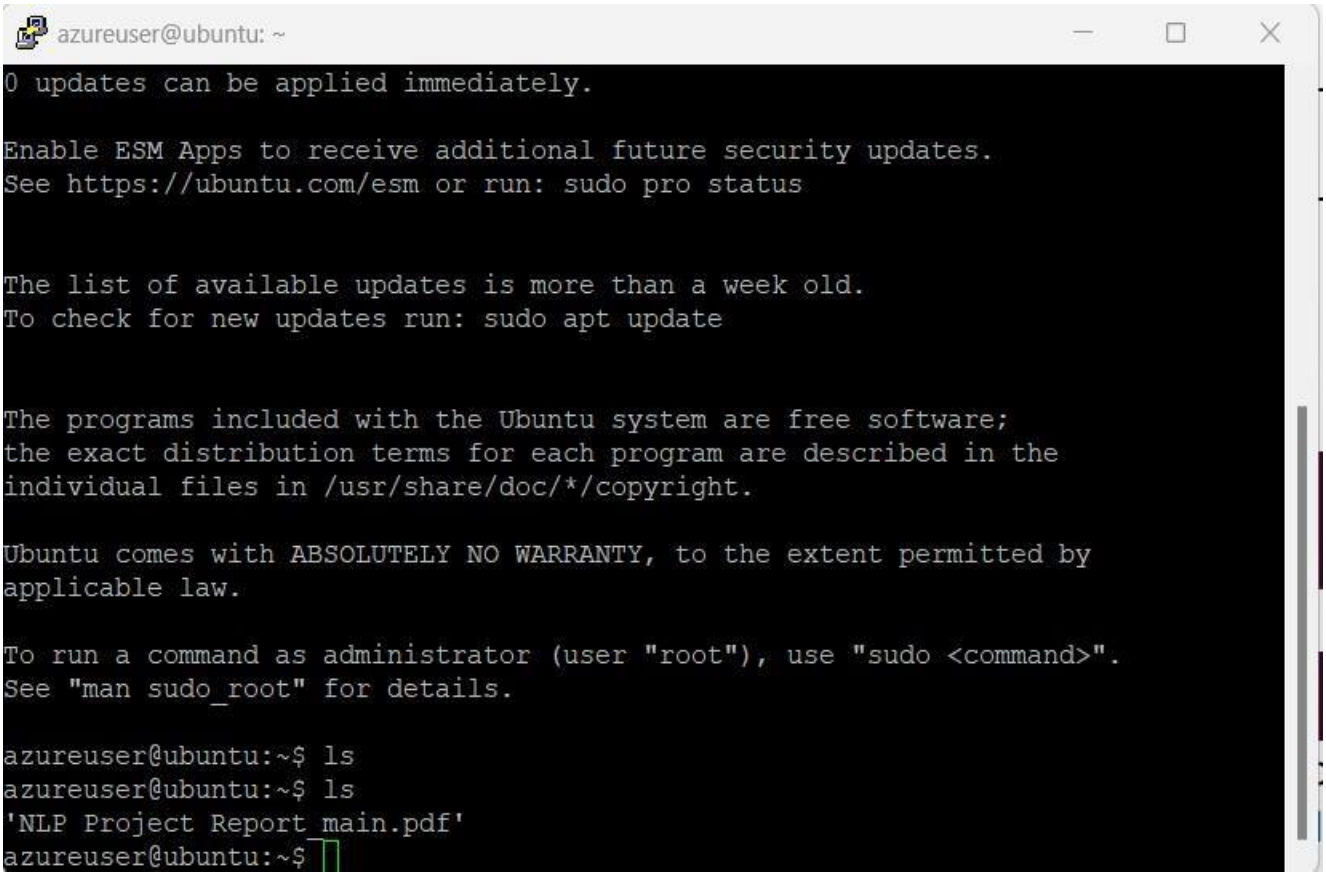


Now, you can drag your files from your desktop to ubuntu VM in WinScp.



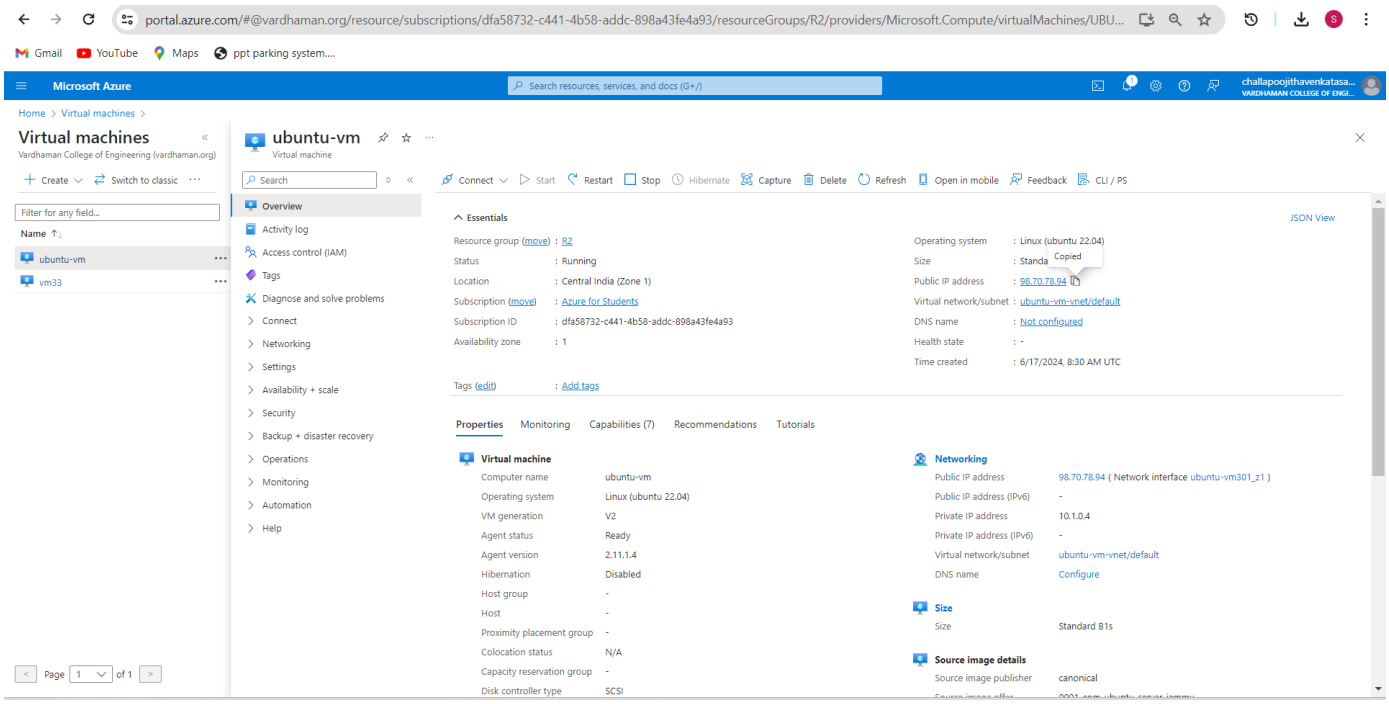


Step-4: Now again type ls command as you can see file inside ubuntu VM.



Q8) How to make Linux server as web server in AZURE.

Step-1: Create a ubuntu virtual machine using SSH as previous experiment and copy public IP address.



Step-2:Login into your Ubuntu VM using your username and type the following commands.
$sudo su

$sudo apt-get update

After typing the two command, now install web server using the below command

$sudo apt-get install nginx

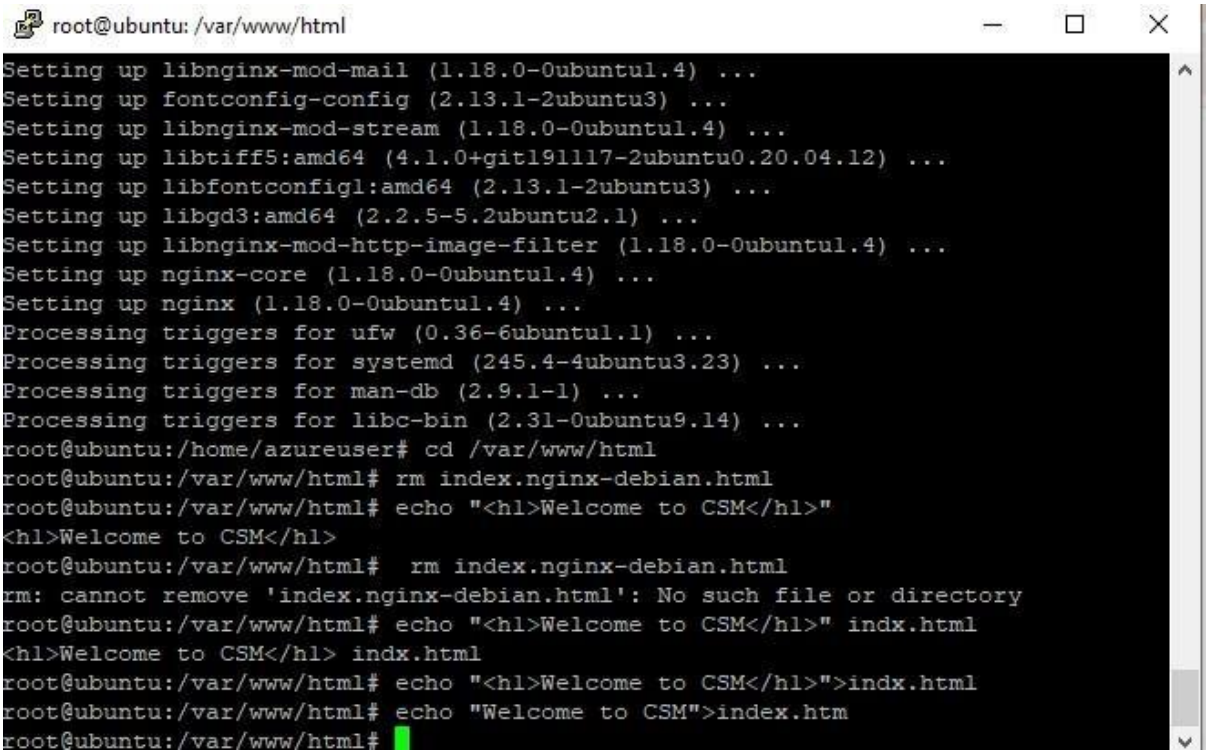
After installing in VM, paste the public ip address in desktop browser and you can see.

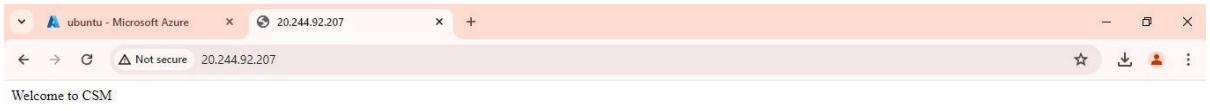
Step-3: To remove following information and keep new information in that page type the following command and refresh the browser page.

$cd /var/www/html

$rm index.nginx-debian.html

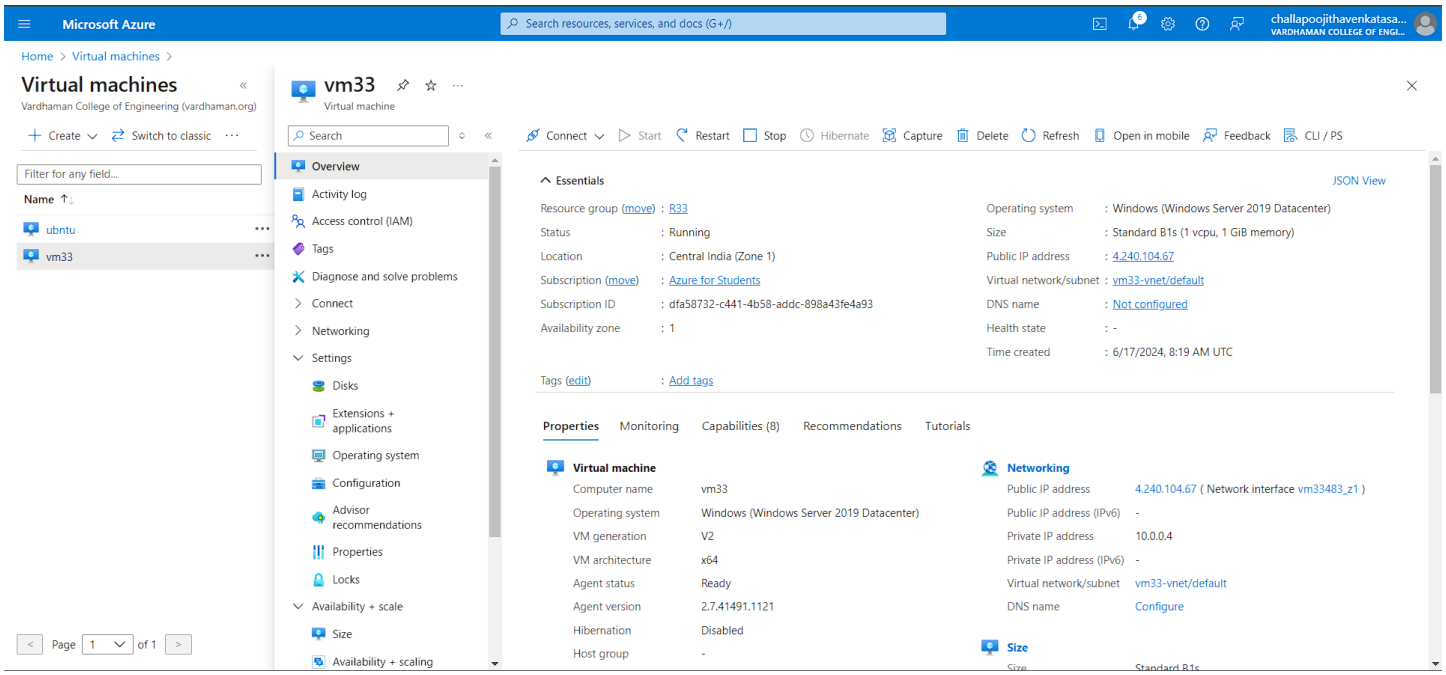
$echo “Welcome to CSM “>index.html



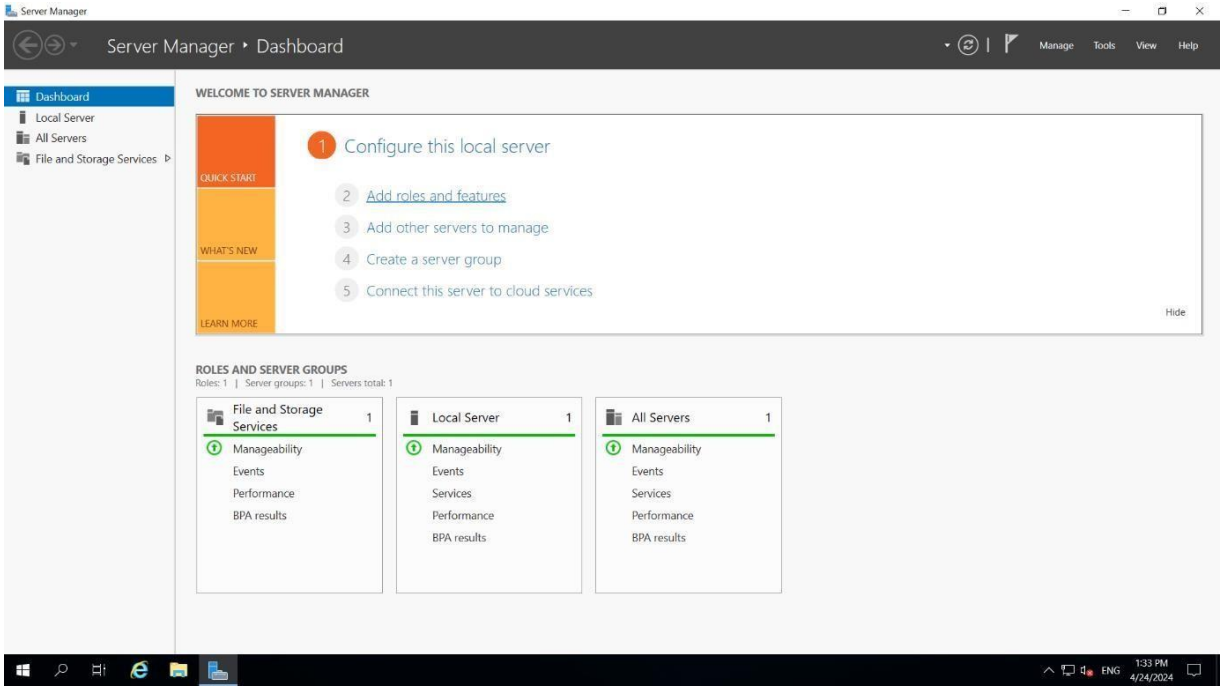


Q9)Setup and configure AZURE web server for windows server(IIS).

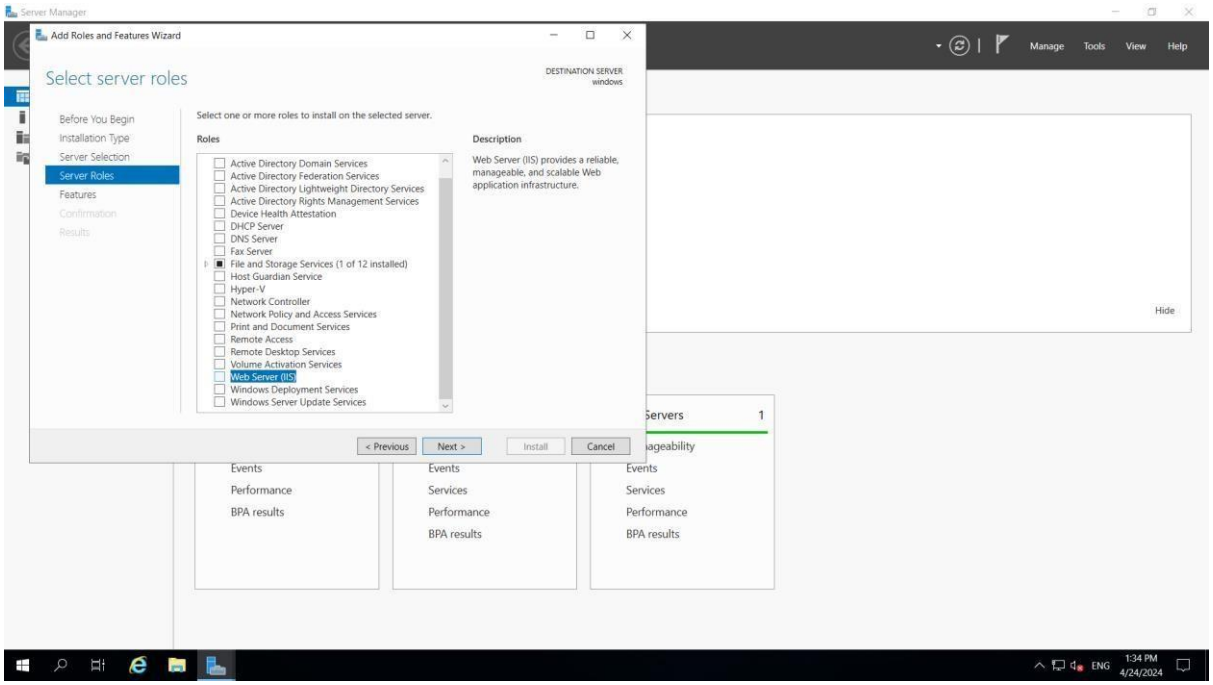
Step-1: Create and login windows VM same as previous experiment and copy public IP address.

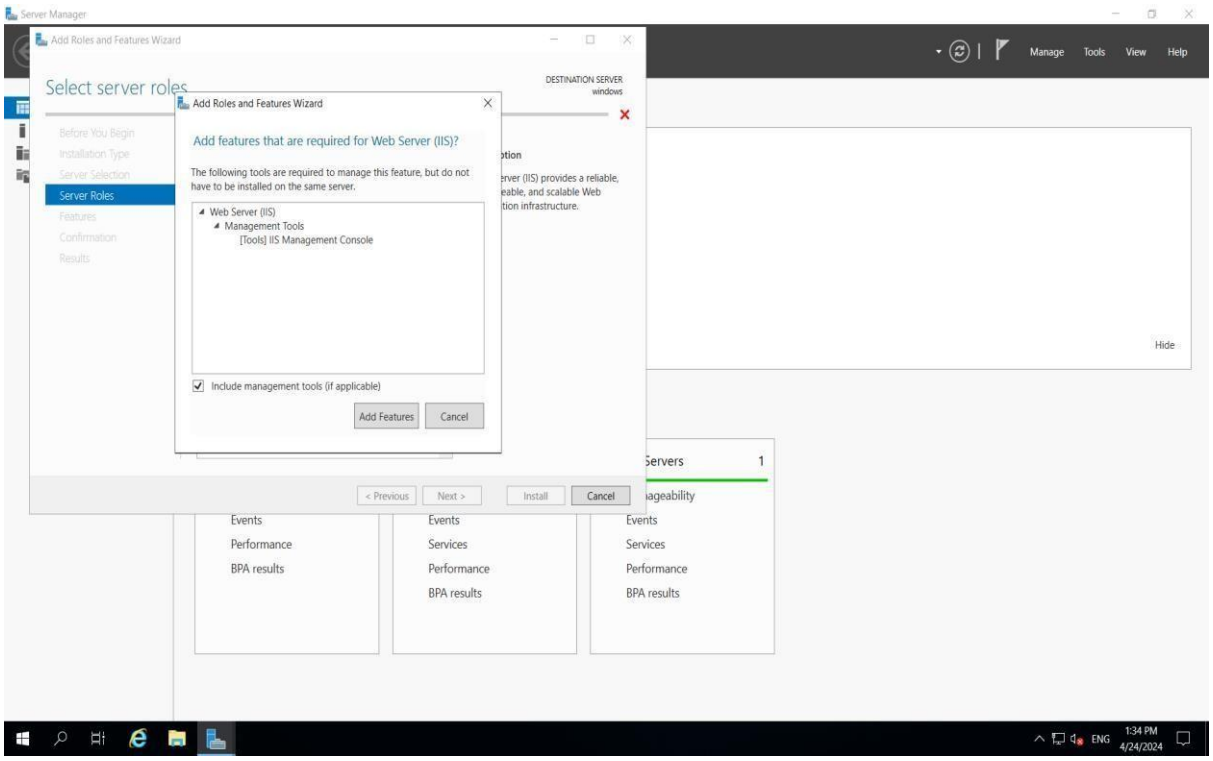


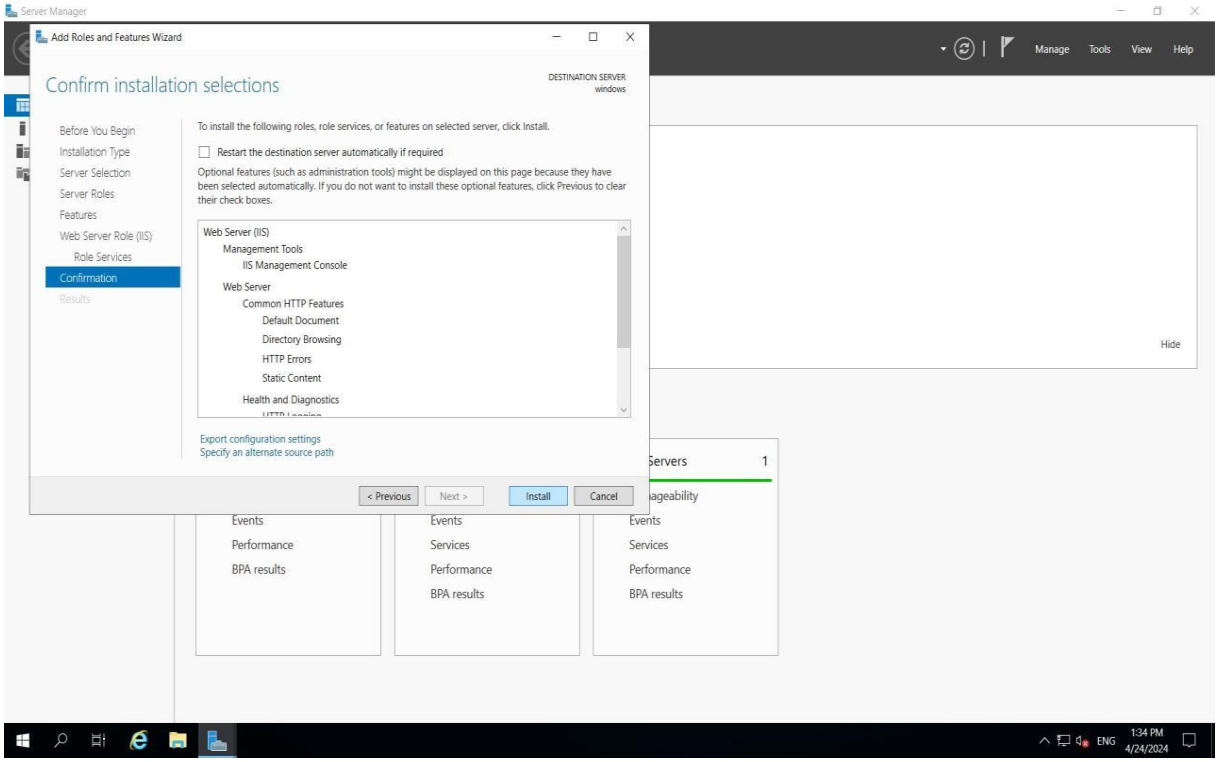
Step-2: When remote desktop will start(windows vm) you can see there will be Sever Manager will be opened and in that you can see Configure this local server , Click on “Add roles and features”.



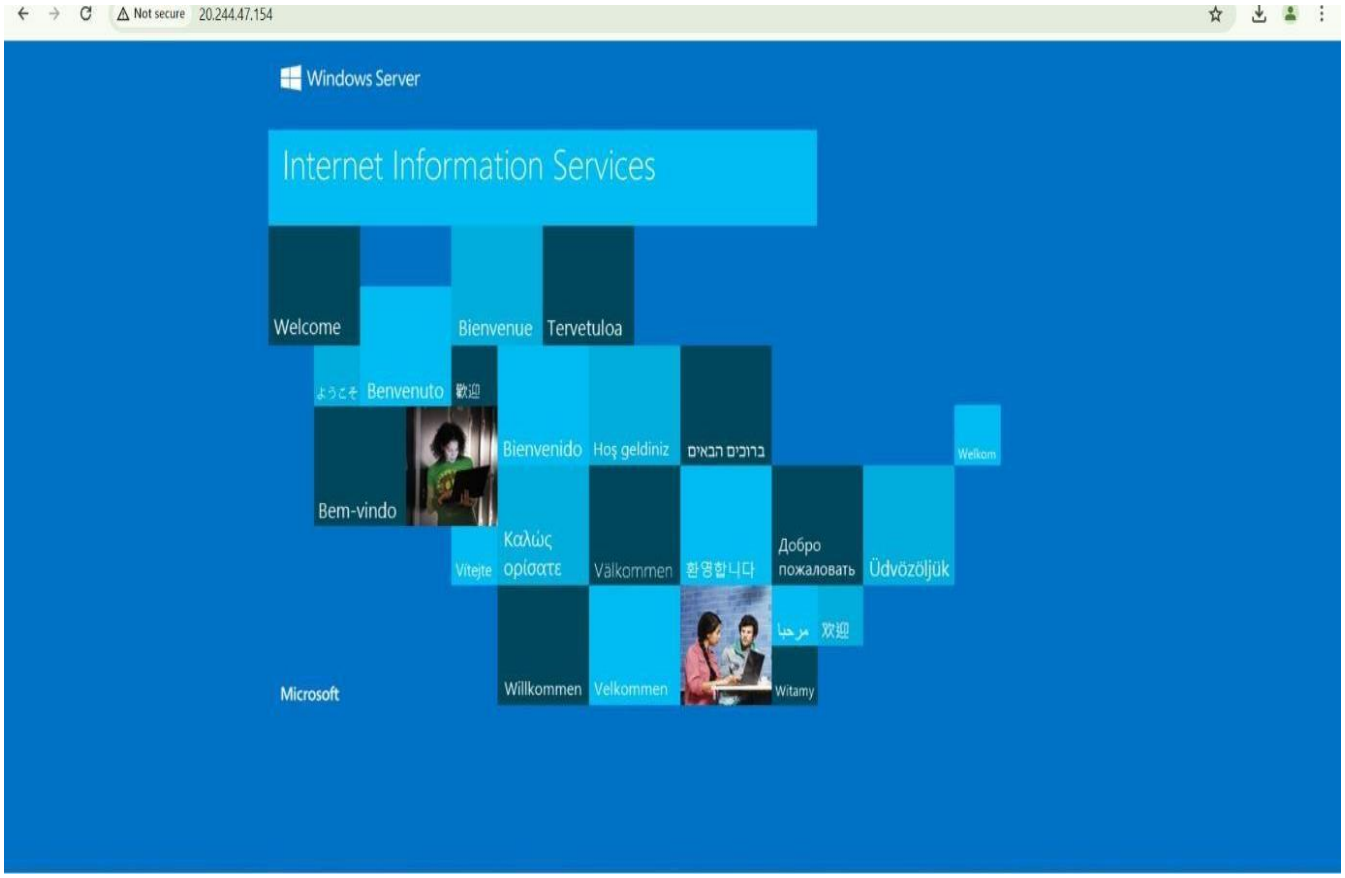
Step-3: Click on next, next and in Server Roles select Web Server(IIS) click on add feature ,click on next, next till you can get install button and click on install .



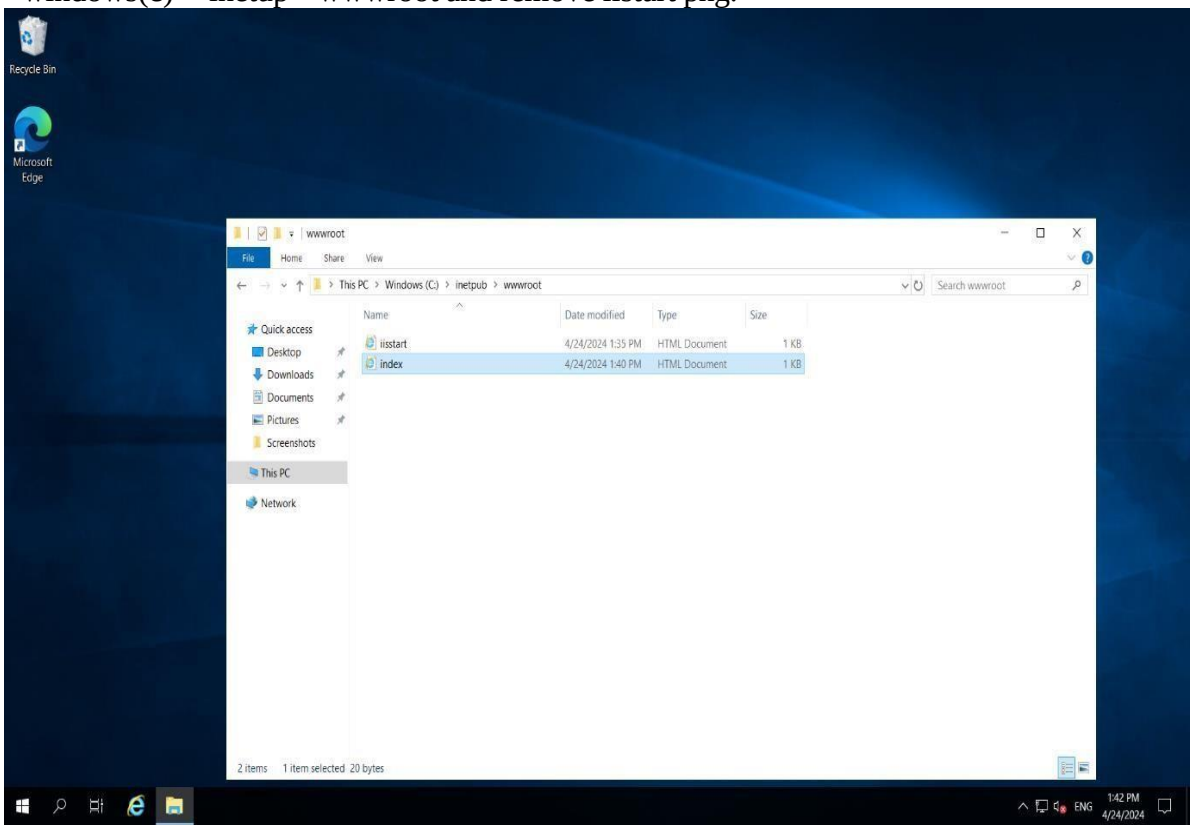




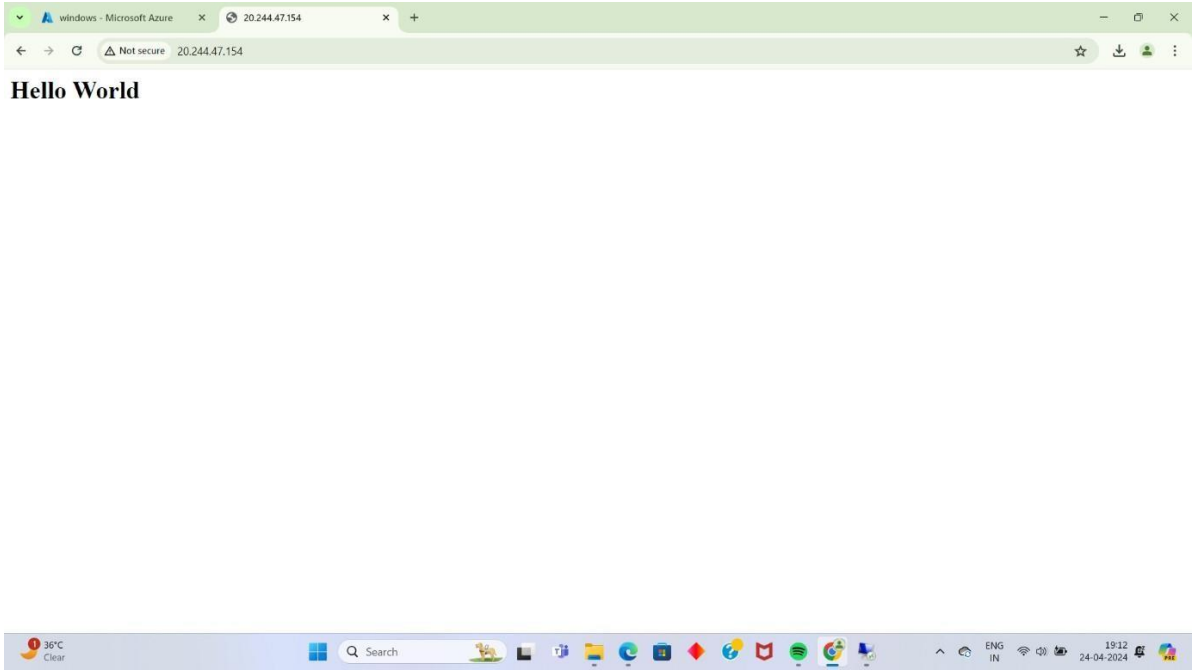
Step-4: Paste the public ip address in desktop browser and you can see.



Step-5: Now to remove this all information first of all create index.html in desktop and that should paste in the specified location of remote desktop VM that is ThisPC->windows(c)- >inetup->wwwroot and remove iistart png.



Step-6: Refresh the browser page.



Q10) How we are adding new users, login credentials, changing owner, create authorized key files.

Step-1: Create a ubuntu virtual machine using SSH as previous experiment.

Step-2: Login into your Ubuntu VM using your username and type the following commands.

To add new user in Linux server:

$sudo useradd -m poojitha To

set new password:

$sudo password poojitha

Enter new password and Retype password.

To modify login credentials: $sudo usermod

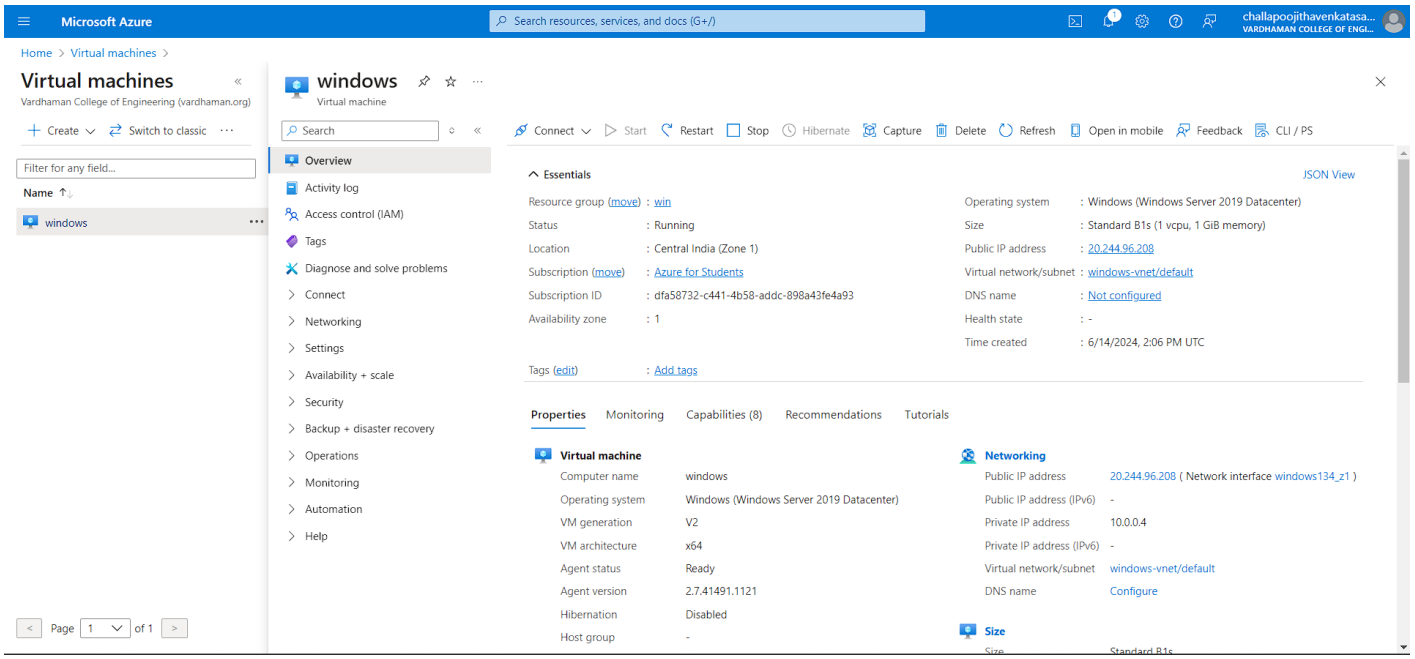
-aG sudo poojitha To

switch the user:

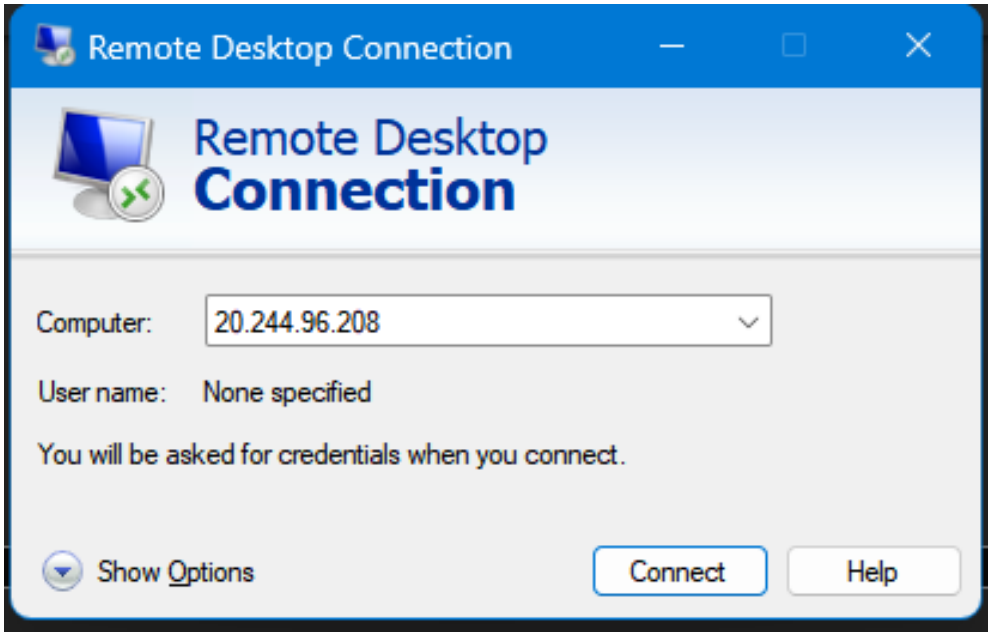
$sudo su poojitha

11)Create a Windows VM and transfer files from desktop to remote desktop VM.

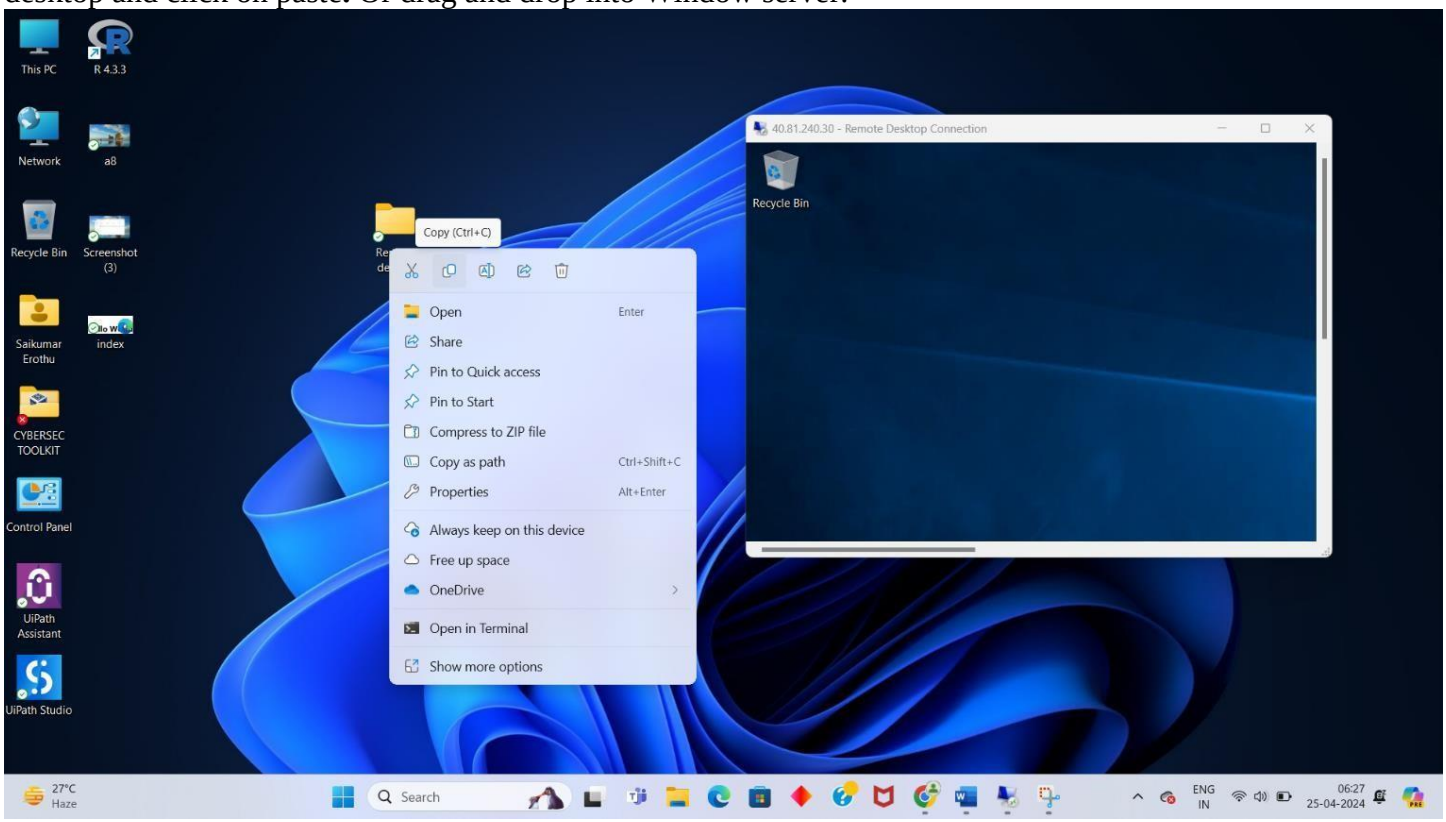
Step-1: Create Windows VM same as previous experiments and copy public IP Address.

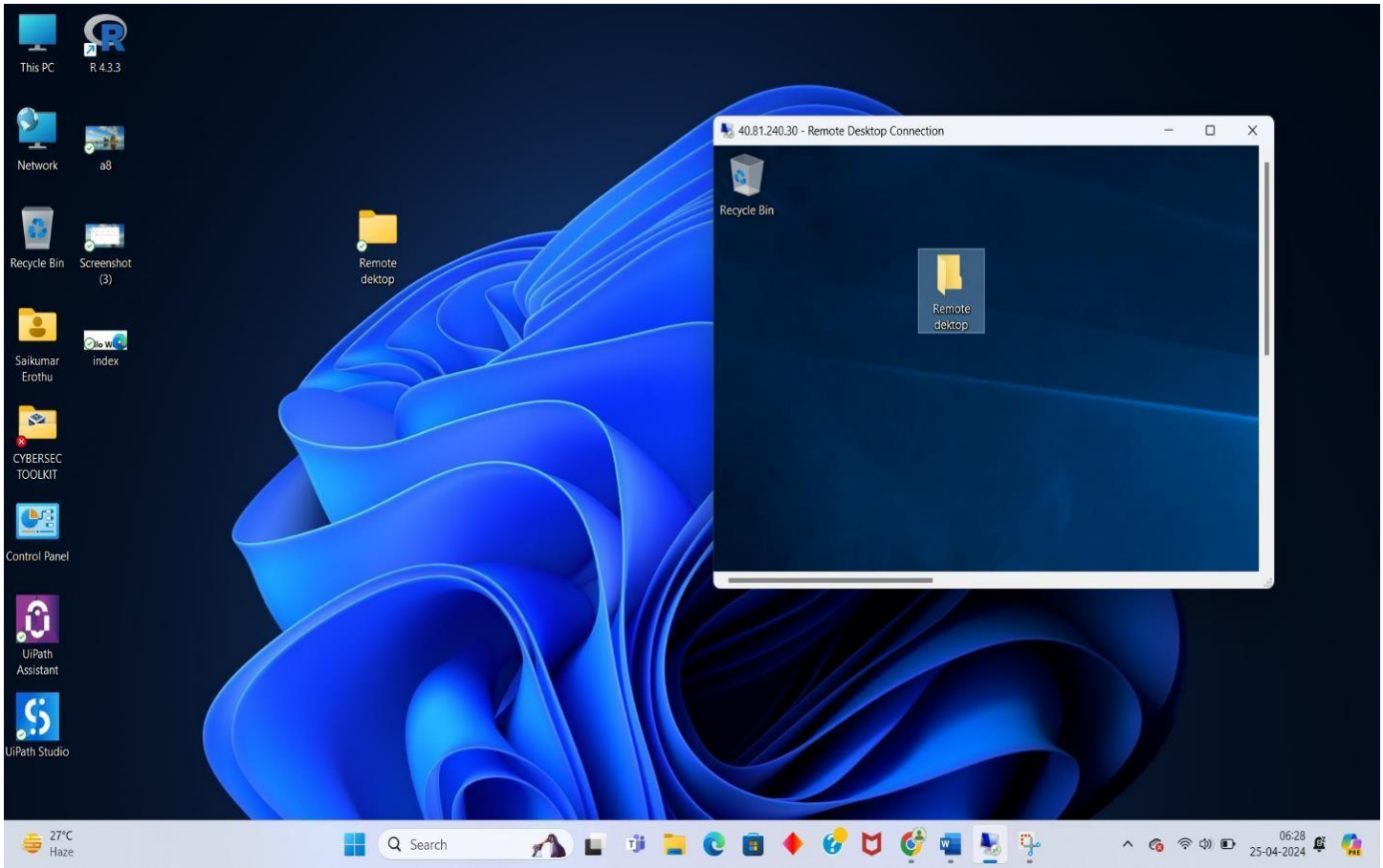


Step-2: Login into your account using username and password using remote desktop.



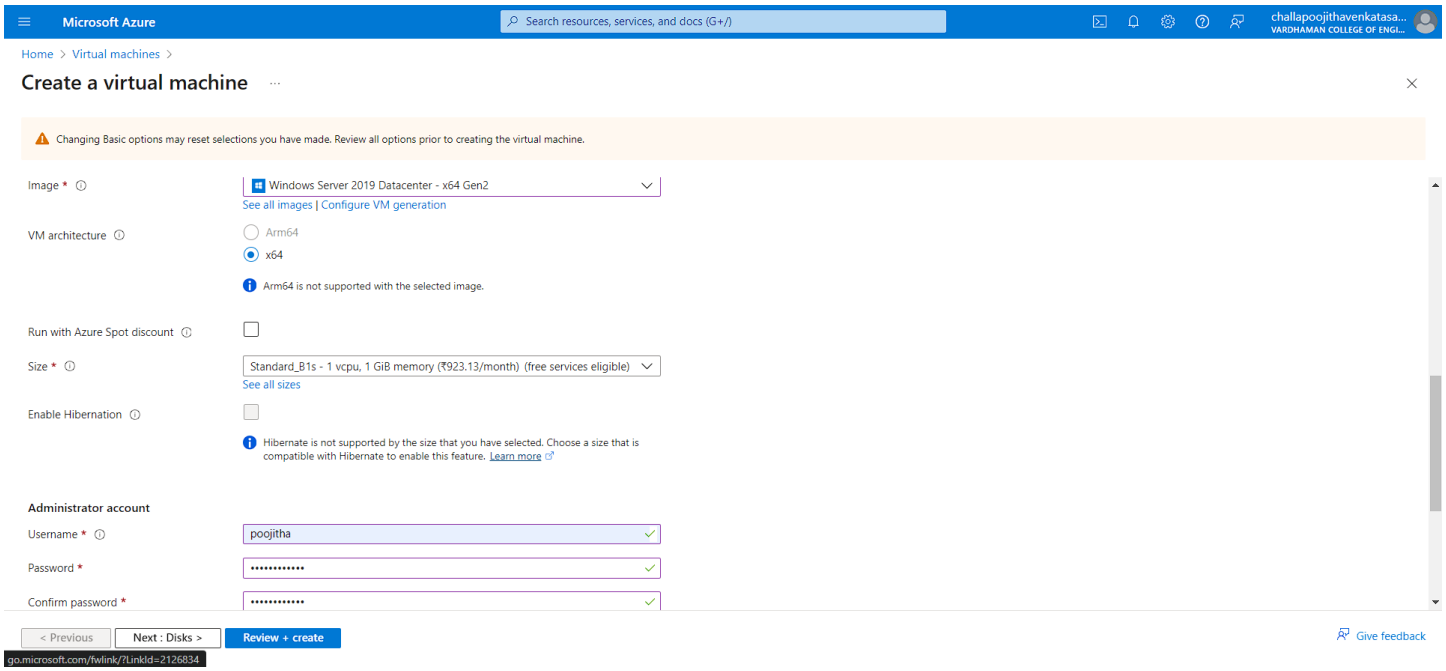
Step-3: Minimize the Remote desktop and copy file from desktop. Right click in remote desktop and click on paste**.** Or drag and drop into Window server.



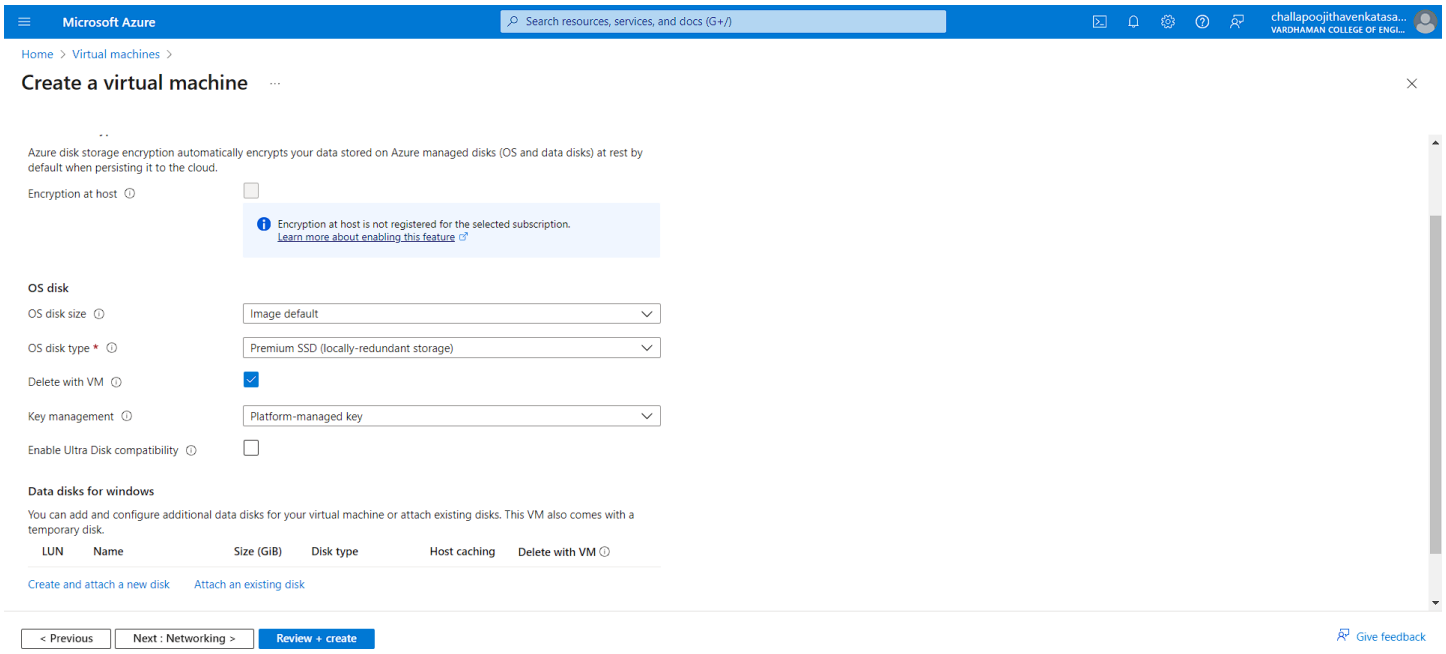


Q12)How to attach and detach data disks for windows

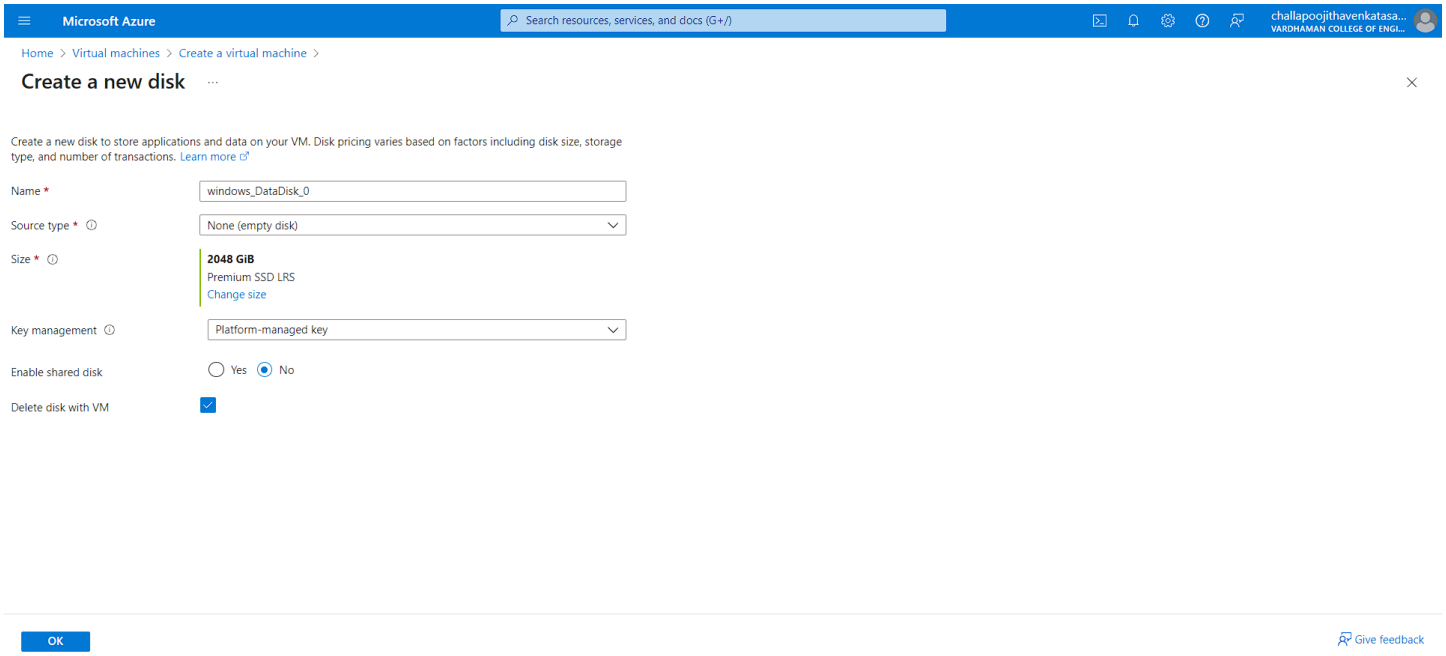
Step:1.Create a Virtual Machine and select image as Window server, set up Username and password



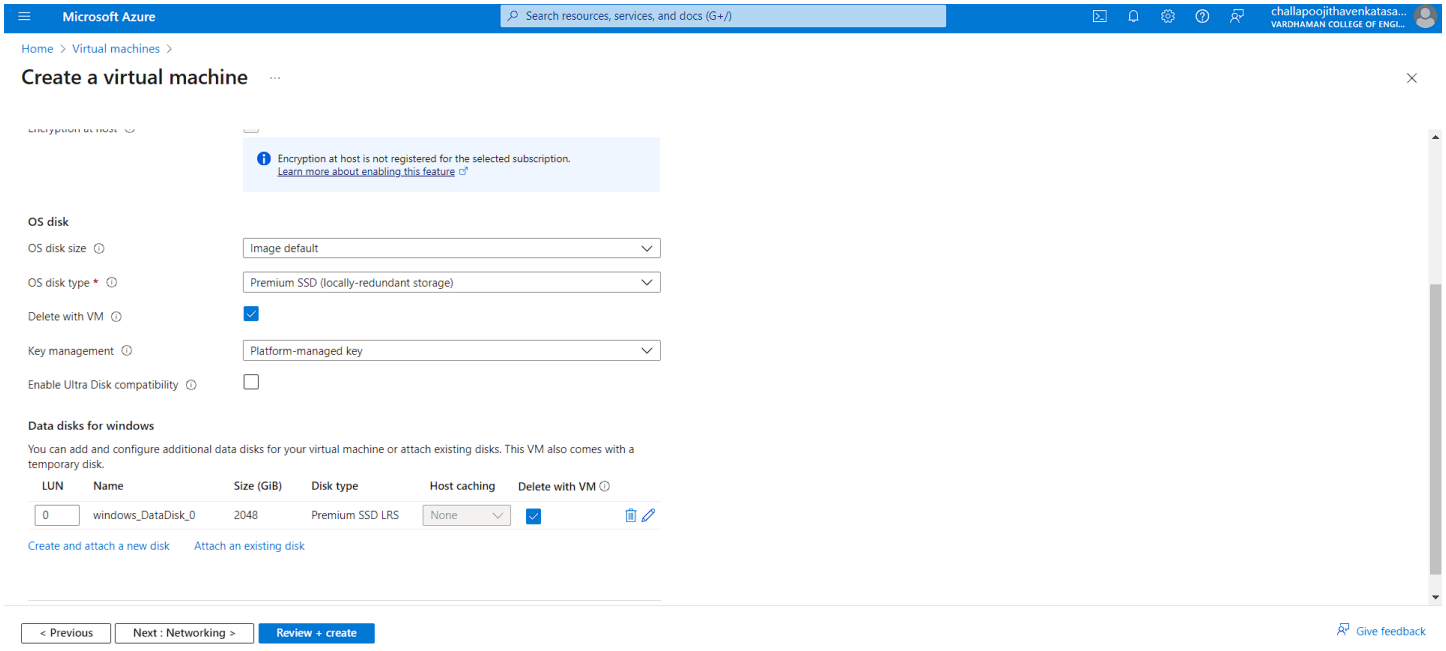
Step:2. Go to disks and click on “Create and attach new disks”.



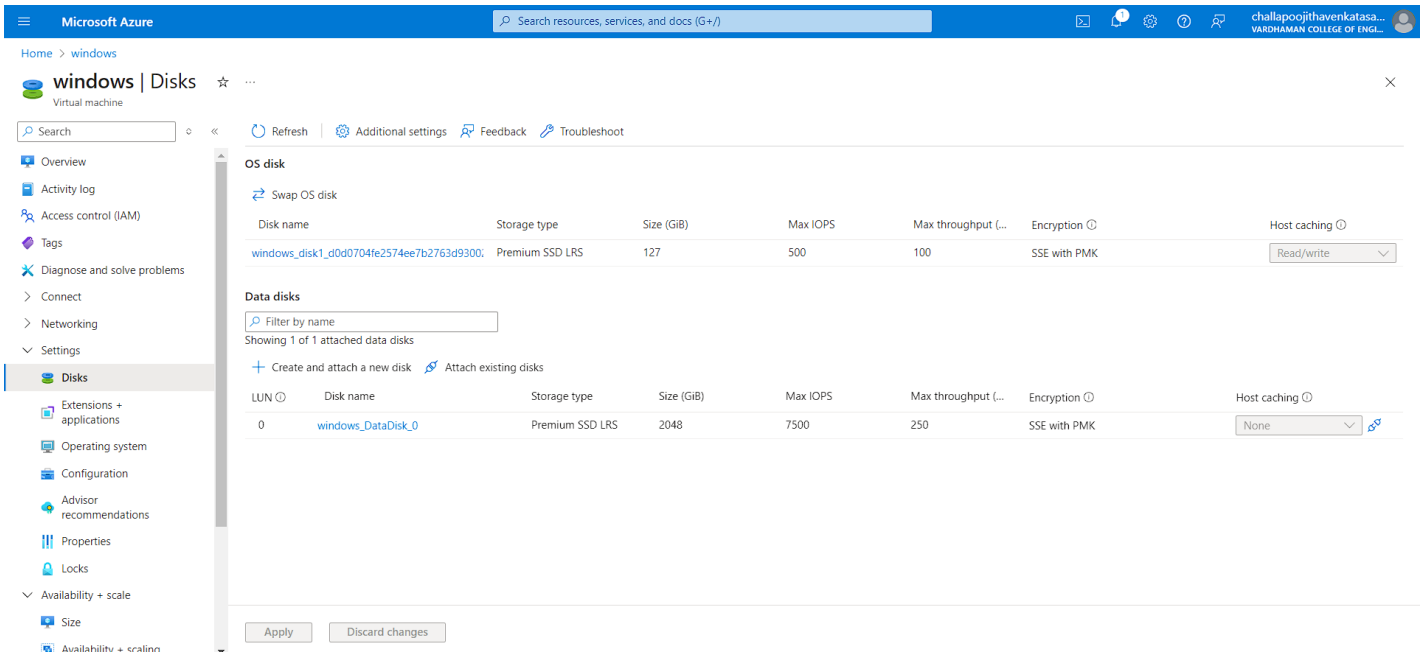
Step:3 Select the disk size of your preference and ckeck the option “delete disk with vm” and click on “OK”.



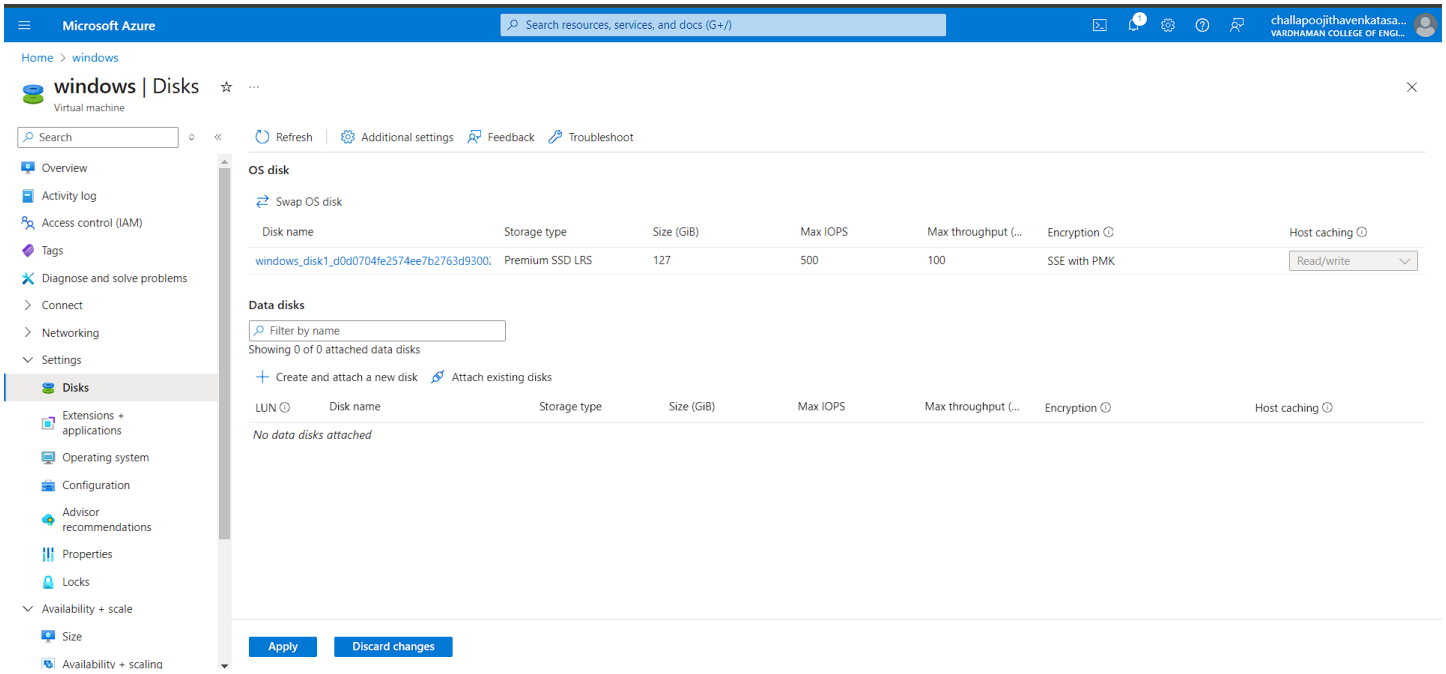
Step:4.We can see the selected disk in our vm page.Click on review+create.



Step:5.Go to the virtual machine that you have created and go to settings and click on “DISKS”.You can see that a disk is attached to your VM named “Windows”.

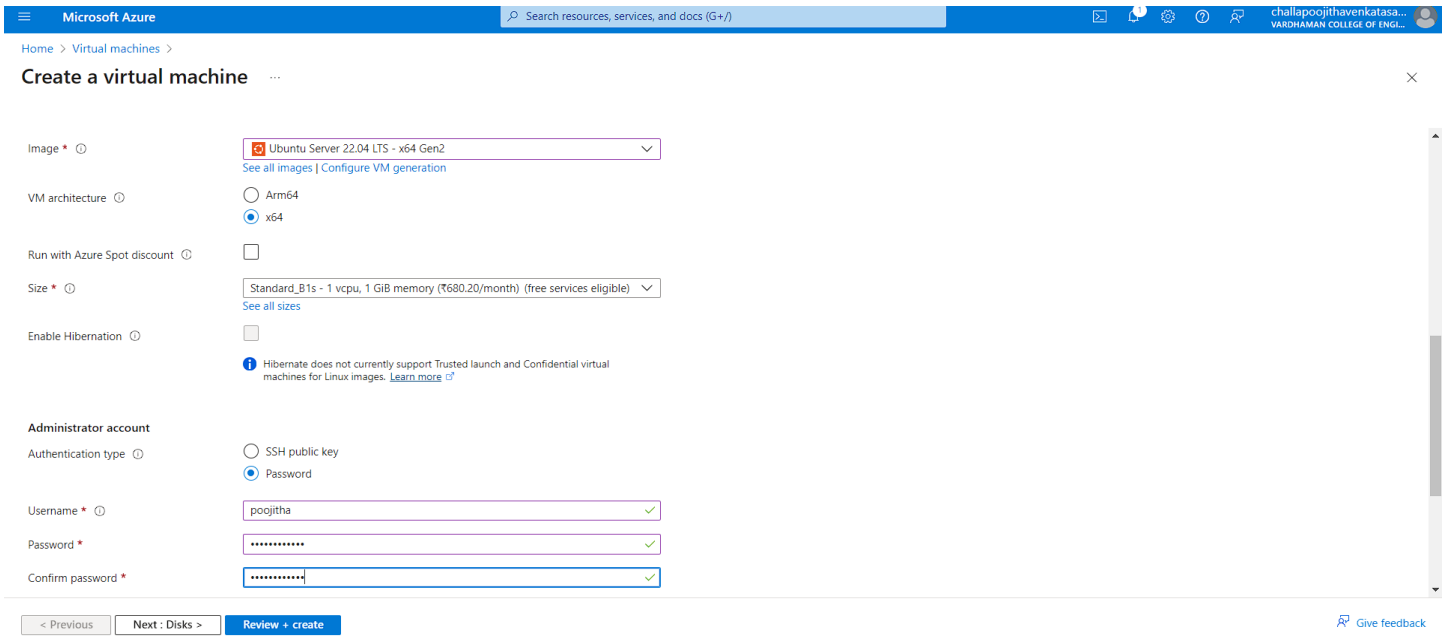


Step:6. To detach a disk click on the detach symbol that is present at the right side and click on apply.

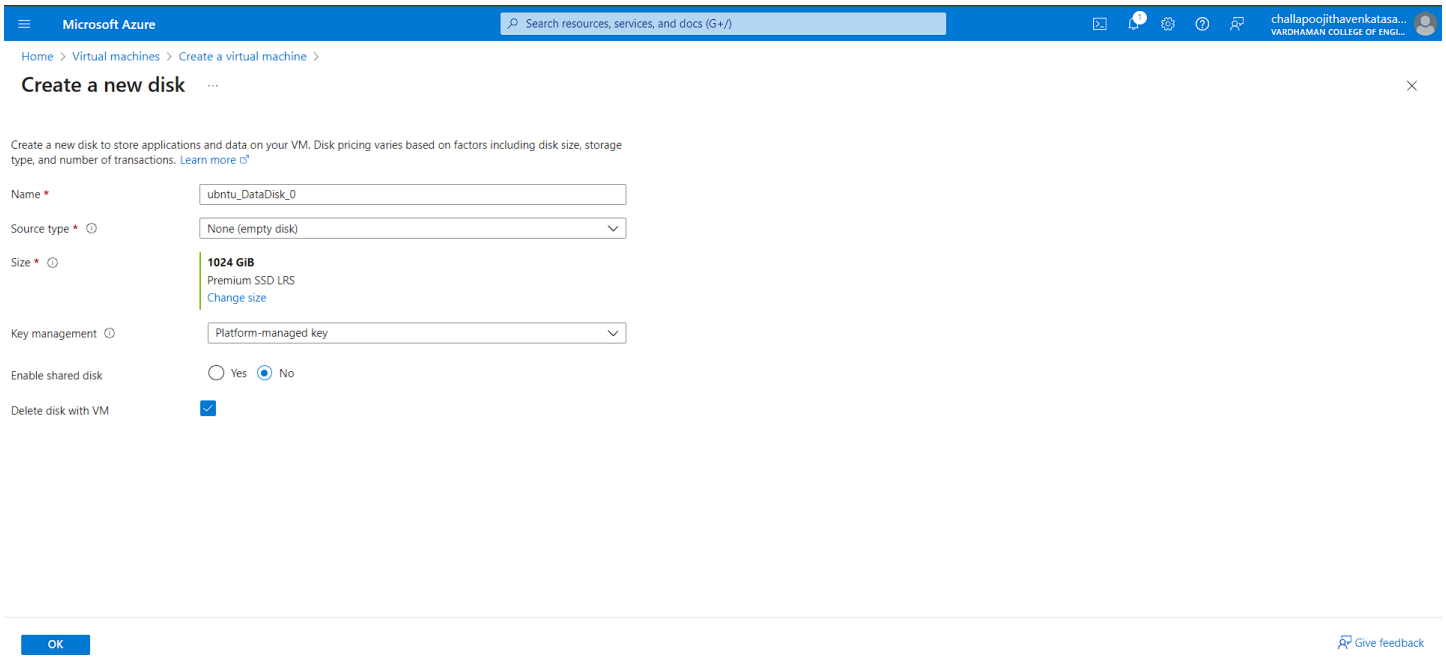


Q13)How to add data disks to Linux server in azure data attach and detach

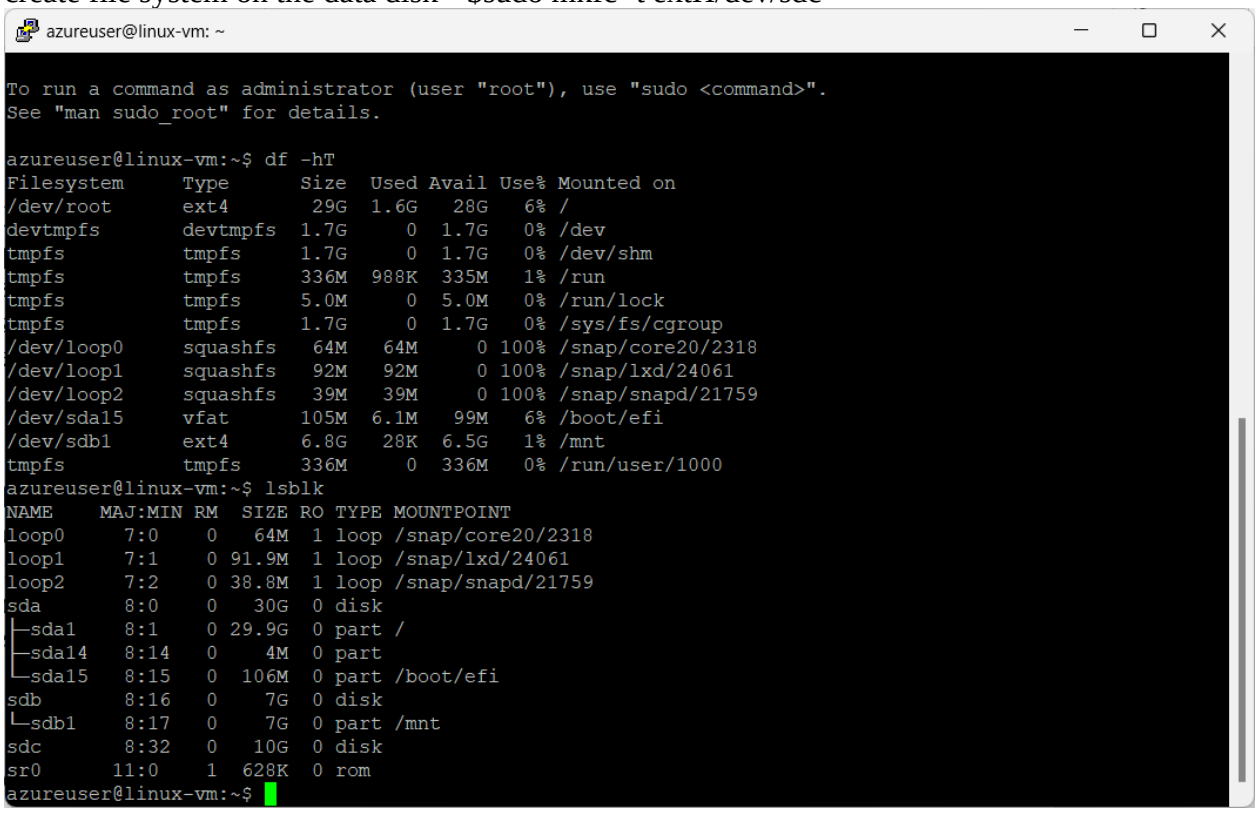
Step:1.Create a resource group and launch a Azure Linux server using VM.



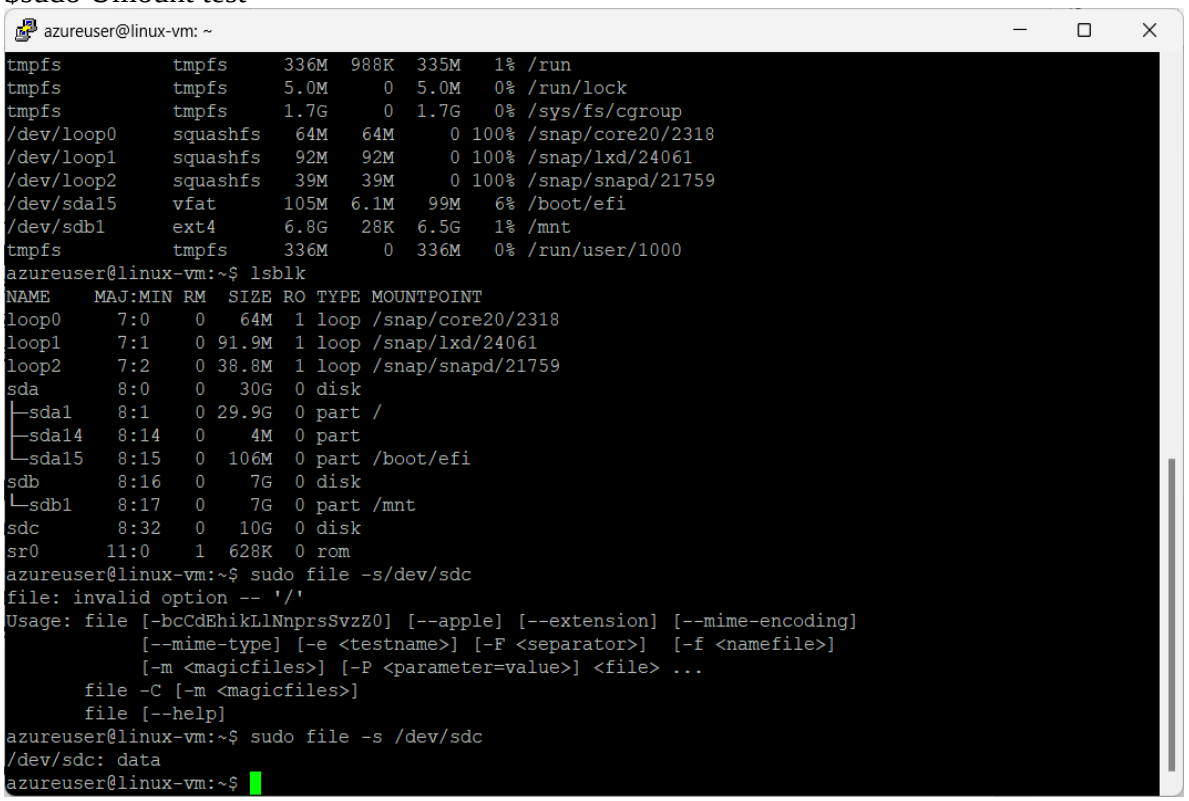
Step:2. Click on create a new disk and change the disk size to your preferrable size and enable “delete disk with vm” and click on OK.



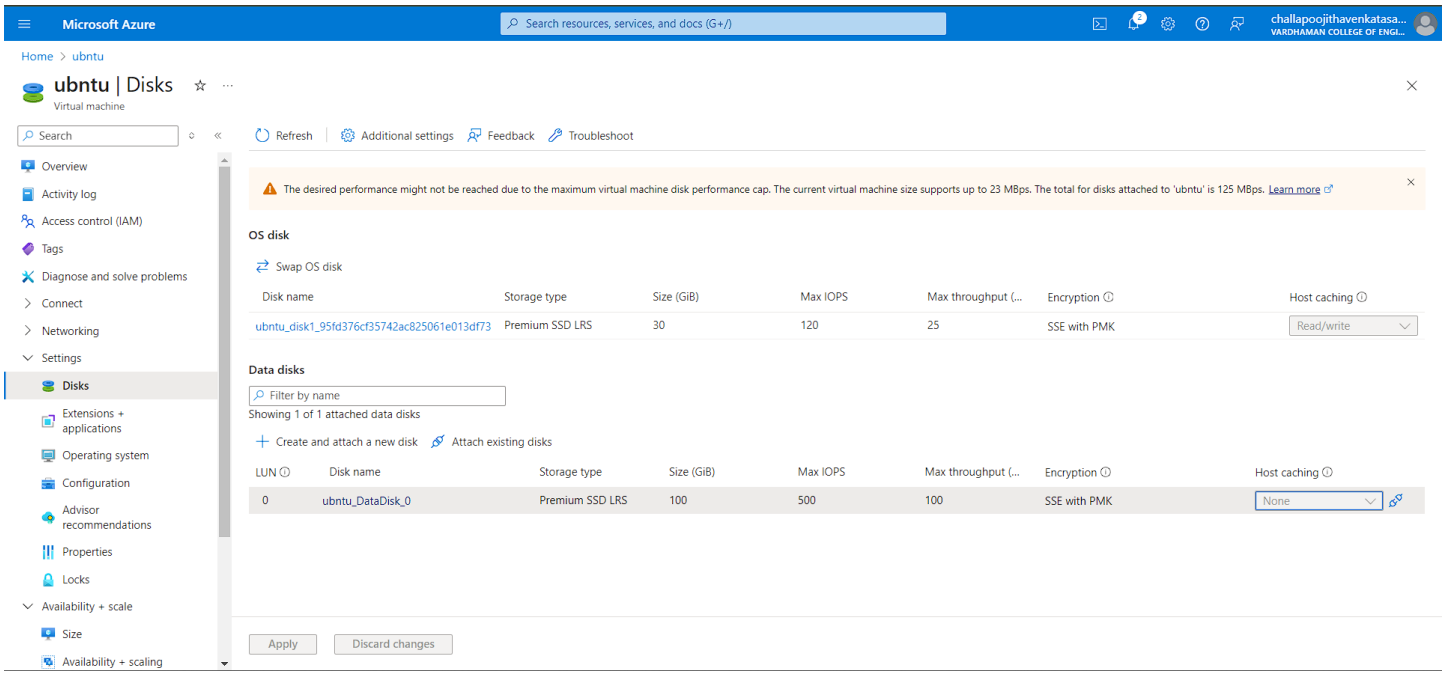
Step:3. Open putty and launch linux server,$clear
$df-ht(used to display hard disk storage not shown it)
$lsblk(to see hidden drives)
$ sudo file -s/dev/sdc(information about the device)
create file system on the data disk->$sudo mkfc -t extH/dev/sdc



Step:4. Create directory->$mkdir test
$sudo mount/dev/sdc test->$sudo touch files
$ls->$df -hT(after mounting it shoes 5GB disk
$sudo Umount test



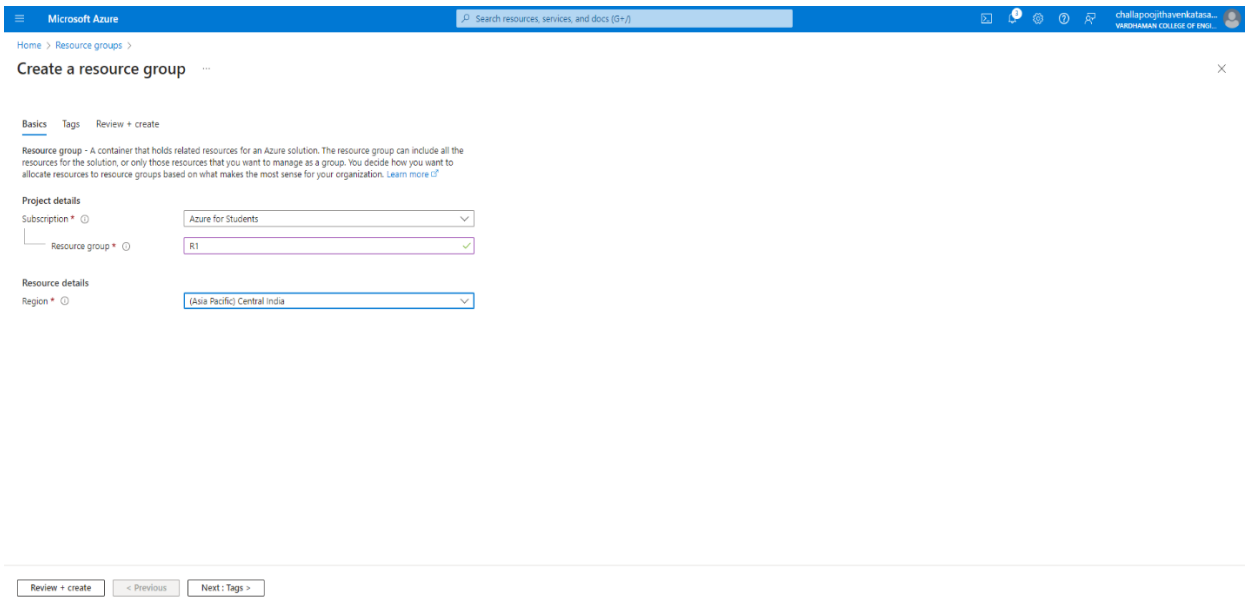
Step:5. To detach open disk in VM and detach it,Click on apply

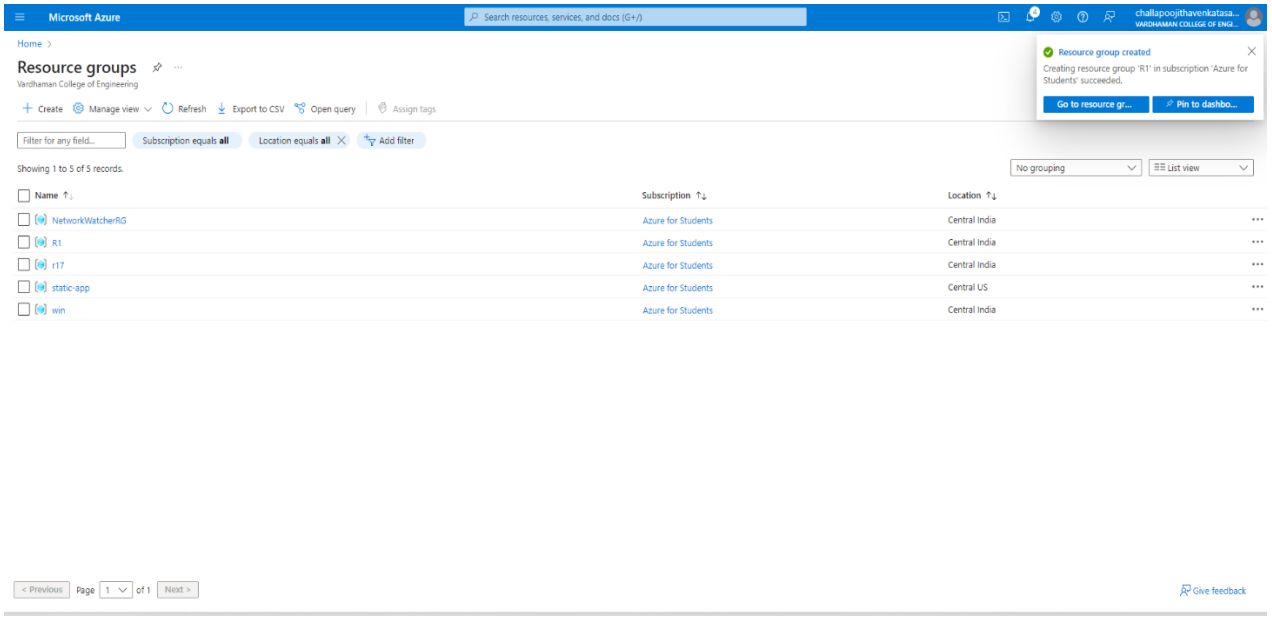


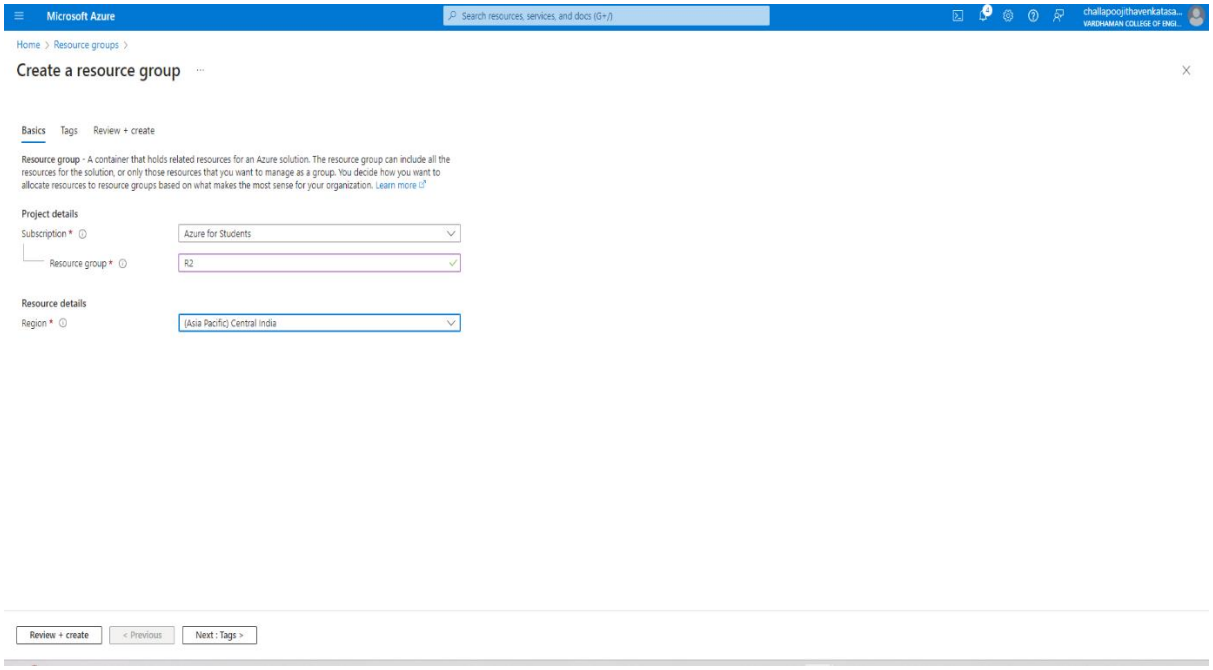
Q14) Move Ubuntu server files from one resource to another resource

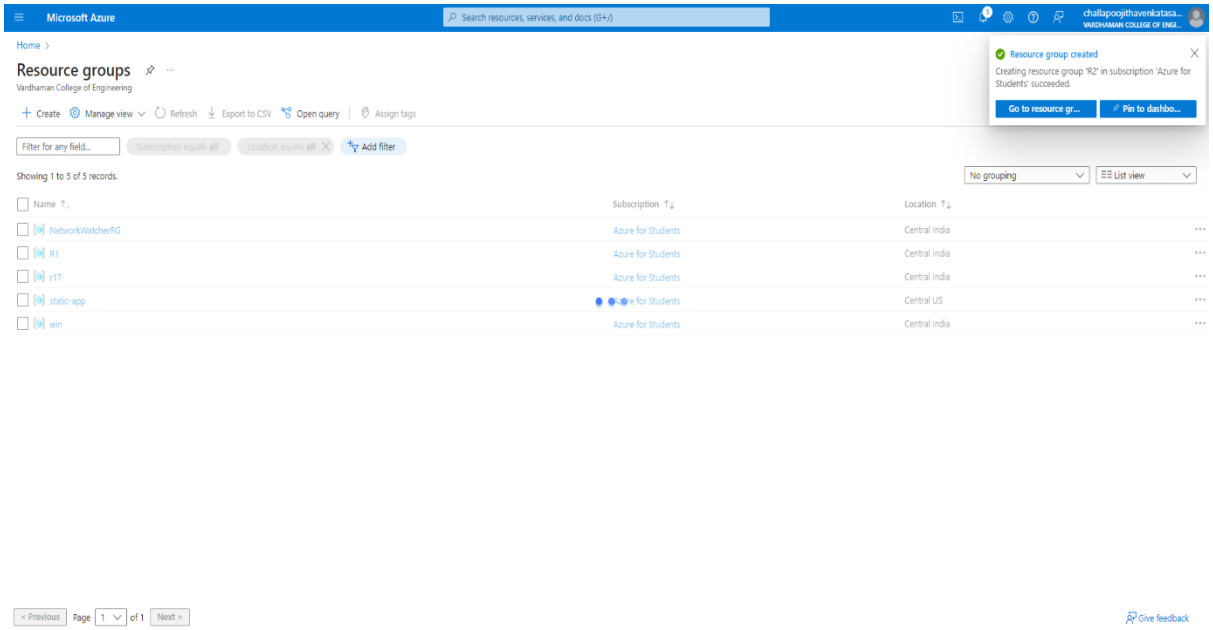
Steps:-

1) Open Resource groups in Microsoft Azure account and click on create
2) Give a name and create two resource groups

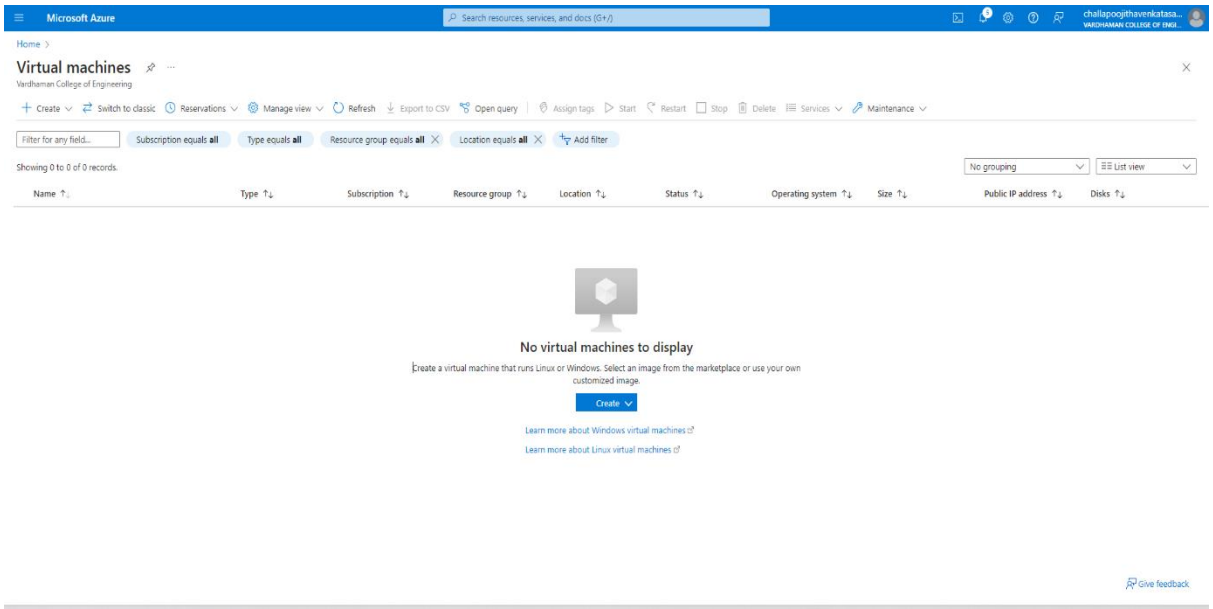




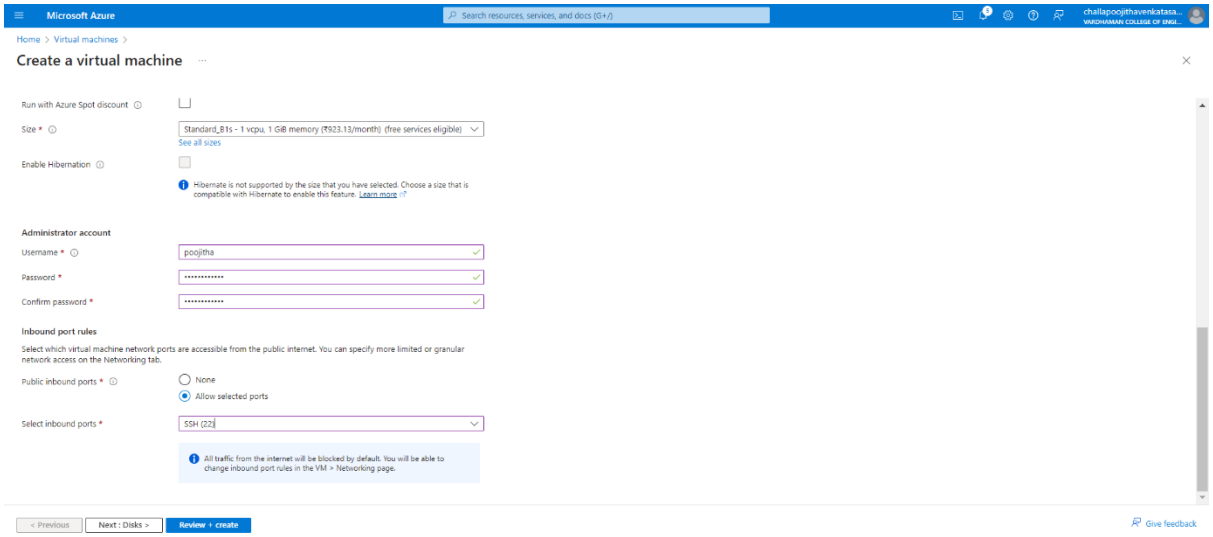

Microsoft Azure
Search resources, services, and docs (G+/)
challapoojithavenkatasa...
VARDHAMAN COLLEGE OF ENGI...
Home > Resource groups >
Create a resource group
Basics
Tags
Review + create
Resource group - A container that holds related resources for an Azure solution. The resource group can include all the resources for the solution, or only those resources that you want to manage as a group. You decide how you want to allocate resources to resource groups based on what makes the most sense for your organization. Learn more
Project details
Subscription *
Azure for Students
Resource group *
R2
Resource details
Region *
(Asia Pacific) Central India
Review + create
< Previous
Next : Tags >


Microsoft Azure
Search resources, services, and docs (G+/)
challapoojithavenkatasa...
VARDHAMAN COLLEGE OF ENGI...
Home >
Resource groups
Vardhaman College of Engineering
Create
Manage view
Refresh
Export to CSV
Open query
Assign tags
Filter for any field...
Add filter
Showing 1 to 5 of 5 records.
No grouping
List view
Name
Subscription
Location
NetworkWatcherRG
Azure for Students
Central India
R1
Azure for Students
Central India
r17
Azure for Students
Central India
static-app
Azure for Students
Central US
win
Azure for Students
Central India
Resource group created
Creating resource group 'R2' in subscription 'Azure for Students' succeeded.
Go to resource gr...
Pin to dashbo...
< Previous
Page 1 of 1
Next >
Give feedback

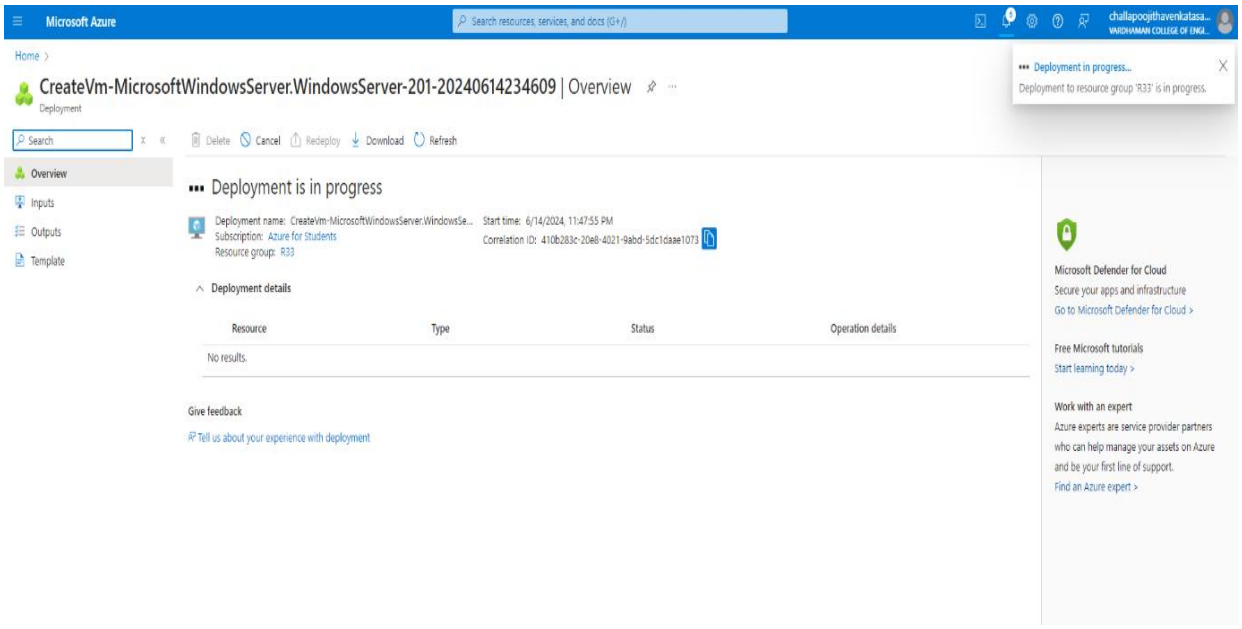
3) Select Virtual machine and click on create



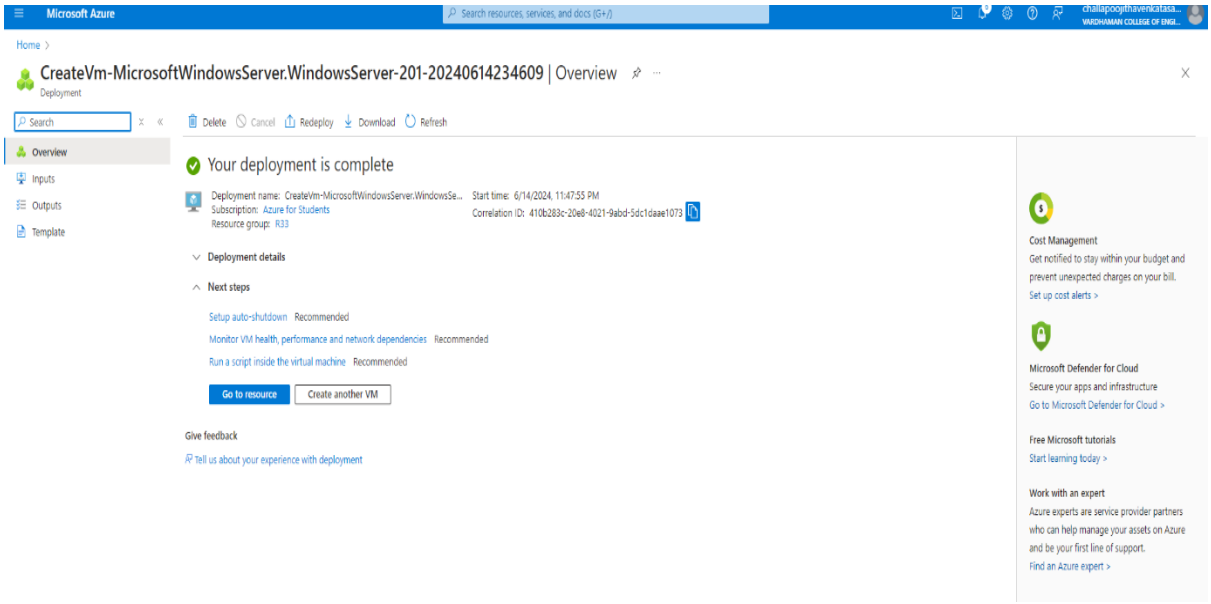
4) Create a VM with username and password & click on "Review+ create"



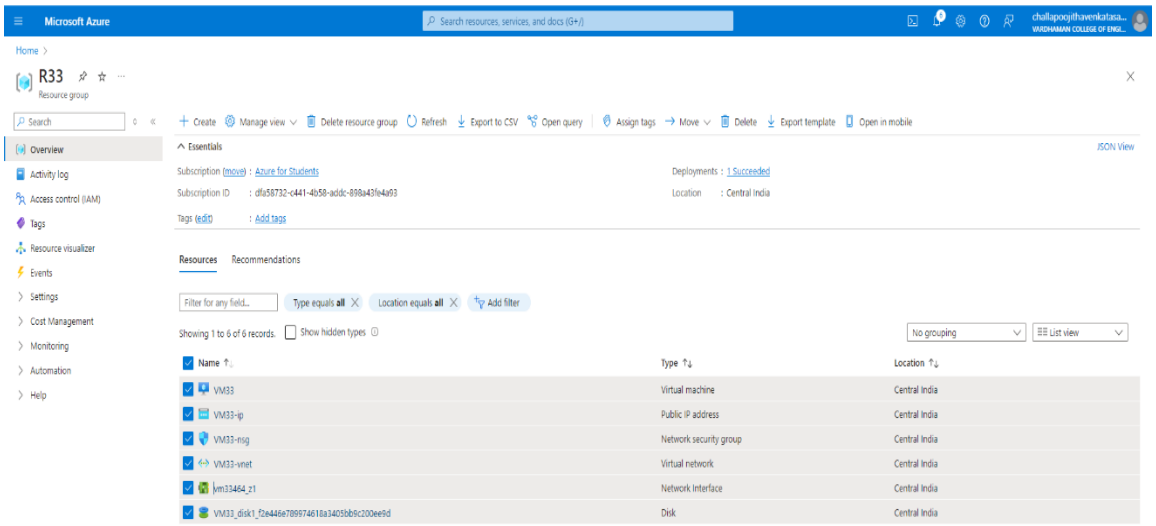
5) Click on create



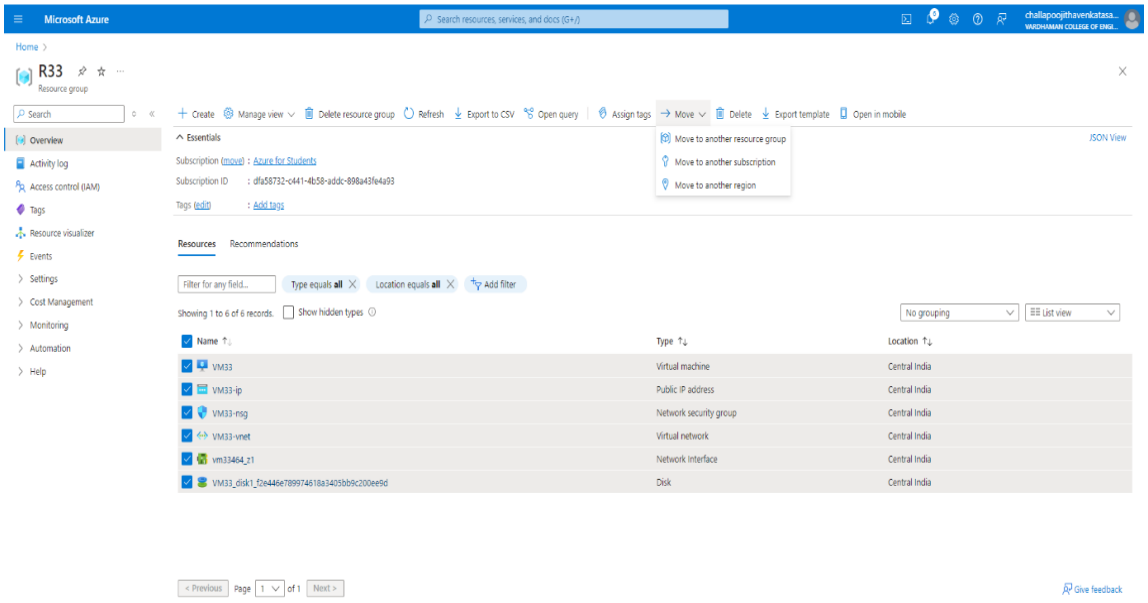
6) click on "Go to resource"



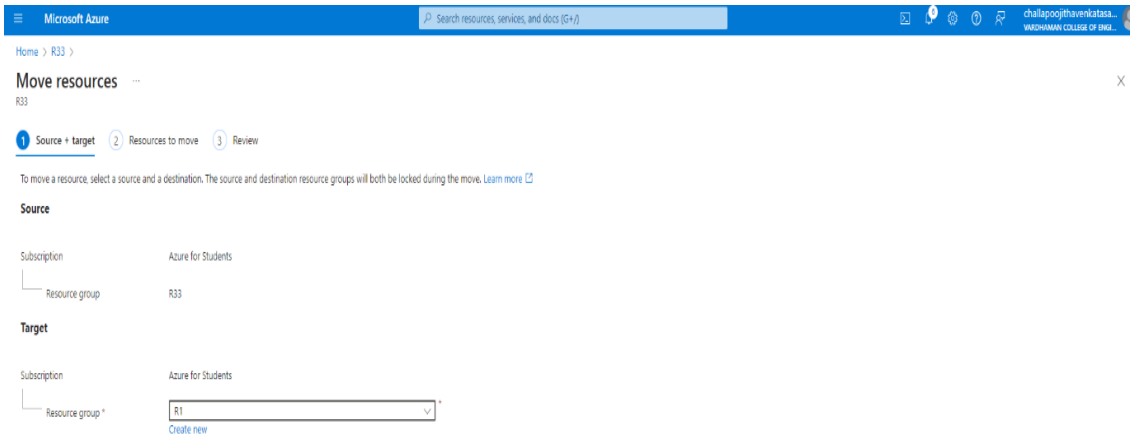
7) Select all resources & click on "move" on the top

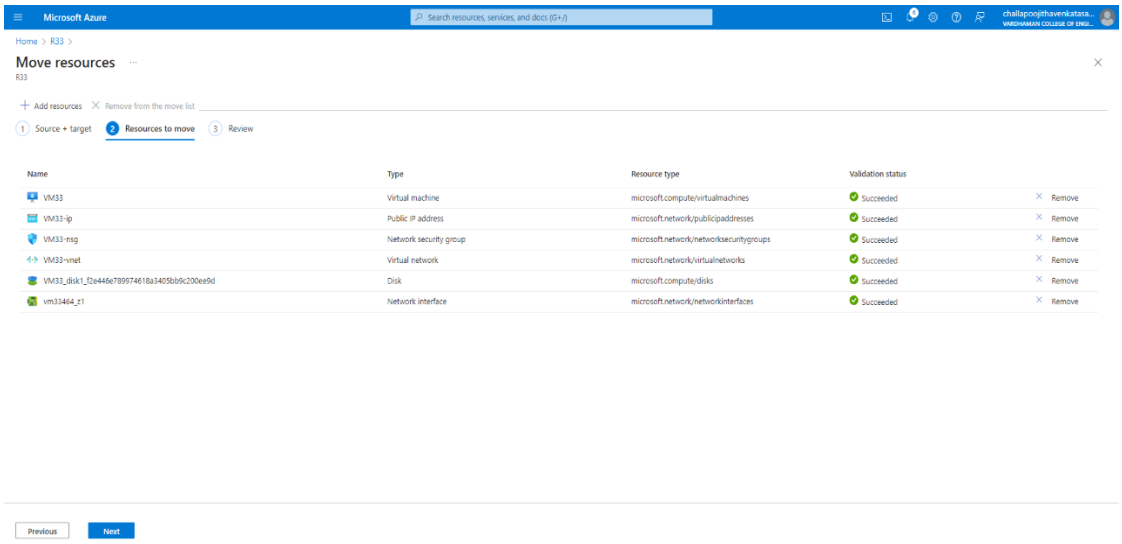


8) Click on move to another resource group

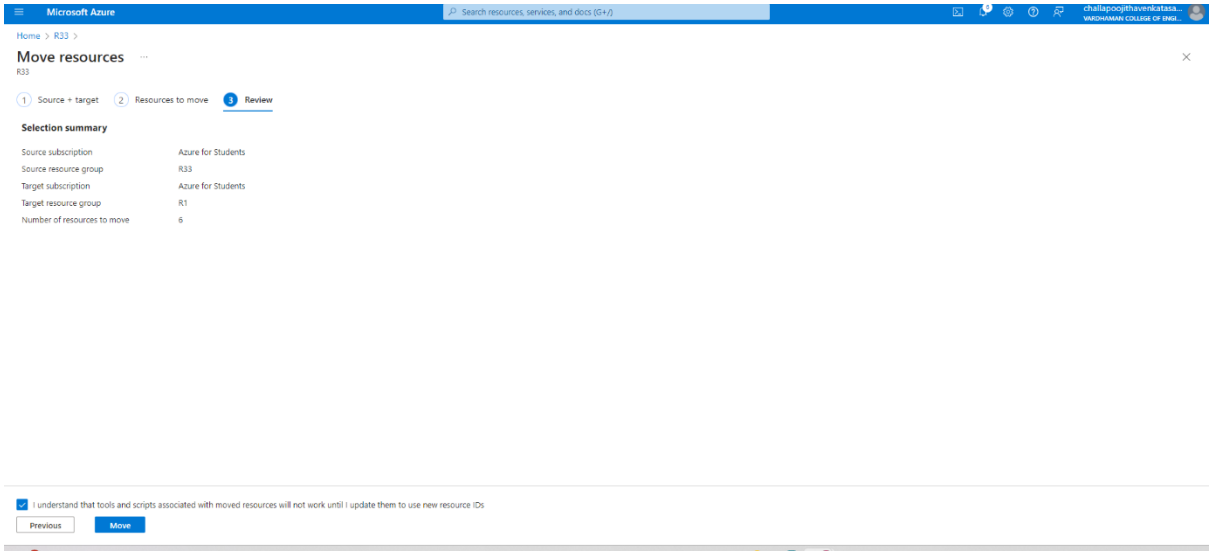


9) Give the target Resource group i.e., RG2 & click on next

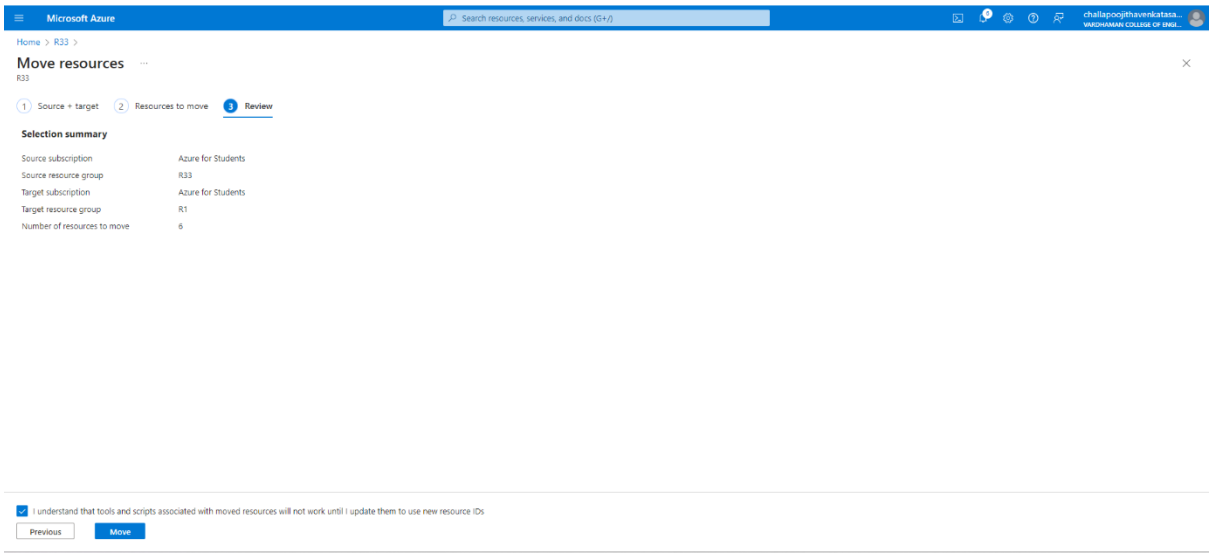




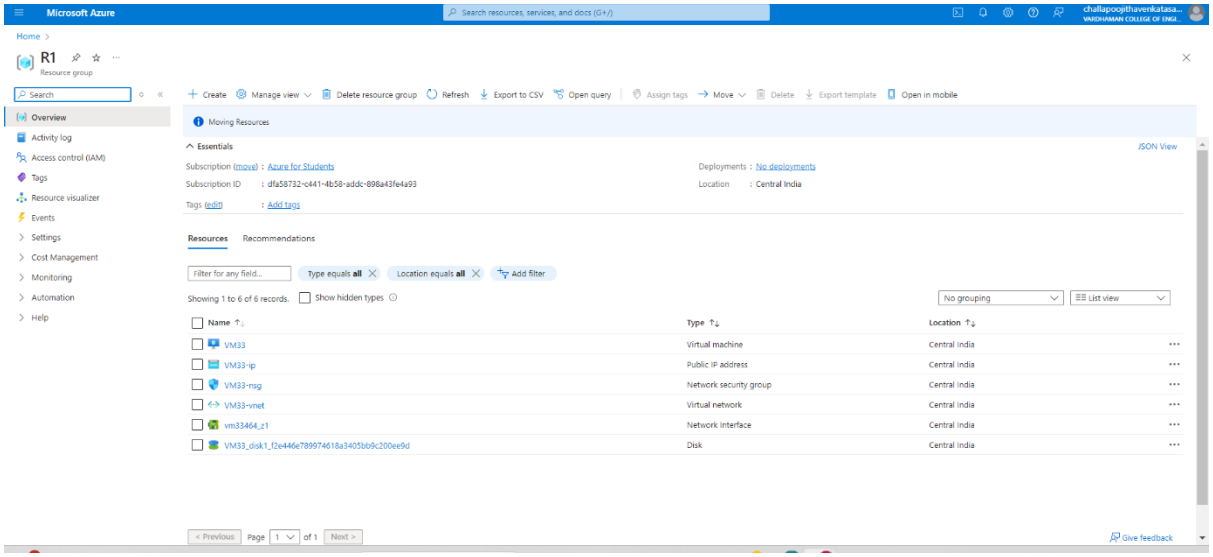
10) After all validation status "Succeeded" click on next



11) Click on "move" then all the resources from the RG1 moves to RG2



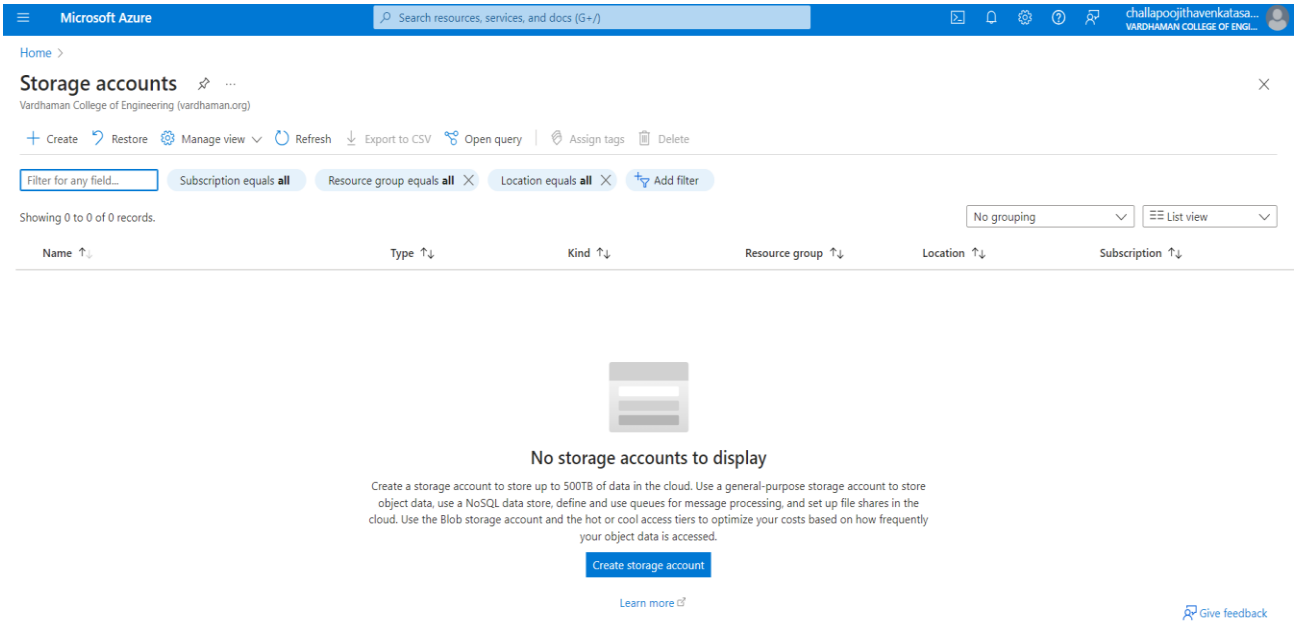
12) To check if the resources are moved to RG2, open RG2, All the resources can be seen



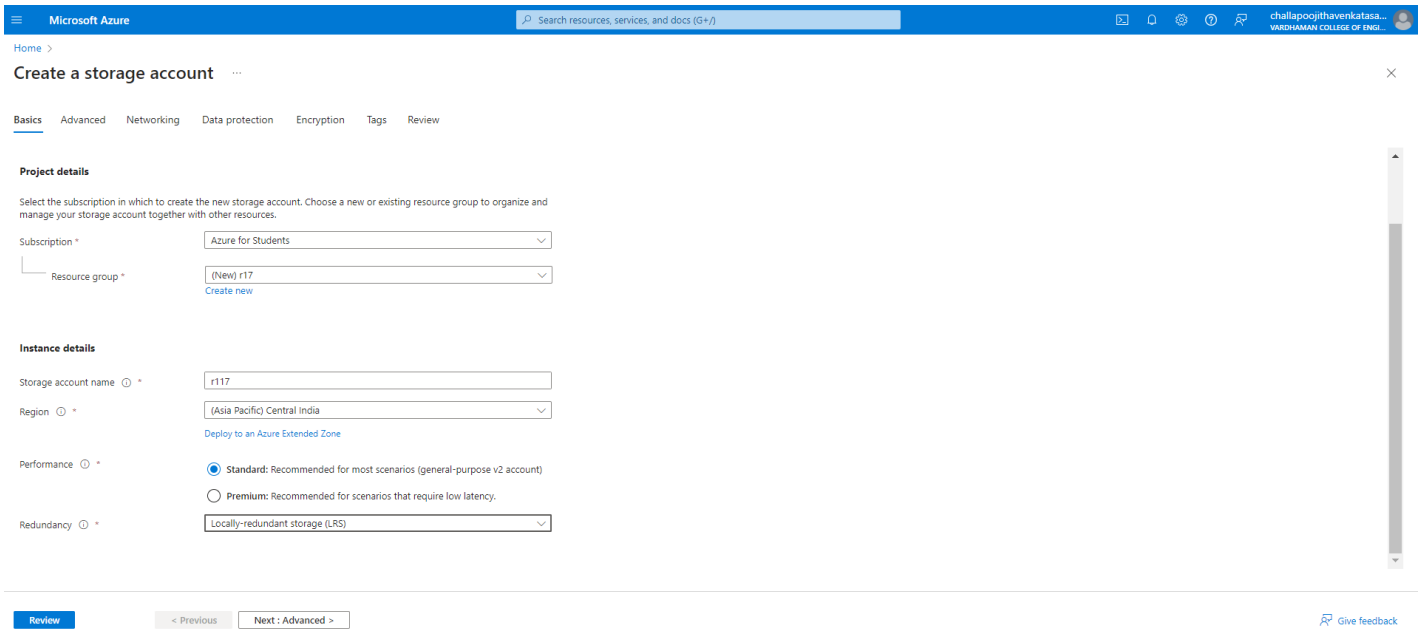
Q15) How to create Storage Account, container and upload/delete objects?

Steps:-

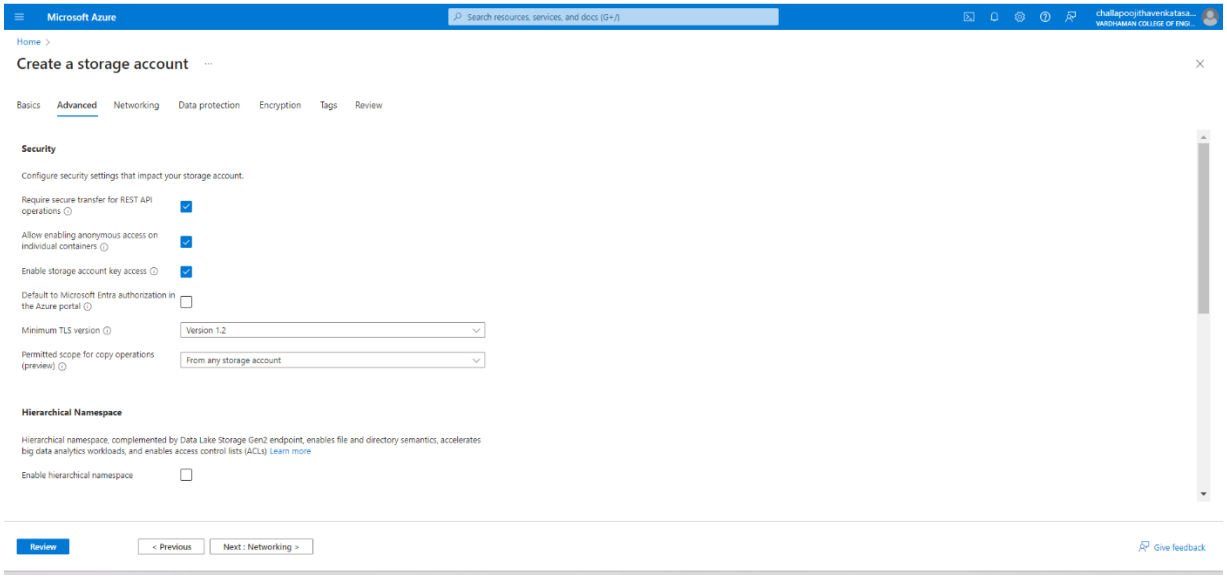
1) Open Microsoft Azure portal and click on storage accounts



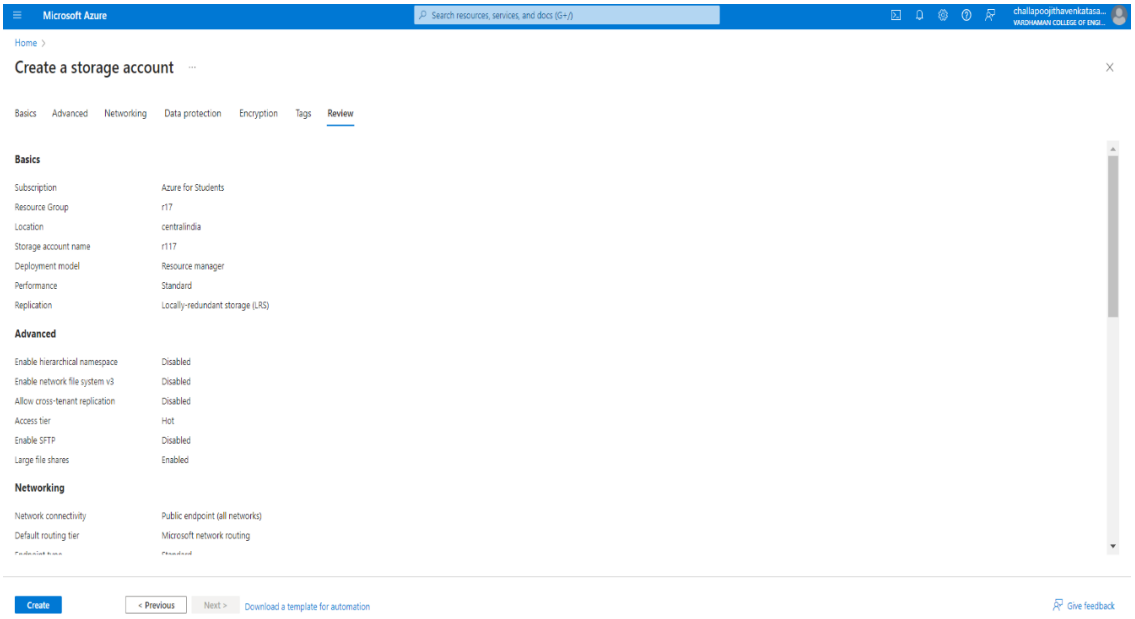
2)Click on create, select LRS/GRS in redundancy



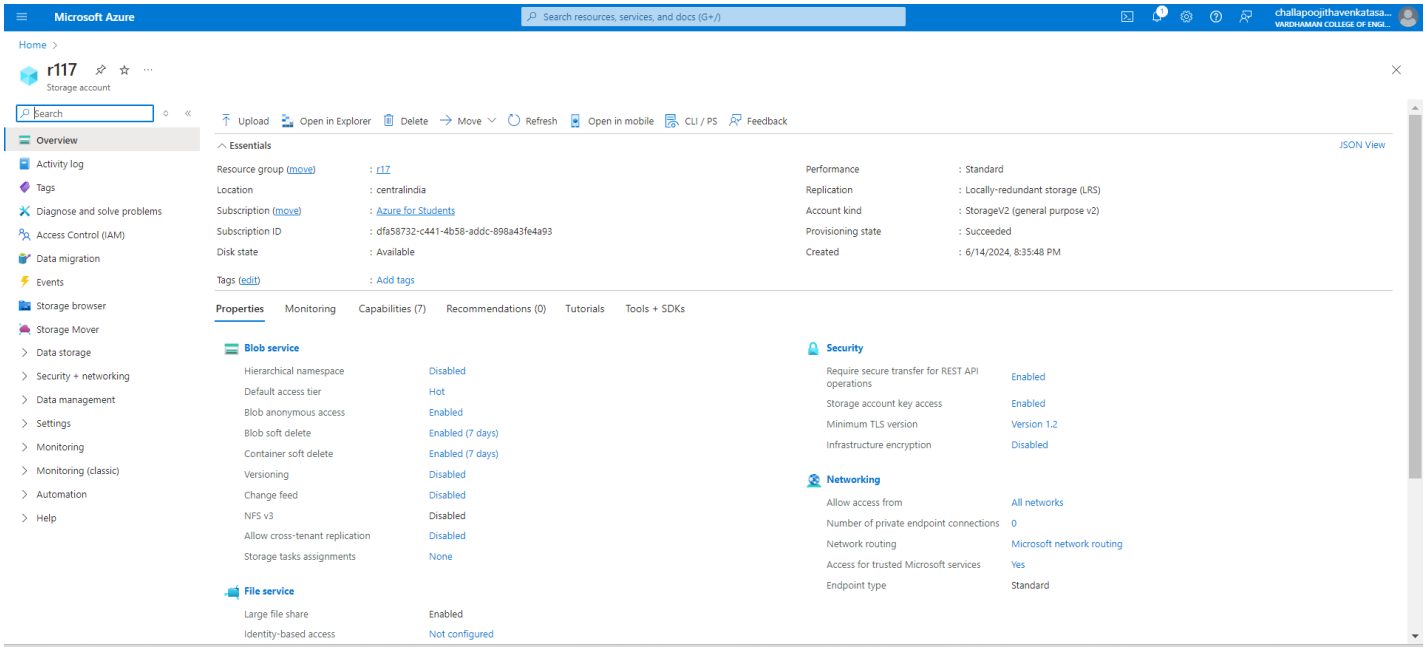
3) Click on next, Tick "Allow enabling anonymous access on individual containers



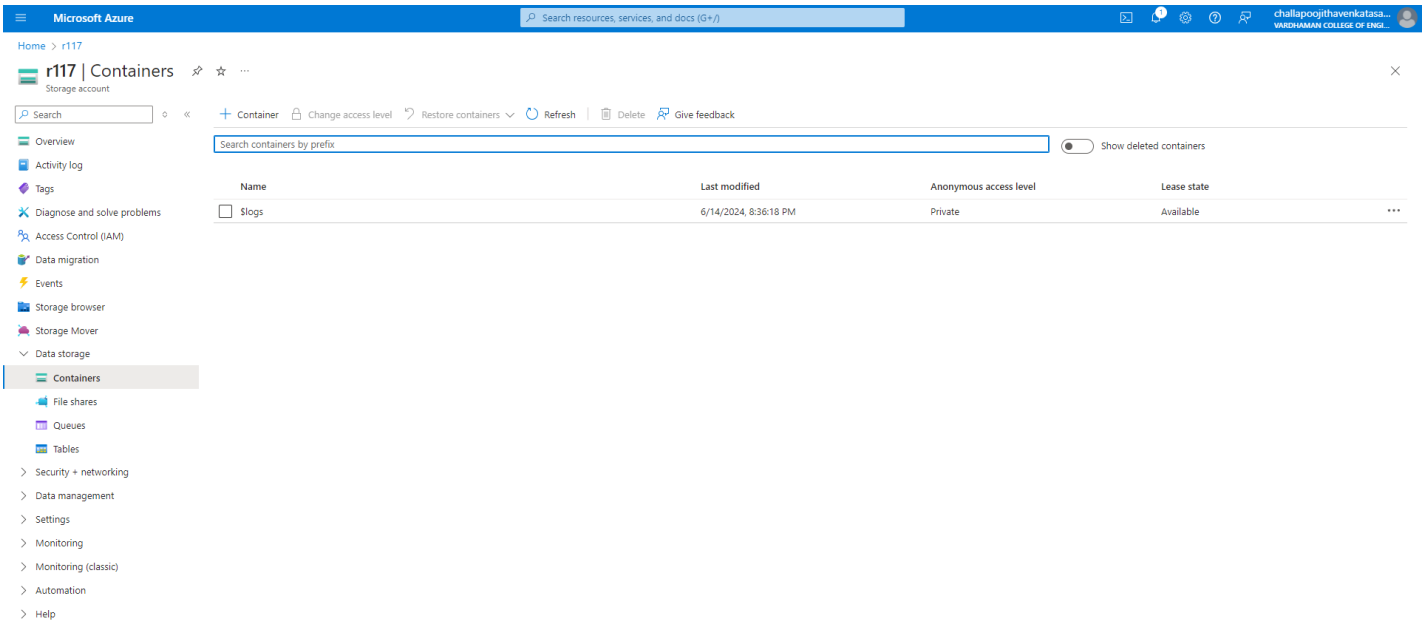
4) Click on Review+create and click on create



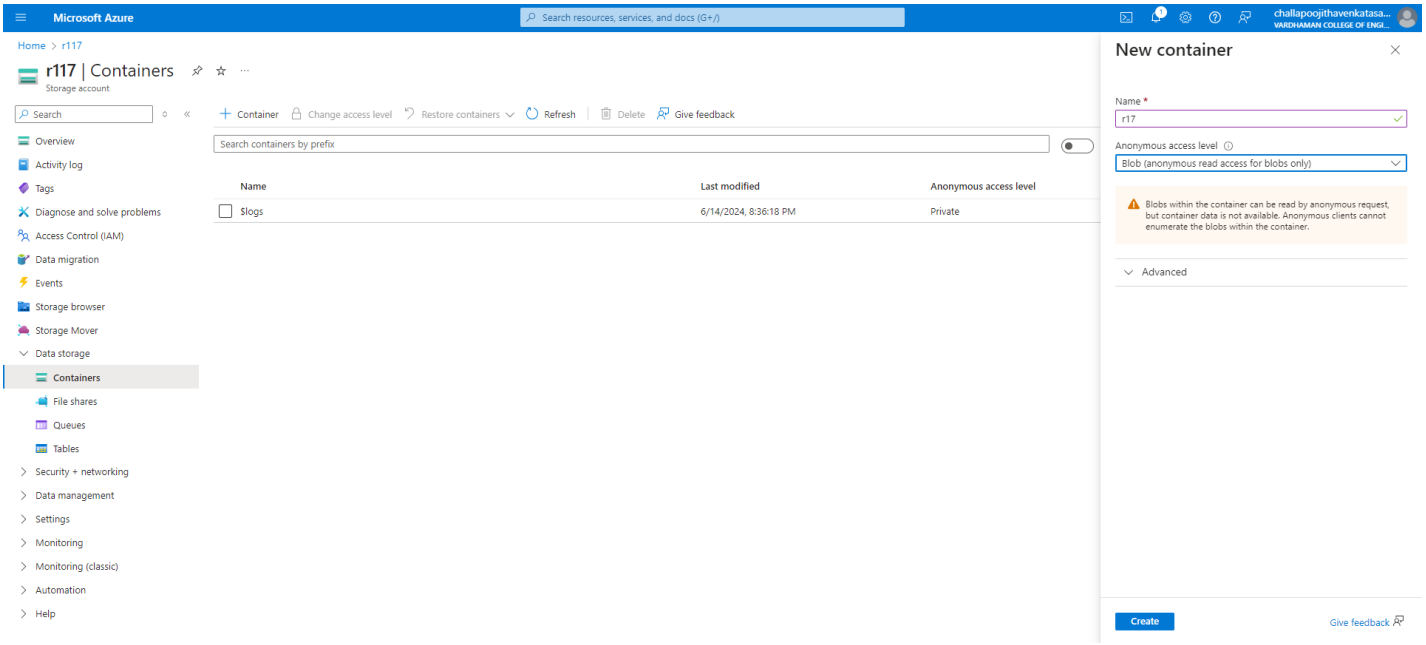
5) Open Storage Account which you have created



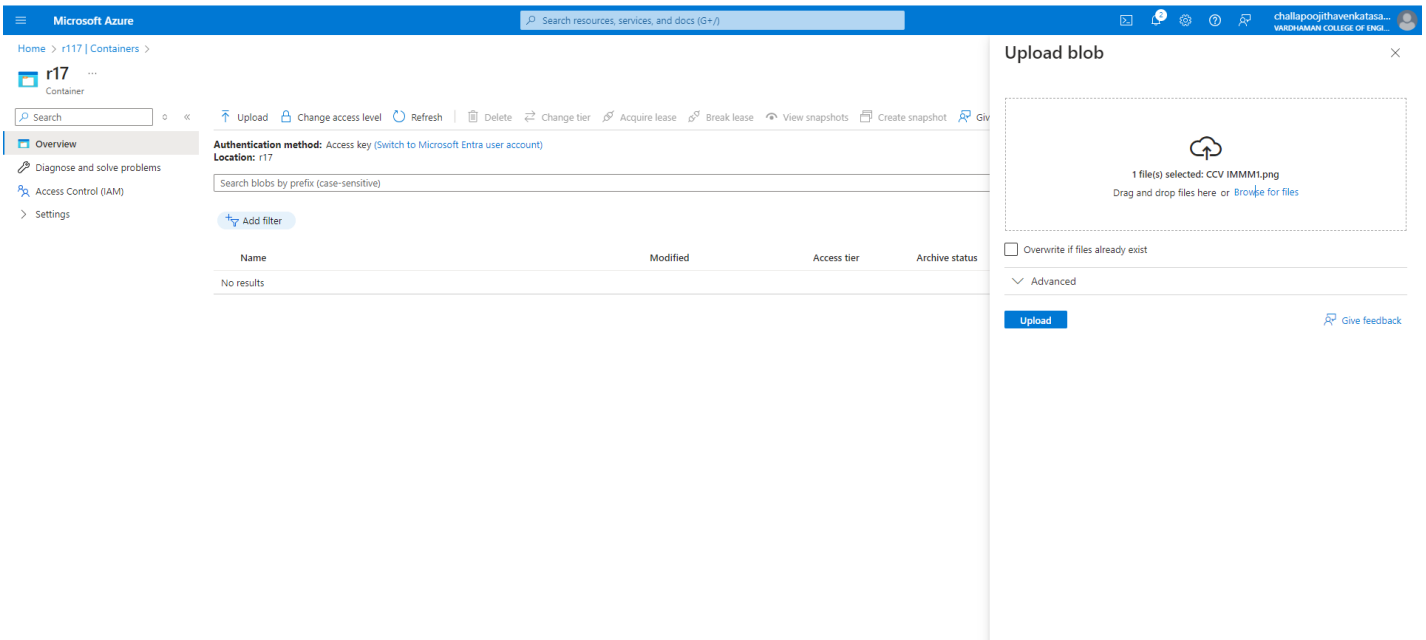
6) Click containers under Data Storage on the left side and click on "+ Container”



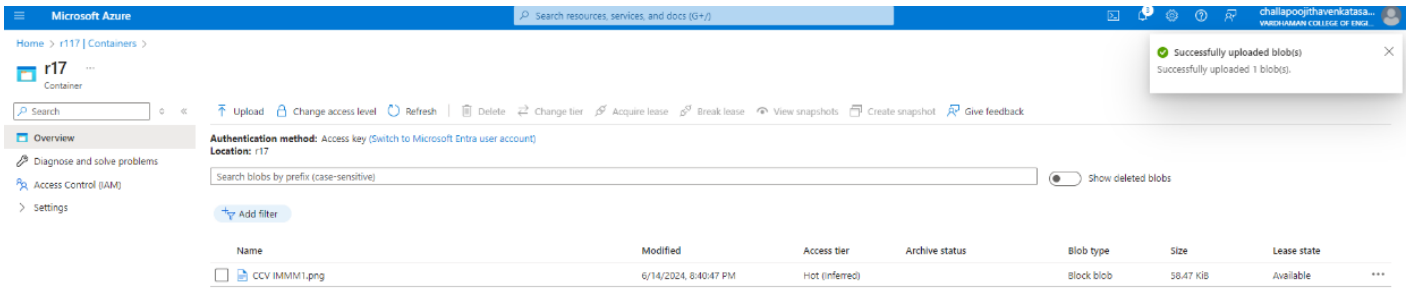
7) Give a name & select "blob" in Anonymous access level and click on create



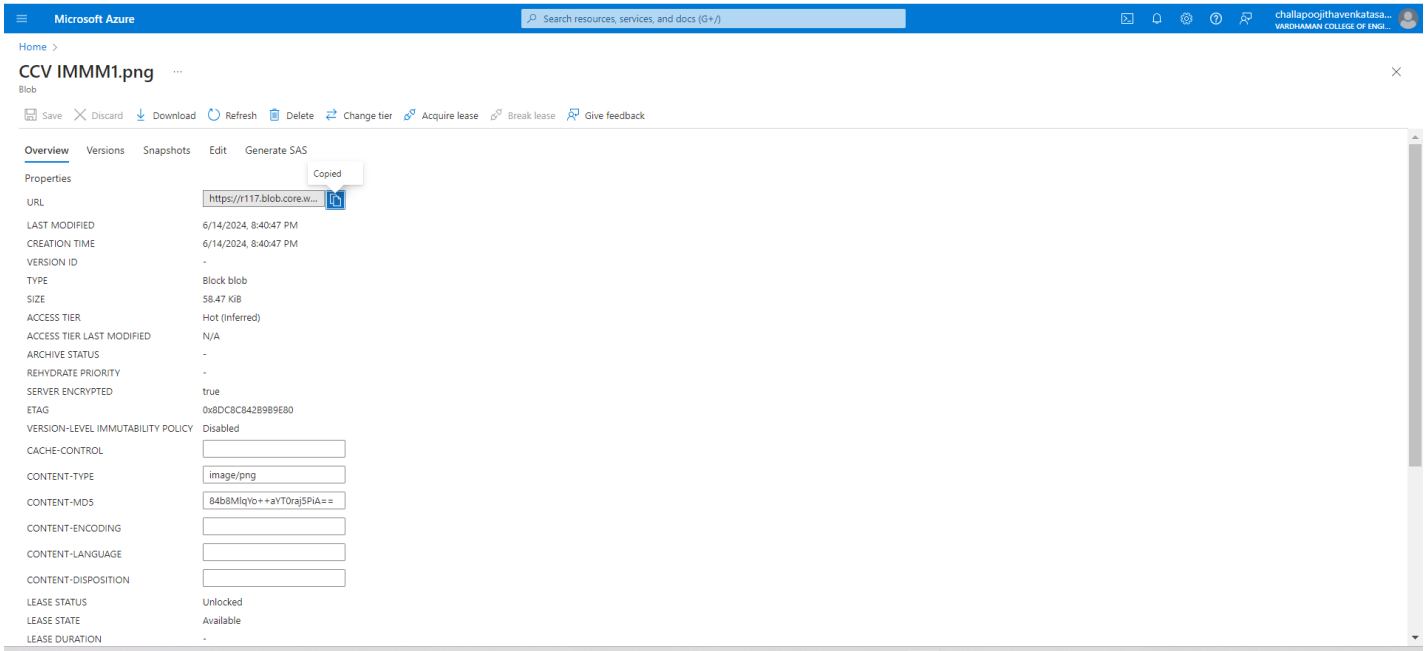
8) Click on upload and browse for files



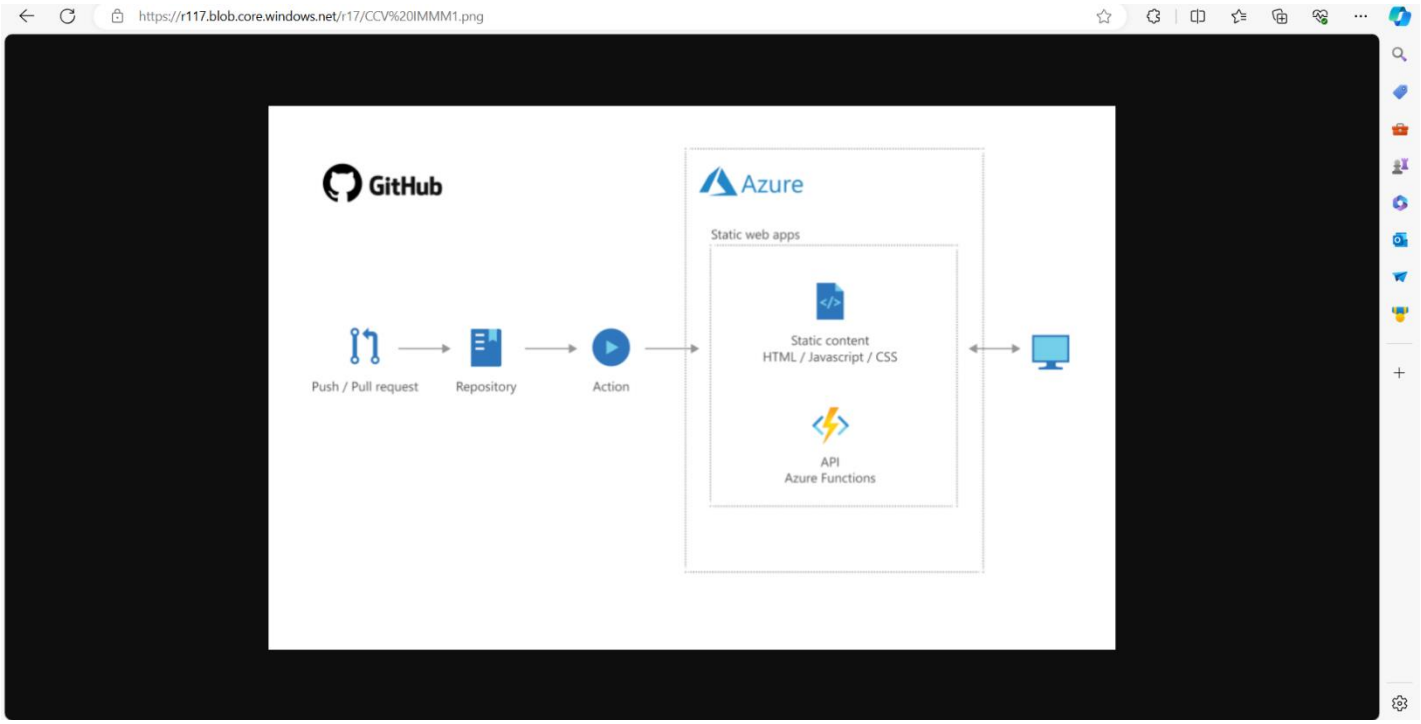
9)Upload any file/image/audio/video/pdf



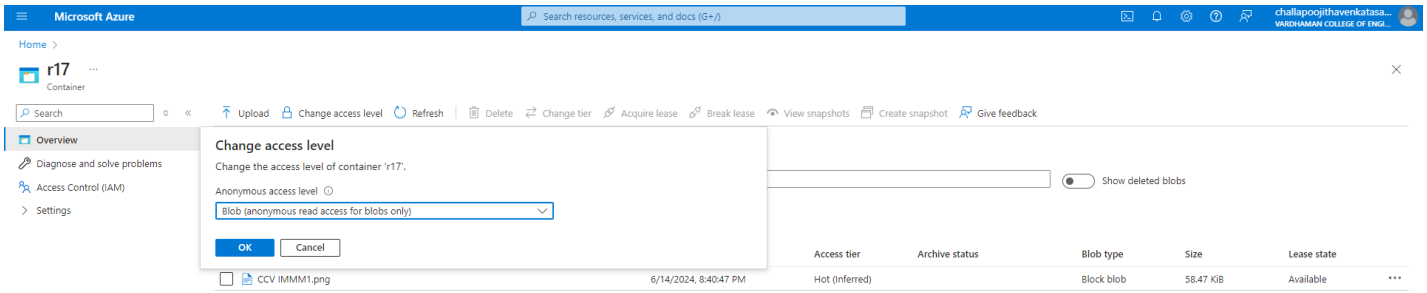
10)Click on the file which you have uplaoded and copy url



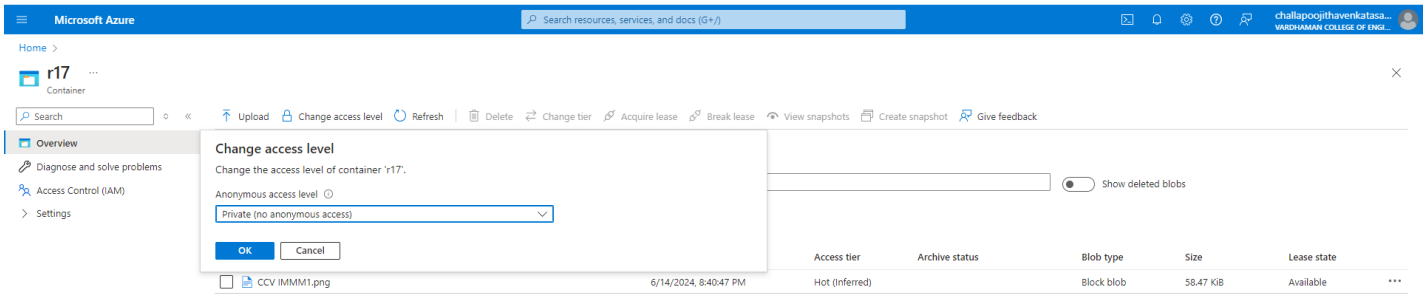
11)Paste the URL in any browser



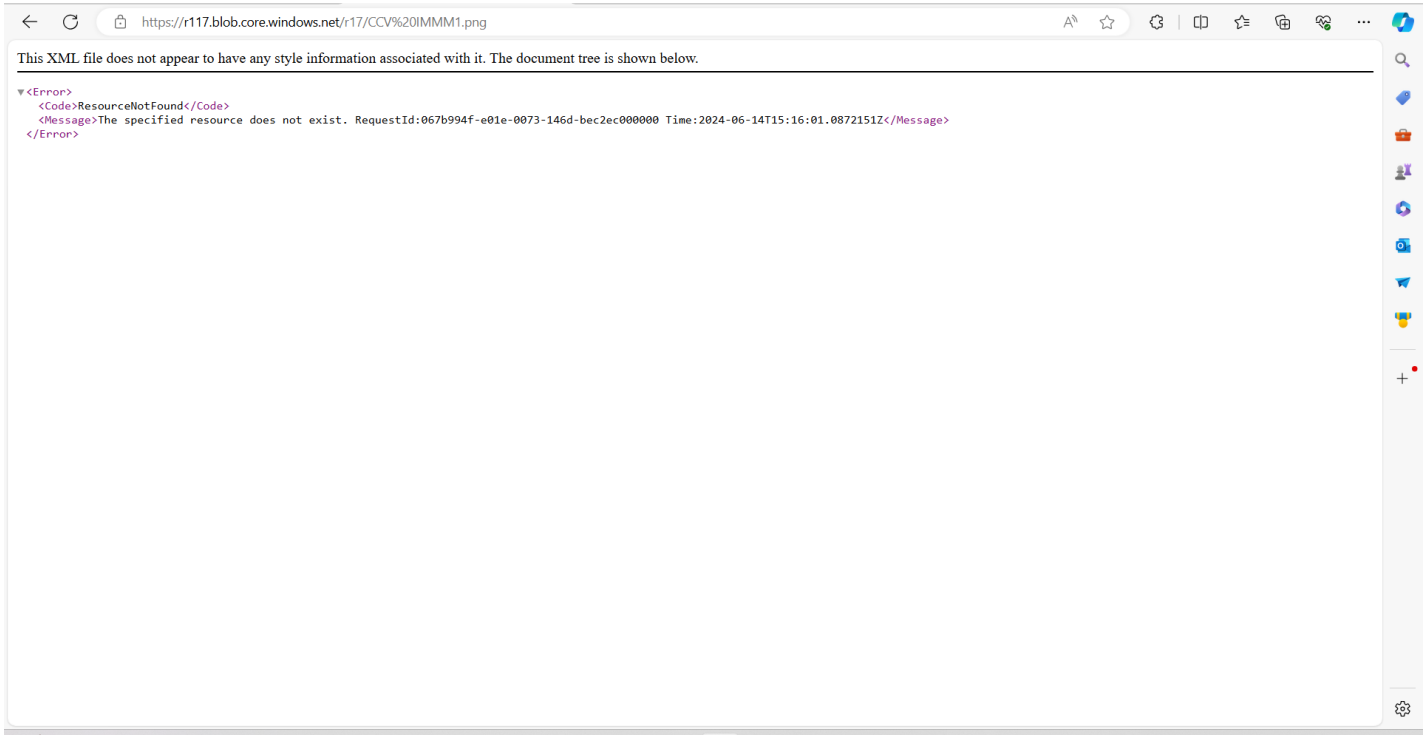
12)To change the access level, click on Change access level



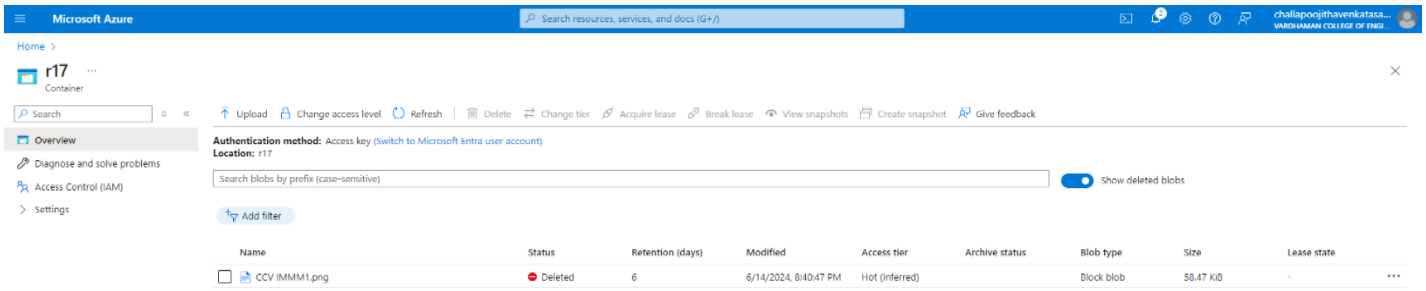
13)Select any Anonymous access level and click on OK



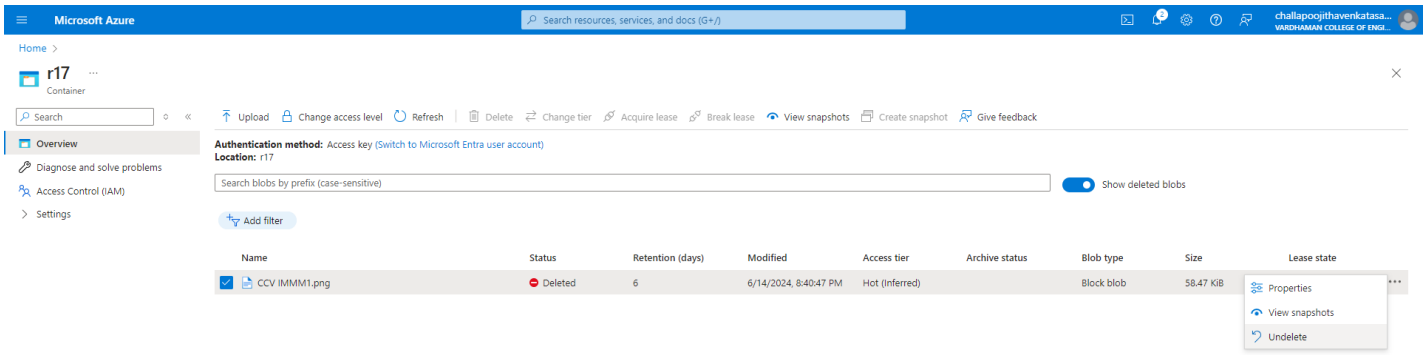
14)Again copy the URL of the file which you have uploaded previuosly and paste it any browser



15) To delete a blob, select the blob and click on delete
16) To view the deleted blobs, click on "show deleted blobs"

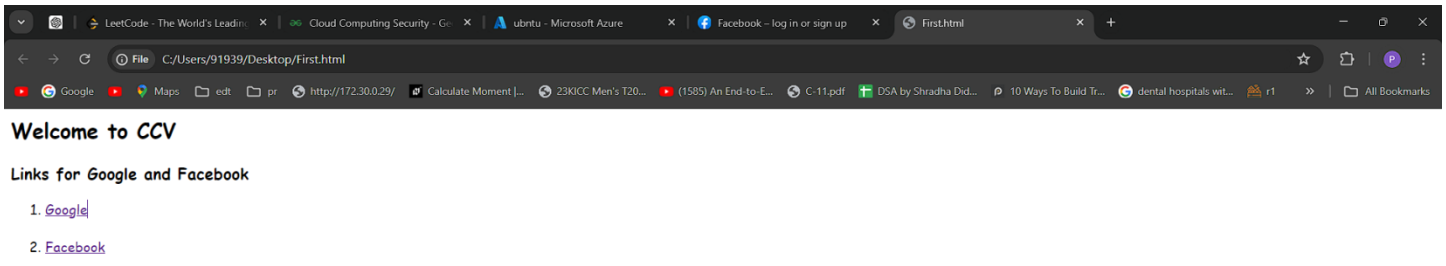


17) To undo deleted blob:
select the blob, click on more and click on undelete

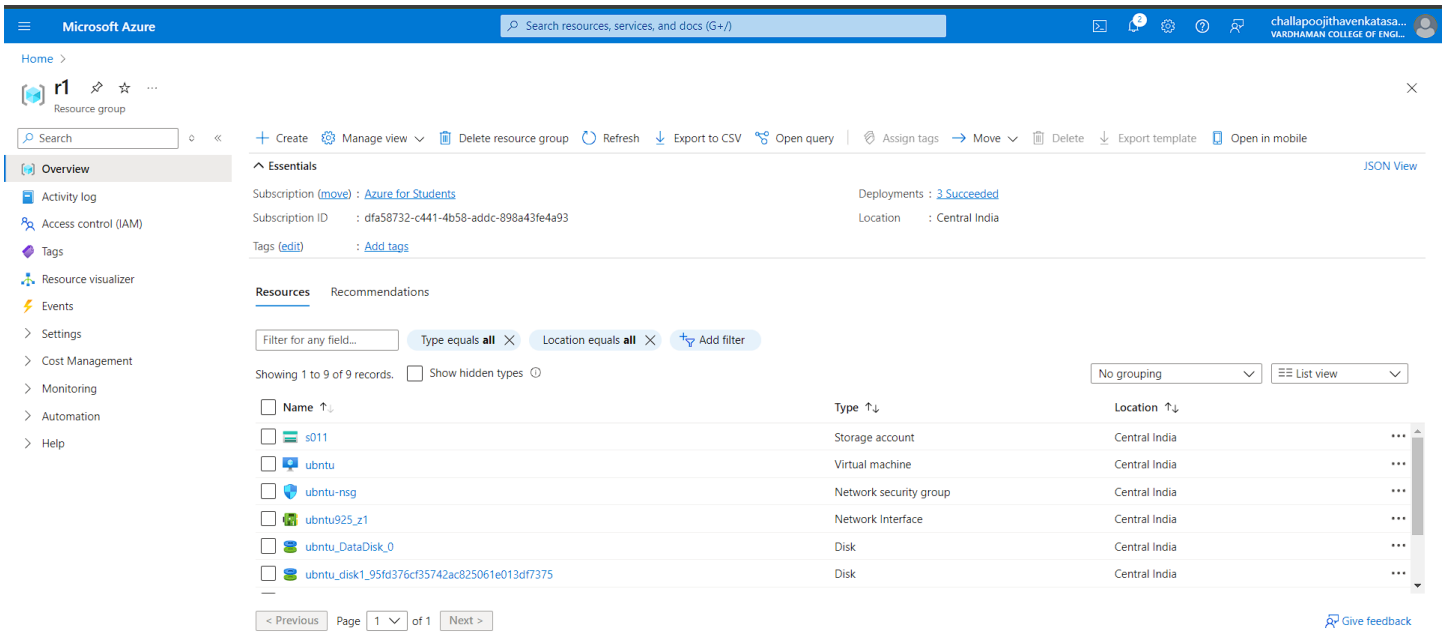


Q16)Find the procedure to implement static web hosting.

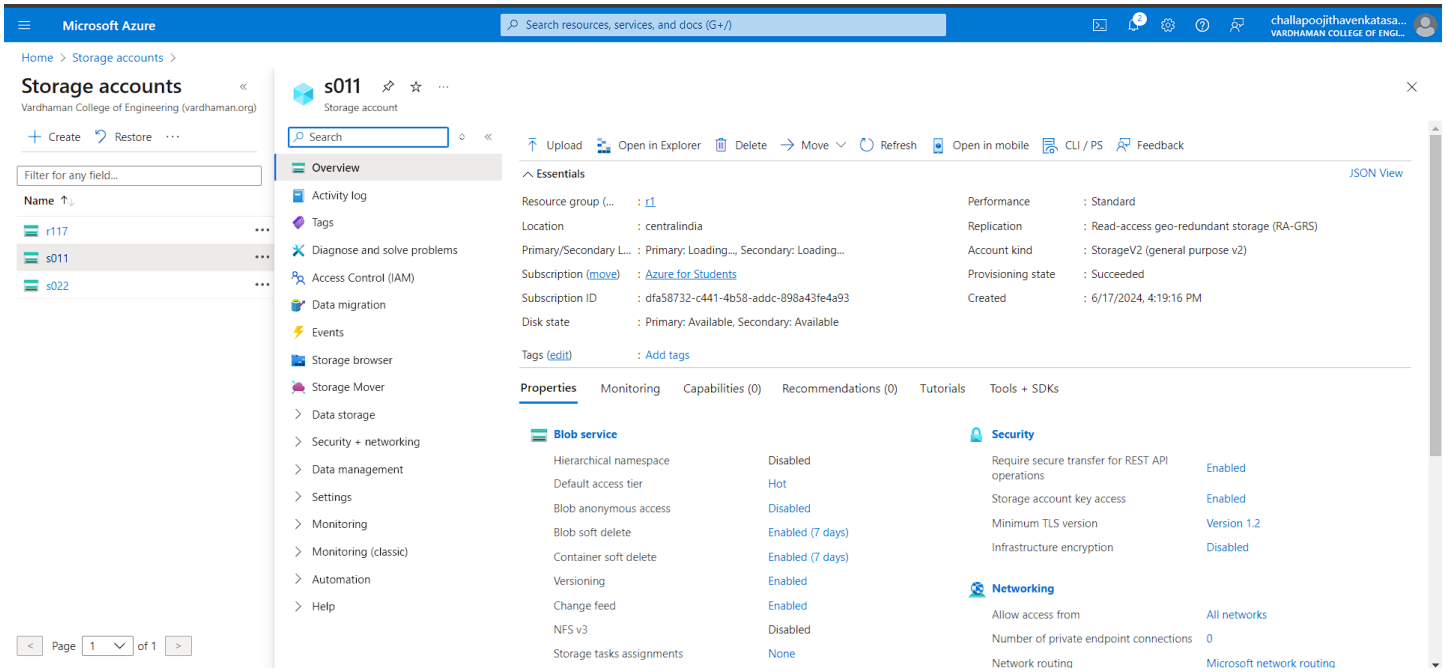
1.Create 2 websites named First.html and Second.html



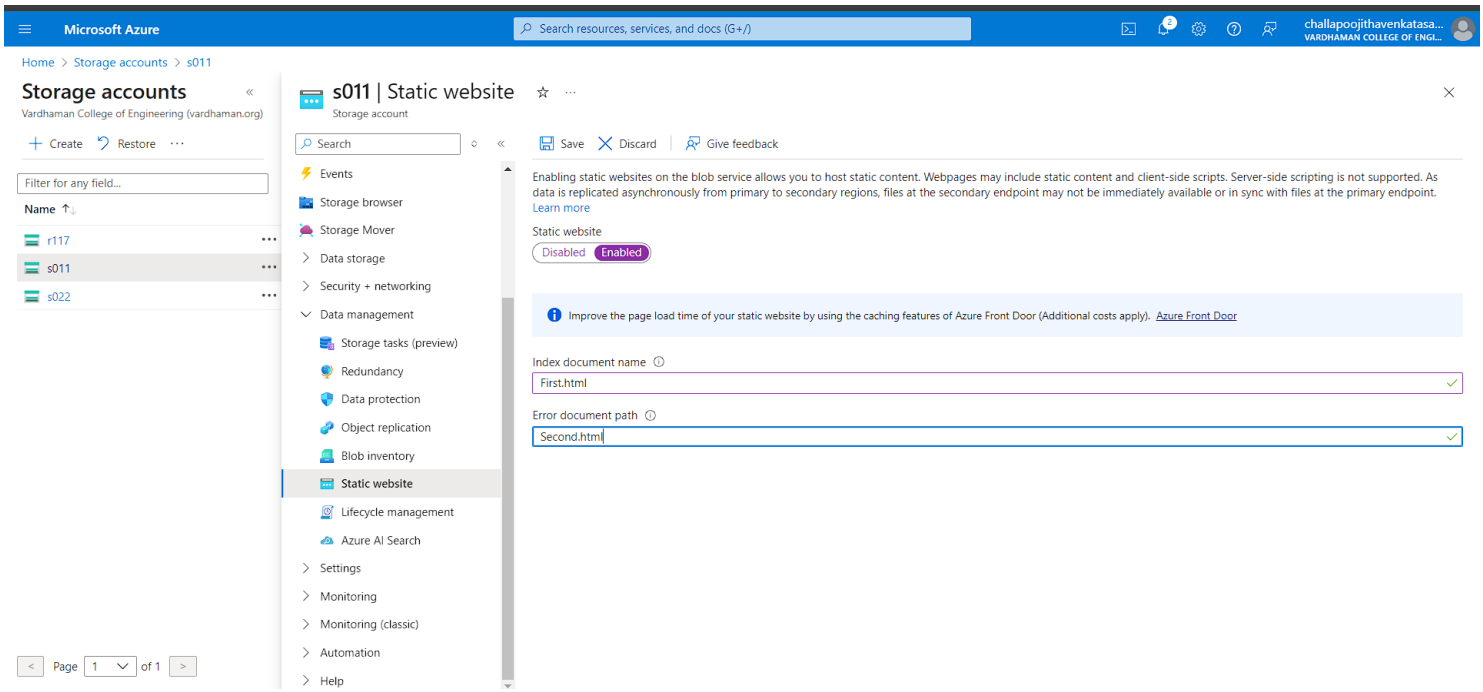
2.Create and resource group named “r1”.



3.Create a storage account .

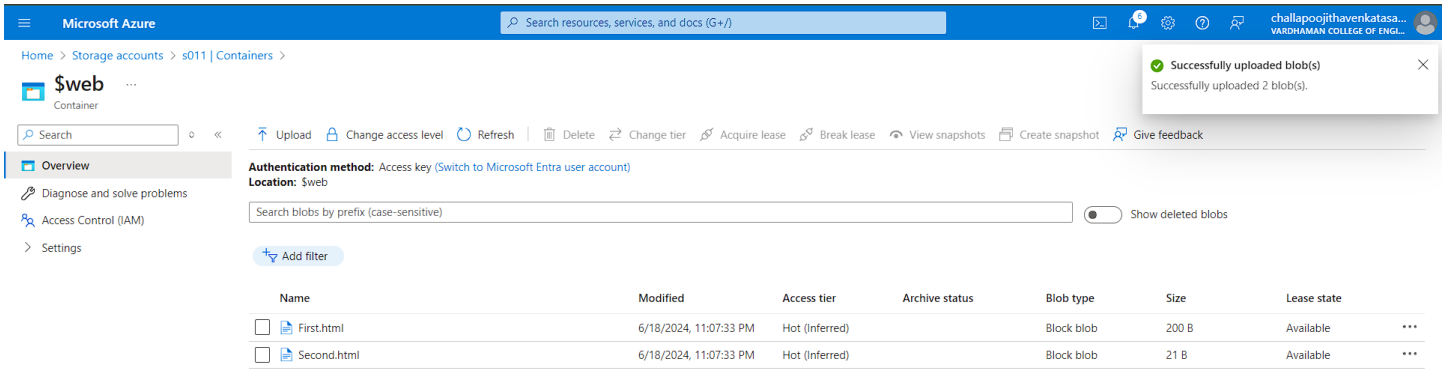


4.Click on storage account under data management click on static website and enable static website.

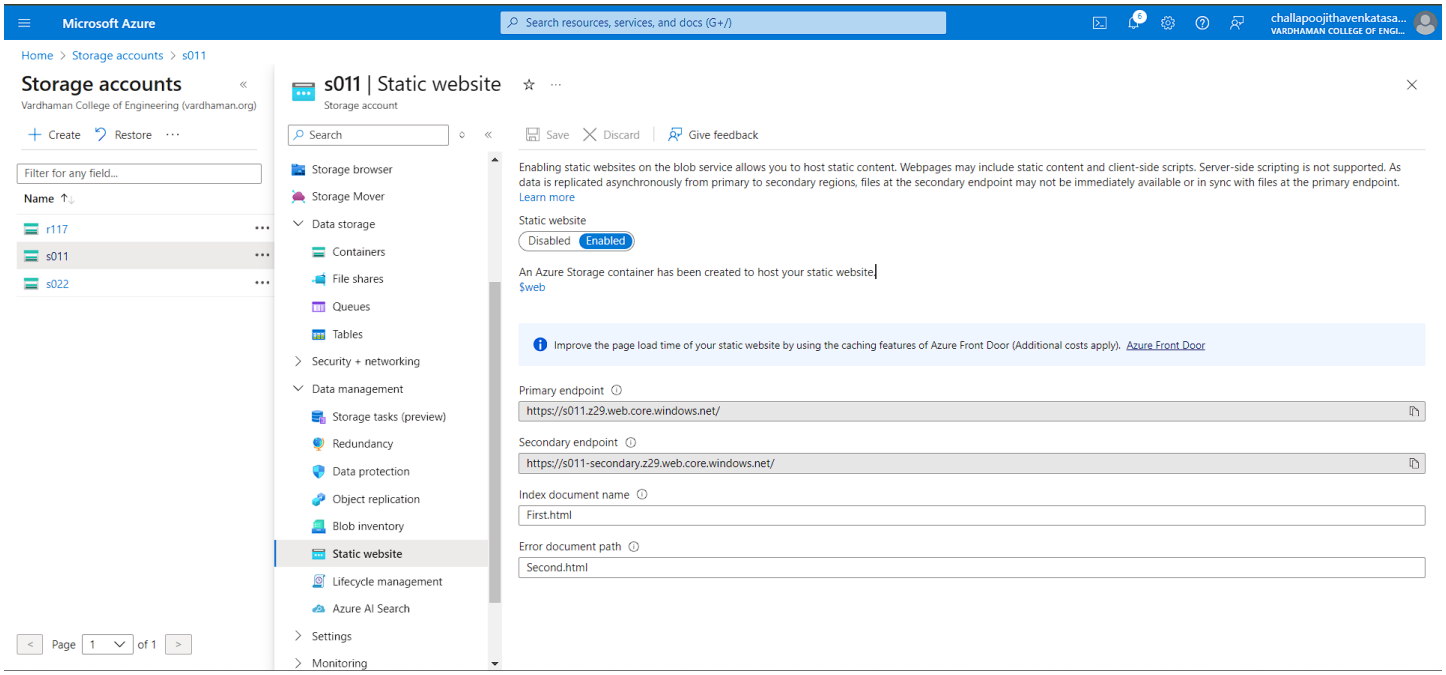


Index document name-First.html
Error document name-Second.html

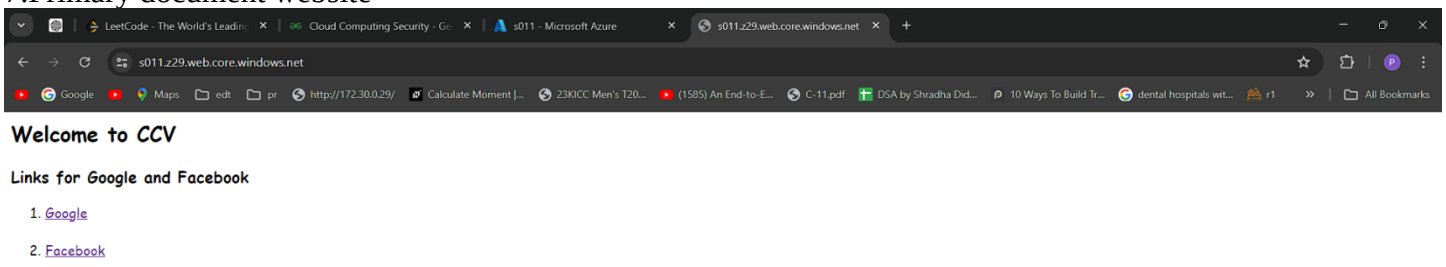
5.Click on containers and click on web and upload the files.



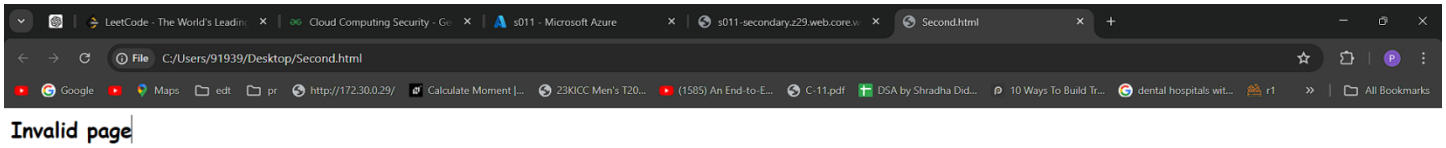
6.Copy the path from the primary endpoint and paste it in the browser to view the website.



7.Primary document website

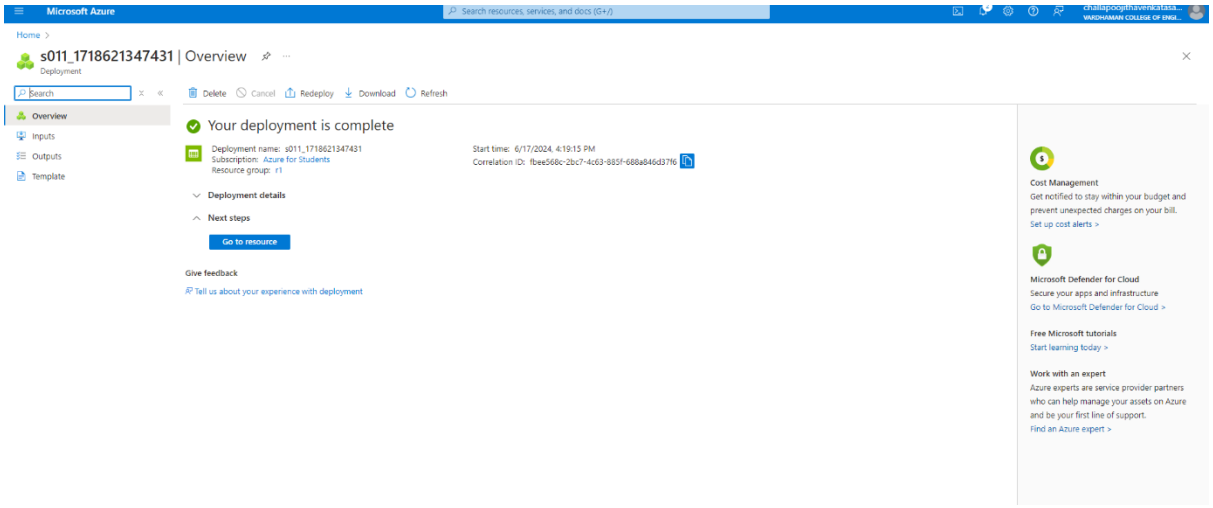


Error document

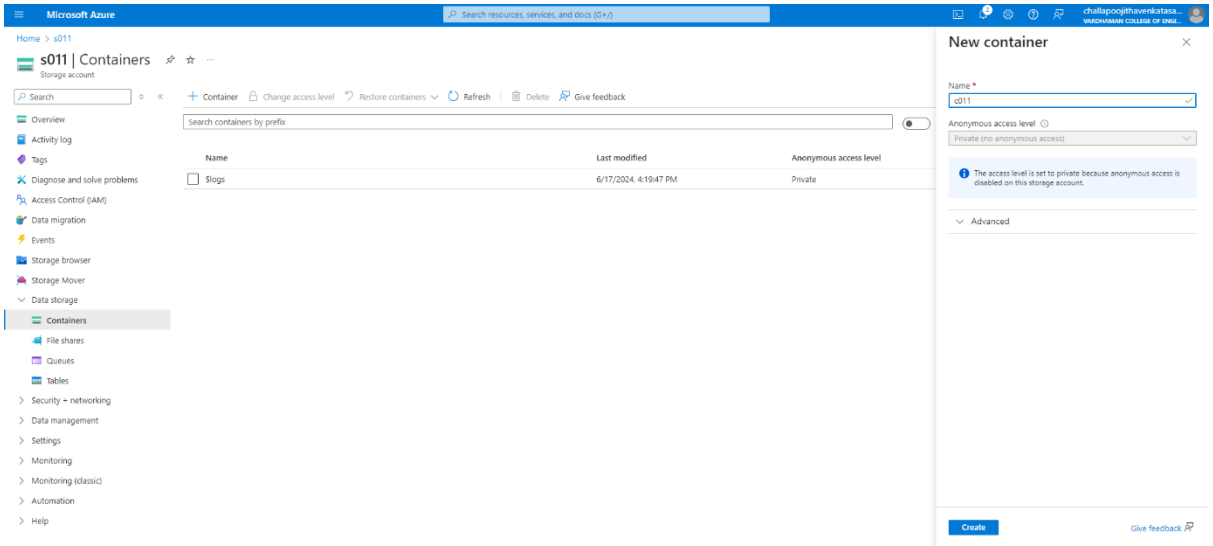


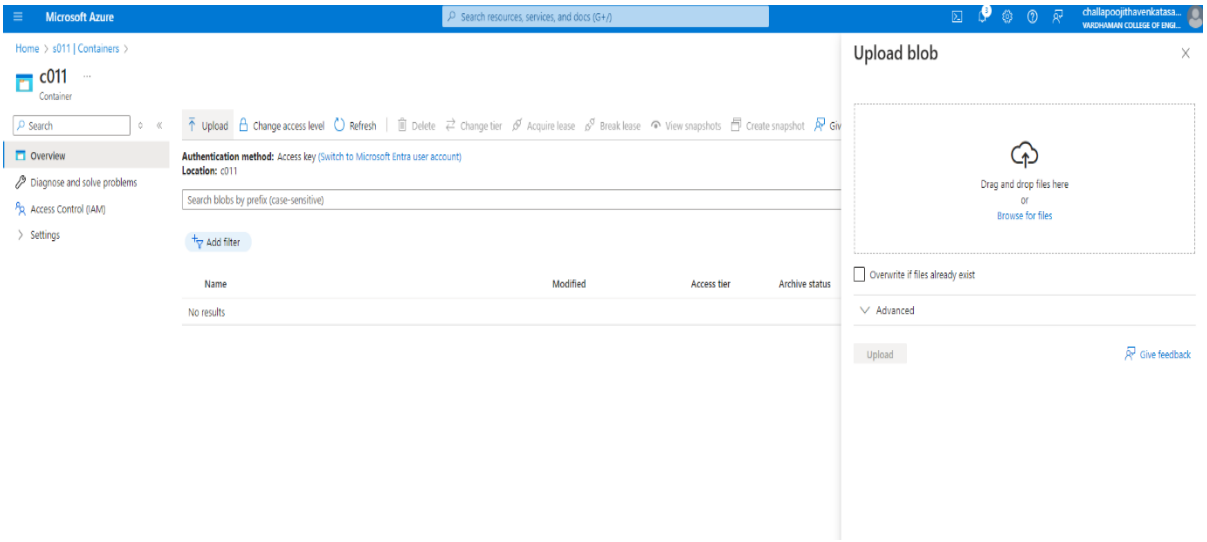
Q17) Create an Object replication in Azure machine

1. Create a Storage account with Name: s011 click on create and deployment completed

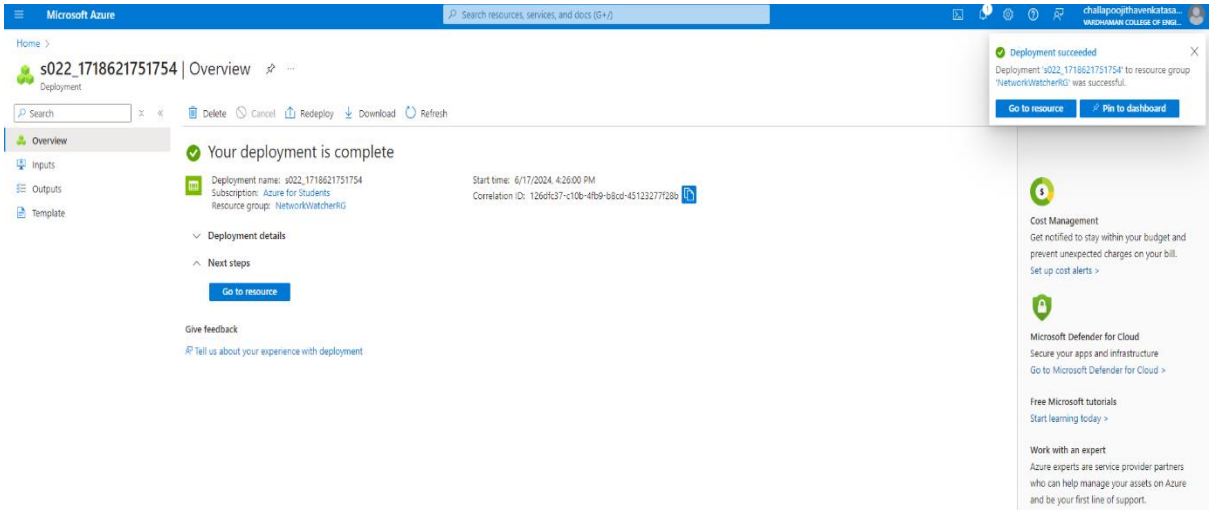


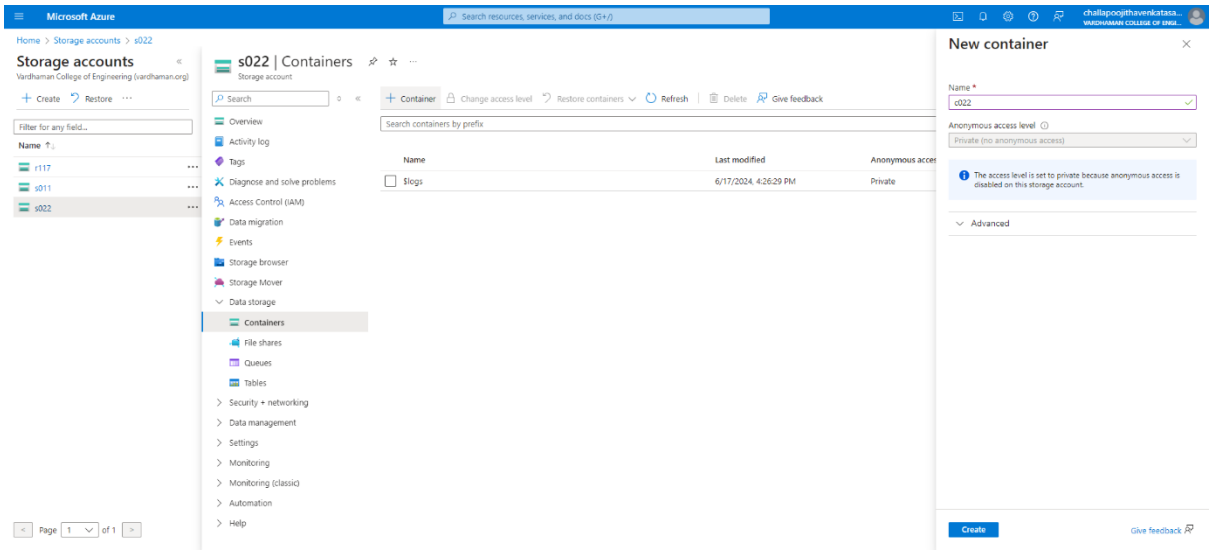
2. Under Data storage click new container with name: c011 and upload image.



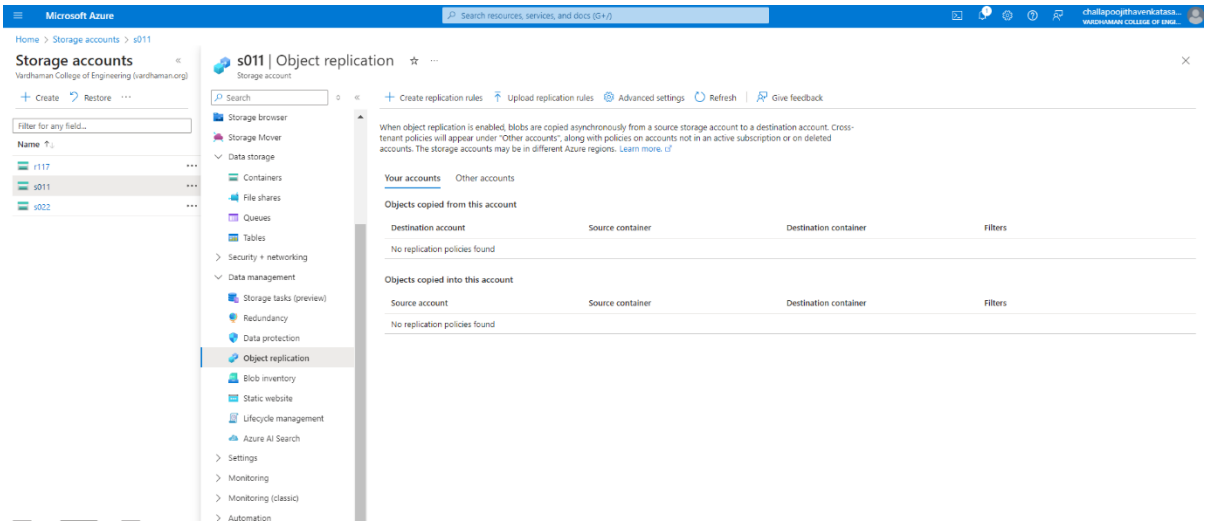


3. Create another storage account name: s022 and add container name: c022

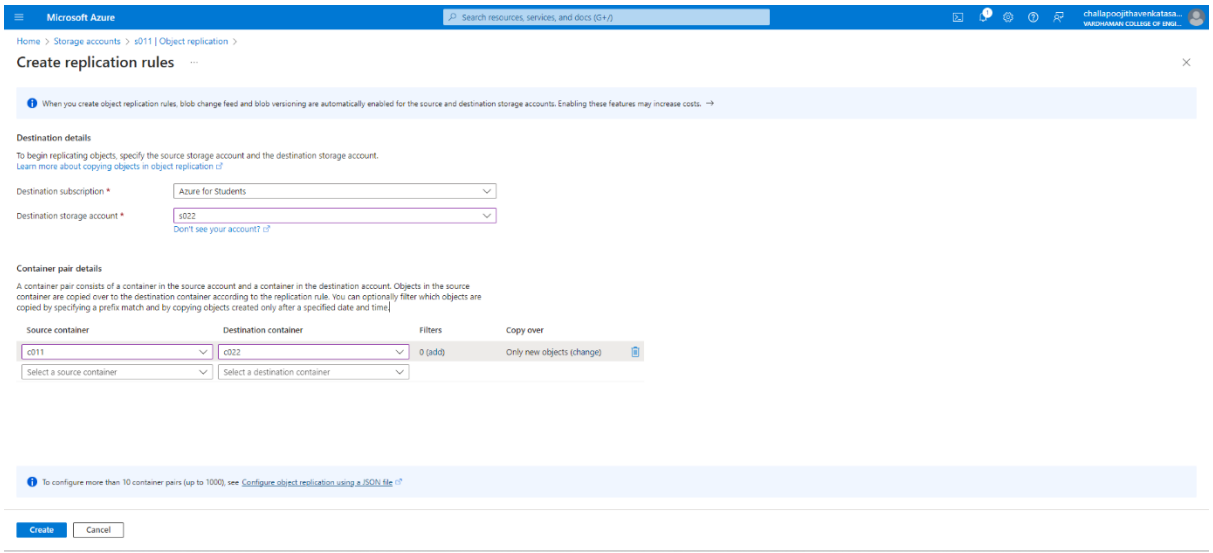




4. In Storage account (s011) go to Under Data management click on Object Replication.



5. Click on create Replication rules
• Destination Storage account: s022
• Source container: c011
• Destination container: c022(copy cover – only new object change)



6. Check in storage account in s022 to container-c022(verify image)