MICROSOFT AZURE

NAME : UMAMAHESWARI A

DEPARTMENT: B.Tech CSBS

GIT LINK: https://github.com/Umamaheswari004/Umamaheswari.git

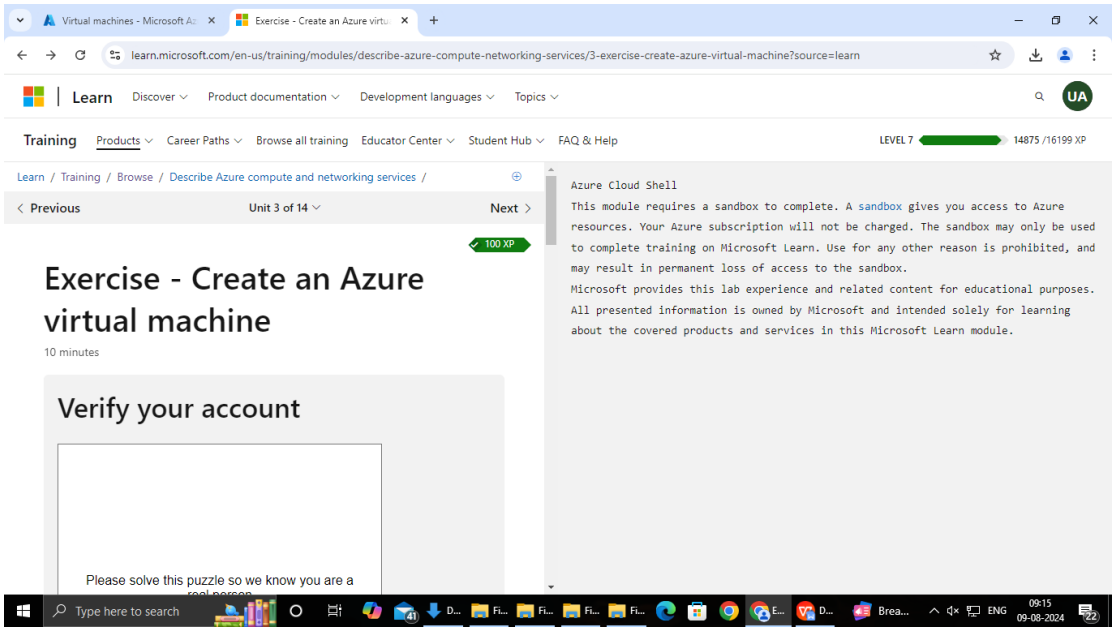
REQUESTING A CLOUD SHELL SUCCEEDED.

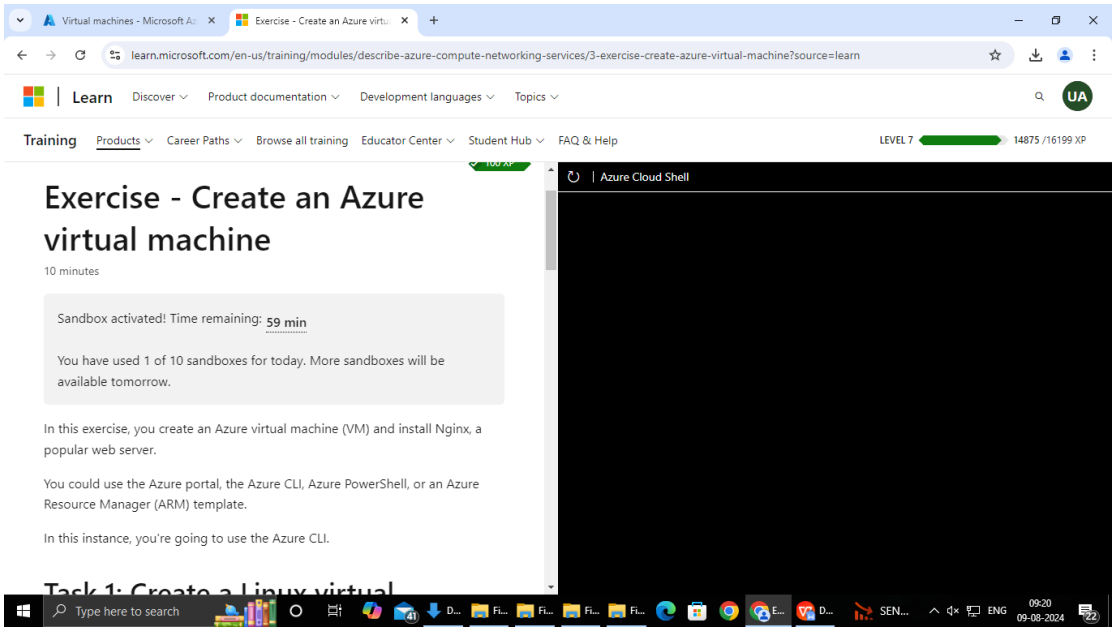
CONNECTING TERMINAL...

Welcome to Azure Cloud Shell

Sandbox:

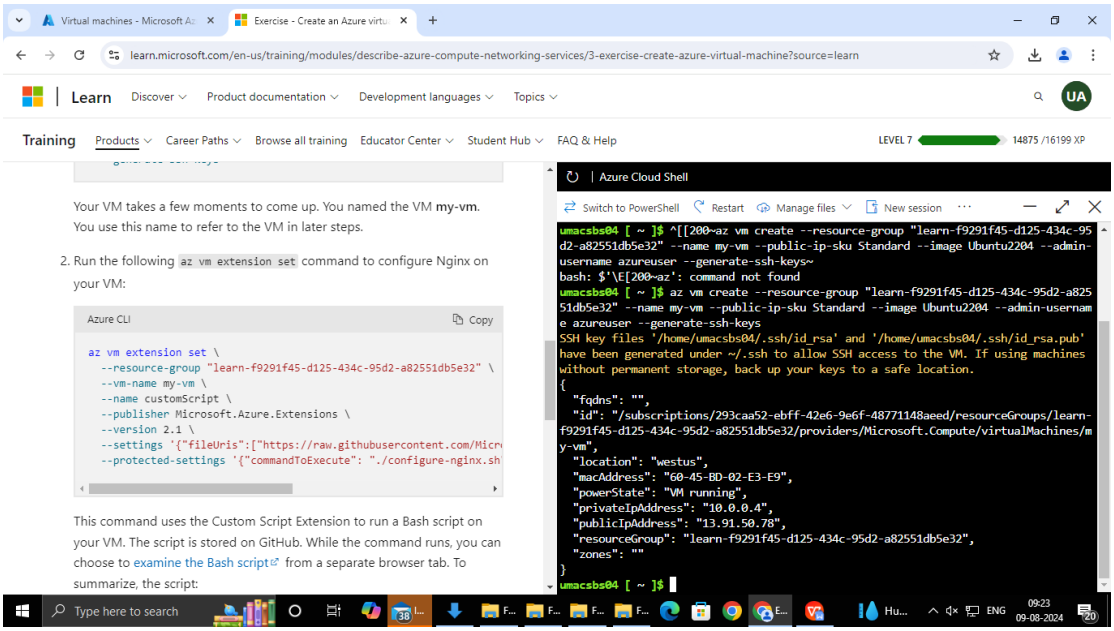
1.Create sandbox



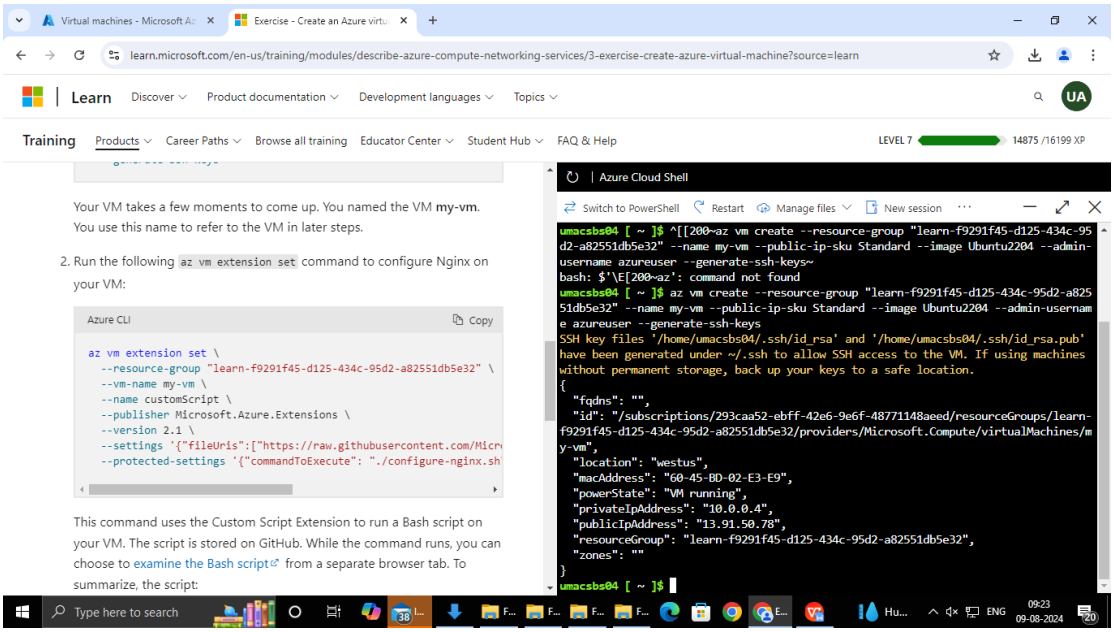


3.Sandbox Cammands:

- az vm create --resource-group "learn-6be6874e-0957-486f-a28f-895aa6db1625" --name my-vm --public-ip-sku Standard --image Ubuntu2204 --admin-username azureuser --generate-ssh-keys

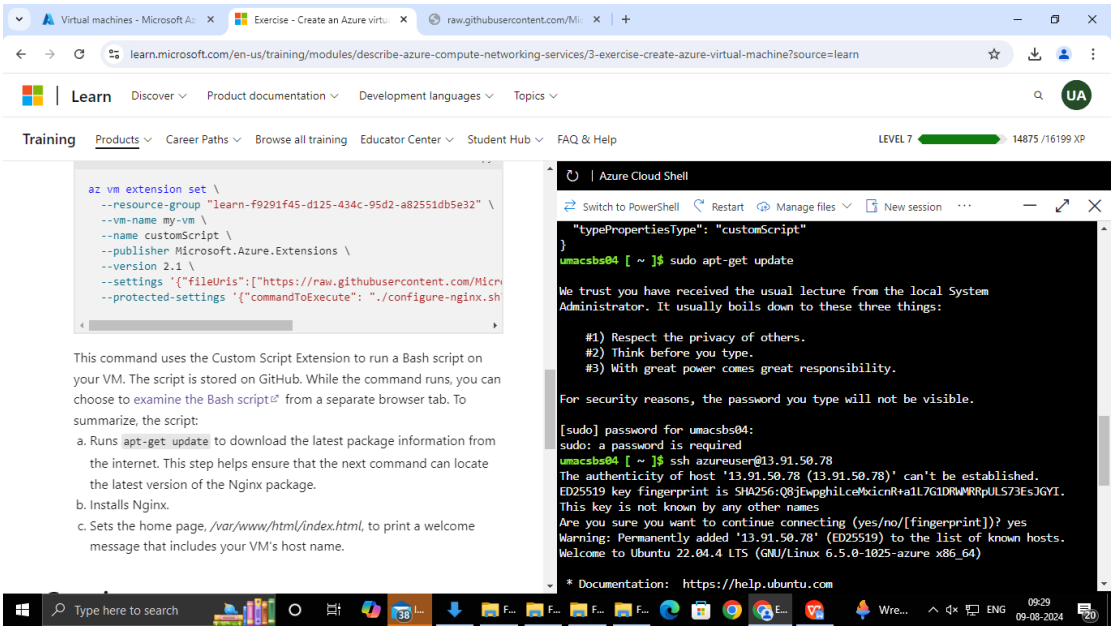


- az vm extension set --resource-group "learn-6be6874e-0957-486f-a28f-895aa6db1625" --vm-name my-vm --name customScript --publisher Microsoft.Azure.Extensions --version 2.1 --settings '{"fileUris":["https://raw.githubusercontent.com/MicrosoftDocs/ms learn-welcome-to-azure/master/configure-nginx.sh"]}' --protected-settings '{"commandToExecute": "./configure-nginx.sh"}

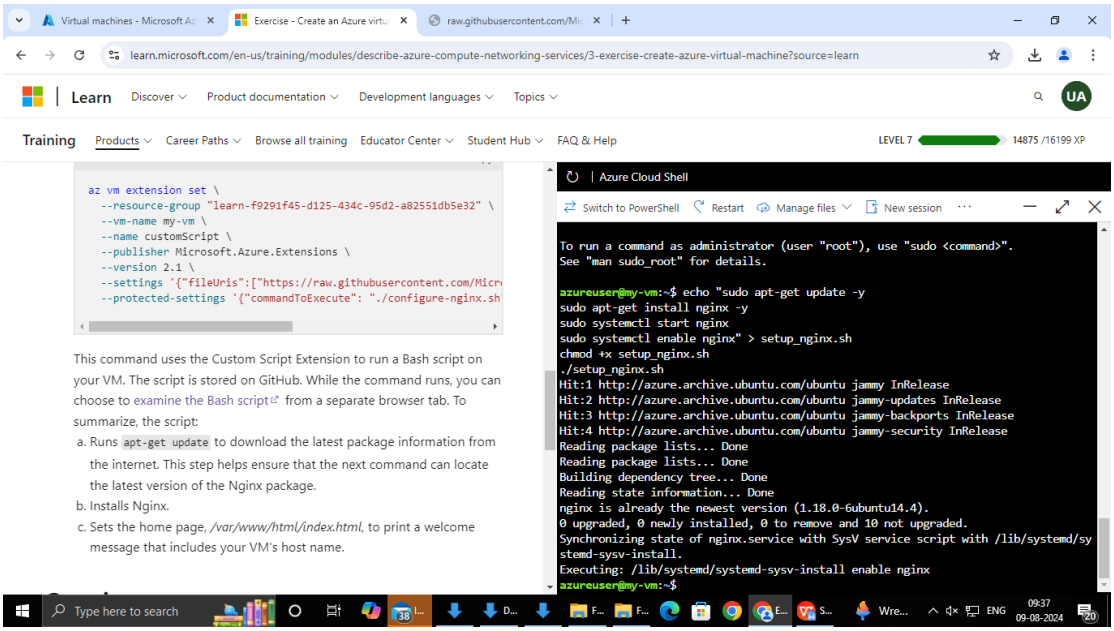


- sudo apt-get update

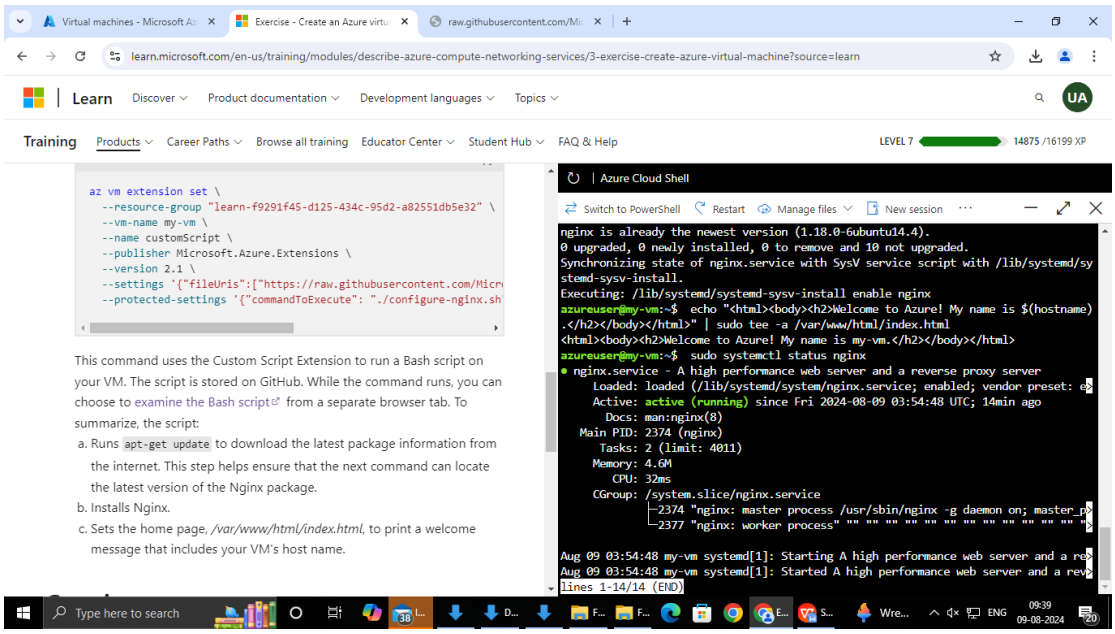
- ssh azureuser@13.93.150.73



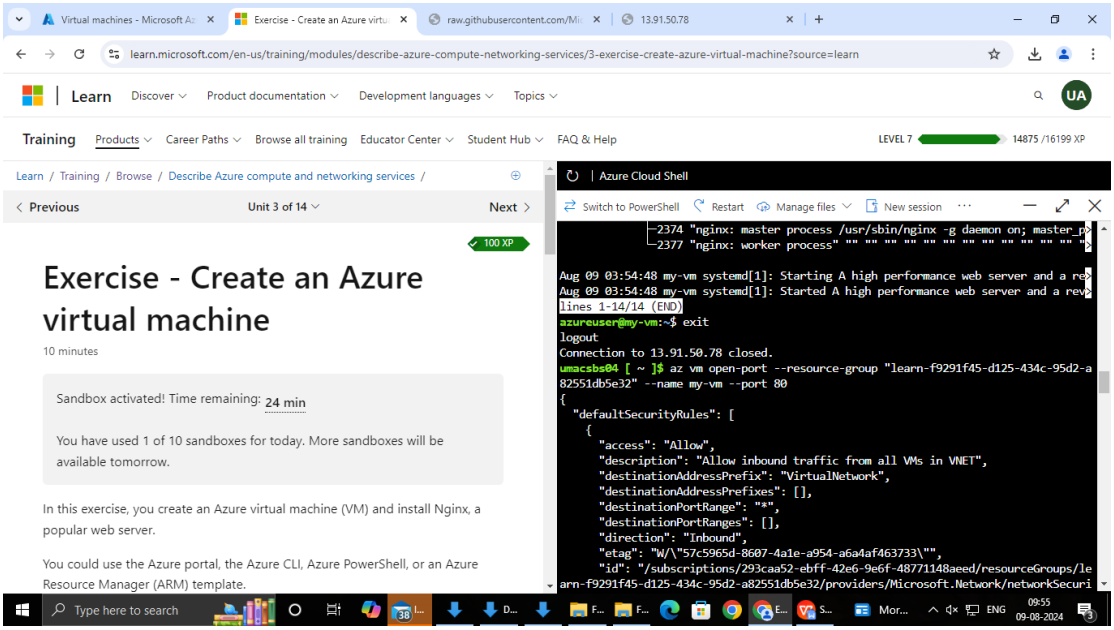
- echo "sudo apt-get update -y sudo apt-get install nginx -y sudo systemctl start nginx sudo systemctl enable nginx" > setup_nginx.sh chmod +x setup_nginx.sh ./setup_nginx.sh



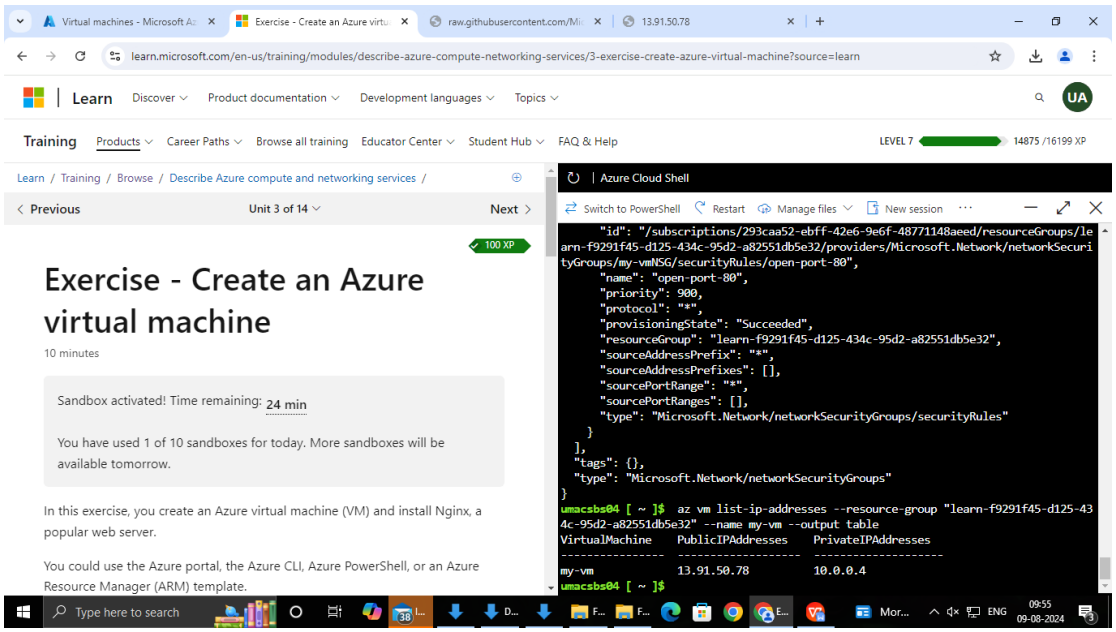
- echo "<html><body><h2>Welcome to Azure! My name is $(hostname).</h2></body></html>" | sudo tee -a /var/www/html/index.html
- sudo systemctl status nginx

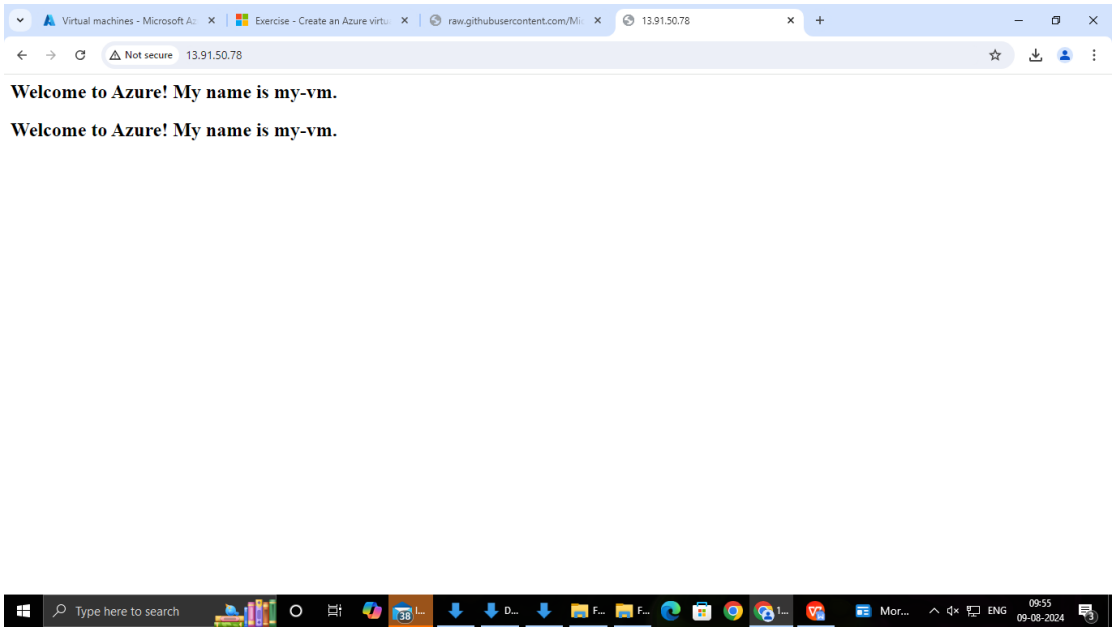


- Exit
- az vm open-port --resource-group "learn-6be6874e-0957-486f-a28f-895aa6db1625" --name my-vm --port 80

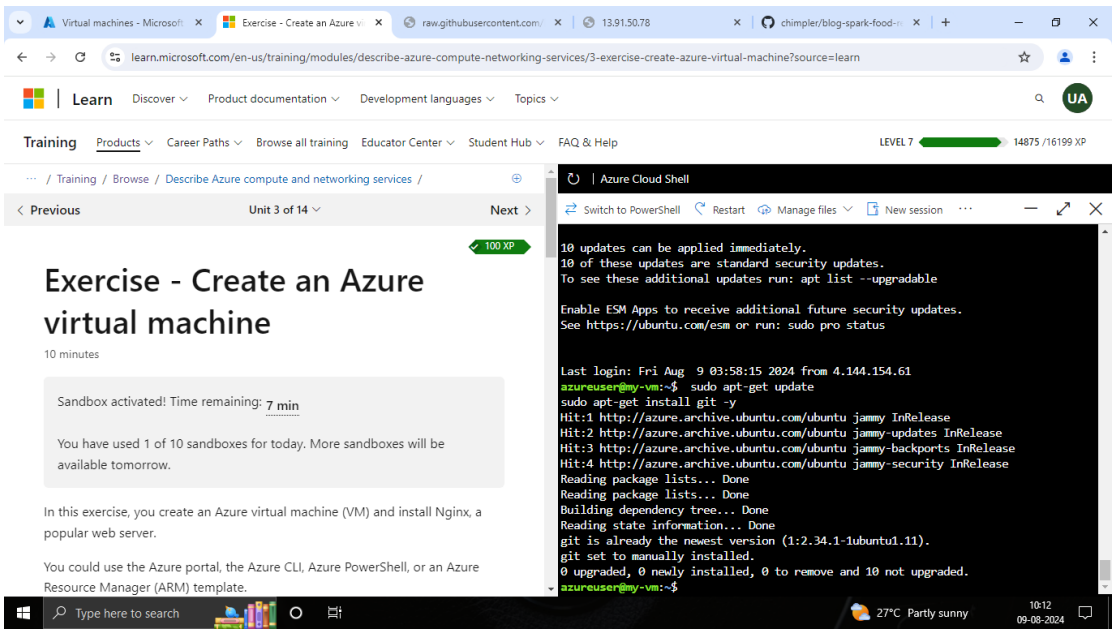


- az vm list-ip-addresses --resource-group "learn-6be6874e-0957-486f-a28f-895aa6db1625" --name my-vm --output table

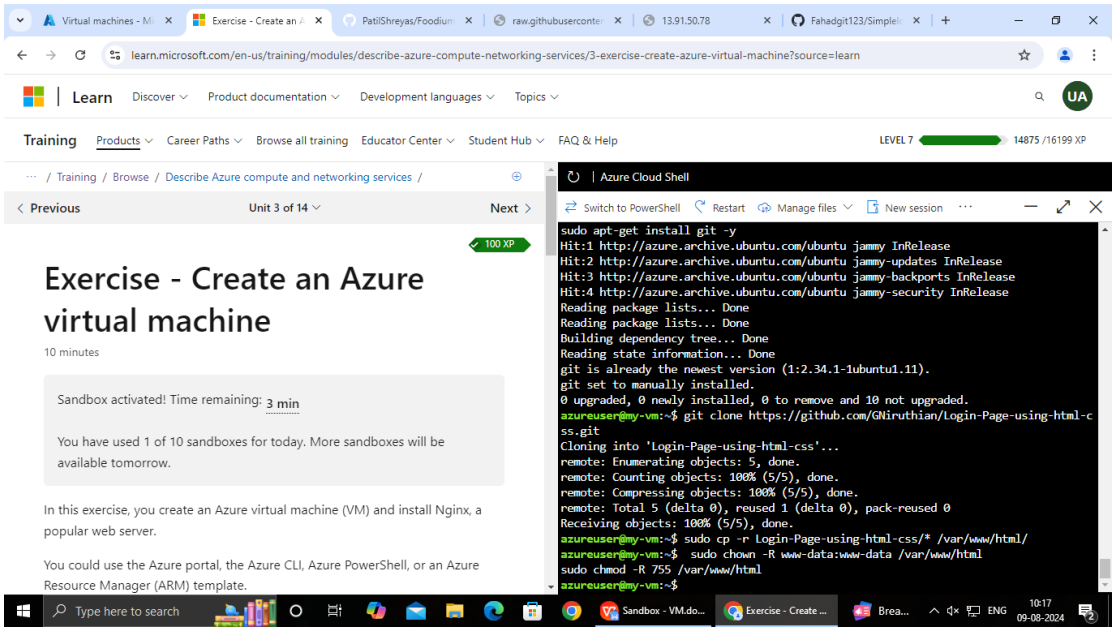




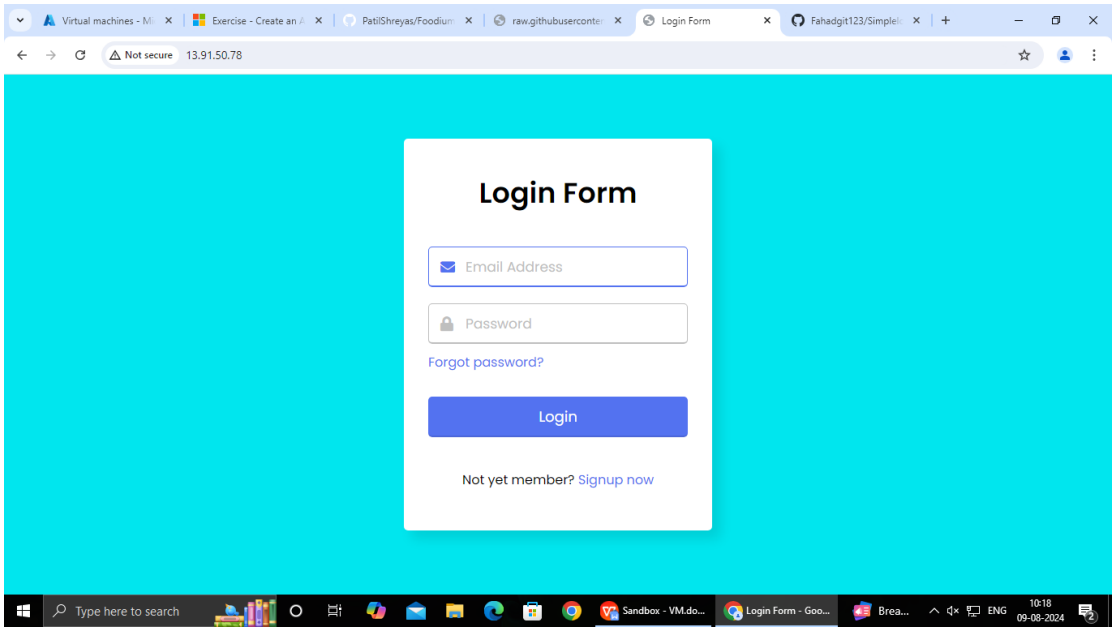
- sudo apt-get update
- sudo apt-get install git -y



- git clone https://github.com/Umamaheswari004/MyPortfolio.git
- sudo cp -r MyPortfolio/* /var/www/html/
- sudo systemctl restart nginx

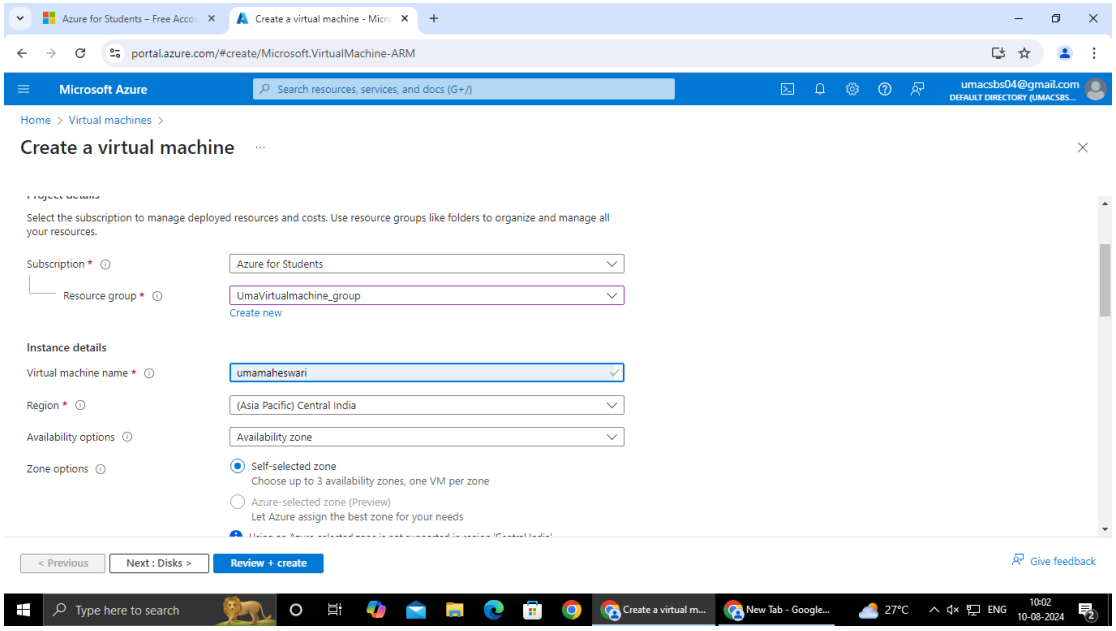

learn.microsoft.com/en-us/training/modules/describe-azure-compute-networking-services/3-exercise-create-azure-virtual-machine?source=learn
Learn
Discover
Product documentation
Development languages
Topics
Training
Products
Career Paths
Browse all training
Educator Center
Student Hub
FAQ & Help
LEVEL 7
14875 /16199 XP
Training / Browse / Describe Azure compute and networking services /
Previous
Unit 3 of 14
Next
100 XP
Exercise - Create an Azure virtual machine
10 minutes
Sandbox activated! Time remaining: 3 min
You have used 1 of 10 sandboxes for today. More sandboxes will be available tomorrow.
In this exercise, you create an Azure virtual machine (VM) and install Nginx, a popular web server.
You could use the Azure portal, the Azure CLI, Azure PowerShell, or an Azure Resource Manager (ARM) template.
Azure Cloud Shell
Switch to PowerShell
Restart
Manage files
New session
sudo apt-get install git -y
Hit:1 http://azure.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://azure.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://azure.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 http://azure.archive.ubuntu.com/ubuntu jammy-security InRelease
Reading package lists... Done
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
git is already the newest version (1:2.34.1-1ubuntu1.11).
git set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 10 not upgraded.
azureuser@my-vm:~$ git clone https://github.com/GNiruthian/Login-Page-using-html-css.git
Cloning into 'Login-Page-using-html-css'...
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (5/5), done.
remote: Total 5 (delta 0), reused 1 (delta 0), pack-reused 0
Receiving objects: 100% (5/5), done.
azureuser@my-vm:~$ sudo cp -r Login-Page-using-html-css/* /var/www/html/
azureuser@my-vm:~$ sudo chown -R www-data:www-data /var/www/html
sudo chmod -R 755 /var/www/html
azureuser@my-vm:~$
Type here to search
Sandbox - VM.do...
Exercise - Create ...
ENG
10:17
09-08-2024

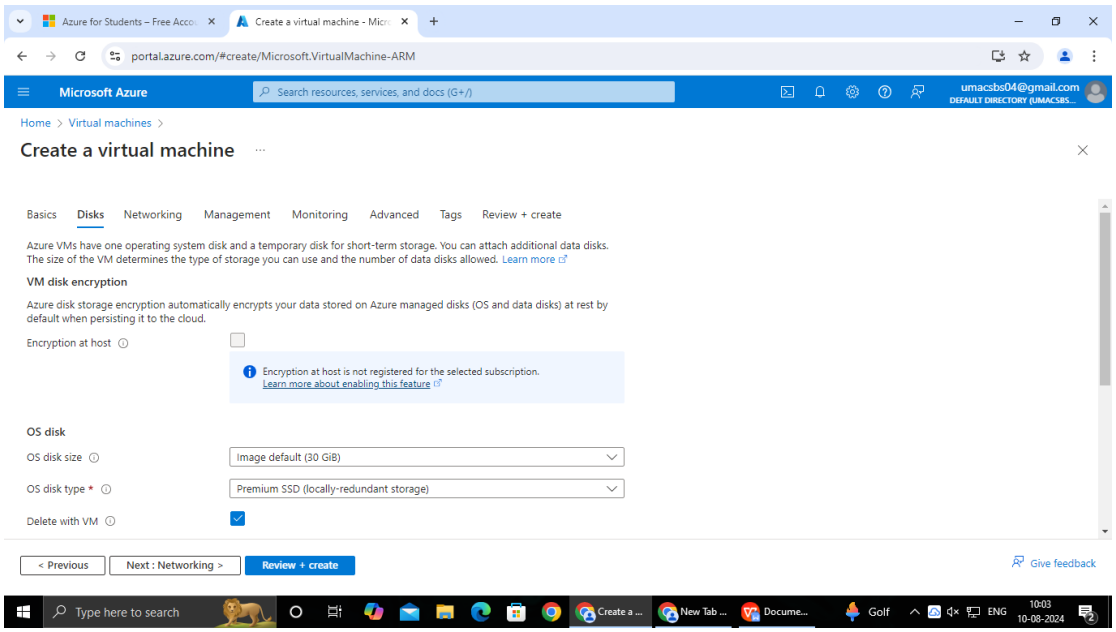
OUTPUT:

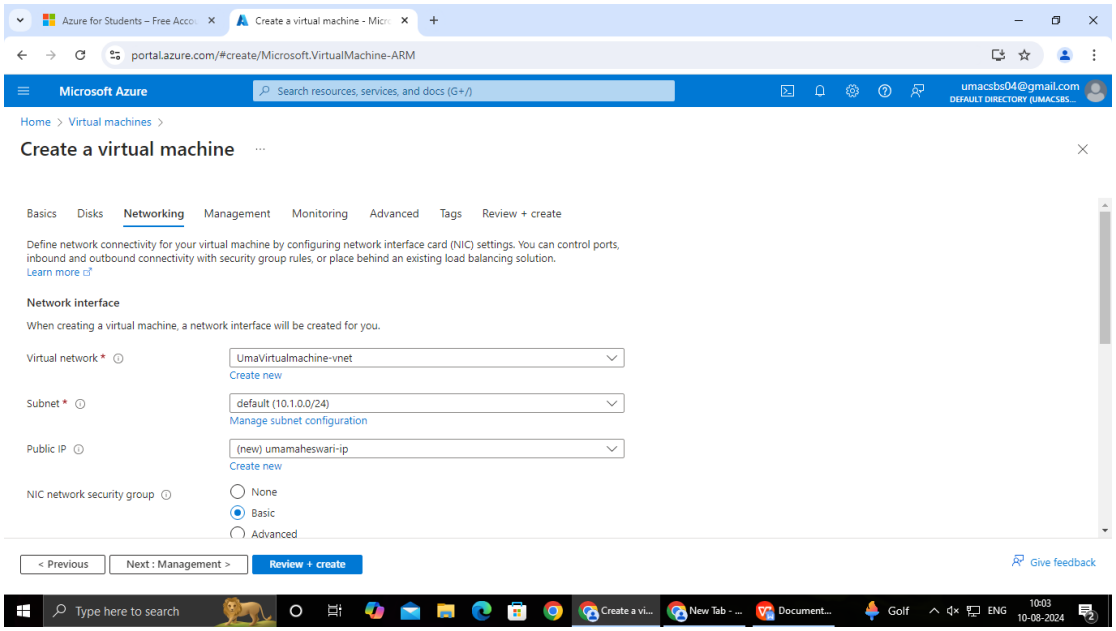

Not secure
13.91.50.78
Login Form
Email Address
Password
Forgot password?
Login
Not yet member? Signup now
Type here to search
Sandbox - VM.do...
Login Form - Goo...
ENG
10:18
09-08-2024

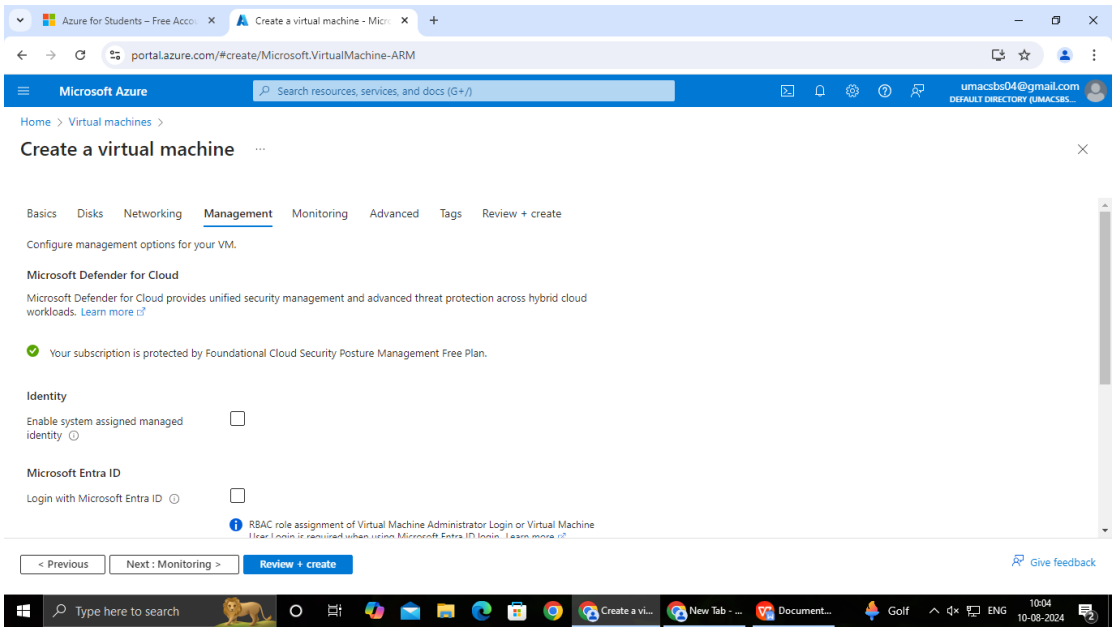
VIRTUAL MACHINE:

1.Creating a virtual machine






Azure for Students – Free Acco
Create a virtual machine - Micr
portal.azure.com/#create/Microsoft.VirtualMachine-ARM
Microsoft Azure
Search resources, services, and docs (G+/)
umacsbs04@gmail.com
DEFAULT DIRECTORY (UMACSBS...
Home > Virtual machines >
Create a virtual machine
Basics Disks Networking Management Monitoring Advanced Tags Review + create
Define network connectivity for your virtual machine by configuring network interface card (NIC) settings. You can control ports, inbound and outbound connectivity with security group rules, or place behind an existing load balancing solution.
Learn more
Network interface
When creating a virtual machine, a network interface will be created for you.
Virtual network *
UmaVirtualmachine-vnet
Create new
Subnet *
default (10.1.0.0/24)
Manage subnet configuration
Public IP
(new) umamaheswari-ip
Create new
NIC network security group
None
Basic
Advanced
< Previous
Next : Management >
Review + create
Give feedback
Type here to search
Create a vi...
New Tab - ...
Document...
Golf
ENG
10:03
10-08-2024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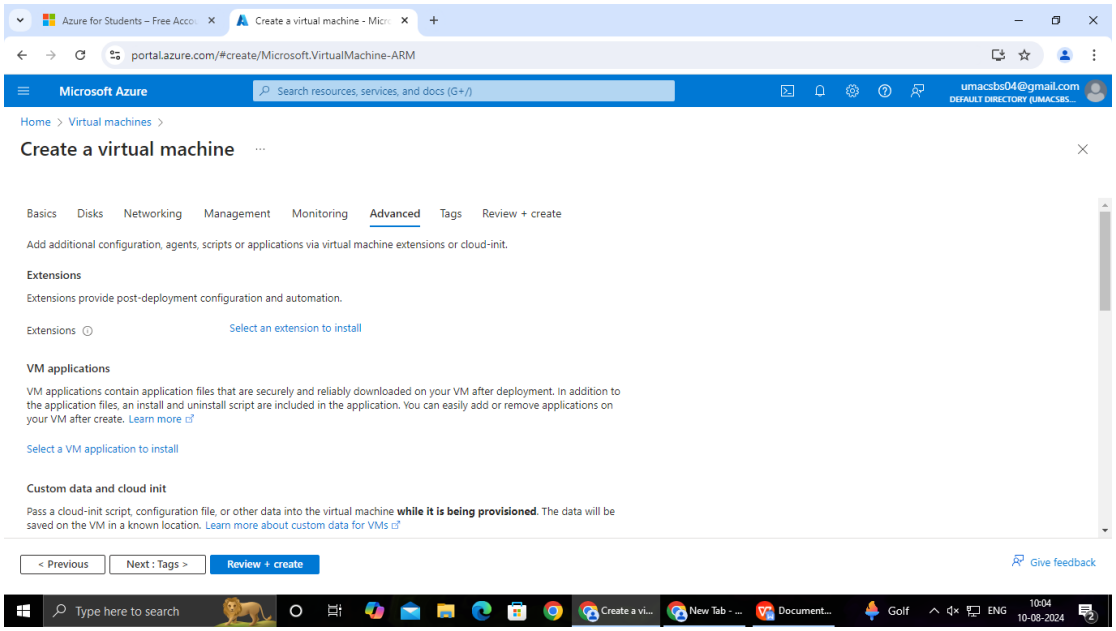
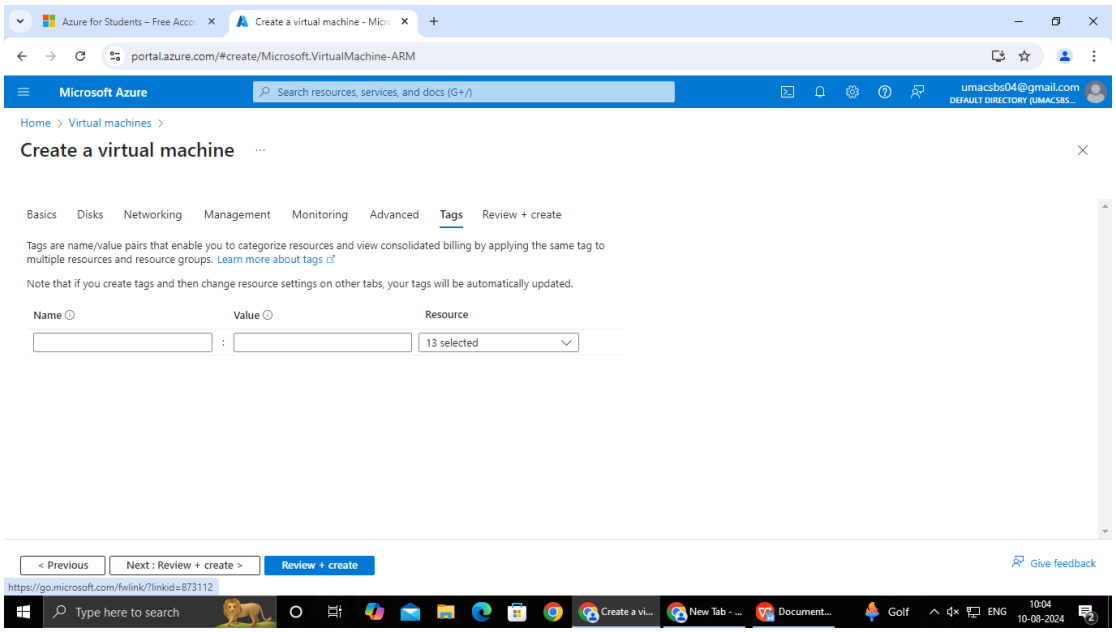
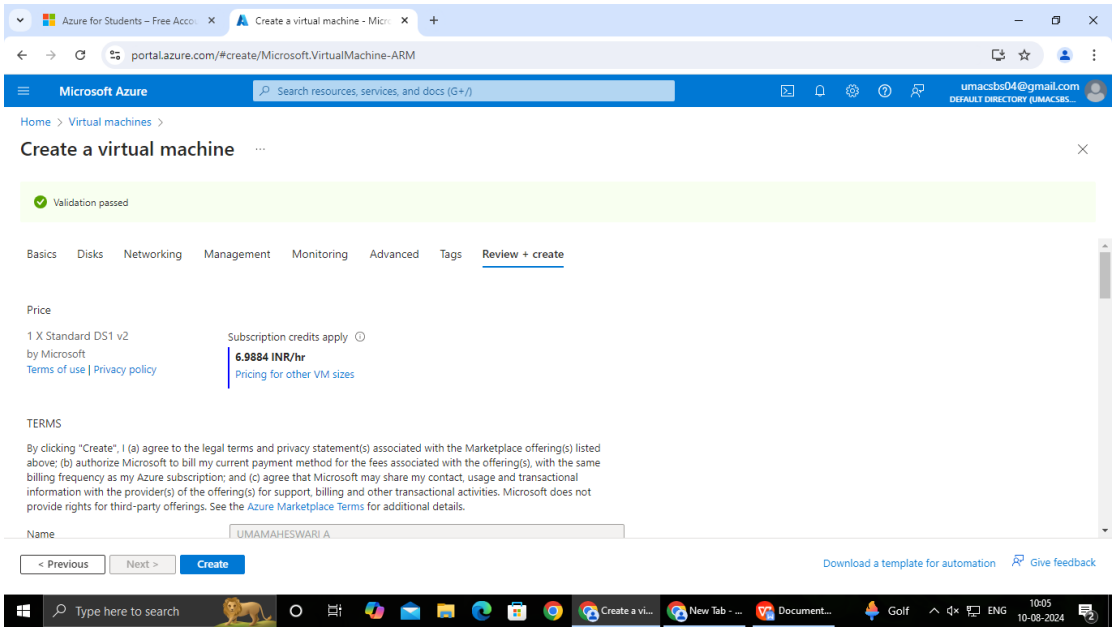
Create a virtual machine - Micr
portal.azure.com/#create/Microsoft.VirtualMachine-ARM
Microsoft Azure
Search resources, services, and docs (G+/)
umacsbs04@gmail.com
DEFAULT DIRECTORY (UMACSBS...
Home > Virtual machines >
Create a virtual machine
Basics Disks Networking Management Monitoring Advanced Tags Review + create
Configure management options for your VM.
Microsoft Defender for Cloud
Microsoft Defender for Cloud provides unified security management and advanced threat protection across hybrid cloud workloads. Learn more
Your subscription is protected by Foundational Cloud Security Posture Management Free Plan.
Identity
Enable system assigned managed identity
Microsoft Entra ID
Login with Microsoft Entra ID
RBAC role assignment of Virtual Machine Administrator Login or Virtual Machine
< Previous
Next : Monitoring >
Review + create
Give feedback
Type here to search
Create a vi...
New Tab - ...
Document...
Golf
ENG
10:04
10-08-2024

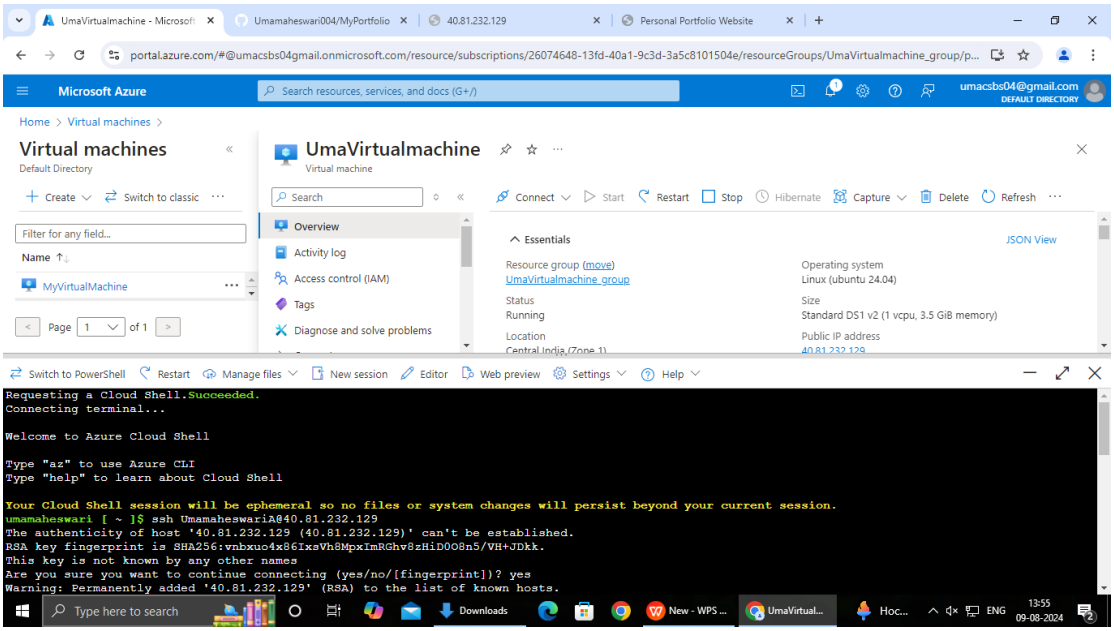

Azure for Students – Free Acco
Create a virtual machine - Micr
portal.azure.com/#create/Microsoft.VirtualMachine-ARM
Microsoft Azure
Search resources, services, and docs (G+/)
umacsbs04@gmail.com
DEFAULT DIRECTORY (UMACSBS...
Home > Virtual machines >
Create a virtual machine
Basics Disks Networking Management Monitoring Advanced Tags Review + create
Add additional configuration, agents, scripts or applications via virtual machine extensions or cloud-init.
Extensions
Extensions provide post-deployment configuration and automation.
Extensions
Select an extension to install
VM applications
VM applications contain application files that are securely and reliably downloaded on your VM after deployment. In addition to the application files, an install and uninstall script are included in the application. You can easily add or remove applications on your VM after create. Learn more
Select a VM application to install
Custom data and cloud init
Pass a cloud-init script, configuration file, or other data into the virtual machine while it is being provisioned. The data will be saved on the VM in a known location. Learn more about custom data for VMs
< Previous
Next : Tags >
Review + create
Give feedback
Type here to search
Create a vi...
New Tab - ...
Document...
Golf
ENG
10:04
10-08-2024


Azure for Students – Free Acco
Create a virtual machine - Micr
portal.azure.com/#create/Microsoft.VirtualMachine-ARM
Microsoft Azure
Search resources, services, and docs (G+/)
umacsbs04@gmail.com
DEFAULT DIRECTORY (UMACSBS...
Home > Virtual machines >
Create a virtual machine
Basics Disks Networking Management Monitoring Advanced Tags Review + create
Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. Learn more about tags
Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.
Name
Value
Resource
13 selected
< Previous
Next : Review + create >
Review + create
Give feedback
https://go.microsoft.com/fwlink/?linkid=873112
Type here to search
Create a vi...
New Tab - ...
Document...
Golf
ENG
10:04
10-08-2024



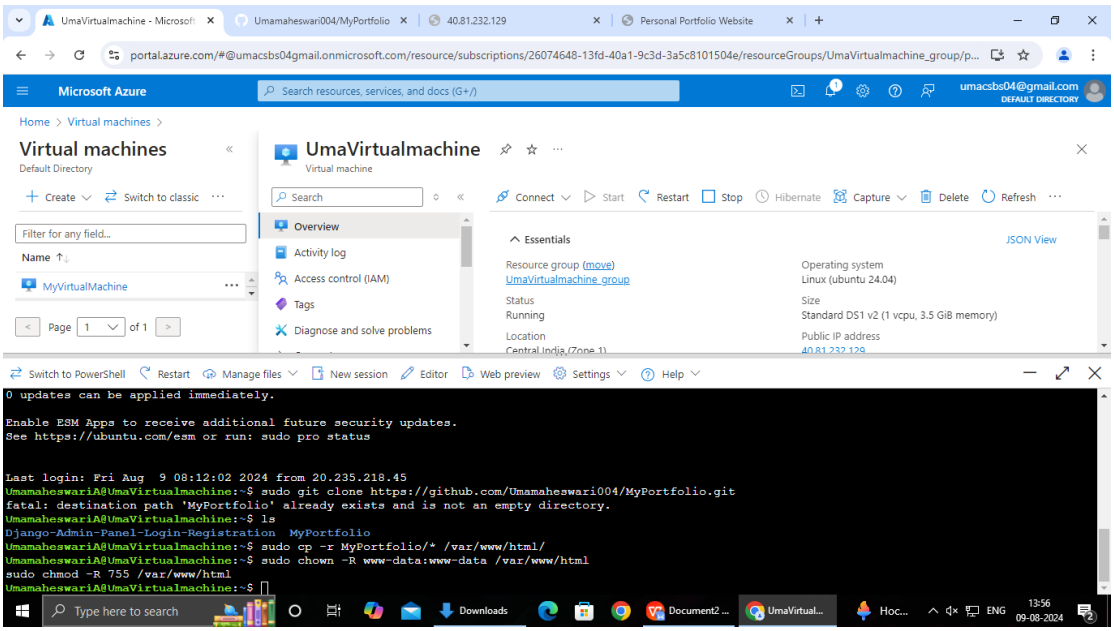
2.Virtual machine creating commands:

- ssh UmamaheswariA@40.81.232.129

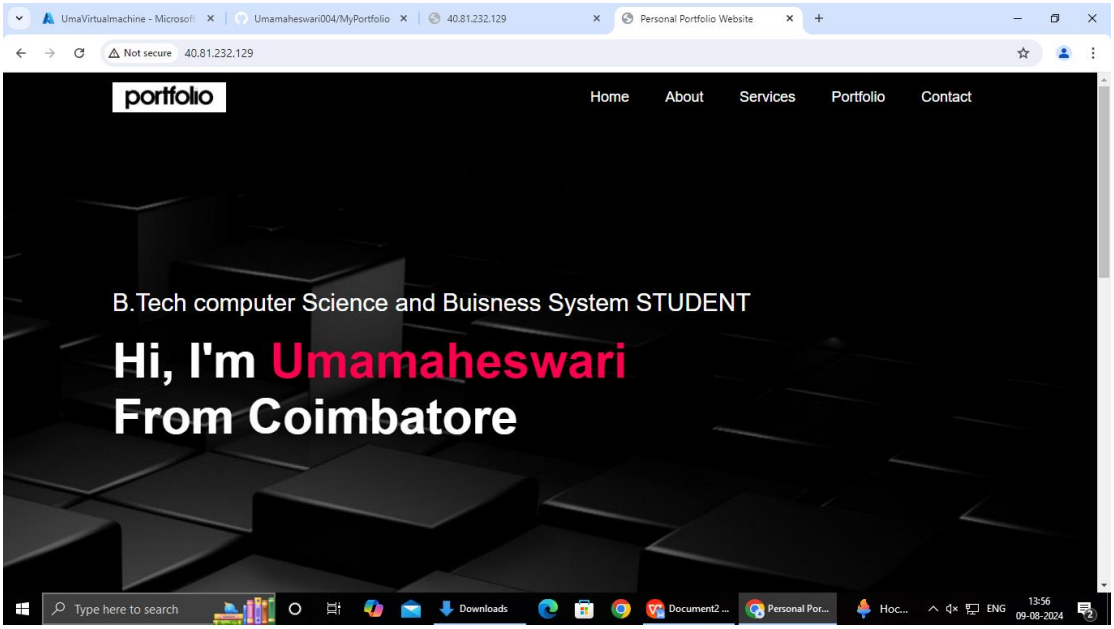


- sudo apt update
- sudo apt install git
- sudo apt install nginx
- sudo systemctl start nginx
- sudo systemctl enable nginx
- cd /var/www/html
- sudo rm -rf *

- sudo git clone https://github.com/Umamaheswari004/MyPortfolio.git
- sudo chown -R www-data:www-data /var/www/html

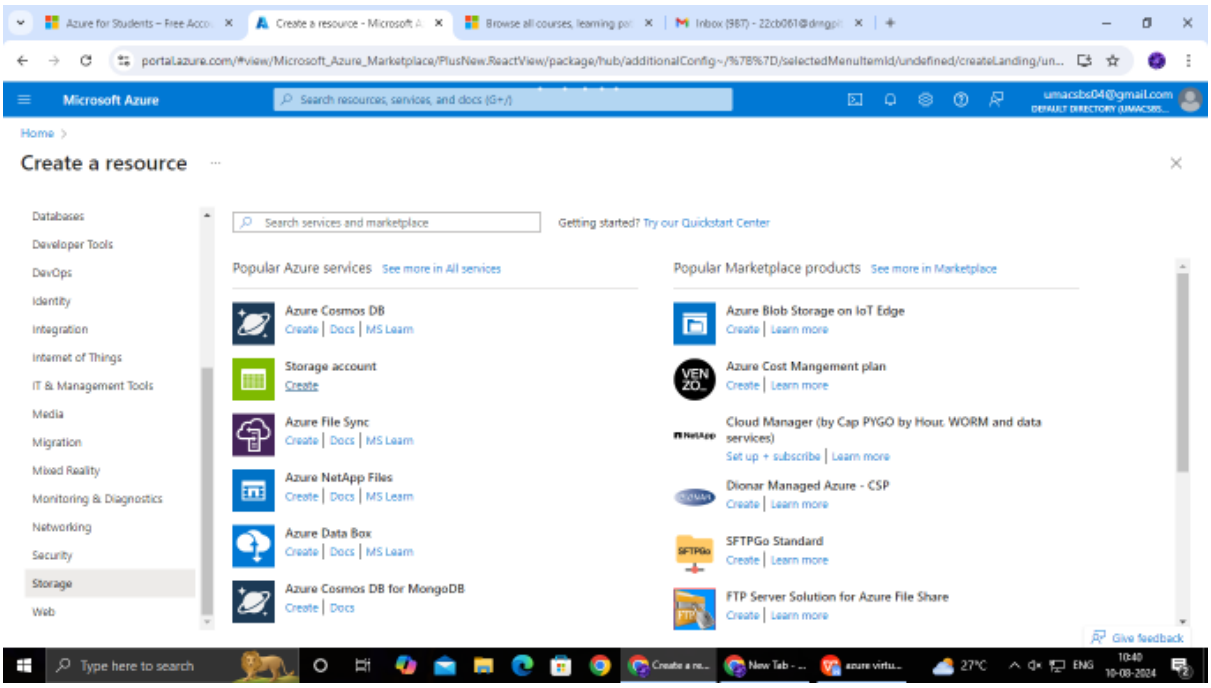


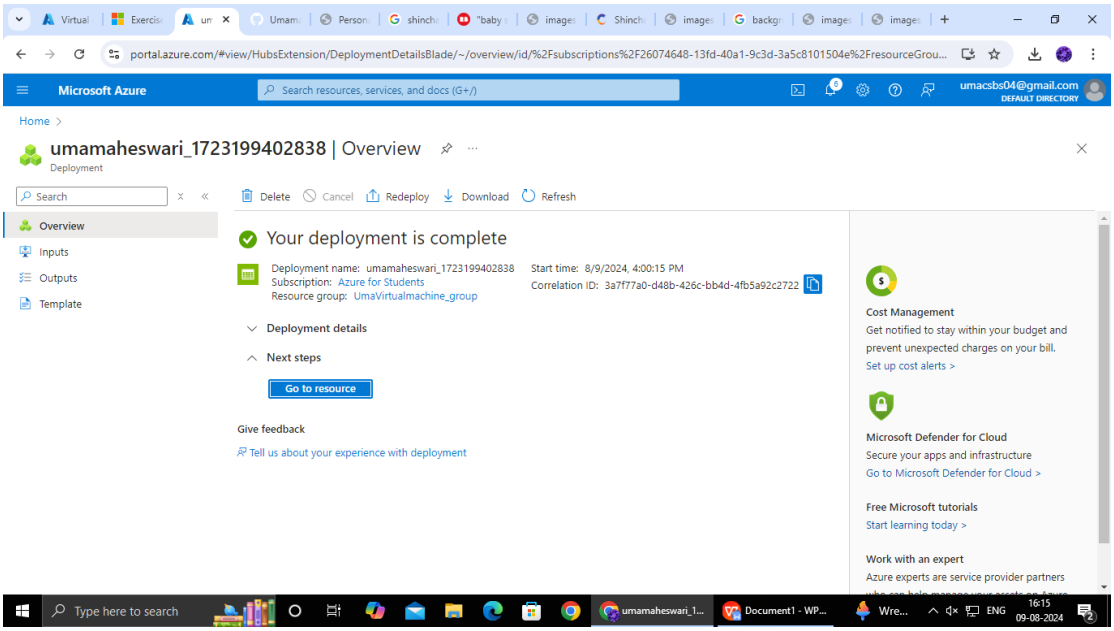
OUTPUT:



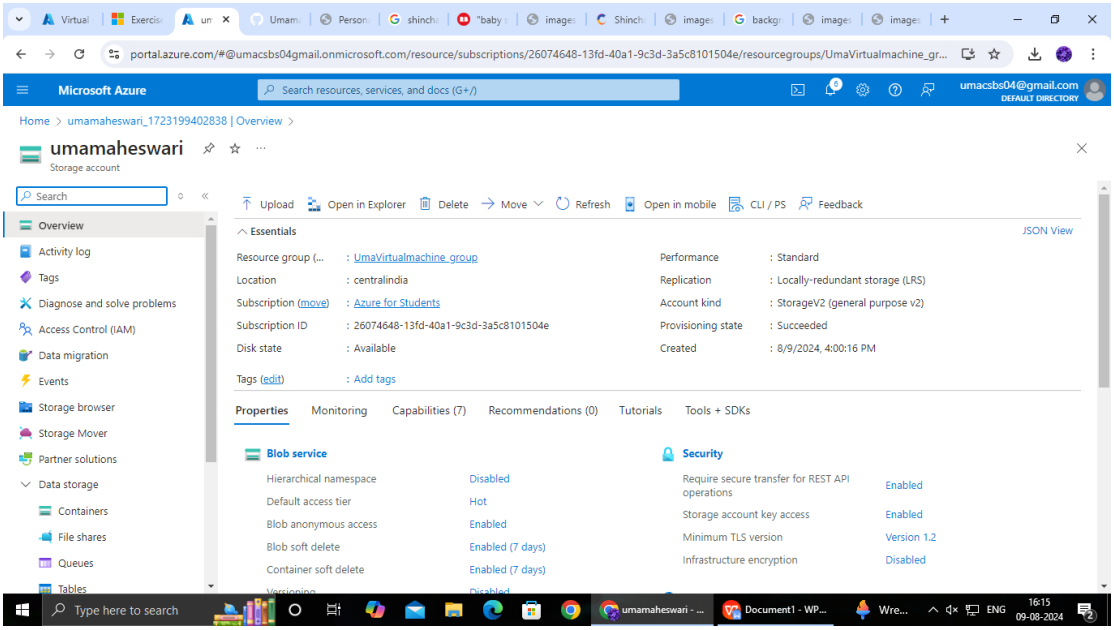
STORAGE ACCOUNTS:

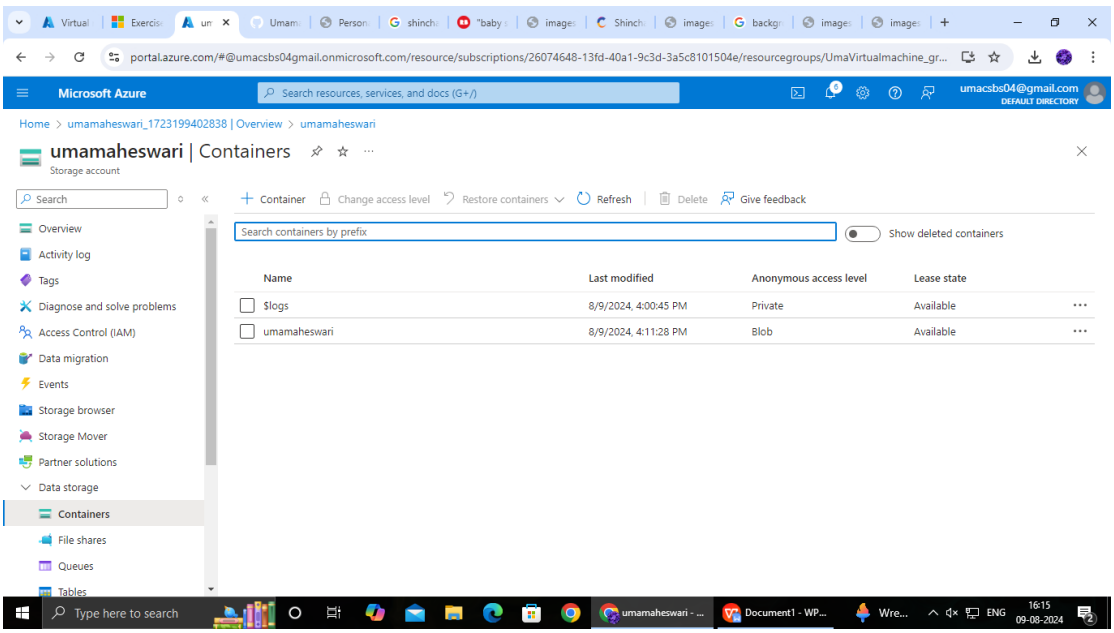
- Creating storage account



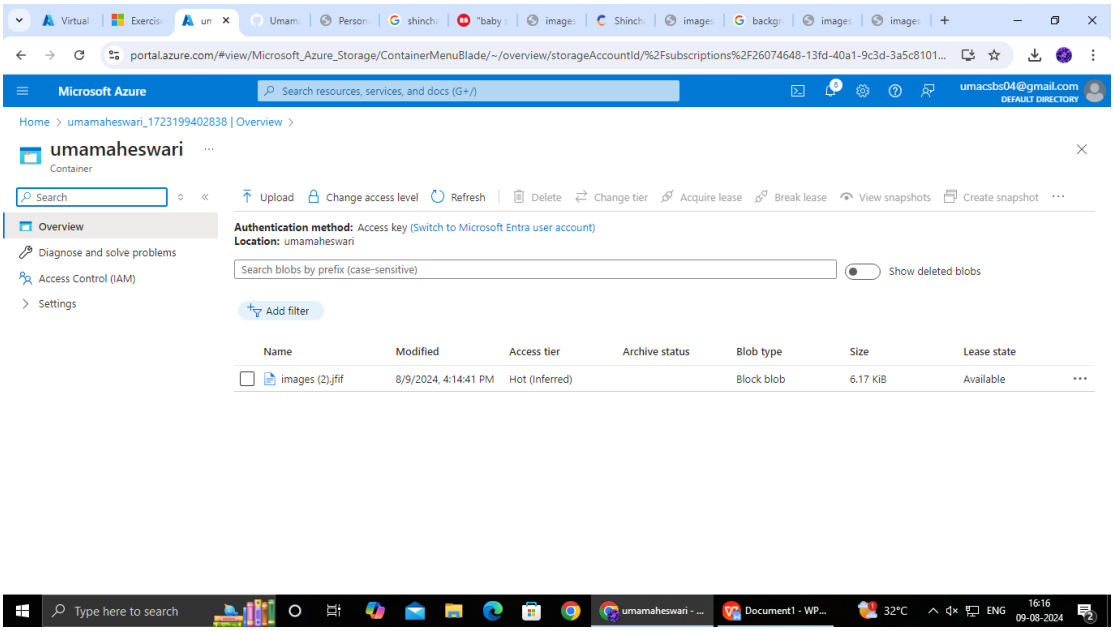


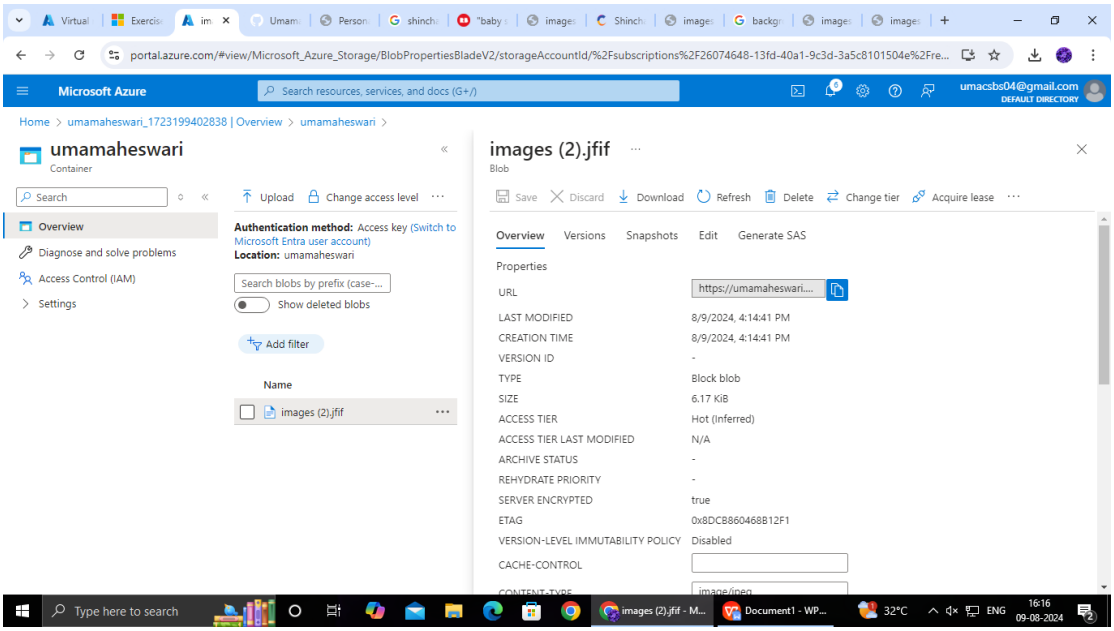
- Creating containers:



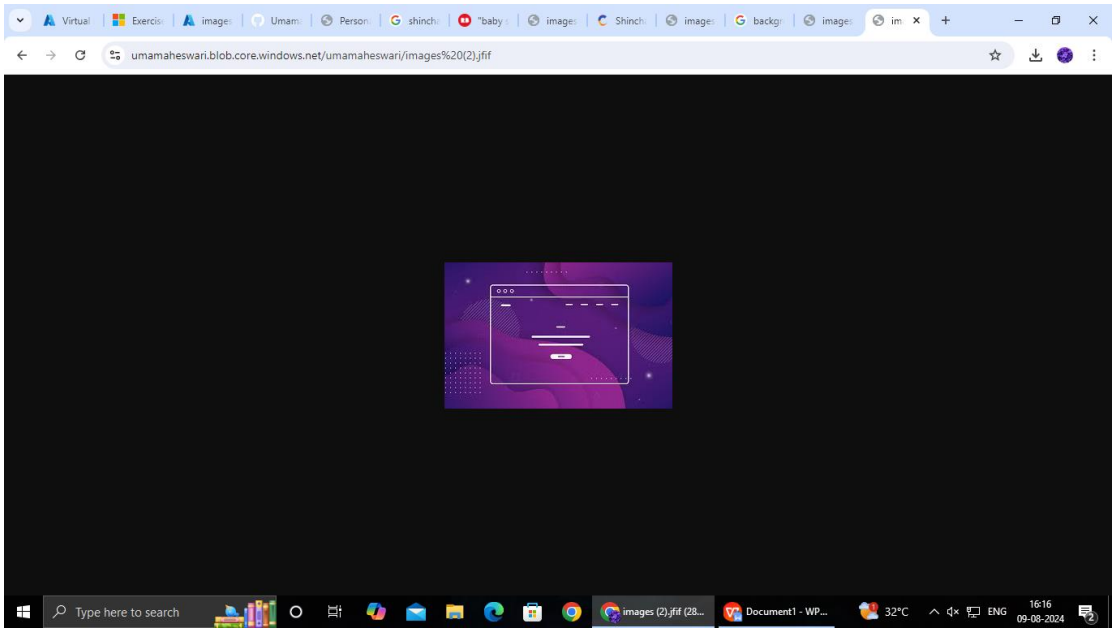


- Upload image

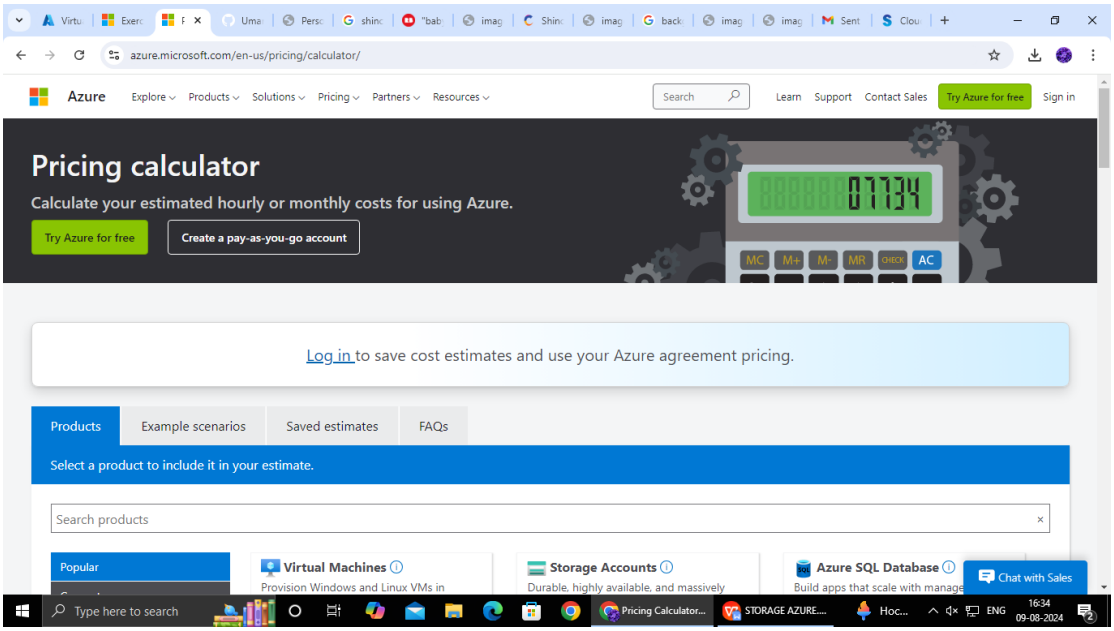


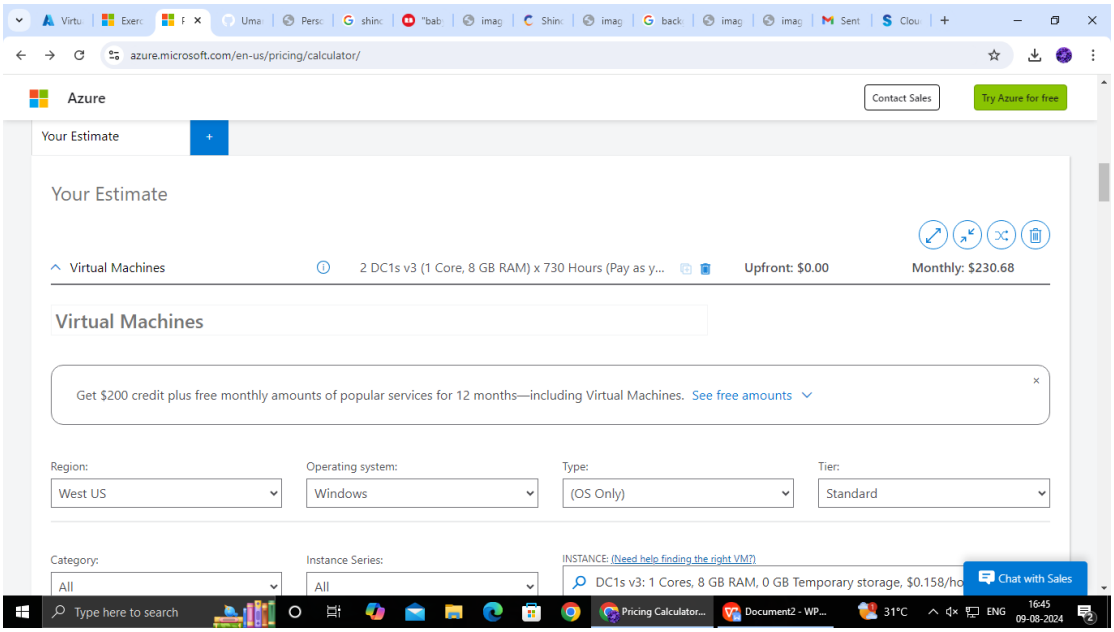


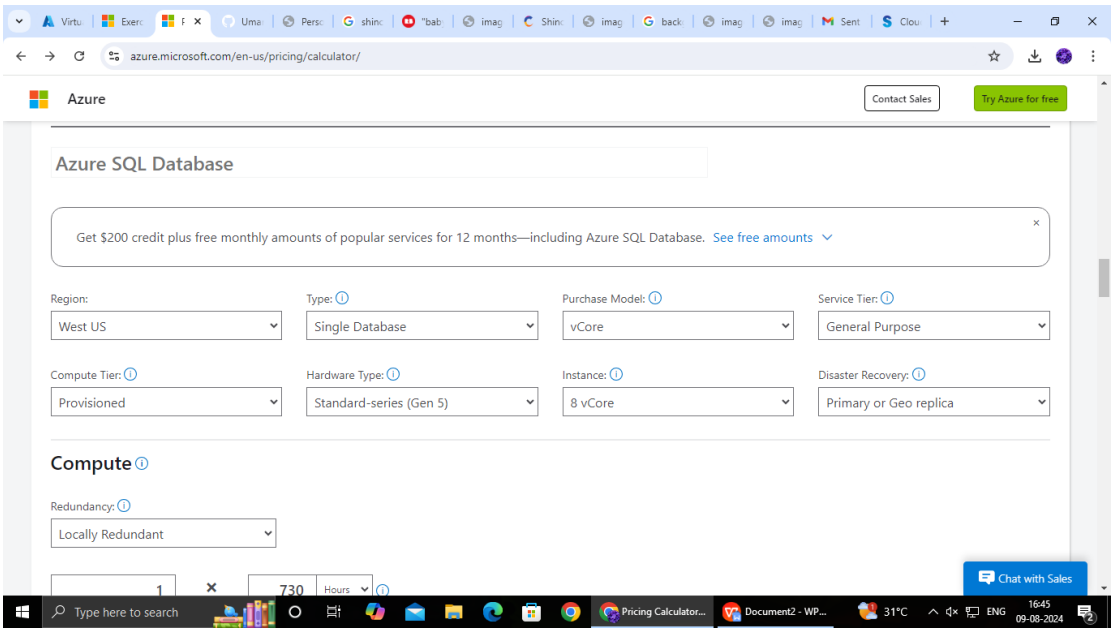
OUTPUT:



COST MANAGEMENT:




azure.microsoft.com/en-us/pricing/calculator/
Azure
Contact Sales
Try Azure for free
Your Estimate
Your Estimate
Virtual Machines
2 DC1s v3 (1 Core, 8 GB RAM) x 730 Hours (Pay as y...
Upfront: $0.00
Monthly: $230.68
Virtual Machines
Get $200 credit plus free monthly amounts of popular services for 12 months—including Virtual Machines. See free amounts
Region:
West US
Operating system:
Windows
Type:
(OS Only)
Tier:
Standard
Category:
All
Instance Series:
All
INSTANCE: (Need help finding the right VM?)
DC1s v3: 1 Cores, 8 GB RAM, 0 GB Temporary storage, $0.158/ho
Chat with Sales
Type here to search
Pricing Calculator...
Document2 - WP...
31°C
ENG
16:45
09-08-2024


azure.microsoft.com/en-us/pricing/calculator/
Azure
Contact Sales
Try Azure for free
Azure SQL Database
Get $200 credit plus free monthly amounts of popular services for 12 months—including Azure SQL Database. See free amounts
Region:
West US
Type:
Single Database
Purchase Model:
vCore
Service Tier:
General Purpose
Compute Tier:
Provisioned
Hardware Type:
Standard-series (Gen 5)
Instance:
8 vCore
Disaster Recovery:
Primary or Geo replica
Compute
Redundancy:
Locally Redundant
1
730
Hours
Chat with Sales
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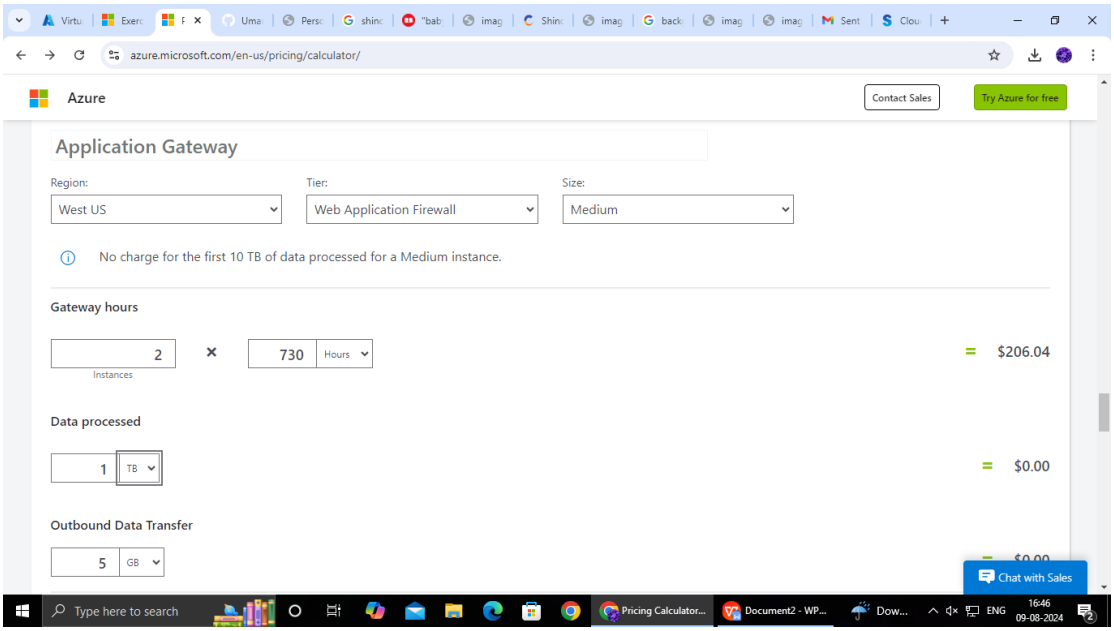
Pricing Calculator...
Document2 - WP...
31°C
ENG
16:45
09-08-2024


azure.microsoft.com/en-us/pricing/calculator/
Azure
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Application Gateway
Region:
West US
Tier:
Web Application Firewall
Size:
Medium
No charge for the first 10 TB of data processed for a Medium instance.
Gateway hours
2
Instances
730
Hours
= $206.04
Data processed
1
TB
= $0.00
Outbound Data Transfer
5
GB
Chat with Sales
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Pricing Calculator...
Document2 - WP...
ENG
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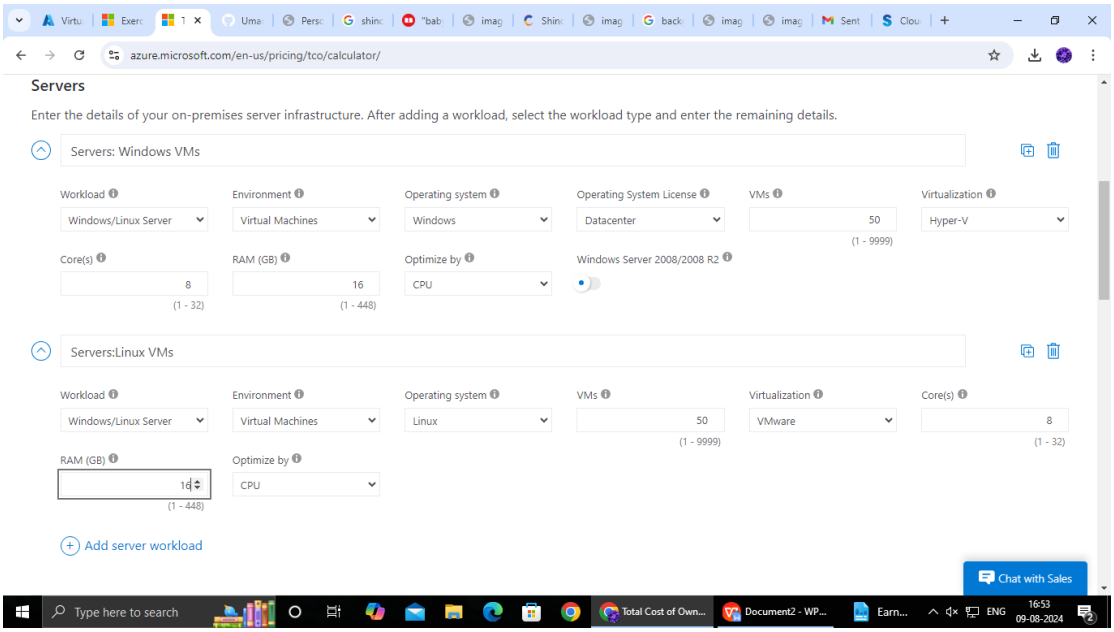
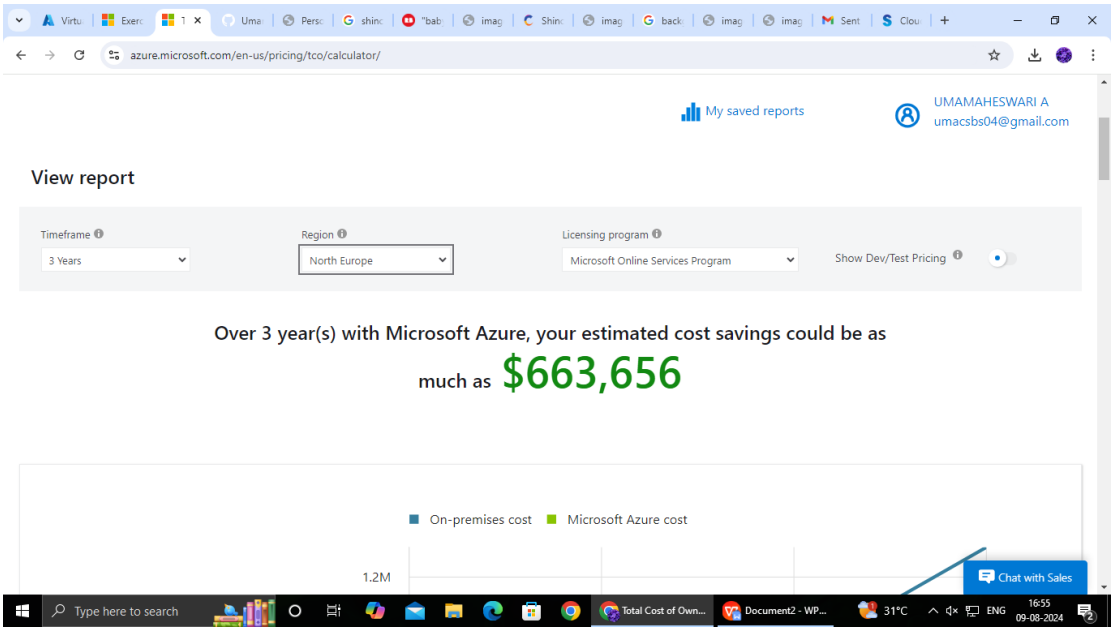
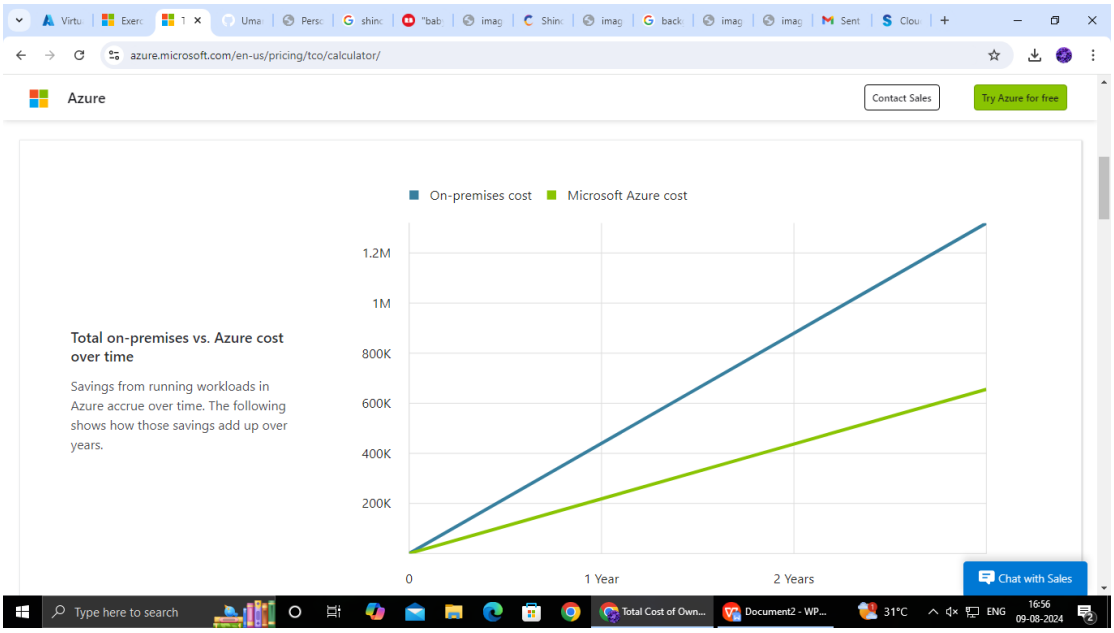

azure.microsoft.com/en-us/pricing/tco/calculator/
Servers
Enter the details of your on-premises server infrastructure. After adding a workload, select the workload type and enter the remaining details.
Servers: Windows VMs
Workload
Windows/Linux Server
Environment
Virtual Machines
Operating system
Windows
Operating System License
Datacenter
VMs
50
(1 - 9999)
Virtualization
Hyper-V
Core(s)
8
(1 - 32)
RAM (GB)
16
(1 - 448)
Optimize by
CPU
Windows Server 2008/2008 R2
Servers:Linux VMs
Workload
Windows/Linux Server
Environment
Virtual Machines
Operating system
Linux
VMs
50
(1 - 9999)
Virtualization
VMware
Core(s)
8
(1 - 32)
RAM (GB)
16
(1 - 448)
Optimize by
CPU
Add server workload
Chat with Sales
Type here to search
Total Cost of Own...
Document2 - WP...
Earn...
ENG
16:53
09-08-2024


azure.microsoft.com/en-us/pricing/tco/calculator/
My saved reports
UMAMAHESWARI A
umacsbs04@gmail.com
View report
Timeframe
3 Years
Region
North Europe
Licensing program
Microsoft Online Services Program
Show Dev/Test Pricing
Over 3 year(s) with Microsoft Azure, your estimated cost savings could be as much as $663,656
On-premises cost
Microsoft Azure cost
1.2M
Chat with Sales
Type here to search
31°C
ENG
16:55
09-08-2024


azure.microsoft.com/en-us/pricing/tco/calculator/
Azure
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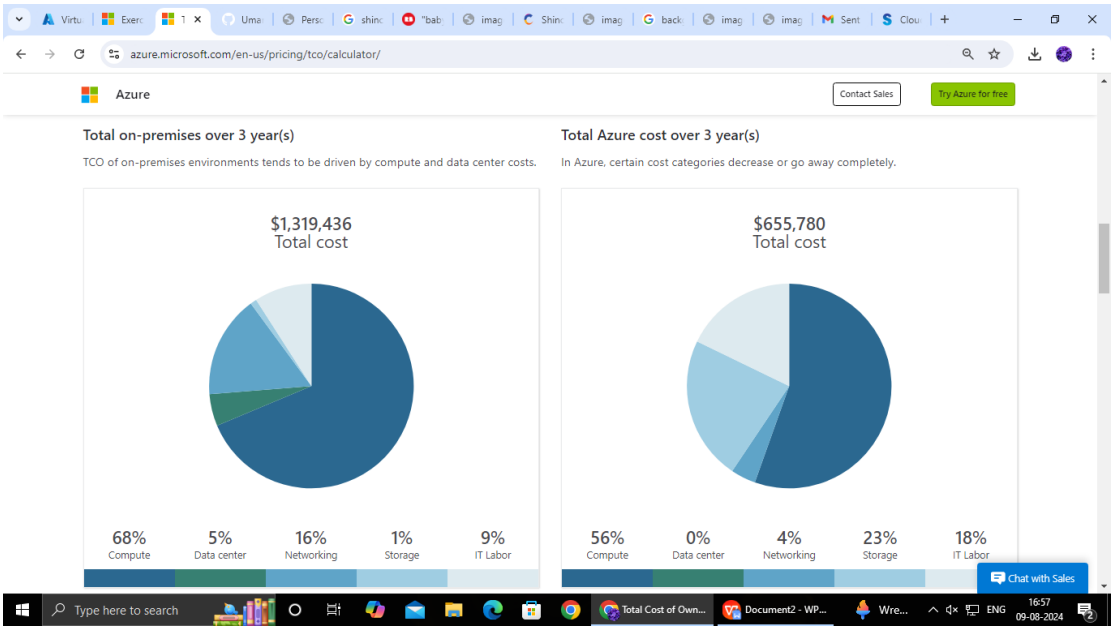
On-premises cost
Microsoft Azure cost
Total on-premises vs. Azure cost over time
Savings from running workloads in Azure accrue over time. The following shows how those savings add up over years.
1.2M
1M
800K
600K
400K
200K
0
1 Year
2 Years
Chat with Sales
Type here to search
31°C
ENG
16:56
09-08-2024


azure.microsoft.com/en-us/pricing/tco/calculator/
Azure
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Total on-premises over 3 year(s)
TCO of on-premises environments tends to be driven by compute and data center costs.
$1,319,436
Total cost
68% Compute
5% Data center
16% Networking
1% Storage
9% IT Labor
Total Azure cost over 3 year(s)
In Azure, certain cost categories decrease or go away completely.
$655,780
Total cost
56% Compute
0% Data center
4% Networking
23% Storage
18% IT Labor
Chat with Sales
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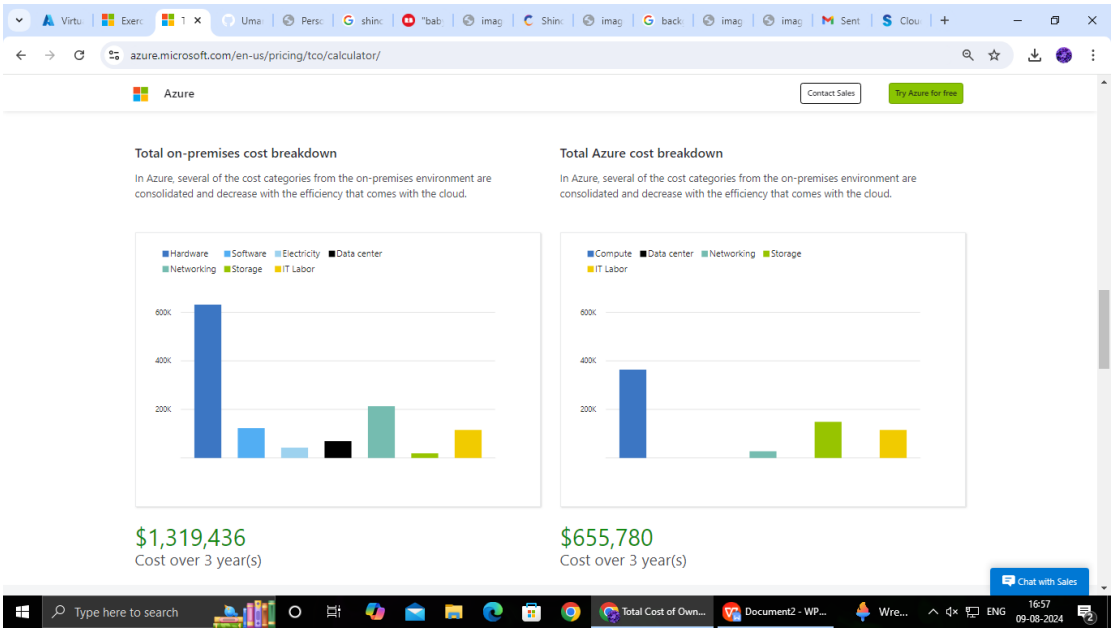
ENG
16:57
09-08-2024


azure.microsoft.com/en-us/pricing/tco/calculator/
Azure
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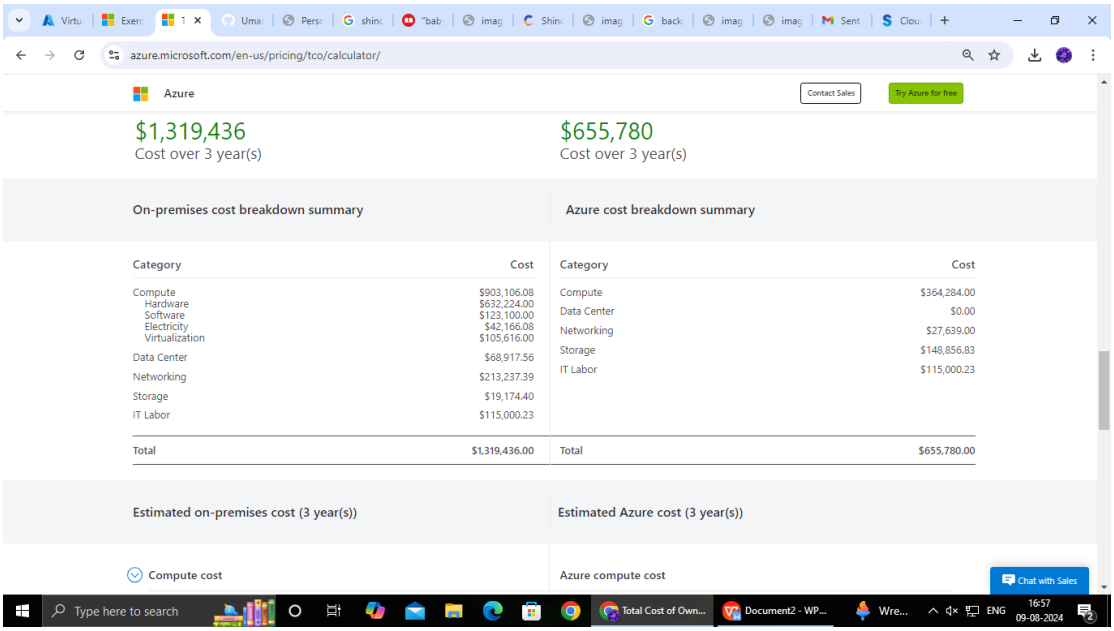
Total on-premises cost breakdown
In Azure, several of the cost categories from the on-premises environment are consolidated and decrease with the efficiency that comes with the cloud.
Hardware
Software
Electricity
Data center
Networking
Storage
IT Labor
600K
400K
200K
Total Azure cost breakdown
In Azure, several of the cost categories from the on-premises environment are consolidated and decrease with the efficiency that comes with the cloud.
Compute
Data center
Networking
Storage
IT Labor
600K
400K
200K
$1,319,436
Cost over 3 year(s)
$655,780
Cost over 3 year(s)
Chat with Sales
Type here to search
ENG
16:57
09-08-2024


azure.microsoft.com/en-us/pricing/tco/calculator/
Azure
Contact Sales
Try Azure for free
$1,319,436
Cost over 3 year(s)
$655,780
Cost over 3 year(s)
On-premises cost breakdown summary
Azure cost breakdown summary
Category
Cost
Compute $903,106.08
Hardware $632,224.00
Software $123,100.00
Electricity $42,166.08
Virtualization $105,616.00
Data Center $68,917.56
Networking $213,237.39
Storage $19,174.40
IT Labor $115,000.23
Total $1,319,436.00
Category
Cost
Compute $364,284.00
Data Center $0.00
Networking $27,639.00
Storage $148,856.83
IT Labor $115,000.23
Total $655,780.00
Estimated on-premises cost (3 year(s))
Estimated Azure cost (3 year(s))
Compute cost
Azure compute cost
Chat with Sales
Type here to search
ENG
16:57
09-08-2024