MICROSOFT AZURE

NAME : SHAKTHI S

DEPARTMENT: BTECH COMPUTER SCIENCE AND BUSINESS SYSTEMS

GITHUB LINK: https://github.com/Shakthii-S/Microsoft-Azure.git

REQUESTING A CLOUD SHELL SUCCEEDED.

CONNECTING TERMINAL...

Welcome to Azure Cloud Shell

- az vm create --resource-group "learn-3ae47ec3-0cc8-46f5-ae5c-dbb634c473d3" --name my-vm --public-ip-sku Standard --image Ubuntu2204 --admin-username azureuser --generate-ssh-keys

- az vm extension set --resource-group "learn-3ae47ec3-0cc8-46f5-ae5c-dbb634c473d3" --vm-name my-vm --name customScript --publisher Microsoft.Azure.Extensions --version 2.1 --settings '{"fileUris":["https://raw.githubusercontent.com/MicrosoftDocs/mslearn-welcome-to-azure/master/configure-nginx.sh"]}' --protected-settings '{"commandToExecute": "./configure-nginx.sh"}'

- sudo apt-get update
- ssh azureuser@ 52.160.108.7
- 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

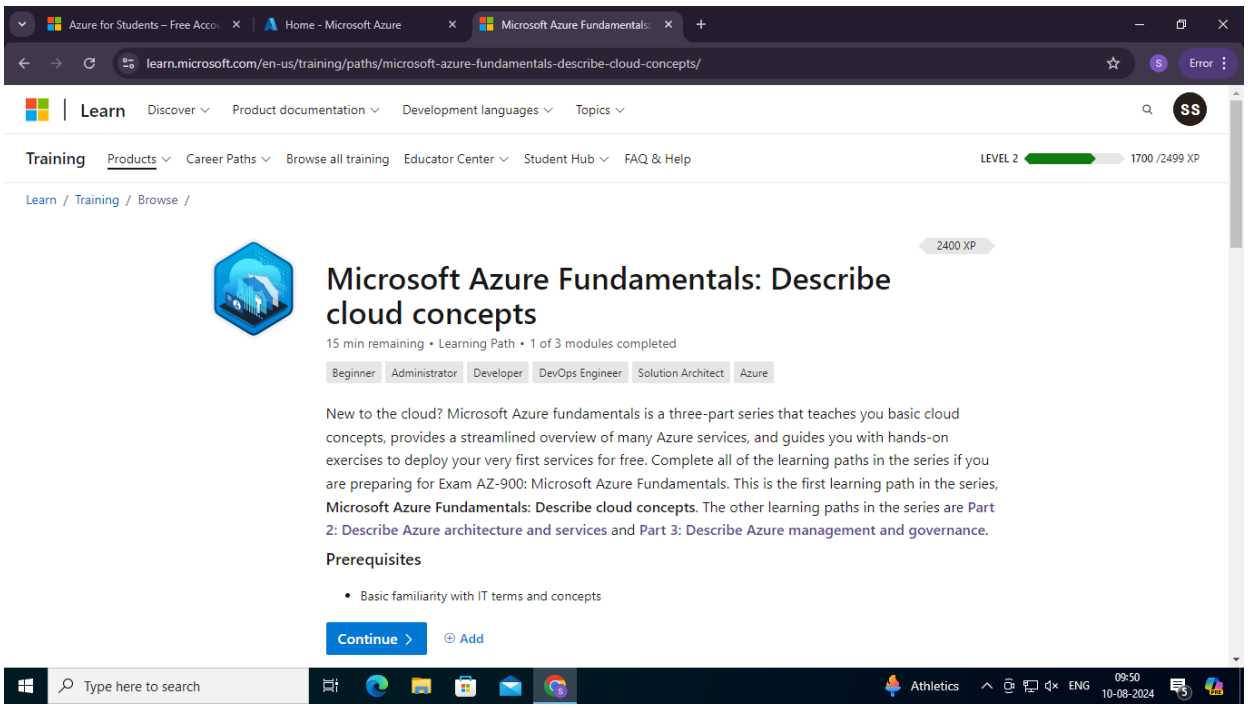
- echo "<html><body><h2>Welcome to Azure! My name is $(hostname).</h2></body></html>" | sudo tee -a /var/www/html/index.html

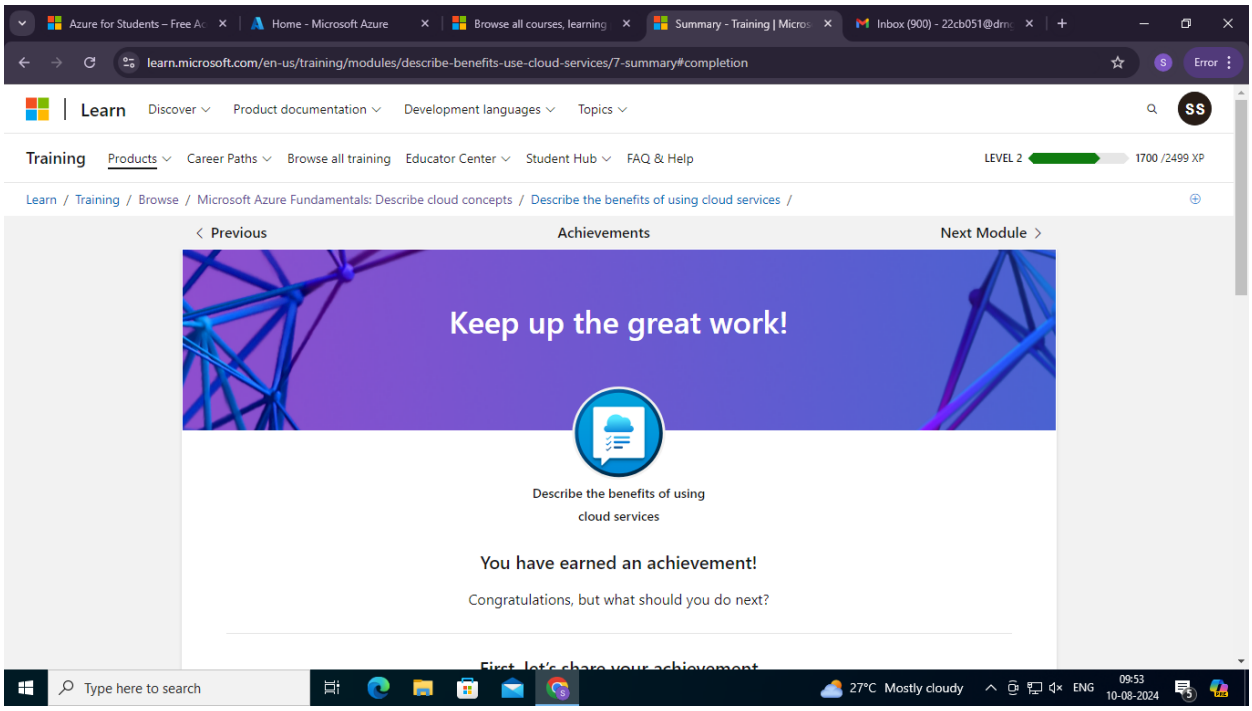
- sudo systemctl status nginx

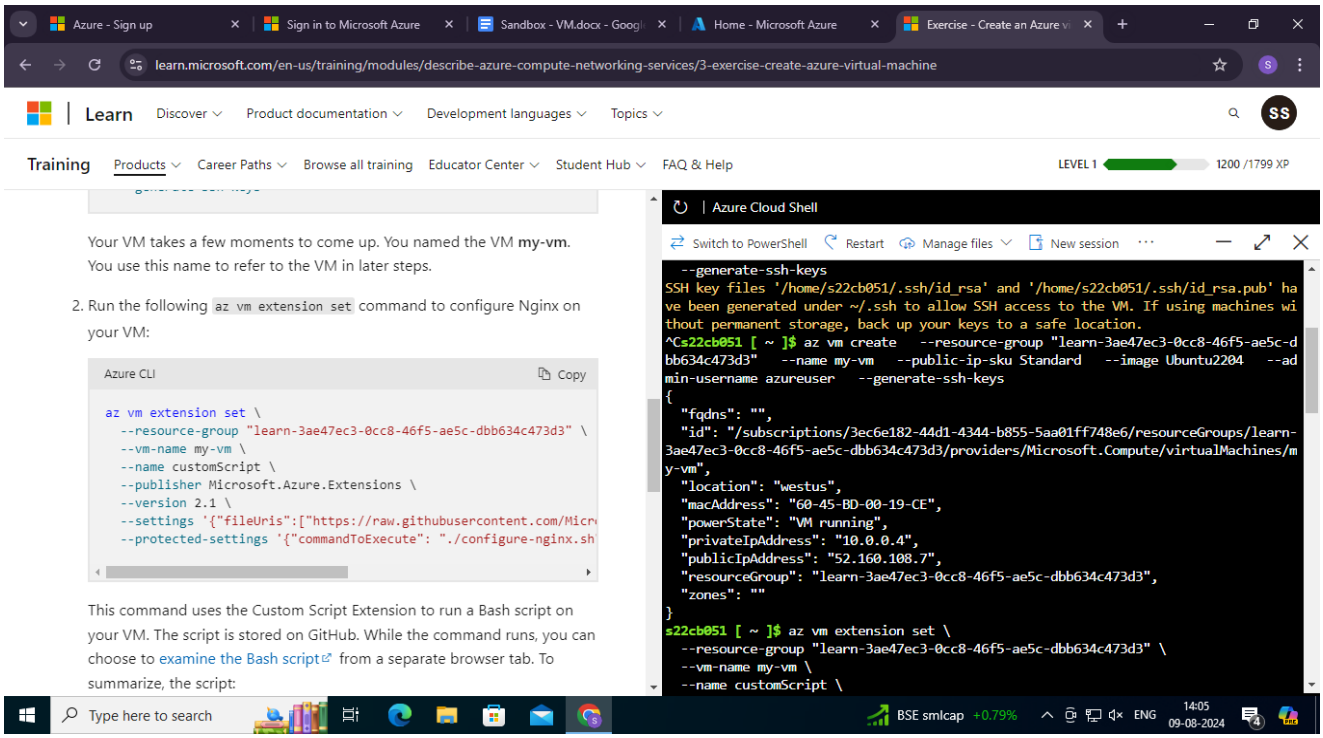
- az vm open-port --resource-group " learn-3ae47ec3-0cc8-46f5-ae5c-dbb634c473d3 " --name my-vm --port 80

- az vm list-ip-addresses --resource-group " learn-3ae47ec3-0cc8-46f5-ae5c-dbb634c473d3 " --name my-vm --output table
- ssh azureuser@ 52.160.108.752.160.108.7
- sudo apt-get update
- git clone share github link
- sudo cp -r html/* /var/www/html/
- sudo chown -R www-data:www-data /var/www/html
- sudo chmod -R 755 /var/www/html
- sudo systemctl restart nginx

INTODUCTION TO MICROSOFT AZURE






Azure - Sign up
Sign in to Microsoft Azure
Sandbox - VM.docx - Google Docs
Home - Microsoft Azure
Exercise - Create an Azure virtual machine
learn.microsoft.com/en-us/training/modules/describe-azure-compute-networking-services/3-exercise-create-azure-virtual-machine
Learn
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Browse all training
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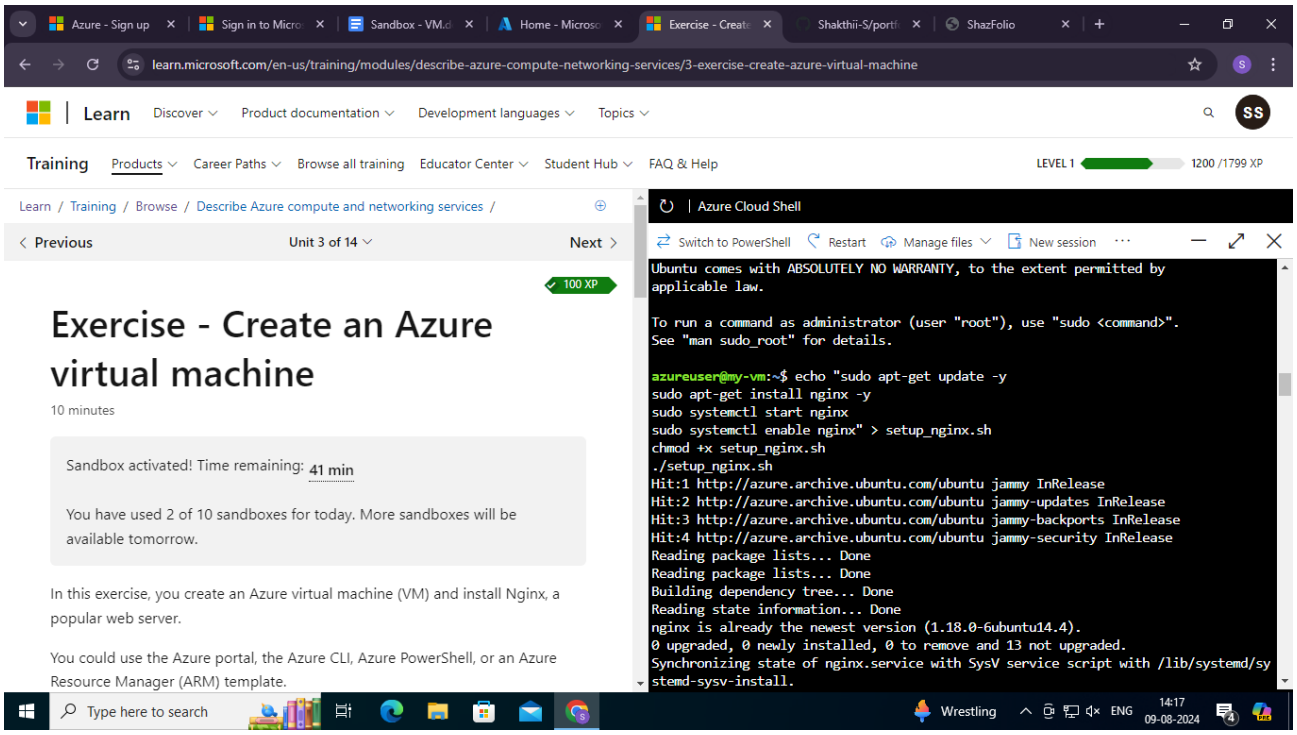
Student Hub
FAQ & Help
LEVEL 1
1200 /1799 XP
Your VM takes a few moments to come up. You named the VM my-vm. You use this name to refer to the VM in later steps.
2. Run the following az vm extension set command to configure Nginx on your VM:
Azure CLI
Copy
az vm extension set \
--resource-group "learn-3ae47ec3-0cc8-46f5-ae5c-dbb634c473d3" \
--vm-name my-vm \
--name customScript \
--publisher Microsoft.Azure.Extensions \
--version 2.1 \
--settings '{"fileUris":["https://raw.githubusercontent.com/Micr
--protected-settings '{"commandToExecute": "./configure-nginx.sh
This command uses the Custom Script Extension to run a Bash script on your VM. The script is stored on GitHub. While the command runs, you can choose to examine the Bash script from a separate browser tab. To summarize, the script:
Azure Cloud Shell
Switch to PowerShell
Restart
Manage files
New session
--generate-ssh-keys
SSH key files '/home/s22cb051/.ssh/id_rsa' and '/home/s22cb051/.ssh/id_rsa.pub' have been generated under ~/.ssh to allow SSH access to the VM. If using machines without permanent storage, back up your keys to a safe location.
^Cs22cb051 [~]$ az vm create --resource-group "learn-3ae47ec3-0cc8-46f5-ae5c-dbb634c473d3" --name my-vm --public-ip-sku Standard --image Ubuntu2204 --admin-username azureuser --generate-ssh-keys
{
"fqdns": "",
"id": "/subscriptions/3ec6e182-44d1-4344-b855-5aa01ff748e6/resourceGroups/learn-3ae47ec3-0cc8-46f5-ae5c-dbb634c473d3/providers/Microsoft.Compute/virtualMachines/my-vm",
"location": "westus",
"macAddress": "60-45-BD-00-19-CE",
"powerState": "VM running",
"privateIpAddress": "10.0.0.4",
"publicIpAddress": "52.160.108.7",
"resourceGroup": "learn-3ae47ec3-0cc8-46f5-ae5c-dbb634c473d3",
"zones": ""
}
s22cb051 [~]$ az vm extension set \
--resource-group "learn-3ae47ec3-0cc8-46f5-ae5c-dbb634c473d3" \
--vm-name my-vm \
--name customScript \
Type here to search
BSE smlcap +0.79%
ENG
14:05
09-08-2024


Azure - Sign up
Sign in to Micro
Sandbox - VM.d
Home - Microso
Exercise - Create
Shakthii-S/portf
ShazFolio
learn.microsoft.com/en-us/training/modules/describe-azure-compute-networking-services/3-exercise-create-azure-virtual-machine
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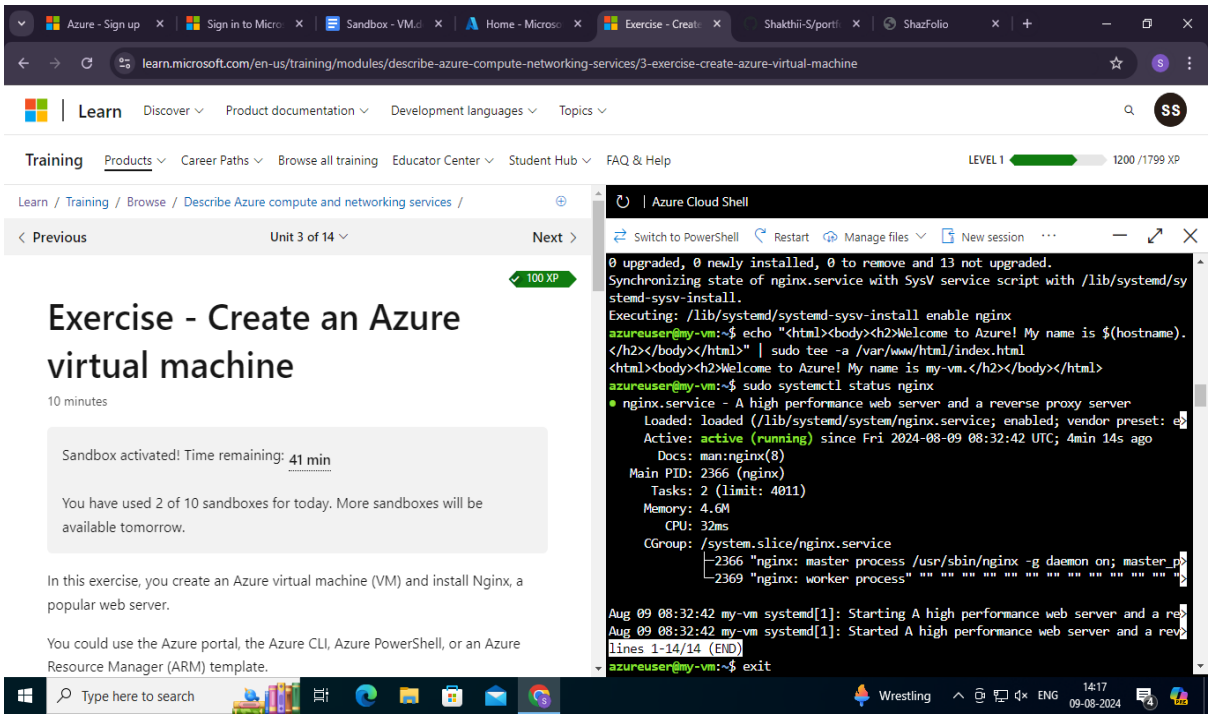
Products
Career Paths
Browse all training
Educator Center
Student Hub
FAQ & Help
LEVEL 1
1200 /1799 XP
Learn / Training / Browse / Describe Azure compute and networking services /
Previous
Unit 3 of 14
Next
100 XP
Exercise - Create an Azure virtual machine
10 minutes
Sandbox activated! Time remaining: 41 min
You have used 2 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
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by applicable law.
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
azureuser@my-vm:~$ 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
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
nginx is already the newest version (1.18.0-6ubuntu14.4).
0 upgraded, 0 newly installed, 0 to remove and 13 not upgraded.
Synchronizing state of nginx.service with SysV service script with /lib/systemd/systemd-sysv-install.
Type here to search
Wrestling
ENG
14:17
09-08-2024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Sign in to Micro
Sandbox - VM.d
Home - Microso
Exercise - Create
Shakthii-S/portf
ShazFolio
learn.microsoft.com/en-us/training/modules/describe-azure-compute-networking-services/3-exercise-create-azure-virtual-machine
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Training
Products
Career Paths
Browse all training
Educator Center
Student Hub
FAQ & Help
LEVEL 1
1200 /1799 XP
Learn / Training / Browse / Describe Azure compute and networking services /
Previous
Unit 3 of 14
Next
100 XP
Exercise - Create an Azure virtual machine
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Sandbox activated! Time remaining: 41 min
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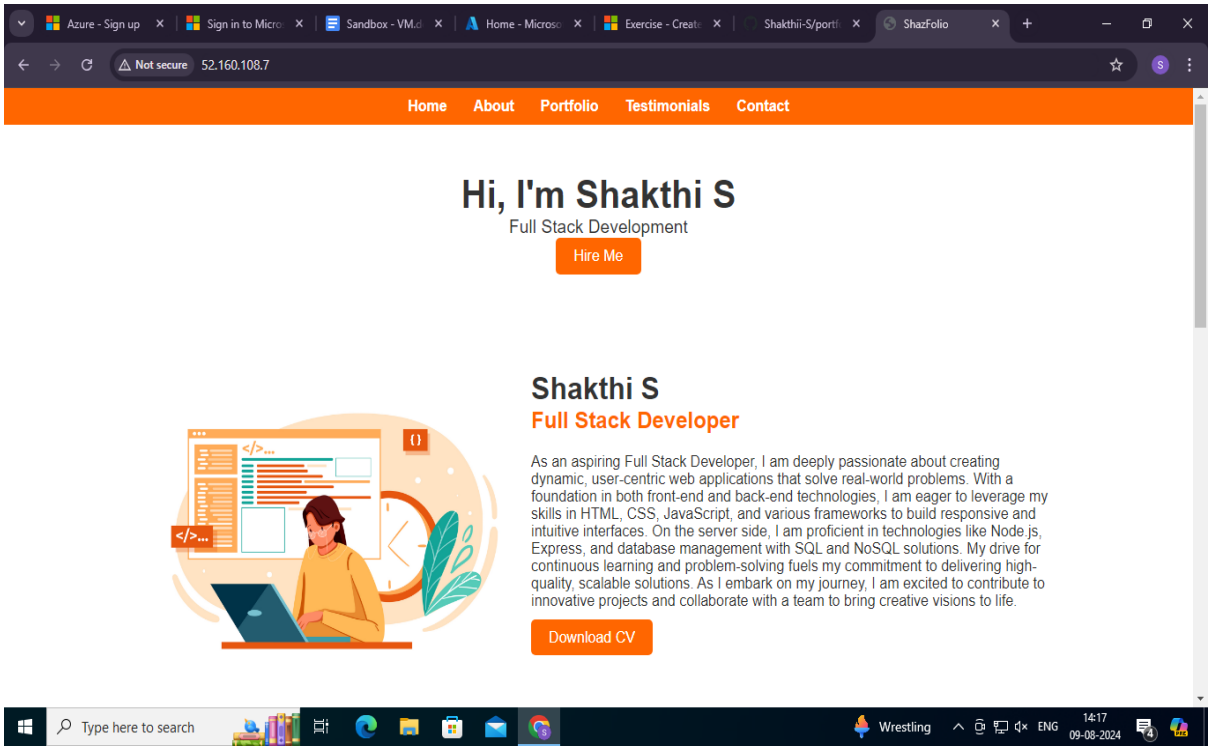
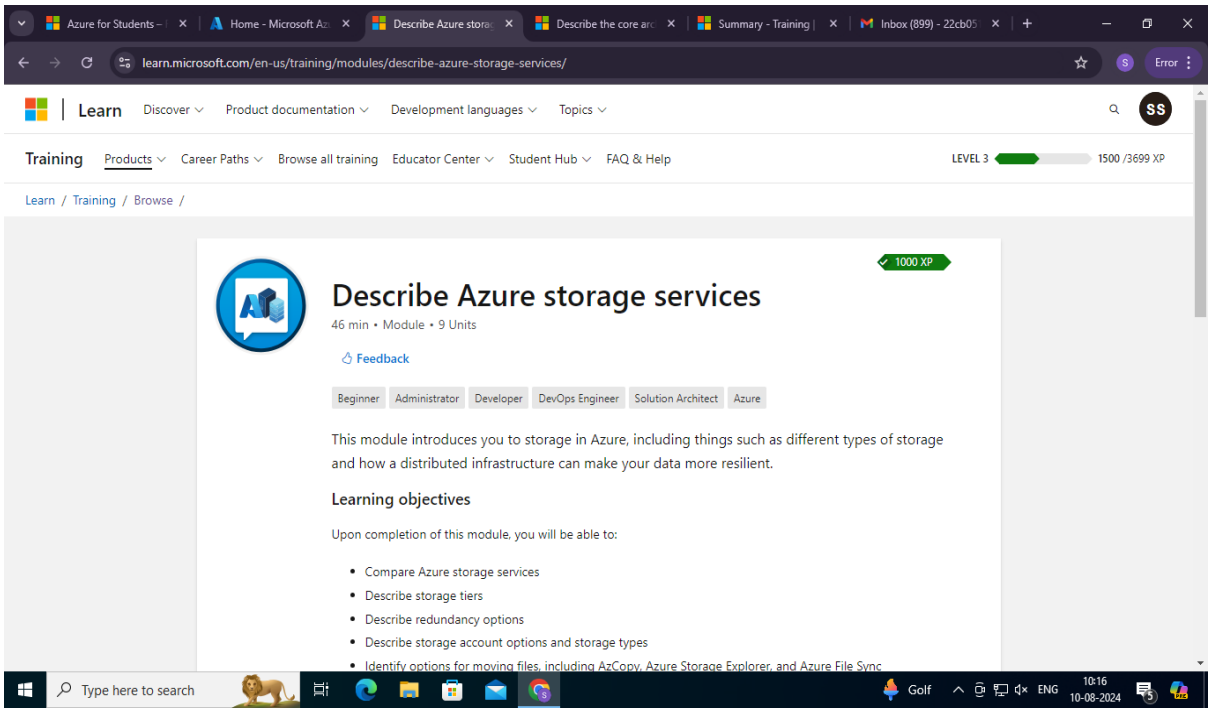
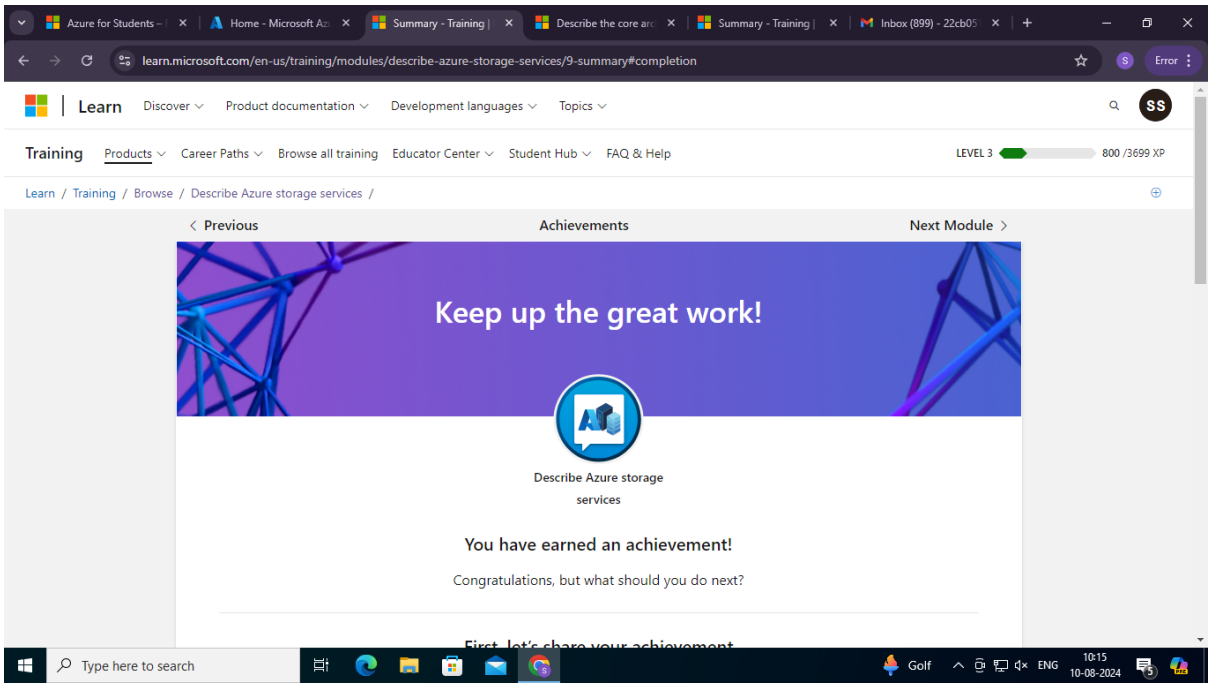
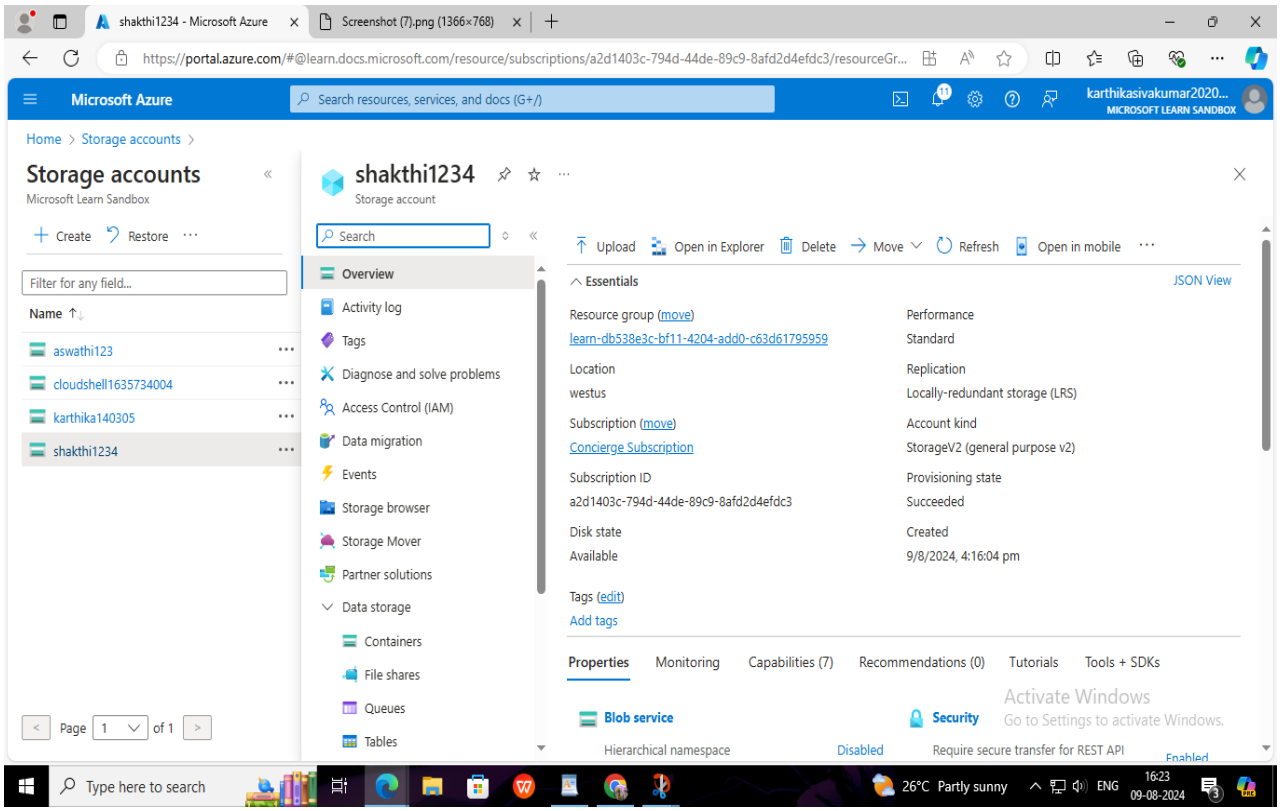
Azure Cloud Shell
Switch to PowerShell
Restart
Manage files
New session
0 upgraded, 0 newly installed, 0 to remove and 13 not upgraded.
Synchronizing state of nginx.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable nginx
azureuser@my-vm:~$ echo "<html><body><h2>Welcome to Azure! My name is $(hostname).</h2></body></html>" | sudo tee -a /var/www/html/index.html
<html><body><h2>Welcome to Azure! My name is my-vm.</h2></body></html>
azureuser@my-vm:~$ sudo systemctl status nginx
● nginx.service - A high performance web server and a reverse proxy server
Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset: e
Active: active (running) since Fri 2024-08-09 08:32:42 UTC; 4min 14s ago
Docs: man:nginx(8)
Main PID: 2366 (nginx)
Tasks: 2 (limit: 4011)
Memory: 4.6M
CPU: 32ms
CGroup: /system.slice/nginx.service
├─2366 "nginx: master process /usr/sbin/nginx -g daemon on; master_p
└─2369 "nginx: worker process" "" "" "" "" "" "" "" "" "" "" "" "
Aug 09 08:32:42 my-vm systemd[1]: Starting A high performance web server and a re
Aug 09 08:32:42 my-vm systemd[1]: Started A high performance web server and a rev
lines 1-14/14 (END)
azureuser@my-vm:~$ exit
Type here to search
Wrestling
ENG
14:17
09-08-2024

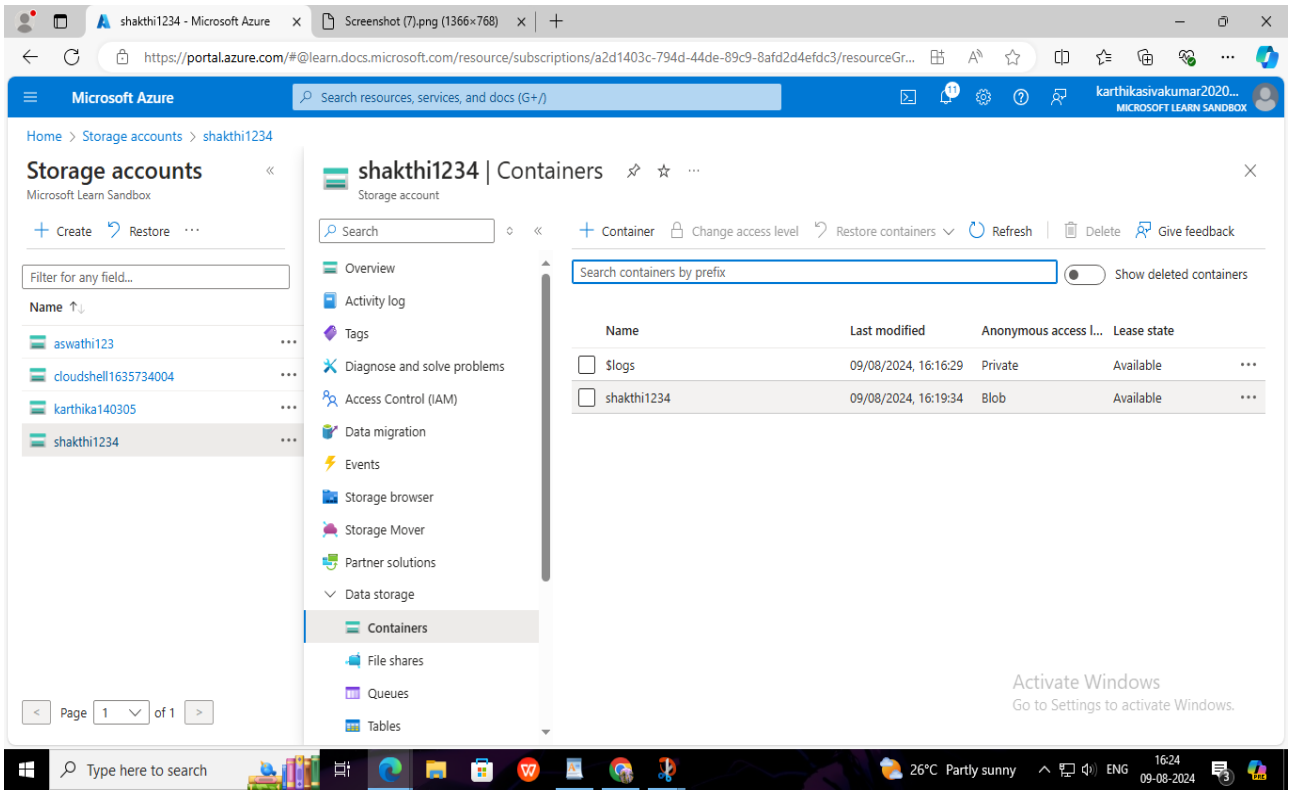

Azure - Sign up
Sign in to Micro
Sandbox - VM.d
Home - Microso
Exercise - Create
Shakthii-S/portf
ShazFolio
Not secure
52.160.108.7
Home
About
Portfolio
Testimonials
Contact
Hi, I'm Shakthi S
Full Stack Development
Hire Me
Shakthi S
Full Stack Developer
As an aspiring Full Stack Developer, I am deeply passionate about creating dynamic, user-centric web applications that solve real-world problems. With a foundation in both front-end and back-end technologies, I am eager to leverage my skills in HTML, CSS, JavaScript, and various frameworks to build responsive and intuitive interfaces. On the server side, I am proficient in technologies like Node.js, Express, and database management with SQL and NoSQL solutions. My drive for continuous learning and problem-solving fuels my commitment to delivering high-quality, scalable solutions. As I embark on my journey, I am excited to contribute to innovative projects and collaborate with a team to bring creative visions to life.
Download CV
Type here to search
Wrestling
ENG
14:17
09-08-2024

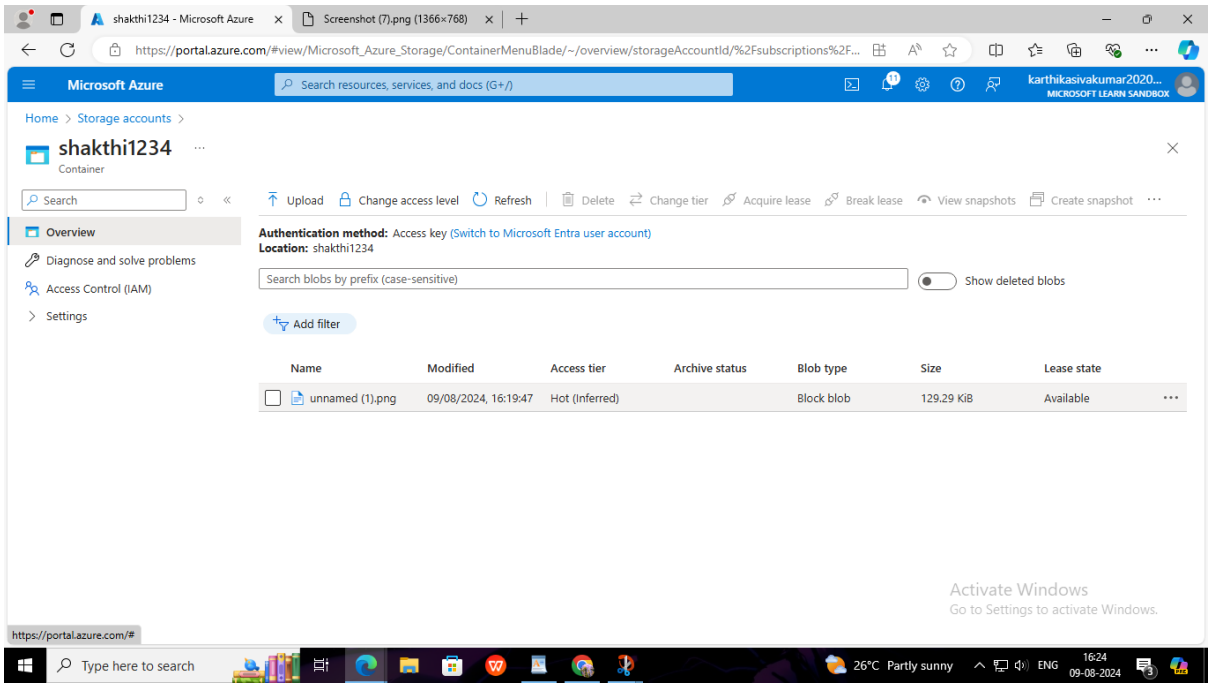
AZURE STORAGE SERVICES:

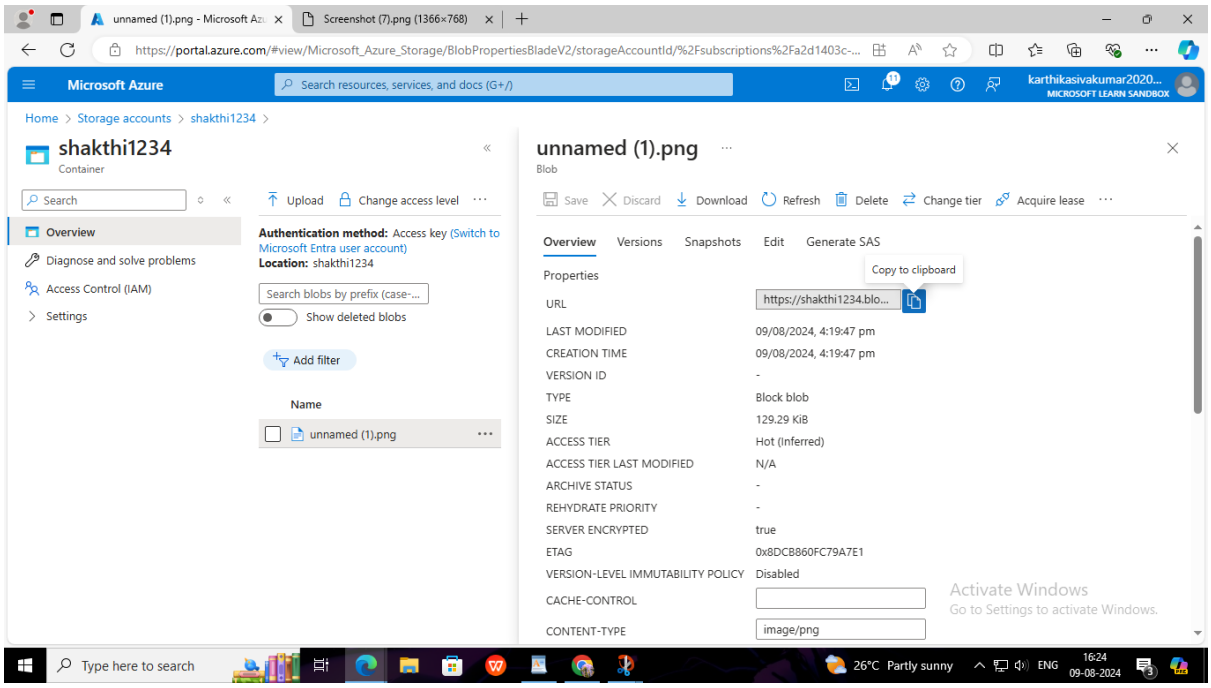





shakthi1234 - Microsoft Azure
Screenshot (7).png (1366×768)
https://portal.azure.com/#@learn.docs.microsoft.com/resource/subscriptions/a2d1403c-794d-44de-89c9-8afd2d4efdc3/resourceGr...
Microsoft Azure
Search resources, services, and docs (G+/)
karthikasivakumar2020...
MICROSOFT LEARN SANDBOX
Home > Storage accounts >
Storage accounts
Microsoft Learn Sandbox
Create
Restore
Filter for any field...
Name
aswathi123
cloudshell1635734004
karthika140305
shakthi1234
Page 1 of 1
shakthi1234
Storage account
Search
Overview
Activity log
Tags
Diagnose and solve problems
Access Control (IAM)
Data migration
Events
Storage browser
Storage Mover
Partner solutions
Data storage
Containers
File shares
Queues
Tables
Upload
Open in Explorer
Delete
Move
Refresh
Open in mobile
Essentials
JSON View
Resource group (move)
learn-db538e3c-bf11-4204-add0-c63d61795959
Location
westus
Subscription (move)
Concierge Subscription
Subscription ID
a2d1403c-794d-44de-89c9-8afd2d4efdc3
Disk state
Available
Performance
Standard
Replication
Locally-redundant storage (LRS)
Account kind
StorageV2 (general purpose v2)
Provisioning state
Succeeded
Created
9/8/2024, 4:16:04 pm
Tags (edit)
Add tags
Properties
Monitoring
Capabilities (7)
Recommendations (0)
Tutorials
Tools + SDKs
Blob service
Hierarchical namespace
Disabled
Security
Require secure transfer for REST API
Enabled
Activate Windows
Go to Settings to activate Windows.
Type here to search
26°C Partly sunny
ENG
16:23
09-08-2024


shakthi1234 - Microsoft Azure
Screenshot (7).png (1366×768)
https://portal.azure.com/#@learn.docs.microsoft.com/resource/subscriptions/a2d1403c-794d-44de-89c9-8afd2d4efdc3/resourceGr...
Microsoft Azure
Search resources, services, and docs (G+/)
karthikasivakumar2020...
MICROSOFT LEARN SANDBOX
Home > Storage accounts > shakthi1234
Storage accounts
Microsoft Learn Sandbox
Create
Restore
Filter for any field...
Name
aswathi123
cloudshell1635734004
karthika140305
shakthi1234
Page 1 of 1
shakthi1234 | Containers
Storage account
Search
Overview
Activity log
Tags
Diagnose and solve problems
Access Control (IAM)
Data migration
Events
Storage browser
Storage Mover
Partner solutions
Data storage
Containers
File shares
Queues
Tables
Container
Change access level
Restore containers
Refresh
Delete
Give feedback
Search containers by prefix
Show deleted containers
Name
Last modified
Anonymous access l...
Lease state
$logs
09/08/2024, 16:16:29
Private
Available
shakthi1234
09/08/2024, 16:19:34
Blob
Available
Activate Windows
Go to Settings to activate Windows.
Type here to search
26°C Partly sunny
ENG
16:24
09-08-2024


shakthi1234 - Microsoft Azure
Screenshot (7).png (1366×768)
https://portal.azure.com/#view/Microsoft_Azure_Storage/ContainerMenuBlade/~/overview/storageAccountId/%2Fsubscriptions%2F...
Microsoft Azure
Search resources, services, and docs (G+/)
karthikasivakumar2020...
MICROSOFT LEARN SANDBOX
Home > Storage accounts >
shakthi1234
Container
Search
Overview
Diagnose and solve problems
Access Control (IAM)
Settings
Upload
Change access level
Refresh
Delete
Change tier
Acquire lease
Break lease
View snapshots
Create snapshot
Authentication method: Access key (Switch to Microsoft Entra user account)
Location: shakthi1234
Search blobs by prefix (case-sensitive)
Show deleted blobs
Add filter
Name
Modified
Access tier
Archive status
Blob type
Size
Lease state
unnamed (1).png
09/08/2024, 16:19:47
Hot (Inferred)
Block blob
129.29 KiB
Available
Activate Windows
Go to Settings to activate Windows.
https://portal.azure.com/#
Type here to search
26°C Partly sunny
ENG
16:24
09-08-2024


unnamed (1).png - Microsoft Az
Screenshot (7).png (1366×768)
https://portal.azure.com/#view/Microsoft_Azure_Storage/BlobPropertiesBladeV2/storageAccountId/%2Fsubscriptions%2Fa2d1403c-...
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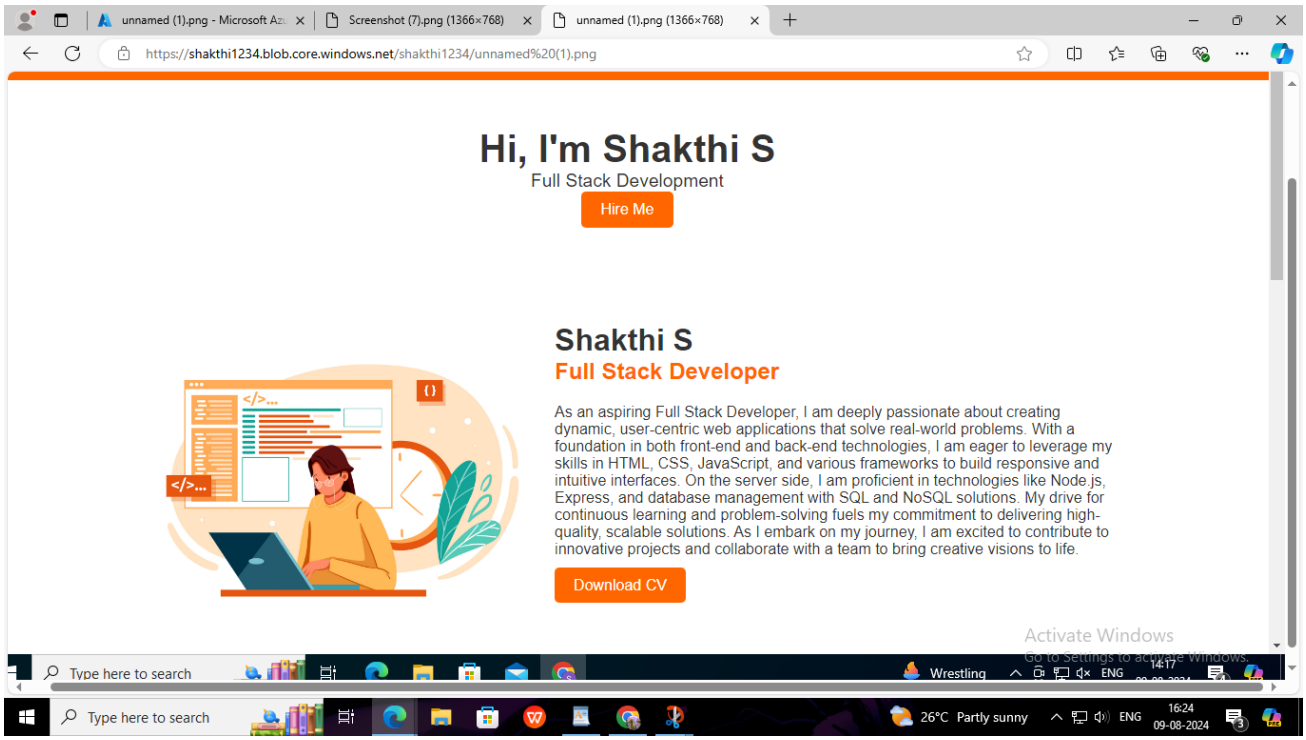
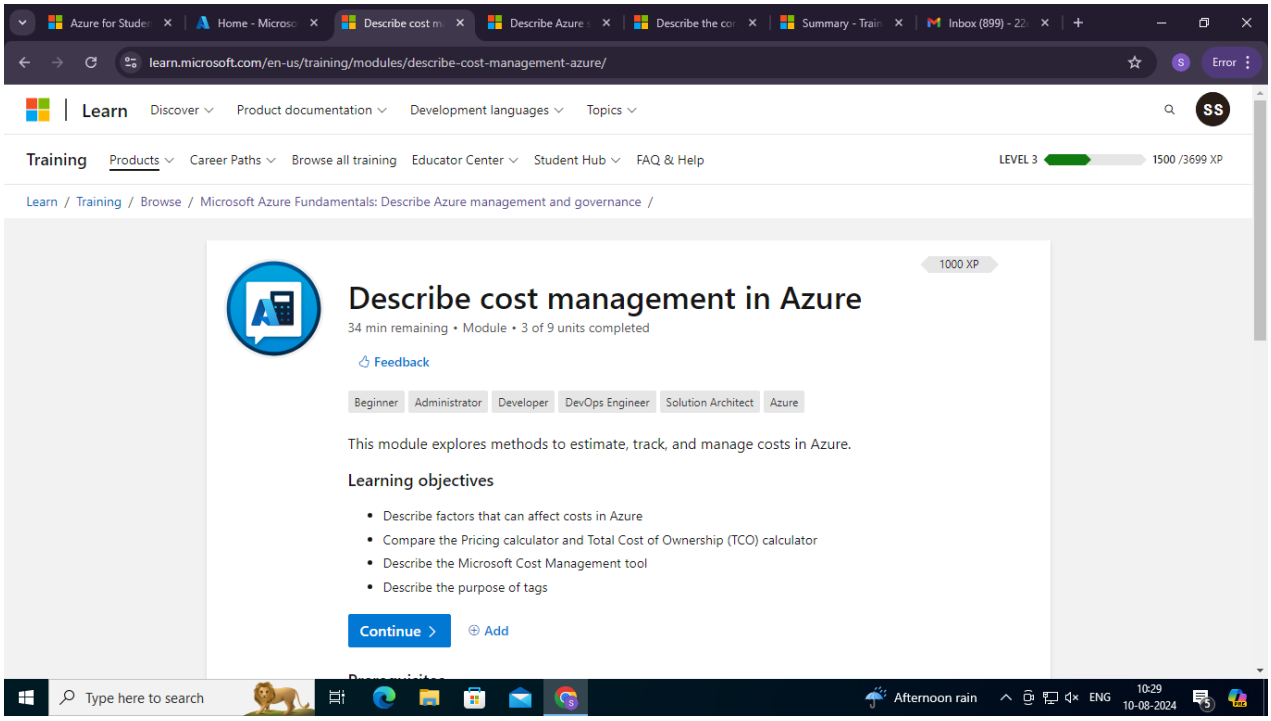
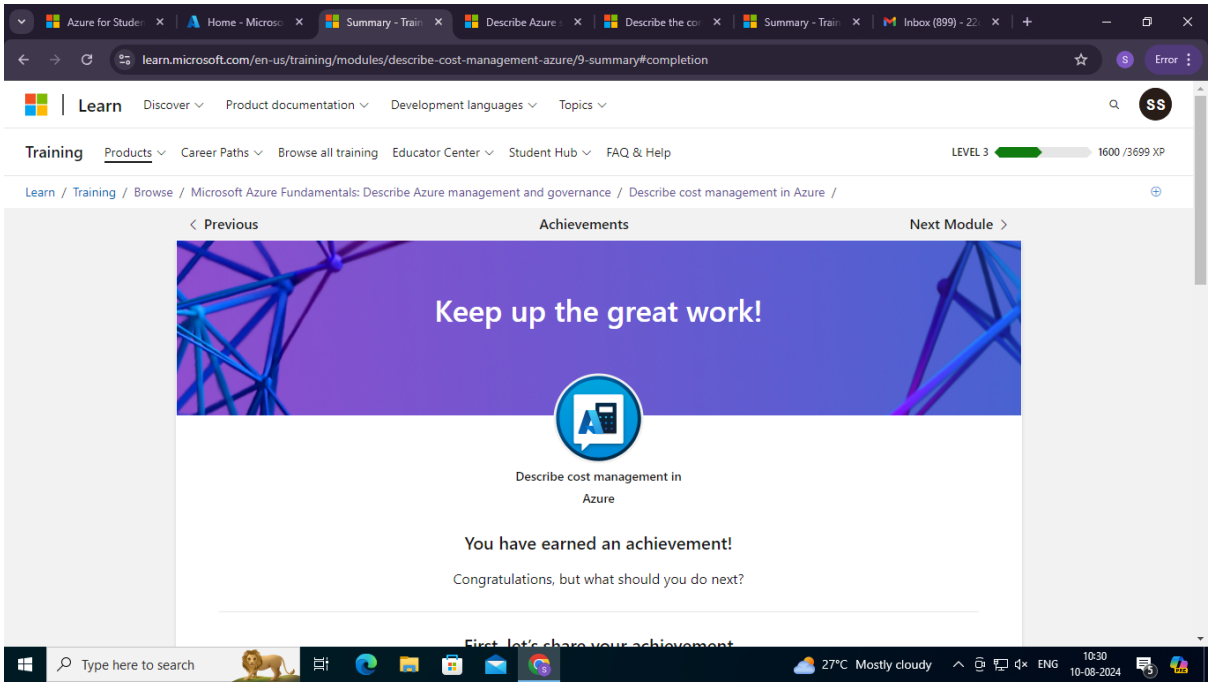
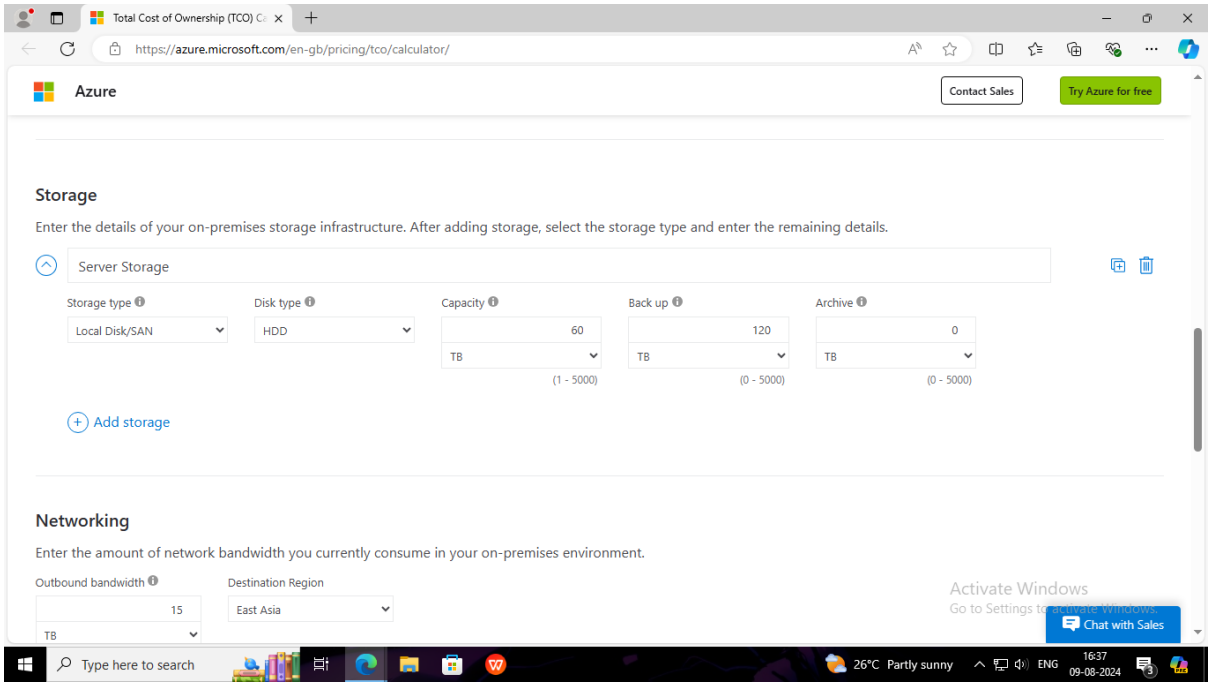
shakthi1234
Container
unnamed (1).png
Blob
Save
Discard
Download
Refresh
Delete
Change tier
Acquire lease
Overview
Versions
Snapshots
Edit
Generate SAS
Copy to clipboard
Properties
URL
https://shakthi1234.blo...
LAST MODIFIED
09/08/2024, 4:19:47 pm
CREATION TIME
09/08/2024, 4:19:47 pm
VERSION ID
TYPE
Block blob
SIZE
129.29 KiB
ACCESS TIER
Hot (Inferred)
ACCESS TIER LAST MODIFIED
N/A
ARCHIVE STATUS
REHYDRATE PRIORITY
SERVER ENCRYPTED
true
ETAG
0x8DCB860FC79A7E1
VERSION-LEVEL IMMUTABILITY POLICY
Disabled
CACHE-CONTROL
CONTENT-TYPE
image/png
Activate Windows
Go to Settings to activate Windows.
Type here to search
26°C Partly sunny
ENG
16:24
09-08-2024

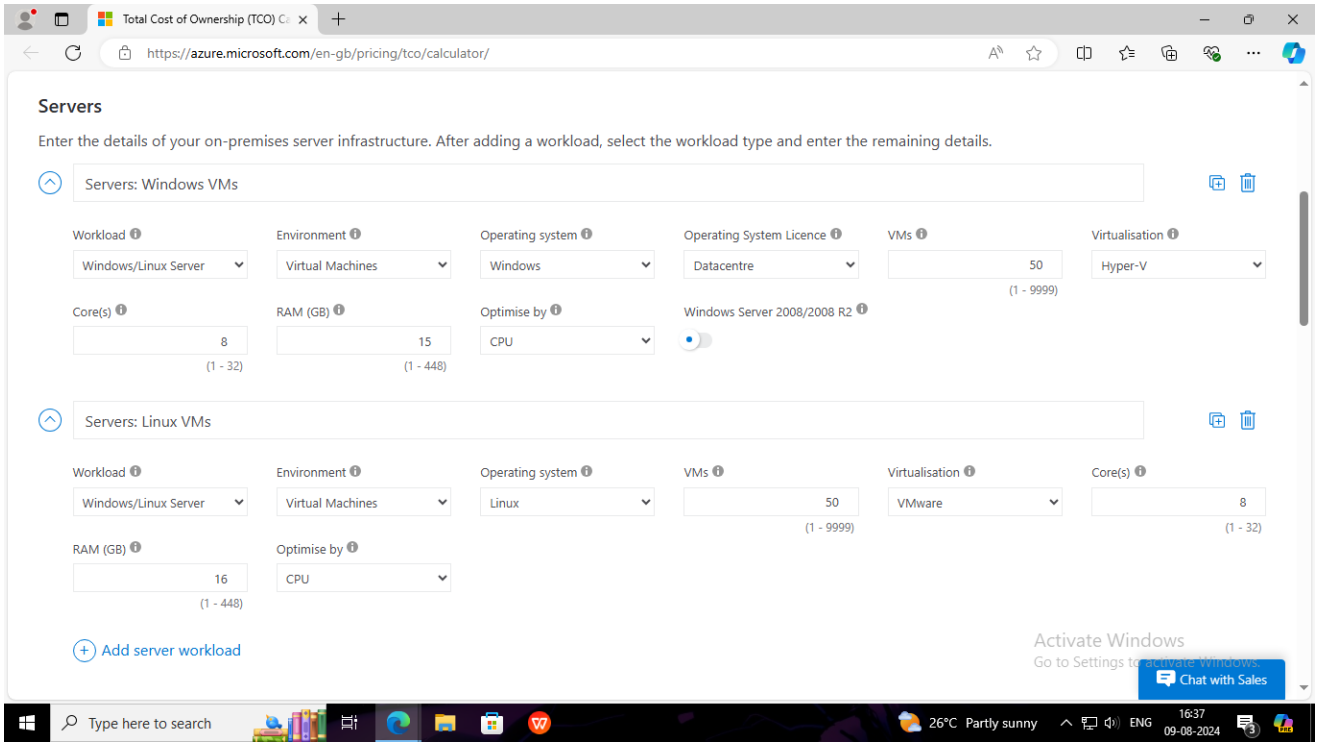


COST MANAGEMENT IN AZURE:




learn.microsoft.com/en-us/training/modules/describe-cost-management-azure/9-summary#completion
Learn
Discover
Product documentation
Development languages
Topics
SS
Training
Products
Career Paths
Browse all training
Educator Center
Student Hub
FAQ & Help
LEVEL 3
1600 /3699 XP
Learn / Training / Browse / Microsoft Azure Fundamentals: Describe Azure management and governance / Describe cost management in Azure /
Previous
Achievements
Next Module
Keep up the great work!
Describe cost management in Azure
You have earned an achievement!
Congratulations, but what should you do next?
Type here to search
27°C Mostly cloudy
ENG
10:30
10-08-2024


Total Cost of Ownership (TCO) C
https://azure.microsoft.com/en-gb/pricing/tco/calculator/
Azure
Contact Sales
Try Azure for free
Storage
Enter the details of your on-premises storage infrastructure. After adding storage, select the storage type and enter the remaining details.
Server Storage
Storage type
Local Disk/SAN
Disk type
HDD
Capacity
60
TB
(1 - 5000)
Back up
120
TB
(0 - 5000)
Archive
0
TB
(0 - 5000)
Add storage
Networking
Enter the amount of network bandwidth you currently consume in your on-premises environment.
Outbound bandwidth
15
TB
Destination Region
East Asia
Activate Windows
Chat with Sales
Type here to search
26°C Partly sunny
ENG
16:37
09-08-2024


Total Cost of Ownership (TCO) C
https://azure.microsoft.com/en-gb/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 Licence
Datacentre
VMs
50
(1 - 9999)
Virtualisation
Hyper-V
Core(s)
8
(1 - 32)
RAM (GB)
15
(1 - 448)
Optimise by
CPU
Windows Server 2008/2008 R2
Servers: Linux VMs
Workload
Windows/Linux Server
Environment
Virtual Machines
Operating system
Linux
VMs
50
(1 - 9999)
Virtualisation
VMware
Core(s)
8
(1 - 32)
RAM (GB)
16
(1 - 448)
Optimise by
CPU
Add server workload
Activate Windows
Chat with Sales
Type here to search
26°C Partly sunny
ENG
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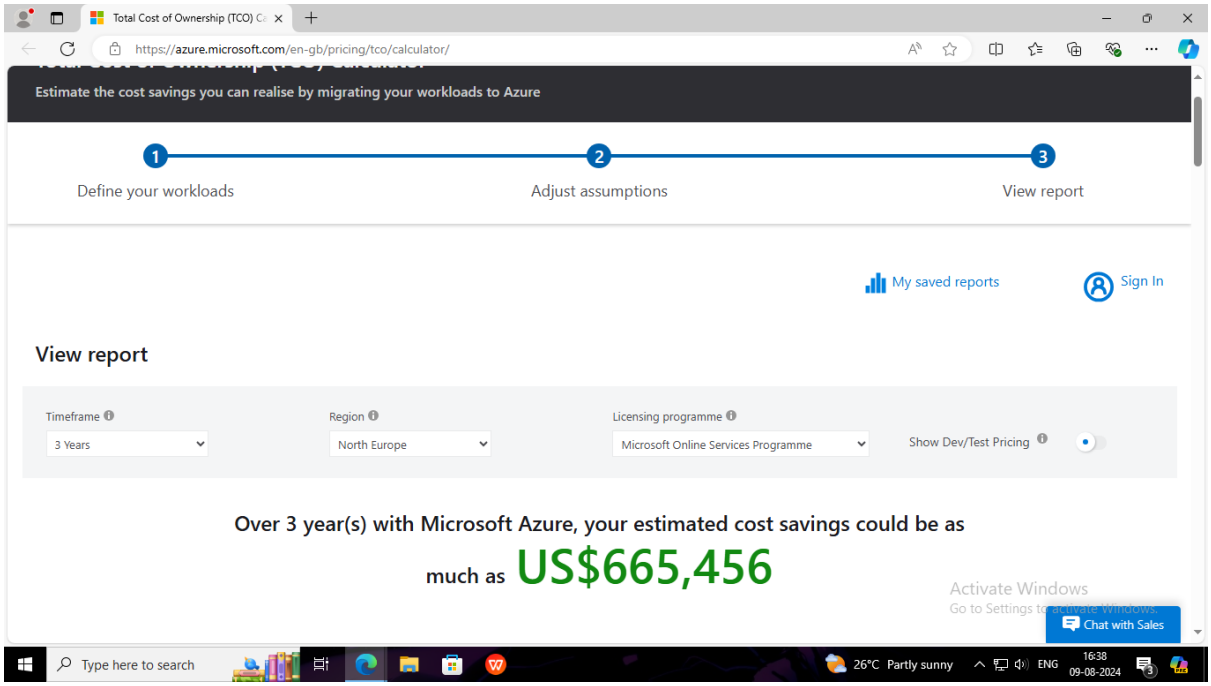
Total Cost of Ownership (TCO) C
https://azure.microsoft.com/en-gb/pricing/tco/calculator/
Estimate the cost savings you can realise by migrating your workloads to Azure
1
Define your workloads
2
Adjust assumptions
3
View report
My saved reports
Sign In
View report
Timeframe
3 Years
Region
North Europe
Licensing programme
Microsoft Online Services Programme
Show Dev/Test Pricing
Over 3 year(s) with Microsoft Azure, your estimated cost savings could be as
much as US$665,456
Activate Windows
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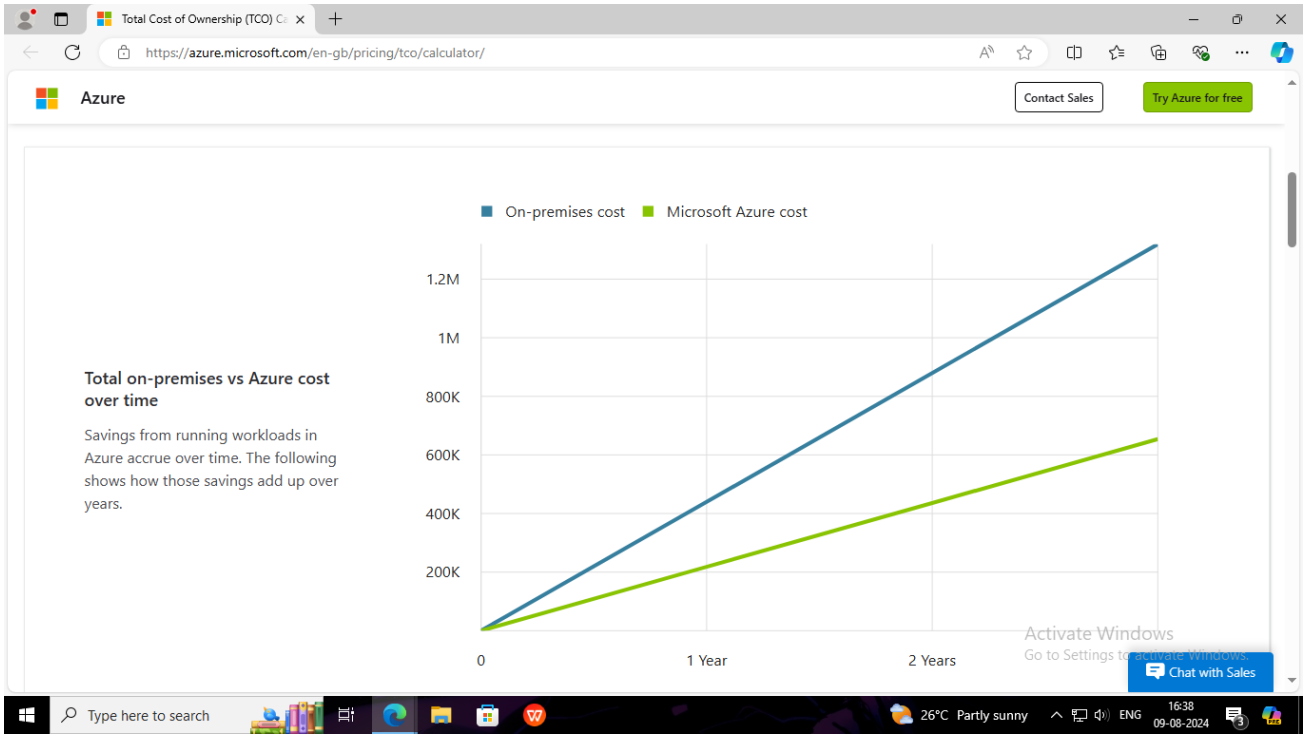
Total Cost of Ownership (TCO) C
https://azure.microsoft.com/en-gb/pricing/tco/calculator/
Azure
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Try Azure for free
On-premises cost
Microsoft Azure cost
Total on-premises vs Azure cost over time
Savings from running workloads in Azure accrue over time. The following shows how those savings add up over years.
1.2M
1M
800K
600K
400K
200K
0
1 Year
2 Years
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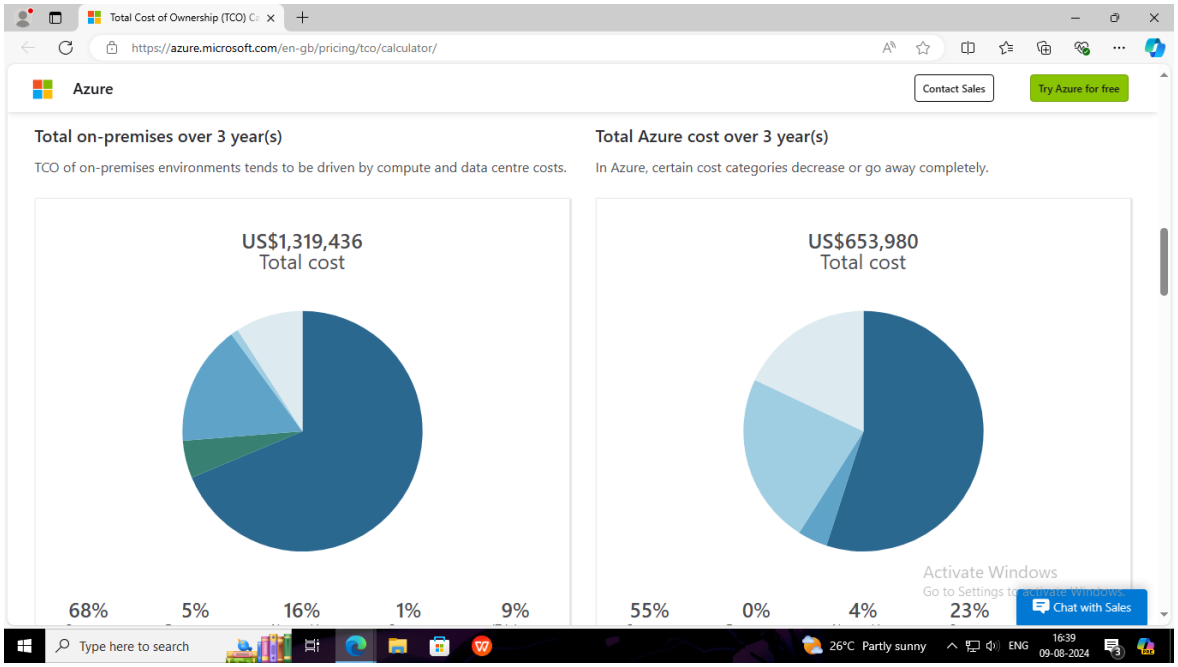
Total Cost of Ownership (TCO) C
https://azure.microsoft.com/en-gb/pricing/tco/calculator/
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Total on-premises over 3 year(s)
TCO of on-premises environments tends to be driven by compute and data centre costs.
US$1,319,436
Total cost
68%
5%
16%
1%
9%
Total Azure cost over 3 year(s)
In Azure, certain cost categories decrease or go away completely.
US$653,980
Total cost
55%
0%
4%
23%
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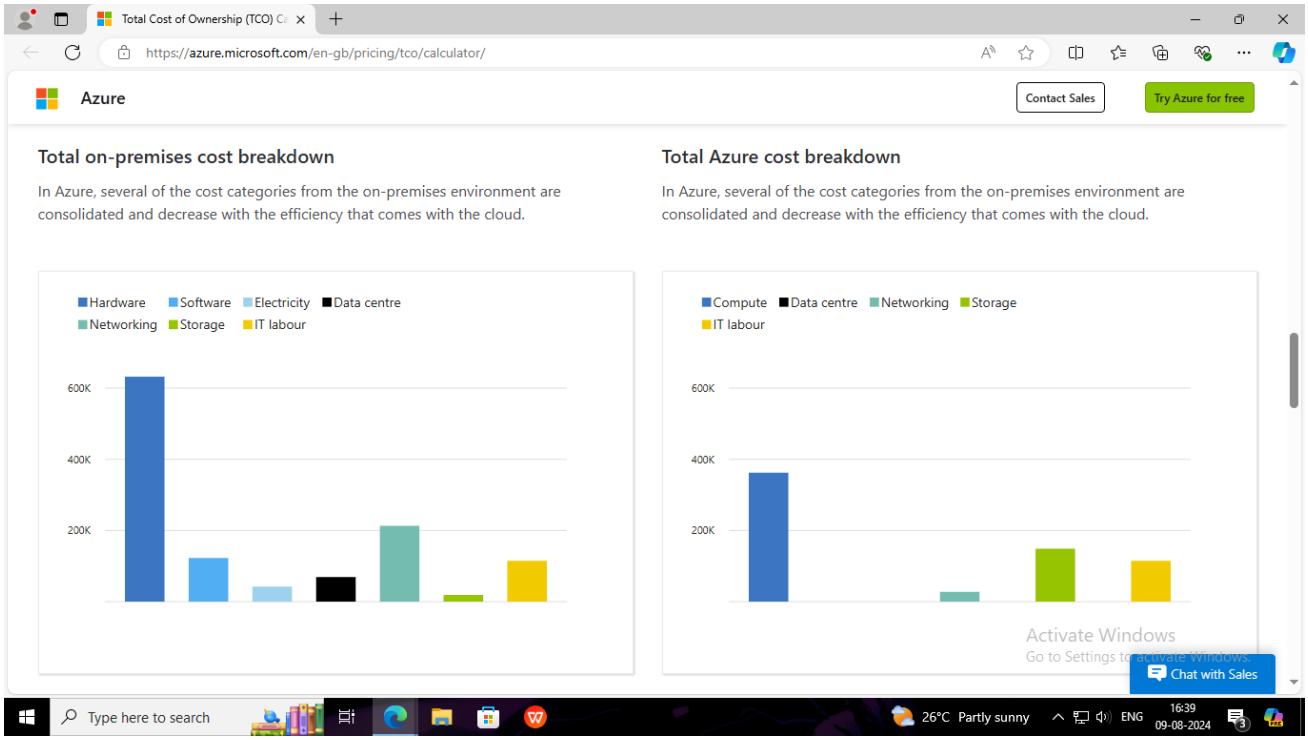
Total Cost of Ownership (TCO) C
https://azure.microsoft.com/en-gb/pricing/tco/calculator/
Azure
Contact Sales
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Total on-premises cost breakdown
In Azure, several of the cost categories from the on-premises environment are consolidated and decrease with the efficiency that comes with the cloud.
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.
Hardware
Software
Electricity
Data centre
Networking
Storage
IT labour
600K
400K
200K
Compute
Data centre
Networking
Storage
IT labour
600K
400K
200K
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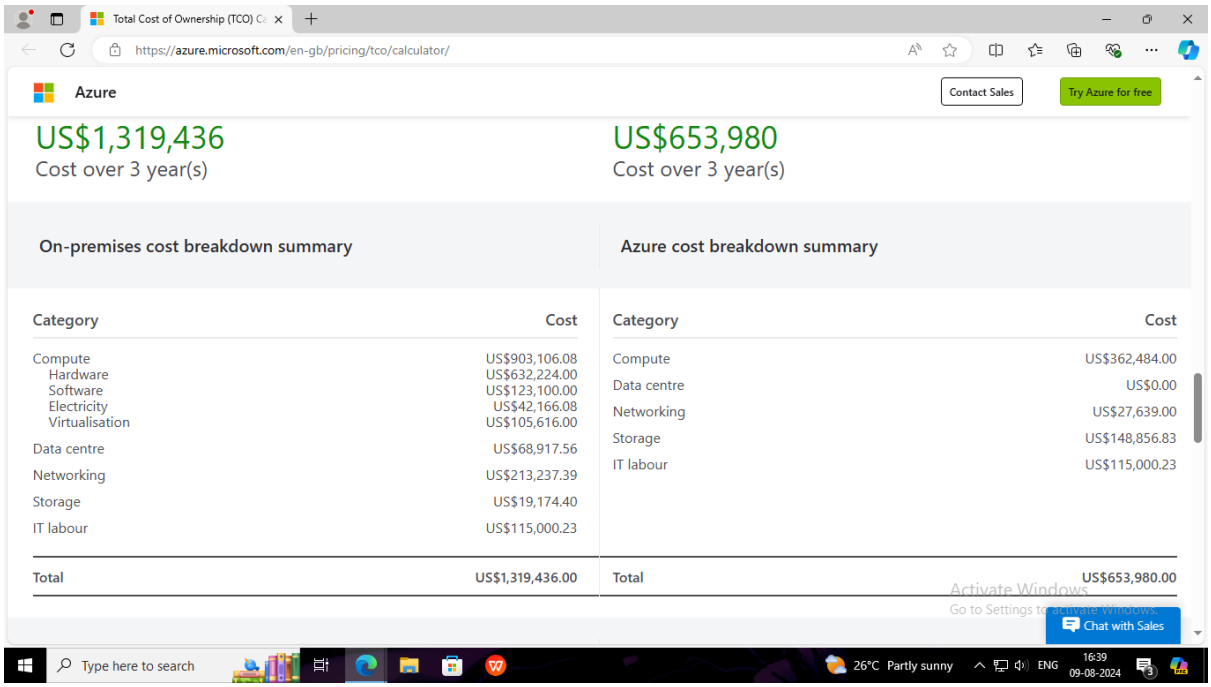
Total Cost of Ownership (TCO) C
https://azure.microsoft.com/en-gb/pricing/tco/calculator/
Azure
Contact Sales
Try Azure for free
US$1,319,436
Cost over 3 year(s)
US$653,980
Cost over 3 year(s)
On-premises cost breakdown summary
Azure cost breakdown summary
Category
Cost
Compute US$903,106.08
Hardware US$632,224.00
Software US$123,100.00
Electricity US$42,166.08
Virtualisation US$105,616.00
Data centre US$68,917.56
Networking US$213,237.39
Storage US$19,174.40
IT labour US$115,000.23
Total US$1,319,436.00
Category
Cost
Compute US$362,484.00
Data centre US$0.00
Networking US$27,639.00
Storage US$148,856.83
IT labour US$115,000.23
Total US$653,980.00
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