MICROSOFT AZURE

Name : SANJANA V

Department : Btech. Artificial Intelligence and Data Science

GitHub : https://github.com/sanjana1925/wepage1.git

1. REQUESTING A CLOUD SHELL SUCCEEDED.

SandBox:

Welcome to Azure Cloud Shell

- az vm create --resource-group "learn-1dd151f8-37c6-44cc-a975-8f08e65c30c2" --name my-vm --public-ip-sku Standard --image Ubuntu2204 --admin-username azureuser --generate-ssh-keys

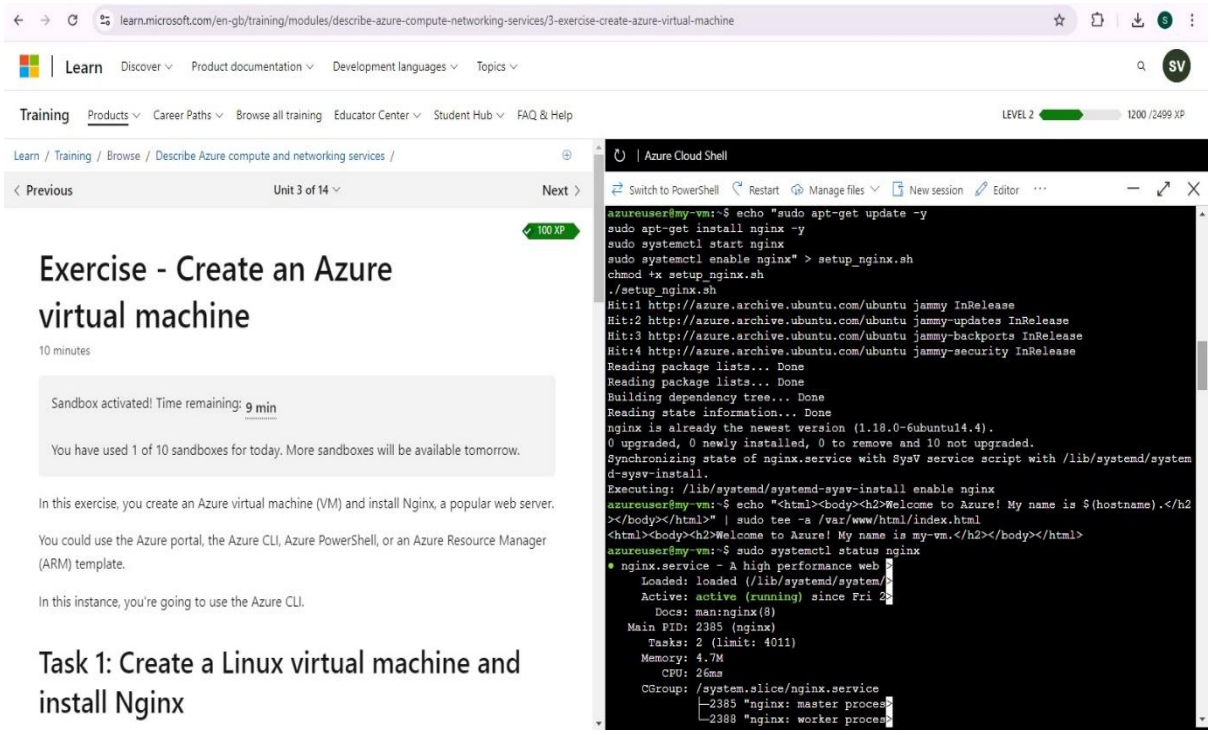
- az vm extension set --resource-group "learn-1dd151f8-37c6-44cc-a975-8f08e65c30c2" --vm-name my-vm --name customScript --publisher Microsoft.Azure.Extensions --version 2.1 --settings '{"fileUris":["https://raw.githubusercontent.com/MicrosoftDocs/mslearn-welcome-to-azure/master/configure-nginx.sh"]}' --protected-settings '{"commandToExecute": "./configure-nginx.sh"}'

- sudo apt-get update
- ssh azureuser@ 13.87.188.36
- 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-1dd151f8-37c6-44cc-a975-8f08e65c30c2" --name my-vm --port 80
- az vm list-ip-addresses --resource-group "learn-1dd151f8-37c6-44cc-a975-8f08e65c30c2" --name my-vm --output table
- ssh azureuser@ 13.87.188.36
- sudo apt-get update
- git clone https://github.com/sanjana1925/wepage1.git
- 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

WORKING:


learn.microsoft.com/en-gb/training/modules/describe-azure-compute-networking-services/3-exercise-create-azure-virtual-machine
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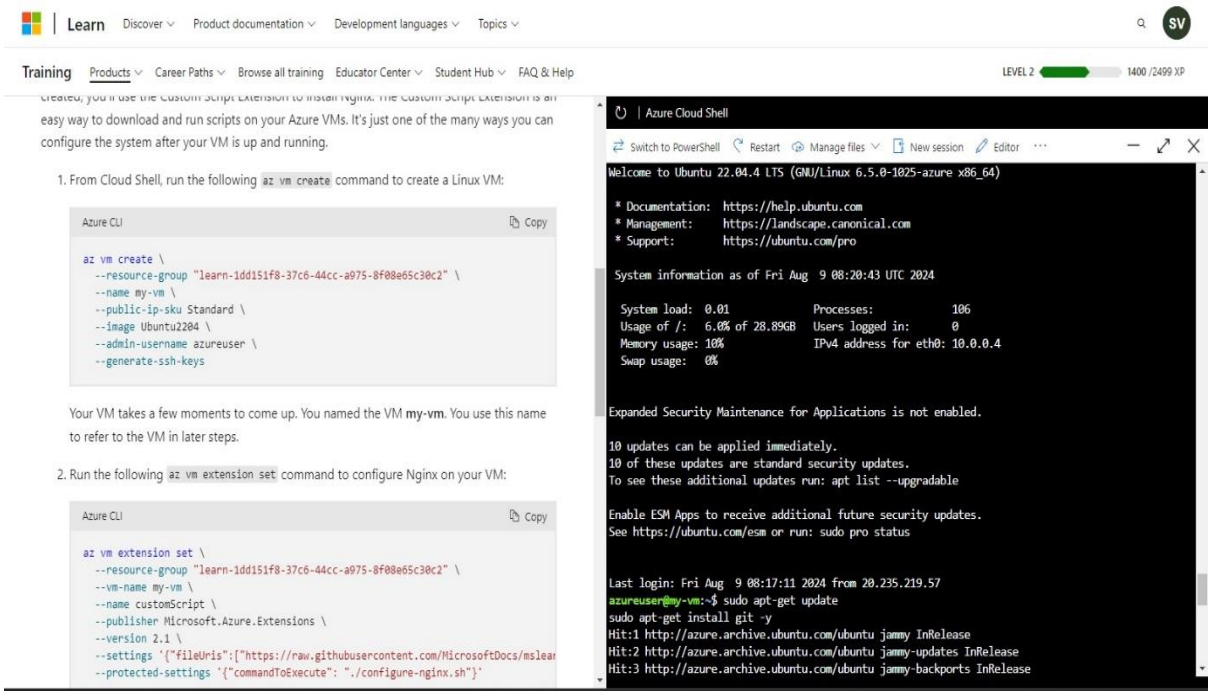
Exercise - Create an Azure virtual machine
10 minutes
Sandbox activated! Time remaining: 9 min
You have used 1 of 10 sandboxes for today. More sandboxes will be available tomorrow.
In this exercise, you create an Azure virtual machine (VM) and install Nginx, a popular web server.
You could use the Azure portal, the Azure CLI, Azure PowerShell, or an Azure Resource Manager (ARM) template.
In this instance, you're going to use the Azure CLI.
Task 1: Create a Linux virtual machine and install Nginx
Azure Cloud Shell
Switch to PowerShell
Restart
Manage files
New session
Editor
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 10 not upgraded.
Synchronizing state of nginx.service with SysV service script with /lib/systemd/system
d-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
Loaded: loaded (/lib/systemd/system/
Active: active (running) since Fri 2
Docs: man:nginx(8)
Main PID: 2385 (nginx)
Tasks: 2 (limit: 4011)
Memory: 4.7M
CPU: 26ms
CGroup: /system.slice/nginx.service
├─2385 "nginx: master proces
└─2388 "nginx: worker proces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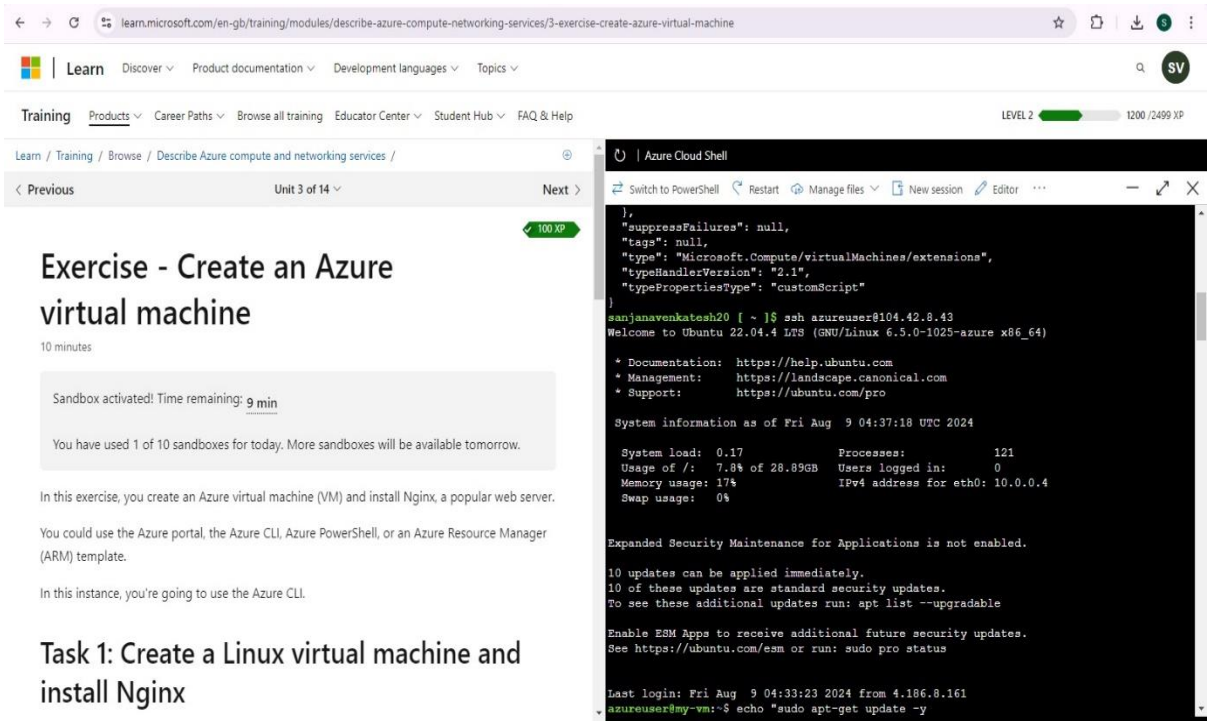
easy way to download and run scripts on your Azure VMs. It's just one of the many ways you can configure the system after your VM is up and running.
1. From Cloud Shell, run the following az vm create command to create a Linux VM:
Azure CLI
Copy
az vm create \
--resource-group "learn-1dd151f8-37c6-44cc-a975-8f08e65c30c2" \
--name my-vm \
--public-ip-sku Standard \
--image Ubuntu2204 \
--admin-username azureuser \
--generate-ssh-keys
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-1dd151f8-37c6-44cc-a975-8f08e65c30c2" \
--vm-name my-vm \
--name customScript \
--publisher Microsoft.Azure.Extensions \
--version 2.1 \
--settings '{"fileUris":["https://raw.githubusercontent.com/MicrosoftDocs/mslear
--protected-settings '{"commandToExecute": "./configure-nginx.sh"}'
Azure Cloud Shell
Switch to PowerShell
Restart
Manage files
New session
Editor
Welcome to Ubuntu 22.04.4 LTS (GNU/Linux 6.5.0-1025-azure x86_64)
* Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/pro
System information as of Fri Aug 9 08:20:43 UTC 2024
System load: 0.01 Processes: 106
Usage of /: 6.0% of 28.89GB Users logged in: 0
Memory usage: 10% IPv4 address for eth0: 10.0.0.4
Swap usage: 0%
Expanded Security Maintenance for Applications is not enabled.
10 updates can be applied immediately.
10 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status
Last login: Fri Aug 9 08:17:11 2024 from 20.235.219.57
azureuser@my-vm:~$ sudo apt-get update
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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Exercise - Create an Azure virtual machine
10 minutes
Sandbox activated! Time remaining: 9 min
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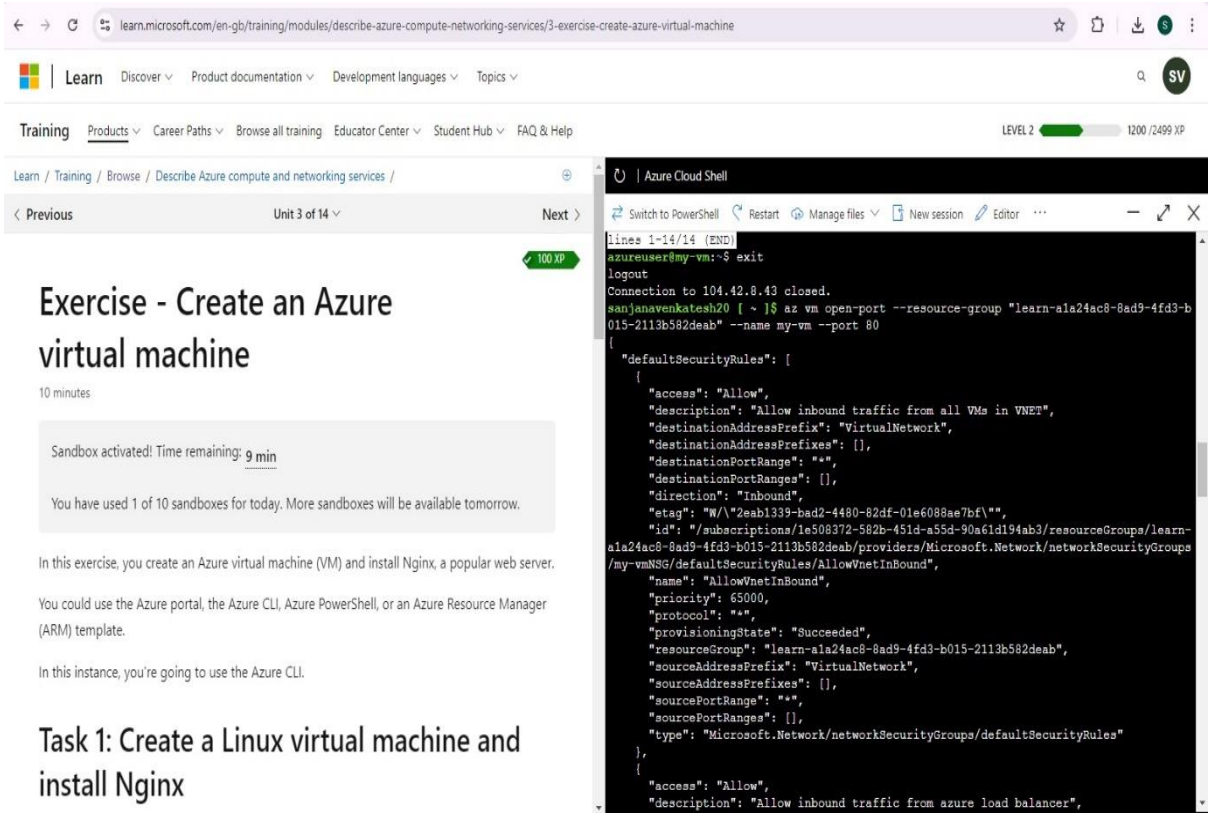
In this instance, you're going to use the Azure CLI.
Task 1: Create a Linux virtual machine and install Nginx
Azure Cloud Shell
Switch to PowerShell
Restart
Manage files
New session
Editor
},
"suppressFailures": null,
"tags": null,
"type": "Microsoft.Compute/virtualMachines/extensions",
"typeHandlerVersion": "2.1",
"typePropertiesType": "customScript"
}
sanjanavenkatesh20 [~]$ ssh azureuser@104.42.8.43
Welcome to Ubuntu 22.04.4 LTS (GNU/Linux 6.5.0-1025-azure x86_64)
* Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/pro
System information as of Fri Aug 9 04:37:18 UTC 2024
System load: 0.17 Processes: 121
Usage of /: 7.8% of 28.89GB Users logged in: 0
Memory usage: 17% IPv4 address for eth0: 10.0.0.4
Swap usage: 0%
Expanded Security Maintenance for Applications is not enabled.
10 updates can be applied immediately.
10 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status
Last login: Fri Aug 9 04:33:23 2024 from 4.186.8.161
azureuser@my-vm:~$ echo "sudo apt-get update -y


learn.microsoft.com/en-gb/training/modules/describe-azure-compute-networking-services/3-exercise-create-azure-virtual-machine
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Exercise - Create an Azure virtual machine
10 minutes
Sandbox activated! Time remaining: 9 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.
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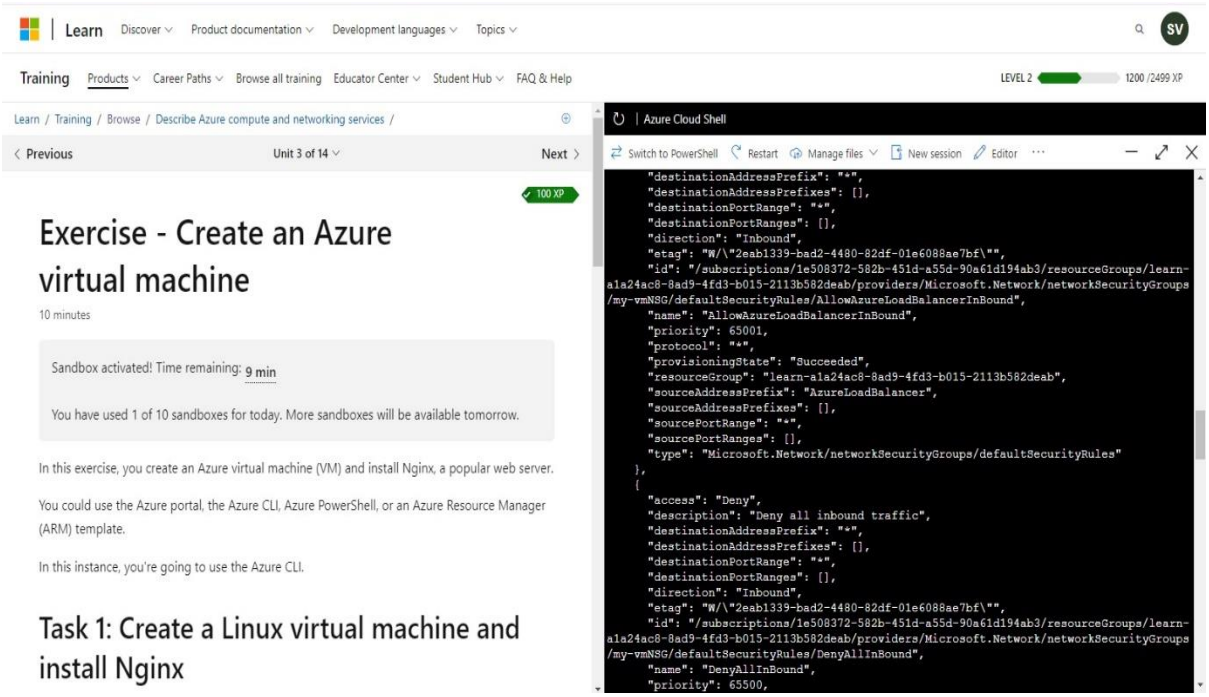
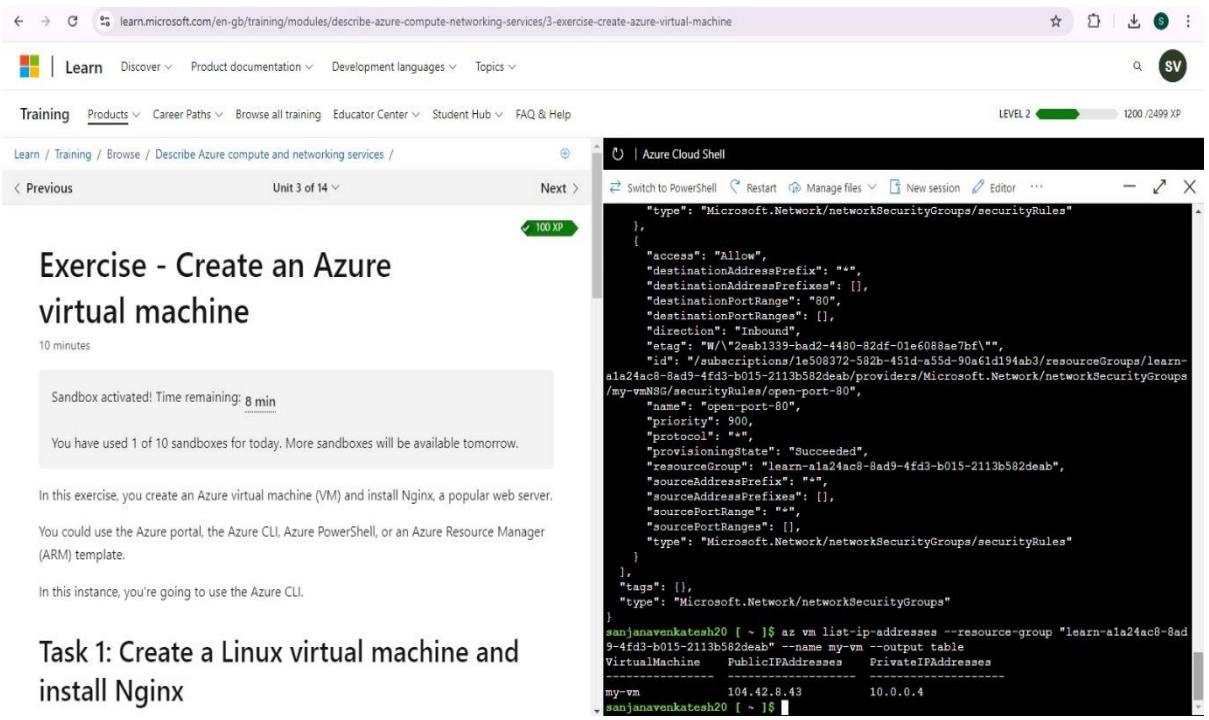
In this instance, you're going to use the Azure CLI.
Task 1: Create a Linux virtual machine and install Nginx
Azure Cloud Shell
Switch to PowerShell
Restart
Manage files
New session
Editor
lines 1-14/14 (END)
azureuser@my-vm:~$ exit
logout
Connection to 104.42.8.43 closed.
sanjanavenkatesh20 [~]$ az vm open-port --resource-group "learn-a1a24ac8-8ad9-4fd3-b015-2113b582deab" --name my-vm --port 80
{
"defaultSecurityRules": [
{
"access": "Allow",
"description": "Allow inbound traffic from all VMs in VNET",
"destinationAddressPrefix": "VirtualNetwork",
"destinationAddressPrefixes": [],
"destinationPortRange": "*",
"destinationPortRanges": [],
"direction": "Inbound",
"etag": "W/\"2eab1339-bad2-4480-82df-01e6088ae7bf\"",
"id": "/subscriptions/1e508372-582b-451d-a55d-90a61d194ab3/resourceGroups/learn-a1a24ac8-8ad9-4fd3-b015-2113b582deab/providers/Microsoft.Network/networkSecurityGroups/my-vmNSG/defaultSecurityRules/AllowVnetInBound",
"name": "AllowVnetInBound",
"priority": 65000,
"protocol": "*",
"provisioningState": "Succeeded",
"resourceGroup": "learn-a1a24ac8-8ad9-4fd3-b015-2113b582deab",
"sourceAddressPrefix": "VirtualNetwork",
"sourceAddressPrefixes": [],
"sourcePortRange": "*",
"sourcePortRanges": [],
"type": "Microsoft.Network/networkSecurityGroups/defaultSecurityRules"
},
{
"access": "Allow",
"description": "Allow inbound traffic from azure load balancer",

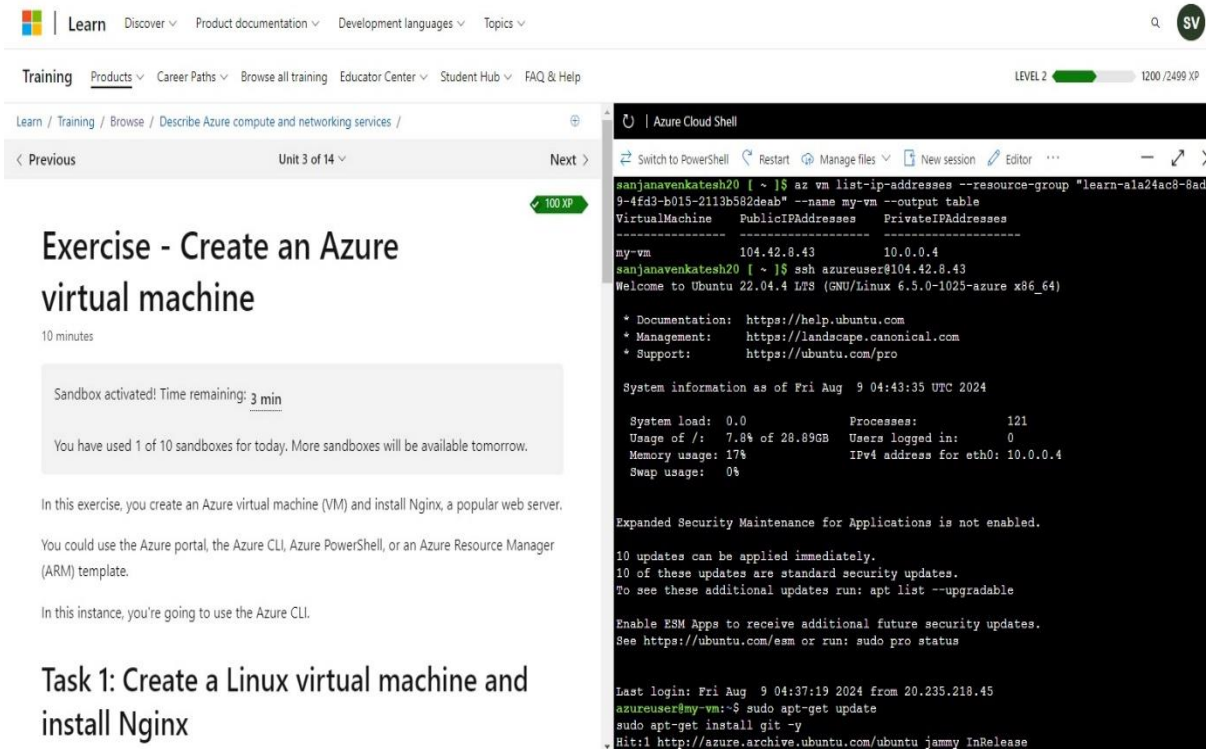




Welcome to Azure! My name is my-vm.

Welcome to Azure! My name is my-vm.

Welcome to Azure! My name is my-vm.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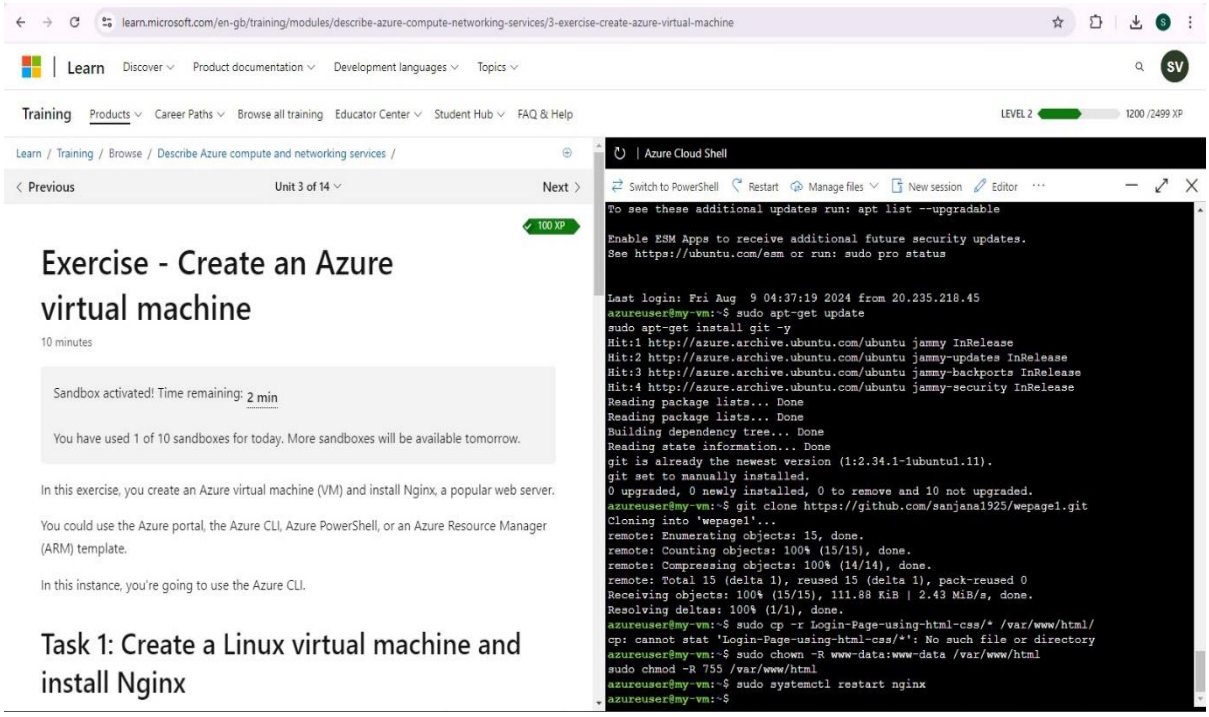
Exercise - Create an Azure virtual machine
10 minutes
Sandbox activated! Time remaining: 3 min
You have used 1 of 10 sandboxes for today. More sandboxes will be available tomorrow.
In this exercise, you create an Azure virtual machine (VM) and install Nginx, a popular web server.
You could use the Azure portal, the Azure CLI, Azure PowerShell, or an Azure Resource Manager (ARM) template.
In this instance, you're going to use the Azure CLI.
Task 1: Create a Linux virtual machine and install Nginx
Azure Cloud Shell
Switch to PowerShell
Restart
Manage files
New session
Editor
sanjanavenkatesh20 [~]$ az vm list-ip-addresses --resource-group "learn-a1a24ac8-8ad9-4fd3-b015-2113b582deab" --name my-vm --output table
VirtualMachine PublicIPAddresses PrivateIPAddresses
my-vm 104.42.8.43 10.0.0.4
sanjanavenkatesh20 [~]$ ssh azureuser@104.42.8.43
Welcome to Ubuntu 22.04.4 LTS (GNU/Linux 6.5.0-1025-azure x86_64)
* Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/pro
System information as of Fri Aug 9 04:43:35 UTC 2024
System load: 0.0 Processes: 121
Usage of /: 7.8% of 28.89GB Users logged in: 0
Memory usage: 17% IPv4 address for eth0: 10.0.0.4
Swap usage: 0%
Expanded Security Maintenance for Applications is not enabled.
10 updates can be applied immediately.
10 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status
Last login: Fri Aug 9 04:37:19 2024 from 20.235.218.45
azureuser@my-vm:~$ sudo apt-get update
sudo apt-get install git -y
Hit:1 http://azure.archive.ubuntu.com/ubuntu jammy InRelease


learn.microsoft.com/en-gb/training/modules/describe-azure-compute-networking-services/3-exercise-create-azure-virtual-machine
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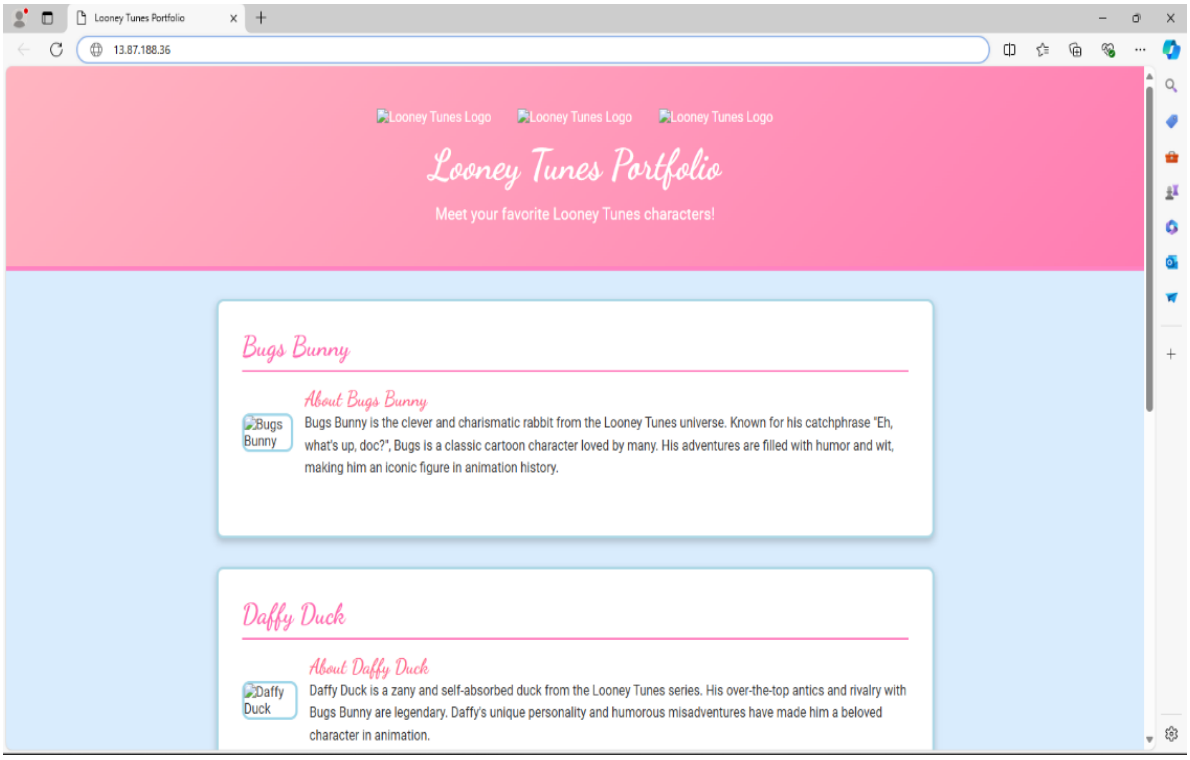
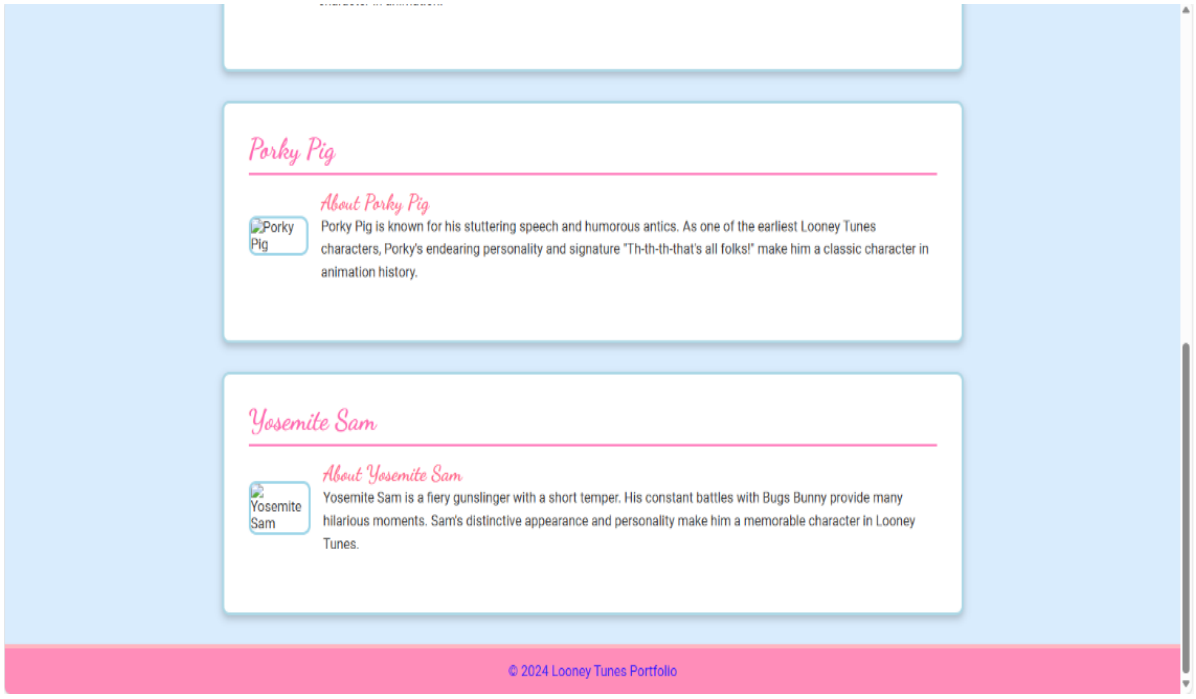
100 XP
Exercise - Create an Azure virtual machine
10 minutes
Sandbox activated! Time remaining: 2 min
You have used 1 of 10 sandboxes for today. More sandboxes will be available tomorrow.
In this exercise, you create an Azure virtual machine (VM) and install Nginx, a popular web server.
You could use the Azure portal, the Azure CLI, Azure PowerShell, or an Azure Resource Manager (ARM) template.
In this instance, you're going to use the Azure CLI.
Task 1: Create a Linux virtual machine and install Nginx
Azure Cloud Shell
Switch to PowerShell
Restart
Manage files
New session
Editor
To see these additional updates run: apt list --upgradable
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status
Last login: Fri Aug 9 04:37:19 2024 from 20.235.218.45
azureuser@my-vm:~$ sudo apt-get update
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/sanjana1925/wepage1.git
Cloning into 'wepage1'...
remote: Enumerating objects: 15, done.
remote: Counting objects: 100% (15/15), done.
remote: Compressing objects: 100% (14/14), done.
remote: Total 15 (delta 1), reused 15 (delta 1), pack-reused 0
Receiving objects: 100% (15/15), 111.88 KiB | 2.43 MiB/s, done.
Resolving deltas: 100% (1/1), done.
azureuser@my-vm:~$ sudo cp -r Login-Page-using-html-css/* /var/www/html/
cp: cannot stat 'Login-Page-using-html-css/*': No such file or directory
azureuser@my-vm:~$ sudo chown -R www-data:www-data /var/www/html
sudo chmod -R 755 /var/www/html
azureuser@my-vm:~$ sudo systemctl restart nginx
azureuser@my-vm:~$

OUTPUT:


Looney Tunes Portfolio
13.87.188.36
Looney Tunes Logo
Looney Tunes Logo
Looney Tunes Logo
Looney Tunes Portfolio
Meet your favorite Looney Tunes characters!
Bugs Bunny
About Bugs Bunny
Bugs Bunny
Bugs Bunny is the clever and charismatic rabbit from the Looney Tunes universe. Known for his catchphrase "Eh, what's up, doc?", Bugs is a classic cartoon character loved by many. His adventures are filled with humor and wit, making him an iconic figure in animation history.
Daffy Duck
About Daffy Duck
Daffy Duck
Daffy Duck is a zany and self-absorbed duck from the Looney Tunes series. His over-the-top antics and rivalry with Bugs Bunny are legendary. Daffy's unique personality and humorous misadventures have made him a beloved character in animation.


Porky Pig
About Porky Pig
Porky Pig
Porky Pig is known for his stuttering speech and humorous antics. As one of the earliest Looney Tunes characters, Porky's endearing personality and signature "Th-th-th-that's all folks!" make him a classic character in animation history.
Yosemite Sam
About Yosemite Sam
Yosemite Sam
Yosemite Sam is a fiery gunslinger with a short temper. His constant battles with Bugs Bunny provide many hilarious moments. Sam's distinctive appearance and personality make him a memorable character in Looney Tunes.
© 2024 Looney Tunes Portfolio

2. DESCRIBE AZURE STORAGE SERVICES

WORK WITH BLOB STORAGE

In this section, you'll create a Blob container and upload a picture.

1. Under **Data storage**, select **Containers**.
2. Select **+ Container** and complete the information.
3. Select Create.

Note

Step 4 will need an image. If you want to upload an image you already have on your computer, continue to Step 4. Otherwise, open a new browser window and search Bing for an image of a flower. Save the image to your computer.

4. Back in the Azure portal, select the container you created, then select Upload.
5. Browse for the image file you want to upload. Select it and then select upload.

Note

You can upload as many blobs as you like in this way. New blobs will be listed within the container.

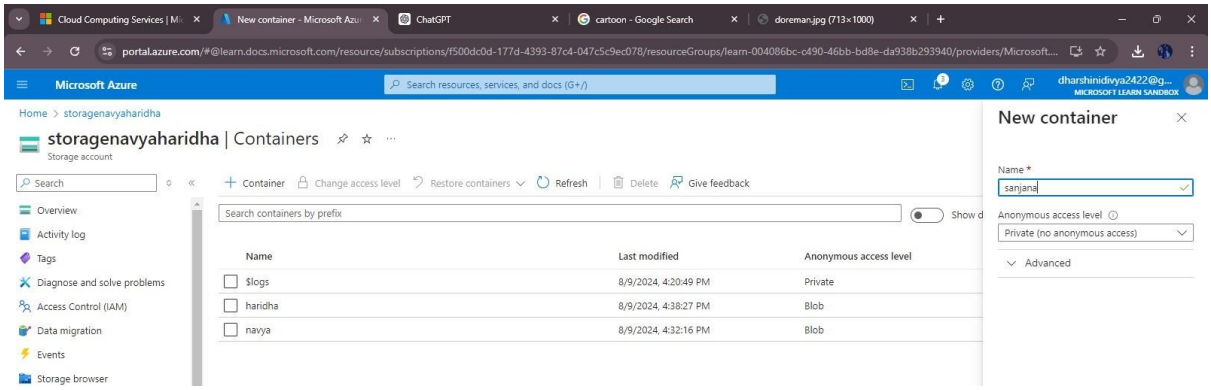
6. Select the Blob (file) you just uploaded. You should be on the properties tab.
7. Copy the URL from the URL field and paste it into a new tab.

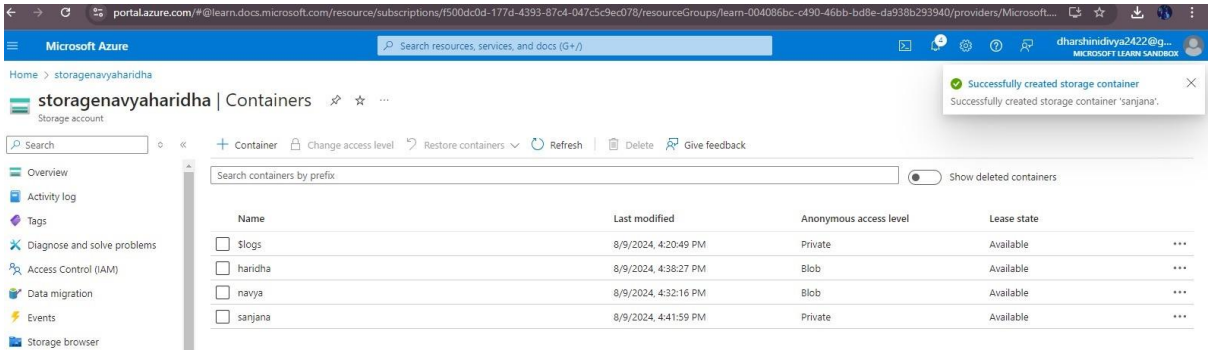
- ### Change the access level of your blob

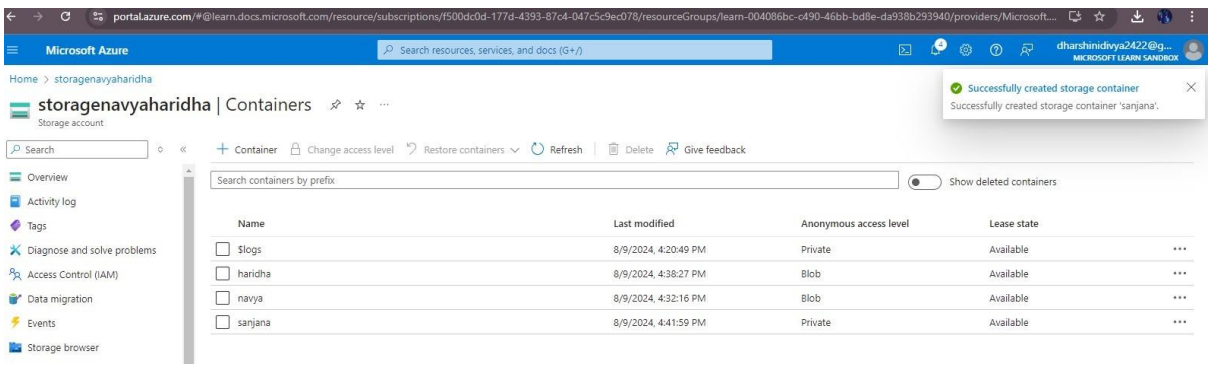
1. Go back to the Azure portal.
2. Select Change access level.

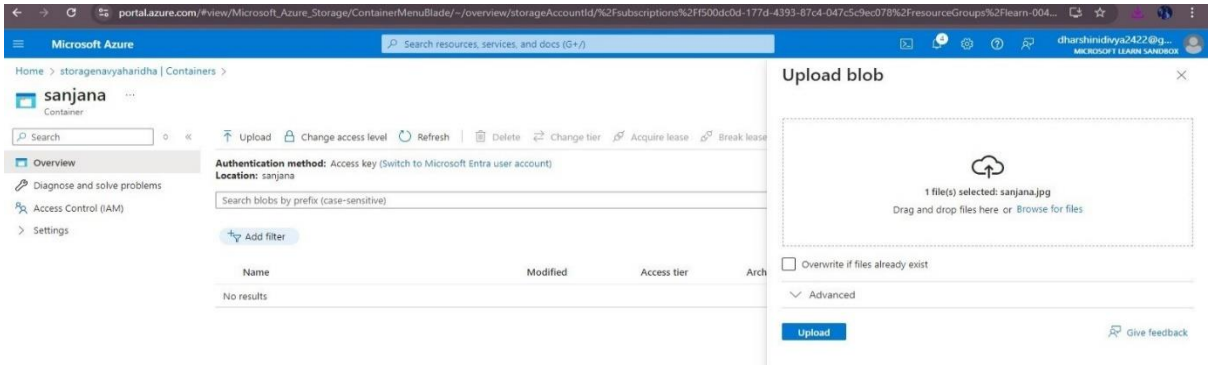
3. Set the Anonymous access level to Blob (anonymous read access for blobs only).
4. Select OK.
5. Refresh the tab where you attempted to access the file earlier.

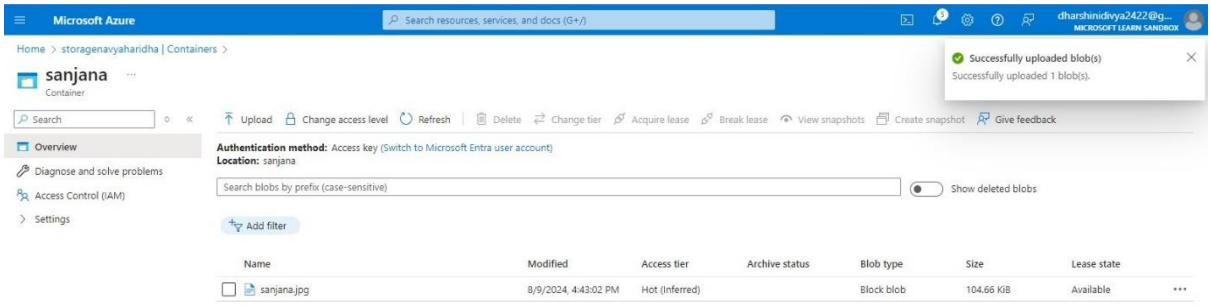
WORKING:

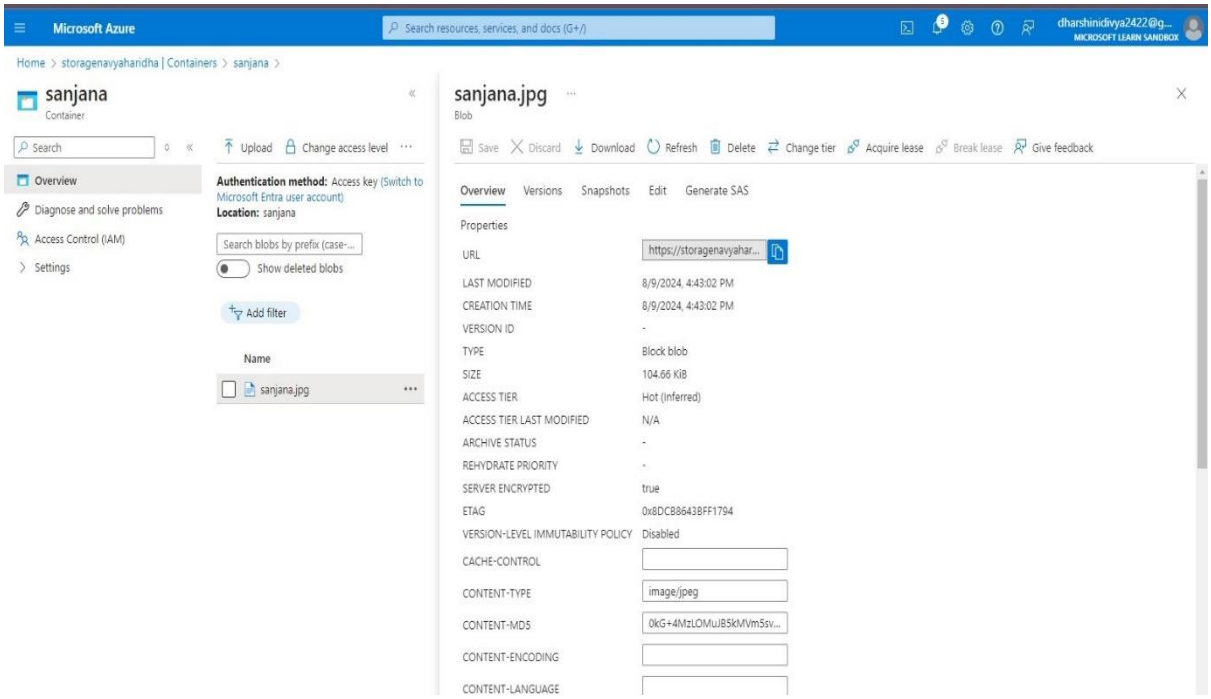




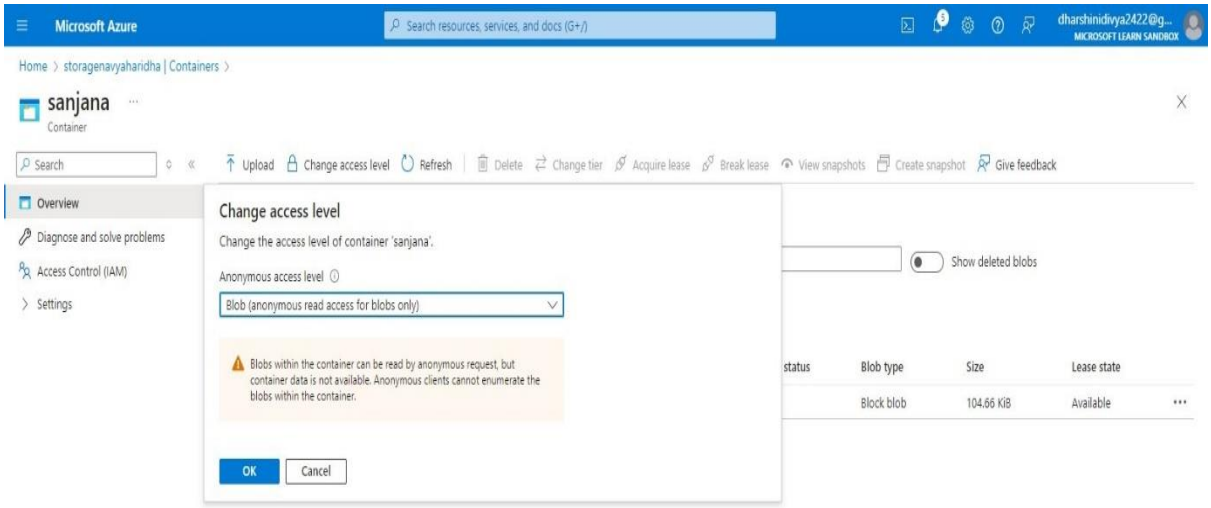



Microsoft Azure
Search resources, services, and docs (G+/)
Home > storagenavyaharidha | Containers >
sanjana
Container
Search
Overview
Diagnose and solve problems
Access Control (IAM)
Settings
Upload
Change access level
Refresh
Delete
Change tier
Acquire lease
Break lease
Authentication method: Access key (Switch to Microsoft Entra user account)
Location: sanjana
Search blobs by prefix (case-sensitive)
Add filter
Name
Modified
Access tier
No results
Upload blob
1 file(s) selected: sanjana.jpg
Drag and drop files here or Browse for files
Overwrite if files already exist
Advanced
Upload
Give feedback

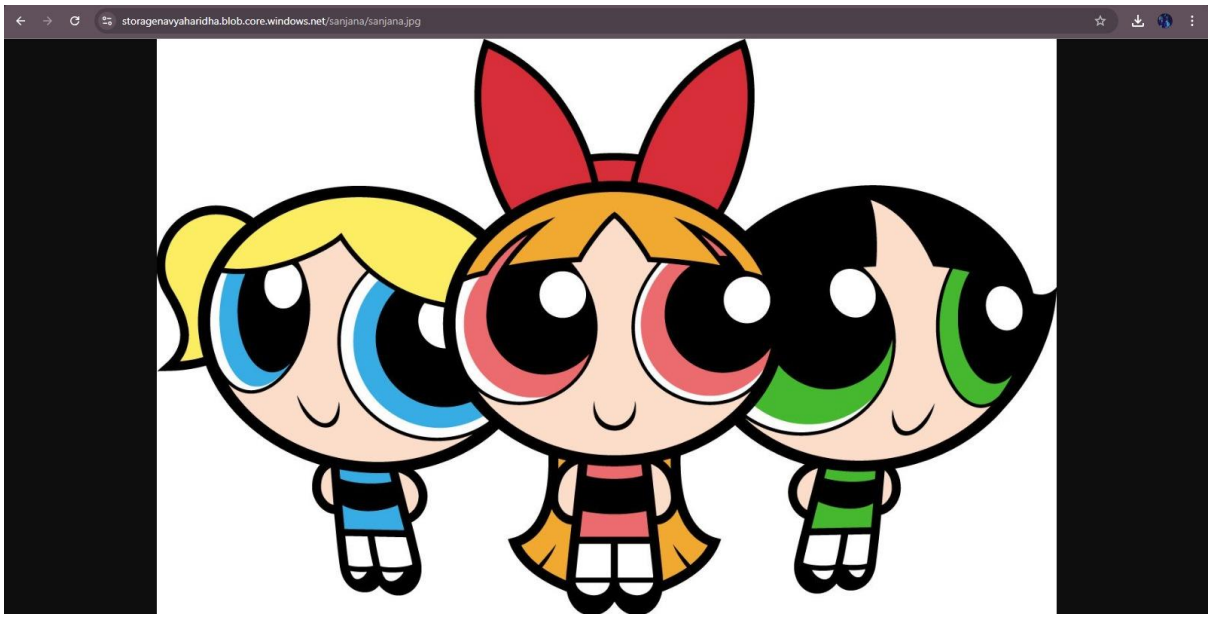

Microsoft Azure
Search resources, services, and docs (G+/)
Home > storagenavyaharidha | Containers >
sanjana
Container
Successfully uploaded blob(s)
Successfully uploaded 1 blob(s).
Upload
Change access level
Refresh
Delete
Change tier
Acquire lease
Break lease
View snapshots
Create snapshot
Give feedback
Overview
Diagnose and solve problems
Access Control (IAM)
Settings
Authentication method: Access key (Switch to Microsoft Entra user account)
Location: sanjana
Search blobs by prefix (case-sensitive)
Show deleted blobs
Add filter
Name
Modified
Access tier
Archive status
Blob type
Size
Lease state
sanjana.jpg
8/9/2024, 4:43:02 PM
Hot (Inferred)
Block blob
104.66 KiB
Available


Microsoft Azure
Search resources, services, and docs (G+/)
Home > storagenavyaharidha | Containers > sanjana >
sanjana
Container
sanjana.jpg
Blob
Save
Discard
Download
Refresh
Delete
Change tier
Acquire lease
Break lease
Give feedback
Overview
Versions
Snapshots
Edit
Generate SAS
Properties
URL
LAST MODIFIED 8/9/2024, 4:43:02 PM
CREATION TIME 8/9/2024, 4:43:02 PM
VERSION ID -
TYPE Block blob
SIZE 104.66 KiB
ACCESS TIER Hot (Inferred)
ACCESS TIER LAST MODIFIED N/A
ARCHIVE STATUS -
REHYDRATE PRIORITY -
SERVER ENCRYPTED true
ETAG 0x8DC88643BFF1794
VERSION-LEVEL IMMUTABILITY POLICY Disabled
CACHE-CONTROL
CONTENT-TYPE image/jpeg
CONTENT-MD5
CONTENT-ENCODING
CONTENT-LANGUAGE


storagenavyaharidha.blob.core.windows.net/sanjana/sanjana.jpg
This XML file does not appear to have any style information associated with it. The document tree is shown below.
<Error>
<Code>ResourceNotFound</Code>
<Message>The specified resource does not exist. RequestId:58badd5e-801e-001c-134d-eac29b000000 Time:2024-08-09T11:13:30.8921609Z</Message>
</Error>


Microsoft Azure
Search resources, services, and docs (G+/)
dharshinidivya2422@g...
MICROSOFT LEARN SANDBOX
Home > storagenavyaharidha | Containers >
sanjana
Container
Search
Upload
Change access level
Refresh
Delete
Change tier
Acquire lease
Break lease
View snapshots
Create snapshot
Give feedback
Overview
Diagnose and solve problems
Access Control (IAM)
Settings
Change access level
Change the access level of container 'sanjana'.
Anonymous access level
Blob (anonymous read access for blobs only)
Blobs within the container can be read by anonymous request, but container data is not available. Anonymous clients cannot enumerate the blobs within the container.
OK
Cancel
Show deleted blobs
status
Blob type
Size
Lease state
Block blob
104.66 KiB
Available

OUTPUT :


storagenavyaharidha.blob.core.windows.net/sanjana/sanjana.jpg

3. ESTIMATE WORKLOAD COSTS BY USING THE PRICING CALCULATOR

- Explore the Pricing calculator

  1. Go to the Pricing calculator.

  2. Notice the following tabs:

     - Products This is where you choose the Azure services that you want to include in your estimate. You'll likely spend most of your time here.

     - Example scenarios Here you'll find several *reference architectures*, or common cloud-based solutions that you can use as a starting point.

     - Saved estimates Here you'll find your previously saved estimates.

  3. Estimate your solution

- Here you add each Azure service that you need to the calculator. Then you configure each service to fit your needs.
- Tip
- Make sure you have a clean calculator with nothing listed in the estimate. You can reset the estimate by selecting the trash can icon next to each item.
- Add services to the estimate

  1. On the Products tab, select the service from each of these categories:

  2. Scroll to the bottom of the page. Each service is listed with its default configuration.

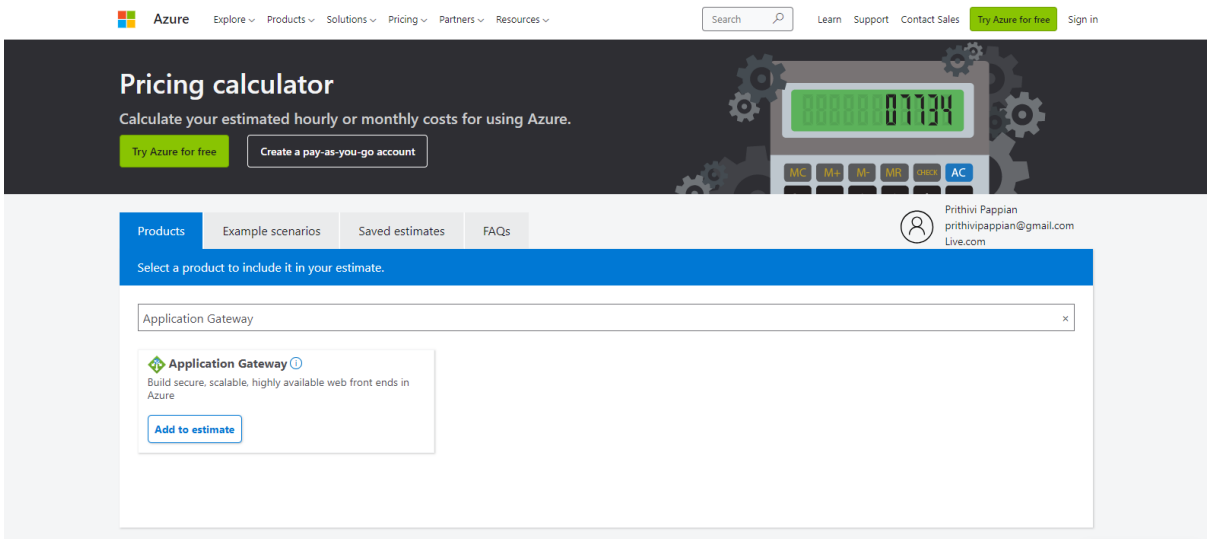
- Configure services to match your requirements:

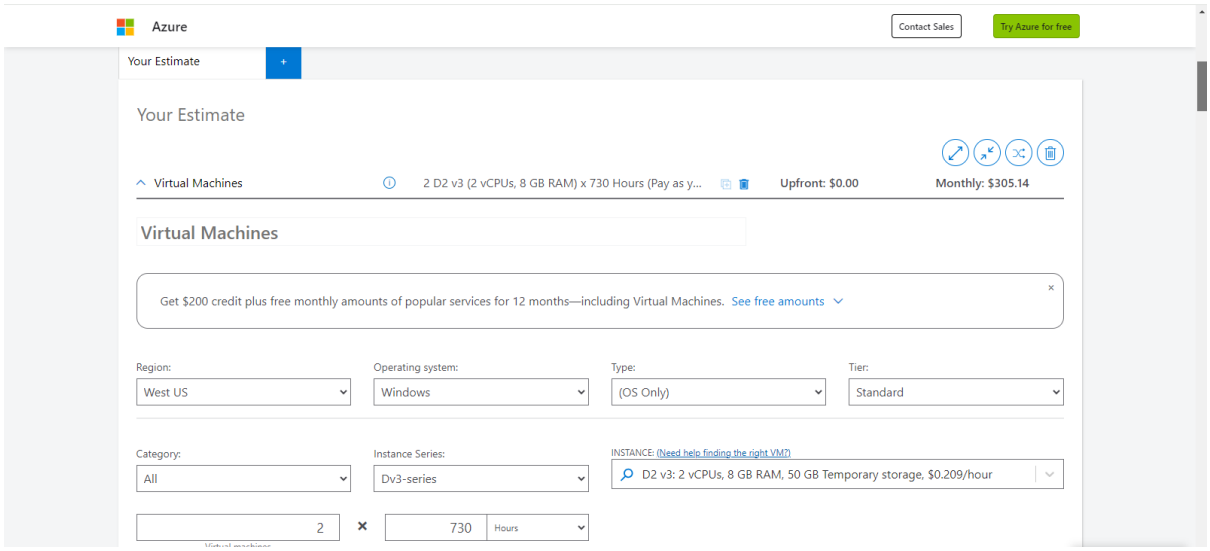
  1. Under Virtual Machines, set values.

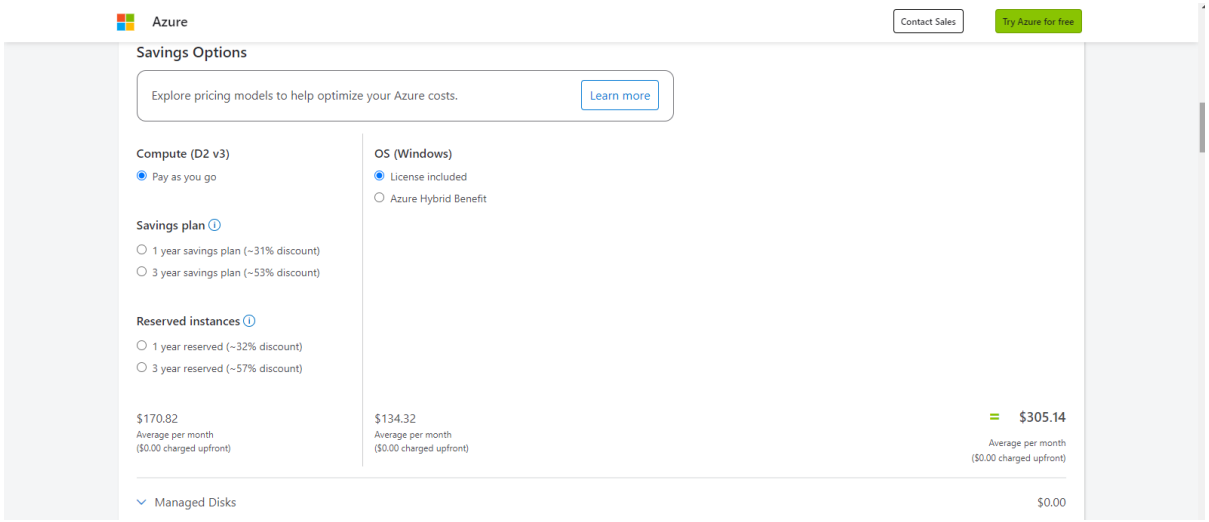
2. Under Azure SQL Database, set values.
3. Under Application Gateway, set values.

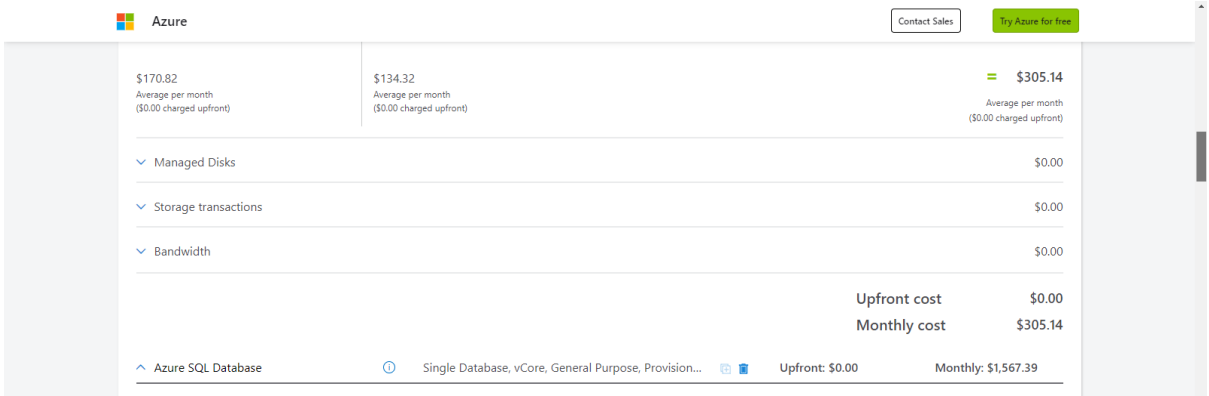
- Review, share, and save your estimate
- At the bottom of the page, you see the total estimated cost of running the solution. You can change the currency type if you want.
- At this point, you have a few options:
  - Select Export to save your estimate as an Excel document.
  - Select Save or Save as to save your estimate to the Saved Estimates tab for later.
  - Select Share to generate a URL so you can share the estimate with your team.

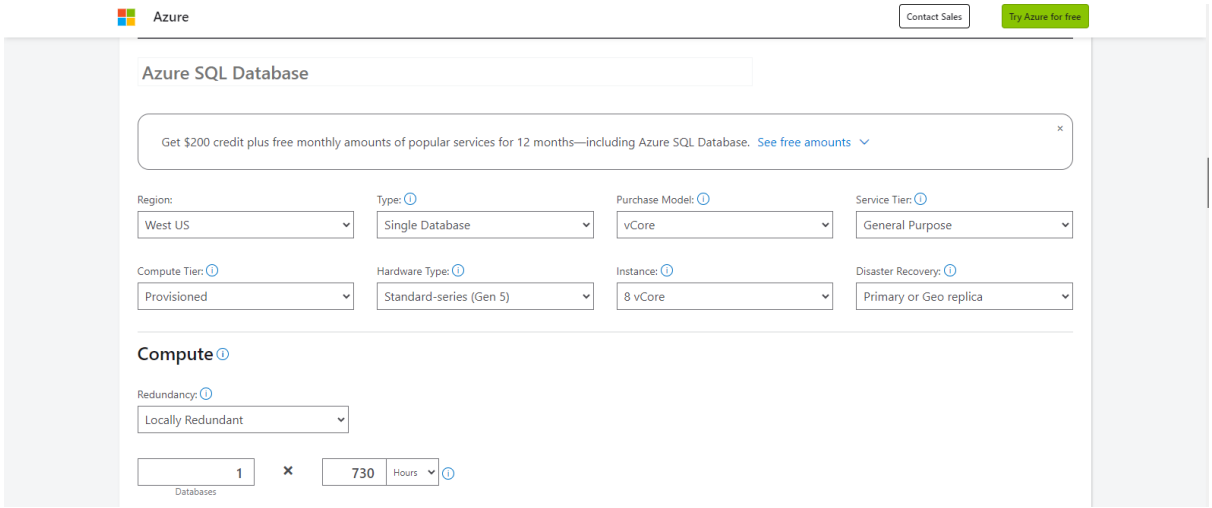
WORKING :

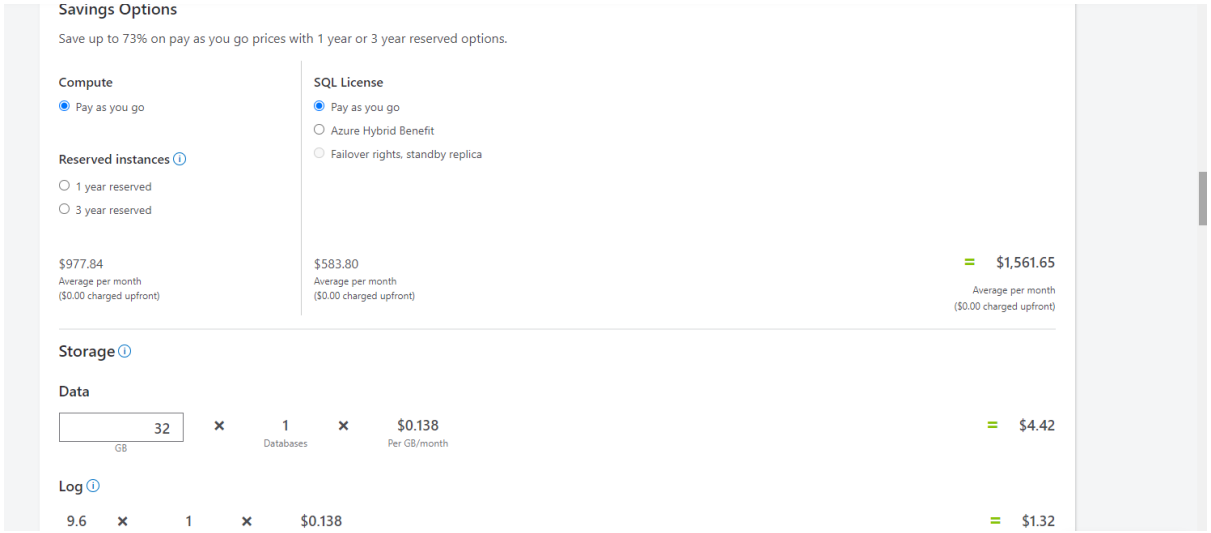


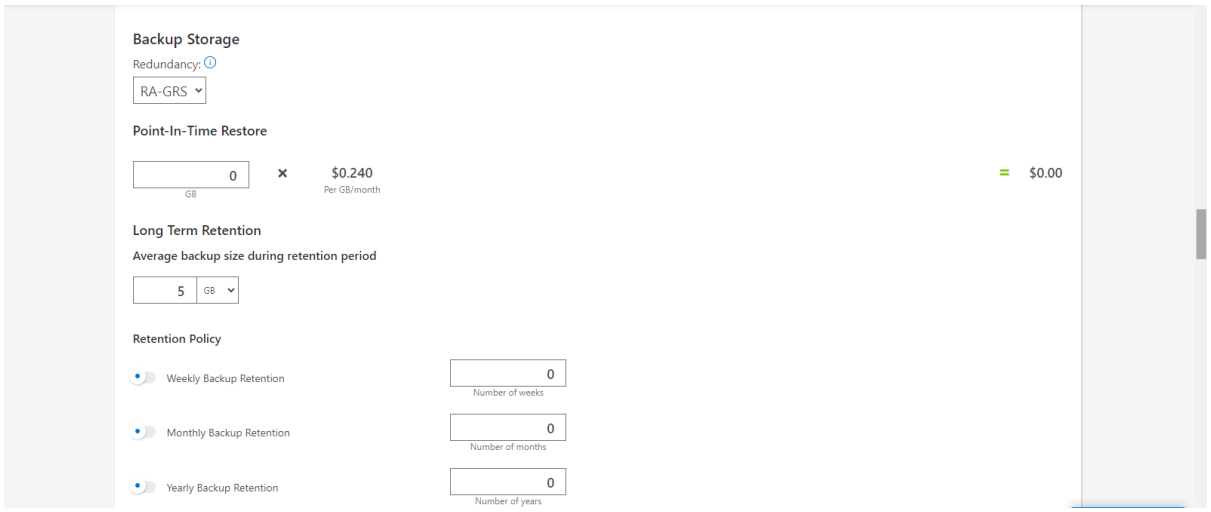

Azure
Contact Sales
Try Azure for free
Your Estimate
+
Your Estimate
Virtual Machines
2 D2 v3 (2 vCPUs, 8 GB RAM) x 730 Hours (Pay as y...
Upfront: $0.00
Monthly: $305.14
Virtual Machines
Get $200 credit plus free monthly amounts of popular services for 12 months—including Virtual Machines. See free amounts
Region:
West US
Operating system:
Windows
Type:
(OS Only)
Tier:
Standard
Category:
All
Instance Series:
Dv3-series
INSTANCE: (Need help finding the right VM?)
D2 v3: 2 vCPUs, 8 GB RAM, 50 GB Temporary storage, $0.209/hour
2
730
Hours

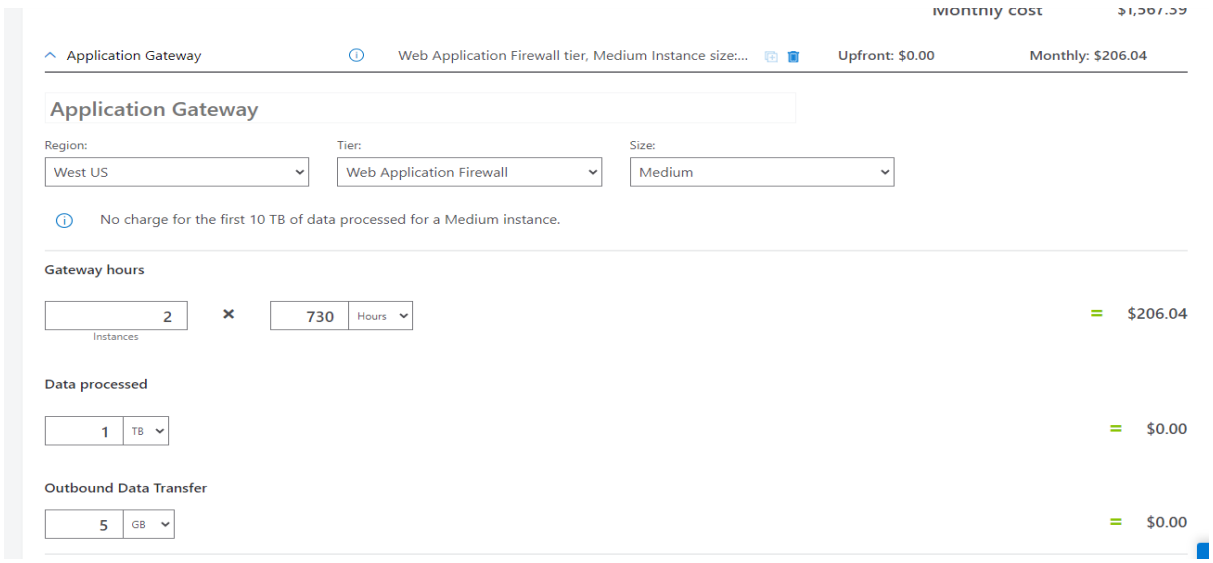

Azure
Contact Sales
Try Azure for free
Savings Options
Explore pricing models to help optimize your Azure costs.
Learn more
Compute (D2 v3)
Pay as you go
Savings plan
1 year savings plan (~31% discount)
3 year savings plan (~53% discount)
Reserved instances
1 year reserved (~32% discount)
3 year reserved (~57% discount)
OS (Windows)
License included
Azure Hybrid Benefit
$170.82
Average per month
($0.00 charged upfront)
$134.32
Average per month
($0.00 charged upfront)
= $305.14
Average per month
($0.00 charged upfront)
Managed Disks
$0.00

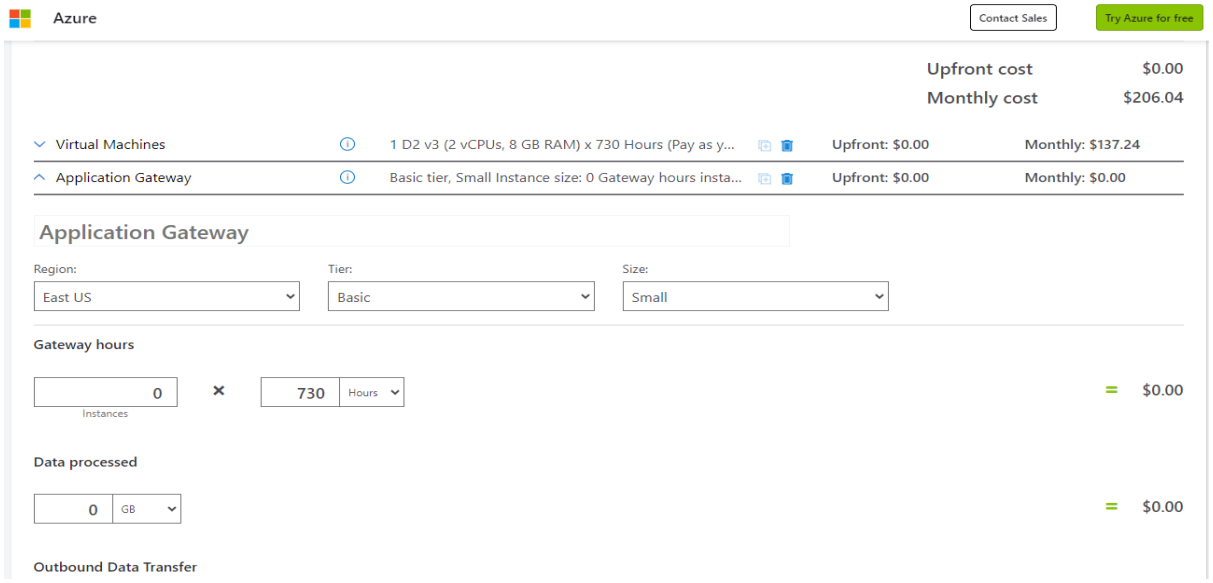

Azure
Contact Sales
Try Azure for free
$170.82
Average per month
($0.00 charged upfront)
$134.32
Average per month
($0.00 charged upfront)
= $305.14
Average per month
($0.00 charged upfront)
Managed Disks
$0.00
Storage transactions
$0.00
Bandwidth
$0.00
Upfront cost
$0.00
Monthly cost
$305.14
Azure SQL Database
Single Database, vCore, General Purpose, Provision...
Upfront: $0.00
Monthly: $1,567.39

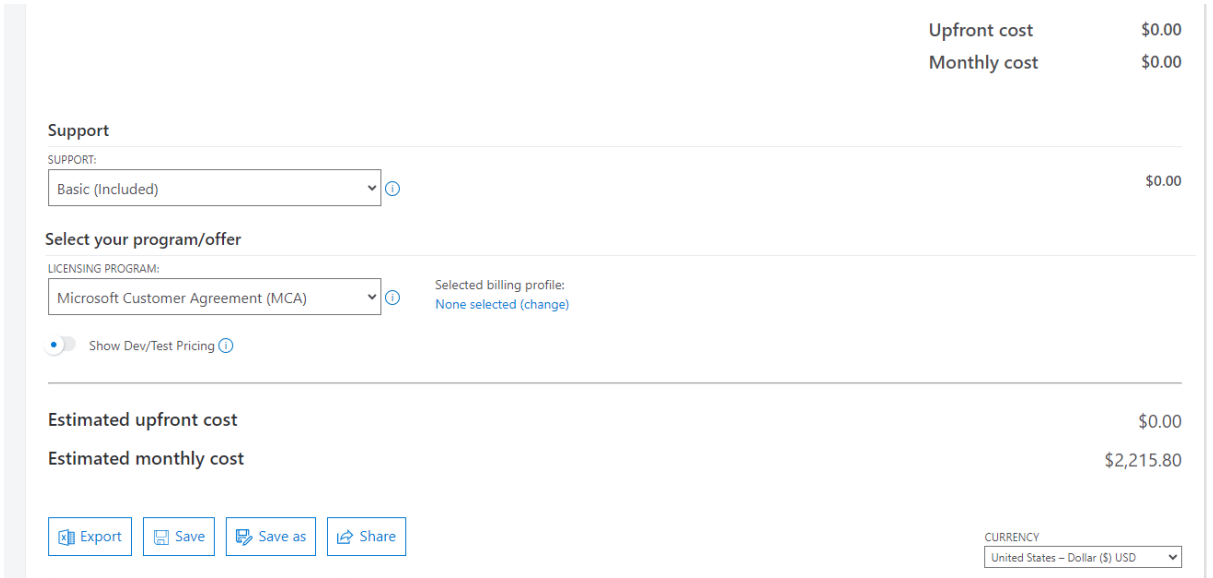

Azure
Contact Sales
Try Azure for free
Azure SQL Database
Get $200 credit plus free monthly amounts of popular services for 12 months—including Azure SQL Database. See free amounts
Region:
West US
Type:
Single Database
Purchase Model:
vCore
Service Tier:
General Purpose
Compute Tier:
Provisioned
Hardware Type:
Standard-series (Gen 5)
Instance:
8 vCore
Disaster Recovery:
Primary or Geo replica
Compute
Redundancy:
Locally Redundant
1
Databases
730
Hours


Savings Options
Save up to 73% on pay as you go prices with 1 year or 3 year reserved options.
Compute
Pay as you go
Reserved instances
1 year reserved
3 year reserved
$977.84
Average per month
($0.00 charged upfront)
SQL License
Pay as you go
Azure Hybrid Benefit
Failover rights, standby replica
$583.80
Average per month
($0.00 charged upfront)
= $1,561.65
Average per month
($0.00 charged upfront)
Storage
Data
32
GB
1
Databases
$0.138
Per GB/month
= $4.42
Log
9.6
1
$0.138
= $1.32

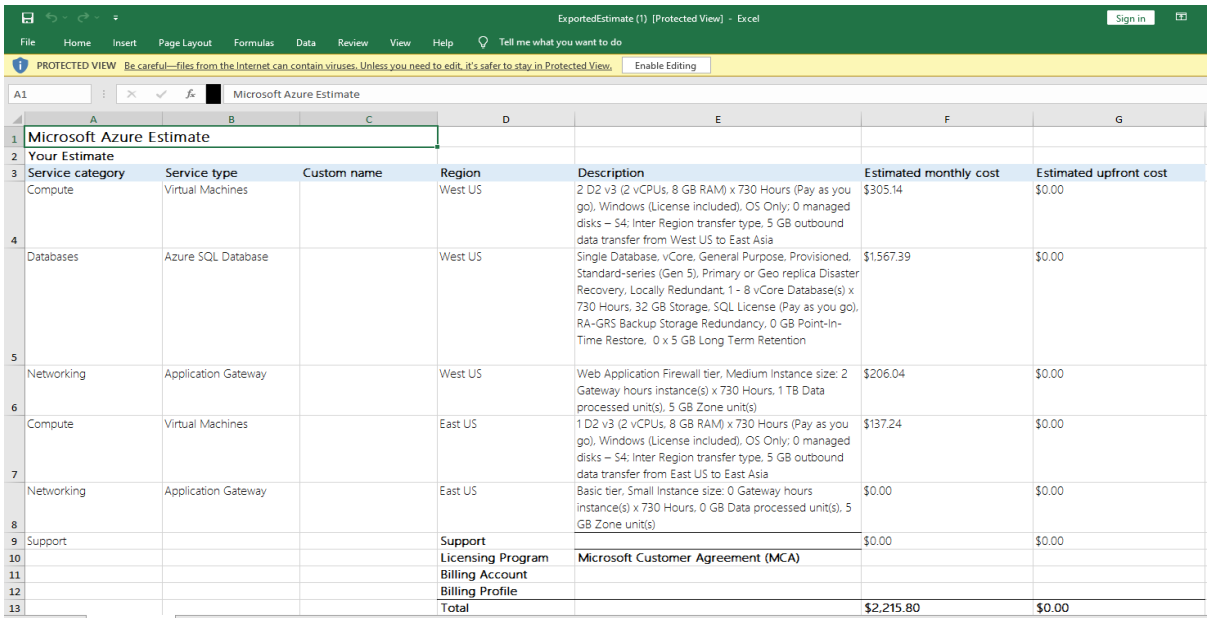

Backup Storage
Redundancy:
RA-GRS
Point-In-Time Restore
0
GB
$0.240
Per GB/month
= $0.00
Long Term Retention
Average backup size during retention period
5
GB
Retention Policy
Weekly Backup Retention
0
Number of weeks
Monthly Backup Retention
0
Number of months
Yearly Backup Retention
0
Number of years


Monthly cost $1,567.39
Application Gateway
Web Application Firewall tier, Medium Instance size:...
Upfront: $0.00
Monthly: $206.04
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
= $0.00


Azure
Contact Sales
Try Azure for free
Upfront cost $0.00
Monthly cost $206.04
Virtual Machines
1 D2 v3 (2 vCPUs, 8 GB RAM) x 730 Hours (Pay as y...
Upfront: $0.00
Monthly: $137.24
Application Gateway
Basic tier, Small Instance size: 0 Gateway hours insta...
Upfront: $0.00
Monthly: $0.00
Application Gateway
Region:
East US
Tier:
Basic
Size:
Small
Gateway hours
0
Instances
730
Hours
= $0.00
Data processed
0
GB
= $0.00
Outbound Data Transfer


Upfront cost $0.00
Monthly cost $0.00
Support
SUPPORT:
Basic (Included)
$0.00
Select your program/offer
LICENSING PROGRAM:
Microsoft Customer Agreement (MCA)
Selected billing profile:
None selected (change)
Show Dev/Test Pricing
Estimated upfront cost $0.00
Estimated monthly cost $2,215.80
Export
Save
Save as
Share
CURRENCY
United States – Dollar ($) USD

OUTPUT :

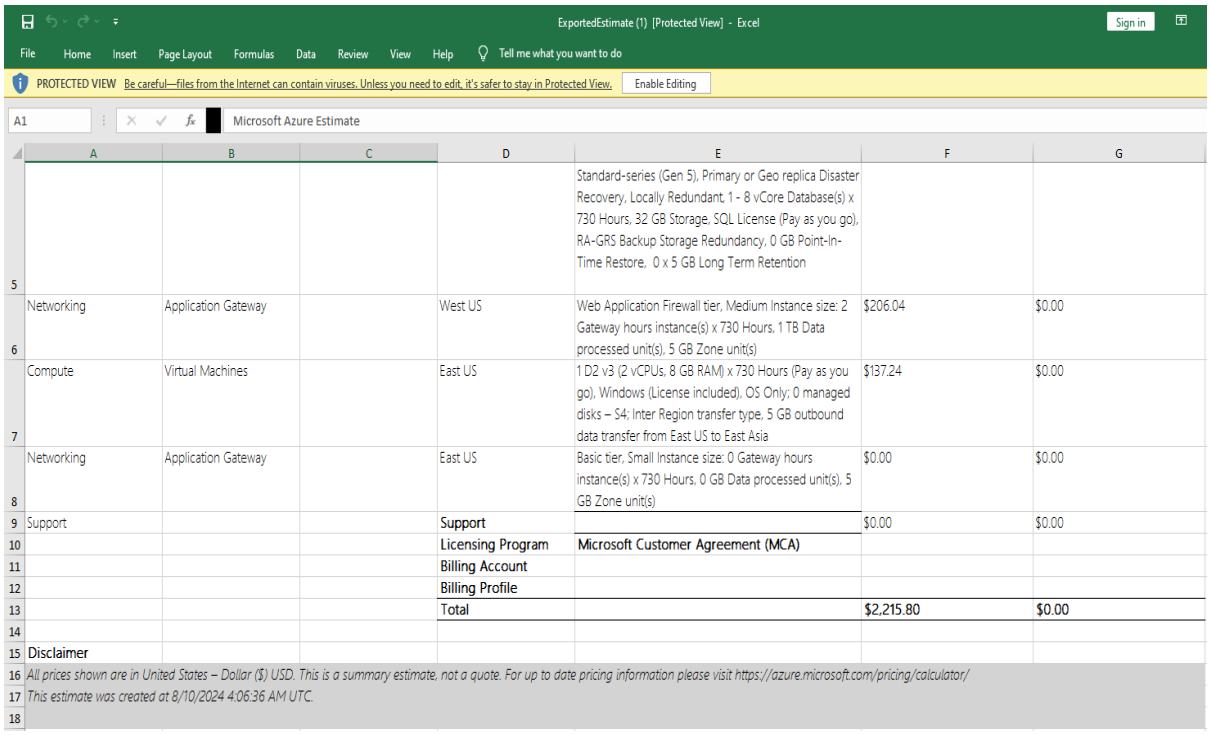


ExportedEstimate (1) [Protected View] - Excel

PROTECTED VIEW Be careful—files from the Internet can contain viruses. Unless you need to edit, it's safer to stay in Protected View. Enable Editing

A1 Microsoft Azure Estimate

	A	B	C	D	E	F	G
1	Microsoft Azure Estimate						
2	Your Estimate						
3	Service category	Service type	Custom name	Region	Description	Estimated monthly cost	Estimated upfront cost
4	Compute	Virtual Machines		West US	2 D2 v3 (2 vCPUs, 8 GB RAM) x 730 Hours (Pay as you go), Windows (License included), OS Only; 0 managed disks – S4; Inter Region transfer type, 5 GB outbound data transfer from West US to East Asia	$305.14	$0.00
5	Databases	Azure SQL Database		West US	Single Database, vCore, General Purpose, Provisioned, Standard-series (Gen 5), Primary or Geo replica Disaster Recovery, Locally Redundant, 1 - 8 vCore Database(s) x 730 Hours, 32 GB Storage, SQL License (Pay as you go), RA-GRS Backup Storage Redundancy, 0 GB Point-In-Time Restore, 0 x 5 GB Long Term Retention	$1,567.39	$0.00
6	Networking	Application Gateway		West US	Web Application Firewall tier, Medium Instance size: 2 Gateway hours instance(s) x 730 Hours, 1 TB Data processed unit(s), 5 GB Zone unit(s)	$206.04	$0.00
7	Compute	Virtual Machines		East US	1 D2 v3 (2 vCPUs, 8 GB RAM) x 730 Hours (Pay as you go), Windows (License included), OS Only; 0 managed disks – S4; Inter Region transfer type, 5 GB outbound data transfer from East US to East Asia	$137.24	$0.00
8	Networking	Application Gateway		East US	Basic tier, Small Instance size: 0 Gateway hours instance(s) x 730 Hours, 0 GB Data processed unit(s), 5 GB Zone unit(s)	$0.00	$0.00
9	Support			Support		$0.00	$0.00
10				Licensing Program	Microsoft Customer Agreement (MCA)		
11				Billing Account			
12				Billing Profile			
13				Total		$2,215.80	$0.00



ExportedEstimate (1) [Protected View] - Excel

PROTECTED VIEW Be careful—files from the Internet can contain viruses. Unless you need to edit, it's safer to stay in Protected View. Enable Editing

A1 Microsoft Azure Estimate

	A	B	C	D	E	F	G
5					Standard-series (Gen 5), Primary or Geo replica Disaster Recovery, Locally Redundant, 1 - 8 vCore Database(s) x 730 Hours, 32 GB Storage, SQL License (Pay as you go), RA-GRS Backup Storage Redundancy, 0 GB Point-In-Time Restore, 0 x 5 GB Long Term Retention		
6	Networking	Application Gateway		West US	Web Application Firewall tier, Medium Instance size: 2 Gateway hours instance(s) x 730 Hours, 1 TB Data processed unit(s), 5 GB Zone unit(s)	$206.04	$0.00
7	Compute	Virtual Machines		East US	1 D2 v3 (2 vCPUs, 8 GB RAM) x 730 Hours (Pay as you go), Windows (License included), OS Only; 0 managed disks – S4; Inter Region transfer type, 5 GB outbound data transfer from East US to East Asia	$137.24	$0.00
8	Networking	Application Gateway		East US	Basic tier, Small Instance size: 0 Gateway hours instance(s) x 730 Hours, 0 GB Data processed unit(s), 5 GB Zone unit(s)	$0.00	$0.00
9	Support			Support		$0.00	$0.00
10				Licensing Program	Microsoft Customer Agreement (MCA)		
11				Billing Account			
12				Billing Profile			
13				Total		$2,215.80	$0.00
14							
15	Disclaimer						
16	*All prices shown are in United States – Dollar ($) USD. This is a summary estimate, not a quote. For up to date pricing information please visit https://azure.microsoft.com/pricing/calculator/*						
17	*This estimate was created at 8/10/2024 4:06:36 AM UTC.*						
18							

Link : https://azure.com/e/a5907a2ed6f84d81bb542e445de00b00

4. COMPARE WORKLOAD COSTS USING THE TCO CALCULATOR

- Define your workloads

Enter the specifications of your on-premises infrastructure into the TCO Calculator.

1. Go to the TCO Calculator.
2. Under **Define your workloads**, select **Add server workload** to create a row for your bank of Windows Server VMs.
3. Under **Servers**, set the value for each of these settings.
4. Select **Add server workload** to create a second row for your bank of Linux VMs. Then specify these settings.
5. Under **Storage**, select **Add storage**. Then specify these settings.
6. Under **Networking**, set **Outbound bandwidth** to **15 TB**.
7. Select **Next**.

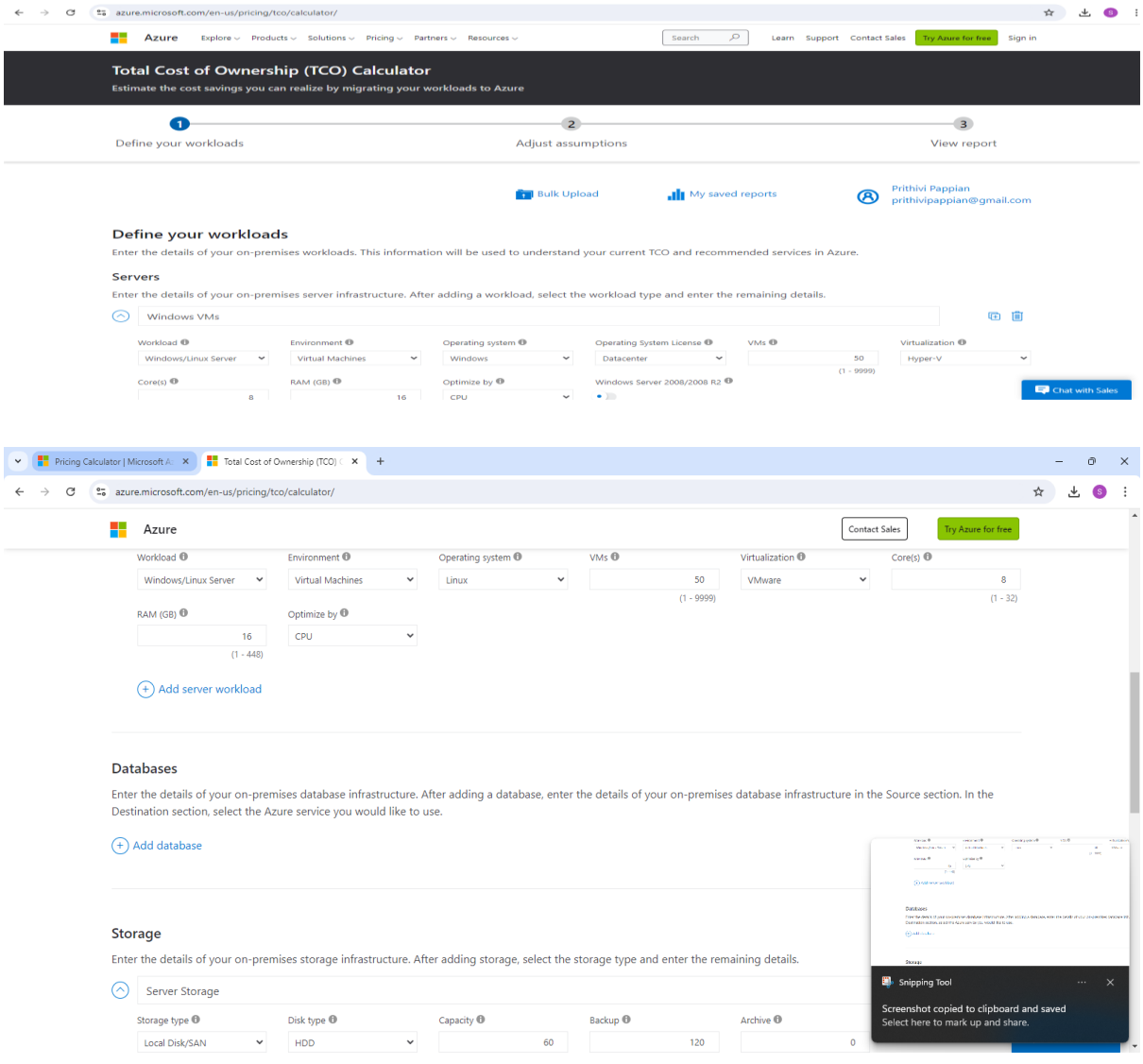
- In practice, you would adjust any cost assumptions and make any adjustments to match your current on-premises environment.
- At the top of the page, select your currency. This example uses **US Dollar ($)**.
- Select **Next**.
- **View the report**
- Take a moment to review the generated report.
- Remember, you've been tasked to investigate cost savings for your European datacenter over the next three years.

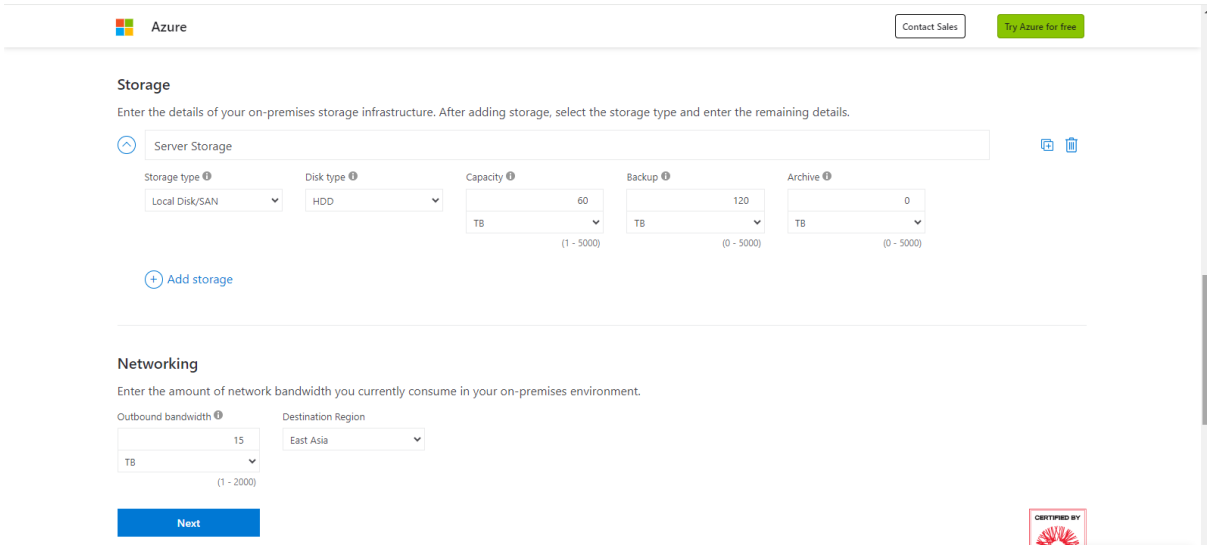
To make these adjustments:

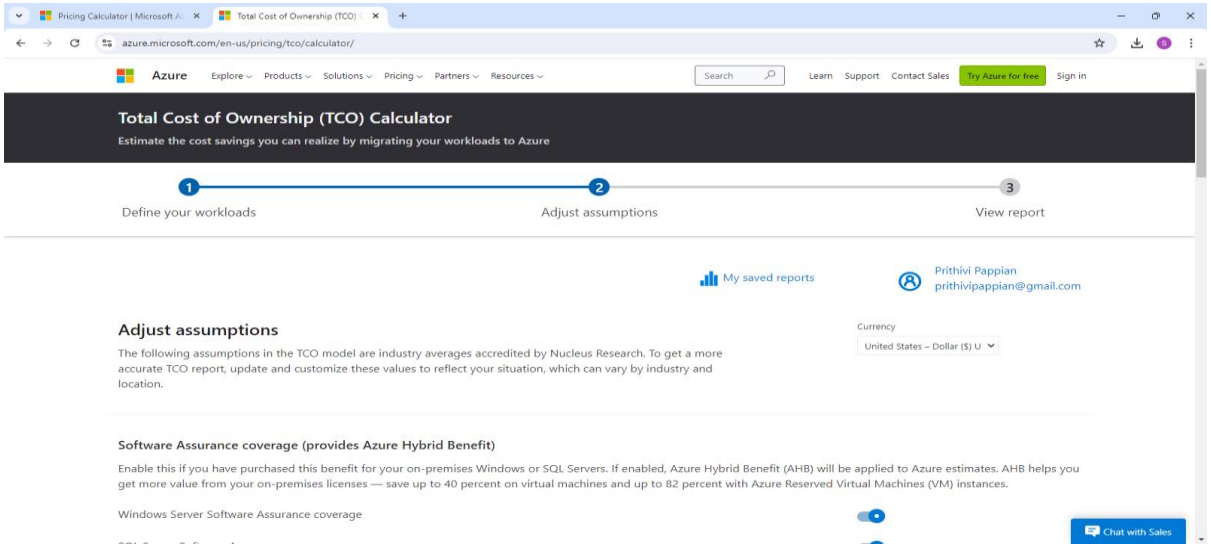
1. Set **Timeframe** to **3 Years**.
2. Set **Region** to **North Europe**.

Scroll to the summary at the bottom. You see a comparison of running your workloads in the datacenter versus on Azure.

WORKING :




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)
Backup
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
(1 - 2000)
Destination Region
East Asia
Next


azure.microsoft.com/en-us/pricing/tco/calculator/
Azure
Explore
Products
Solutions
Pricing
Partners
Resources
Search
Learn
Support
Contact Sales
Try Azure for free
Sign in
Total Cost of Ownership (TCO) Calculator
Estimate the cost savings you can realize by migrating your workloads to Azure
1
Define your workloads
2
Adjust assumptions
3
View report
My saved reports
Prithivi Pappian
prithivipappian@gmail.com
Adjust assumptions
The following assumptions in the TCO model are industry averages accredited by Nucleus Research. To get a more accurate TCO report, update and customize these values to reflect your situation, which can vary by industry and location.
Currency
United States – Dollar ($) U
Software Assurance coverage (provides Azure Hybrid Benefit)
Enable this if you have purchased this benefit for your on-premises Windows or SQL Servers. If enabled, Azure Hybrid Benefit (AHB) will be applied to Azure estimates. AHB helps you get more value from your on-premises licenses — save up to 40 percent on virtual machines and up to 82 percent with Azure Reserved Virtual Machines (VM) instances.
Windows Server Software Assurance coverage
Chat with Sales

Software Assurance coverage (provides Azure Hybrid Benefit)

Enable this if you have purchased this benefit for your on-premises Windows or SQL Servers. If enabled, Azure Hybrid Benefit (AHB) will be applied to Azure estimates. AHB helps you get more value from your on-premises licenses — save up to 40 percent on virtual machines and up to 82 percent with Azure Reserved Virtual Machines (VM) instances.

Windows Server Software Assurance coverage

SQL Server Software Assurance coverage

Learn more about Software Assurance > Learn more about Azure Hybrid Benefit >

Geo-redundant storage (GRS)

GRS replicates your data to a secondary region that is hundreds of miles away form the primary region.

Learn more about GRS >

Virtual Machine costs

Enable this for the Calculator to not recommend Bs-series virtual machines

Learn more about Bs-series virtual machines >

Electricity costs

Price per KW hour — 0.1334 USD

Chat with Sales

azure.microsoft.com/en-us/pricing/tco/calculator/

Azure Contact Sales Try Azure for free

Storage costs

Storage procurement cost/GB for local disk/SAN-SSD	0.4	USD
Storage procurement cost/GB for local disk/SAN-HDD	0.2	USD
Storage procurement cost/GB for NAS/file storage	0.2	USD
Storage procurement cost/GB for Blob storage	0.2	USD
Annual enterprise storage software support cost	10	%
Cost per tape drive	160	USD

IT labor costs

Number of physical servers that can be managed by a full time administrator	100
Number of virtual machines that can be managed by a full time administrator	120
Hourly rate for IT administrator	23 USD

Other assumptions

The following assumptions also affect the TCO model, but typically require less adjustment by customers. You can come back to this section at any time and adjust the assumptions.

Hardware costs

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Other assumptions

The following assumptions also affect the TCO model, but typically require less adjustment by customers. You can come back to this section at any time and adjust the assumptions.

- Hardware costs
- Software costs
- Electricity costs
- Virtualization costs
- Data center costs
- Networking costs
- Database costs
- Data warehouse costs

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Total Cost of Ownership (TCO) Calculator

Estimate the cost savings you can realize by migrating your workloads to Azure

1 Define your workloads — 2 Adjust assumptions — 3 View report

My saved reports

Prithivi Pappian
prithivipappian@gmail.com

View report

Timeframe: 5 Years | Region: East US | Licensing program: Microsoft Online Services Program | Show Dev/Test Pricing

Over 5 year(s) with Microsoft Azure, your estimated cost savings could be as much as **$614,638**

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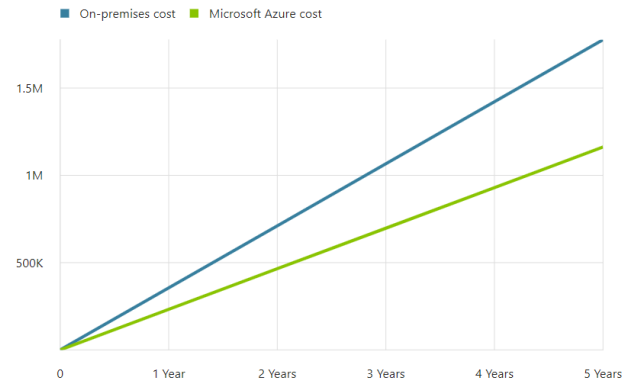
Total on-premises vs. Azure cost over time

Savings from running workloads in Azure accrue over time. The following shows how those savings add up over years.



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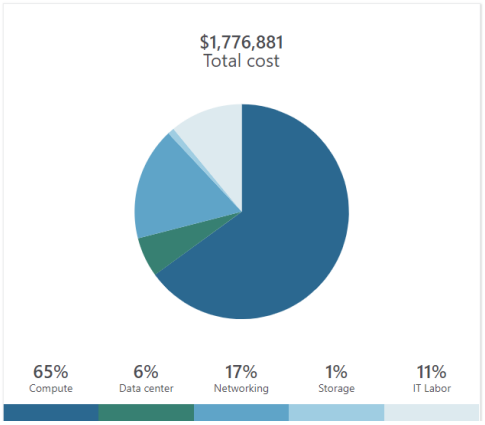
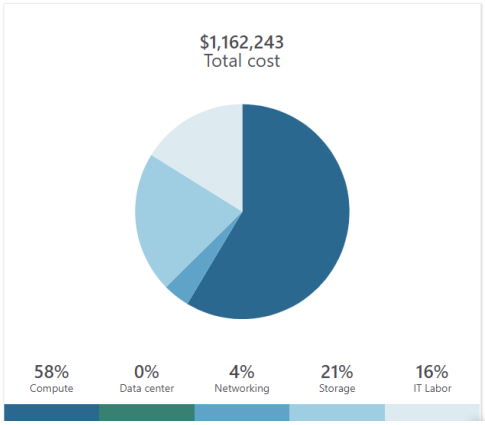
Total on-premises over 5 year(s)

TCO of on-premises environments tends to be driven by compute and data center costs.



Total Azure cost over 5 year(s)

In Azure, certain cost categories decrease or go away completely.



Azure

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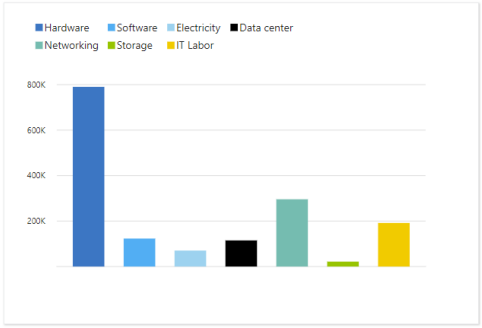
Total on-premises cost breakdown

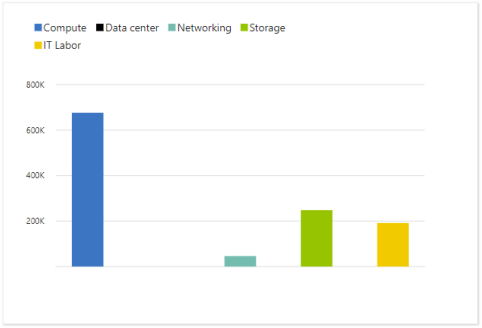
In Azure, several of the cost categories from the on-premises environment are consolidated and decrease with the efficiency that comes with the cloud.



$1,776,881
Cost over 5 year(s)

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.



$1,162,243
Cost over 5 year(s)

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On-premises cost breakdown summary

Category	Cost
Compute	$1,152,920.80
Hardware	$790,280.00
Software	$123,100.00
Electricity	$70,276.80
Virtualization	$169,264.00
Data Center	$114,862.60
Networking	$295,798.05
Storage	$21,632.00
IT Labor	$191,667.05
Total	**$1,776,881.00**

Azure cost breakdown summary

Category	Cost
Compute	$676,416.00
Data Center	$0.00
Networking	$46,065.00
Storage	$248,094.72
IT Labor	$191,667.05
Total	**$1,162,243.00**

Estimated on-premises cost (5 year(s))

Estimated Azure cost (5 year(s))

- Data center cost — Azure data center cost
- Networking cost — Azure networking cost
- Storage cost — Azure storage cost
- IT labor cost — Azure IT labor cost

Total on-premises cost over five year(s)	$1,776,881.00	Total Azure cost over five year(s)	$1,162,243.00

A total **savings** of $614,638.00 with **Microsoft Azure**

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Total Cost of Ownership (TCO) Calculator

Estimate the cost savings you can realize by migrating your workloads to Azure

My saved reports

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My saved reports

Select one of the saved reports below to view, adjust a TCO assessment or start another assessment.

ASSESSMENT	TIMEFRAME	SAVINGS	CREATED	
Windows VMs	5 Years	$614,638	8/10/2024 9:46:13 AM	

Start Another Assessment 〉