REPORT ON

MICROSOFT AZURE FUNDAMENTALS

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Date	10.08.2024

1)Sandbox:

Create a Linux virtual machine and install Nginx

Access your web server

List the current network security group rules

d. Keep this browser tab open for later.

Task 2: List the current network security group rules

Your web server wasn't accessible. To find out why, let's examine your current NSG rules.

1. Run the following `az network nsg list` command to list the network security groups that are associated with your VM:

Azure CLI   ⧉ Copy

```
az network nsg list \
  --resource-group "learn-8c0a378b-8e13-44a2-9154-cb1e407143d8" \
  --query '[].name' \
  --output tsv
```

You see this output:

⟳ | Azure Cloud Shell

⇄ Switch to PowerShell   ↻ Restart   ⊕ Manage files ⌄   🗗 New session   ⋯   — ↗ ✕

```
    "protocol": "Tcp",
    "provisioningState": "Succeeded",
    "resourceGroup": "learn-8c0a378b-8e13-44a2-9154-cb1e407143d8",
    "sourceAddressPrefix": "*",
    "sourceAddressPrefixes": [],
    "sourcePortRange": "*",
    "sourcePortRanges": [],
    "type": "Microsoft.Network/networkSecurityGroups/securityRules"
  }
]
sakthikm833 [ ~ ]$ az network nsg rule list --resource-group "learn-8c0a378b-8e13-
44a2-9154-cb1e407143d8" --nsg-name my-vmNSG --query '[].{Name:name, Priority:prior
ity, Port:destinationPortRange, Access:access}' --output table
Name               Priority    Port    Access
---------------    ---------   ------   --------
default-allow-ssh  1000        22       Allow
sakthikm833 [ ~ ]$ Name                     Priority    Port    Access
---------------    ---------   ------   --------
default-allow-ssh  1000        22       Allow
bash: Name: command not found
bash: ----------------: command not found
bash: default-allow-ssh: command not found
sakthikm833 [ ~ ]$ az network nsg rule create --resource-group "learn-8c0a378b-8e1
3-44a2-9154-cb1e407143d8" --nsg-name my-vmNSG --name allow-http --protocol tcp --p
riority 100 --destination-port-range 80 --access Allow
```

Create the network security rule

By default, a Linux VM's NSG allows network access only on port 22. This port enables administrators to access the system. You need to also allow inbound connections on port 80, which allows access over HTTP.

Task 3: Create the network security rule

Here, you create a network security rule that allows inbound access on port 80 (HTTP).

1. Run the following `az network nsg rule create` command to create a rule called *allow-http* that allows inbound access on port 80:
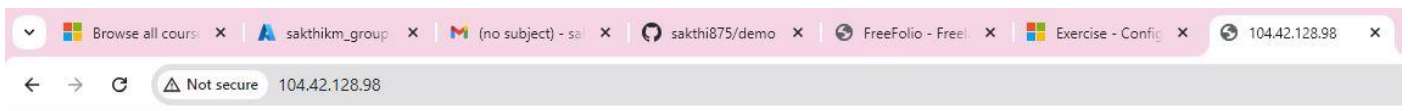
Azure CLI   ⧉ Copy

```
az network nsg rule create \
  --resource-group "learn-8c0a378b-8e13-44a2-9154-cb1e407143d8" \
  --nsg-name my-vmNSG \
  --name allow-http \
  --protocol tcp \
  --priority 100 \
  --destination-port-range 80 \
  --access Allow
```

⟳ | Azure Cloud Shell

⇄ Switch to PowerShell   ↻ Restart   ⊕ Manage files ⌄   🗗 New session   ⋯   — ↗ ✕

```
    "name": "allow-http",
    "priority": 100,
    "protocol": "Tcp",
    "provisioningState": "Succeeded",
    "resourceGroup": "learn-8c0a378b-8e13-44a2-9154-cb1e407143d8",
    "sourceAddressPrefix": "*",
    "sourceAddressPrefixes": [],
    "sourcePortRange": "*",
    "sourcePortRanges": [],
    "type": "Microsoft.Network/networkSecurityGroups/securityRules"
  }
sakthikm833 [ ~ ]$ az network nsg rule list --resource-group "learn-8c0a378b-8e13-
44a2-9154-cb1e407143d8" --nsg-name my-vmNSG --query '[].{Name:name, Priority:prior
ity, Port:destinationPortRange, Access:access}' --output table
Name               Priority    Port    Access
---------------    ---------   ------   --------
default-allow-ssh  1000        22       Allow
allow-http         100         80       Allow
sakthikm833 [ ~ ]$ Name                     Priority    Port    Access
---------------    ---------   ------   --------
default-allow-ssh  1000        22       Allow
allow-http         100         80       Allow
bash: Name: command not found
bash: ----------------: command not found
bash: default-allow-ssh: command not found
```

Welcome to Azure! My name is my-vm.

2) Azure Academic Services: Azure for Students

Badges

Creation of resource groups

Creation of Virtual Machine

Hosting my portfolio using Azure Cloud Services

3)Cost Management

Pricing calculator

Excel spreadsheet — ExportedEstimate [Protected View]

Region	Description	Estimated monthly cost	Estimated upfront cost
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
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
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
Support		$0.00	$0.00
Licensing Program	Microsoft Customer Agreement (MCA)		
Billing Account			
Billing Profile			
Total		$2,078.56	$0.00

not a quote. For up to date pricing information please visit https://azure.microsoft.com/pricing/calculator/

Total Cost of Ownership (TCO) Calculator

$1,319,436
Cost over 3 year(s)

$655,780
Cost over 3 year(s)

On-premises 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

Azure cost breakdown summary

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

4)Blobs

Creation of container

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:3b573204-501e-0024-14ed-eaf078000000 Time:2024-08-10T06:22:16.9085289Z</Message>
 </Error>
```


Home >

Recent

Manage view ∨   ⟳ Refresh   ↓ Export to CSV   ✕ Clear | ⊘ Assign tags   ≡ Group by none ∨

▽ Filter for any field...   Subscription equals **all**   Resource Group equals **all** ✕   Type equals **all** ✕   Location equals **all** ✕   + Add filter

Name ↑		Type	Location	Resource Group	Subscription	Last accessed
▤ learn	···	Storage account		learn-8c0a378b-8e13-44a...	Concierge Subscription	22 seconds ago
(◉) learn-8c0a378b-8e13-44a2-9154-cb1e40714...	···	Resource group	West US	learn-8c0a378b-8e13-44a...	Concierge Subscription	33 seconds ago