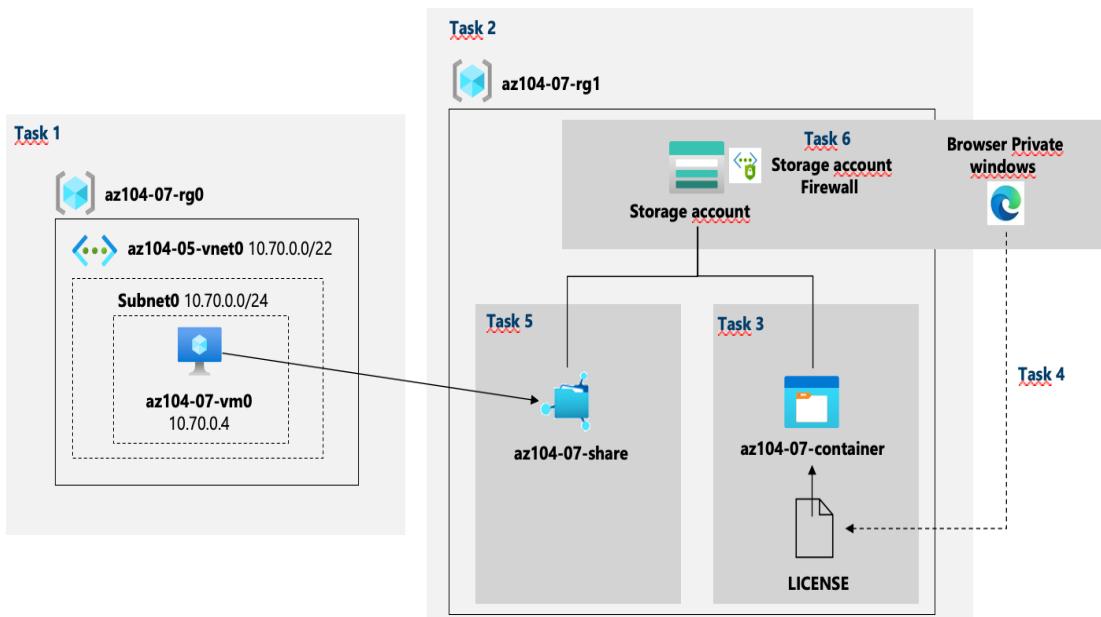


## A6- Azure Storage Account

### My tasks

1. Provision the lab environment
2. Create and configure Azure storage accounts
3. Manage blob storage
4. Manage authentication and authorization for Azure Storage
5. Create and configure an Azure Files shares
6. Manage network access for Azure Storage

### Architecture Diagram



## Task 1

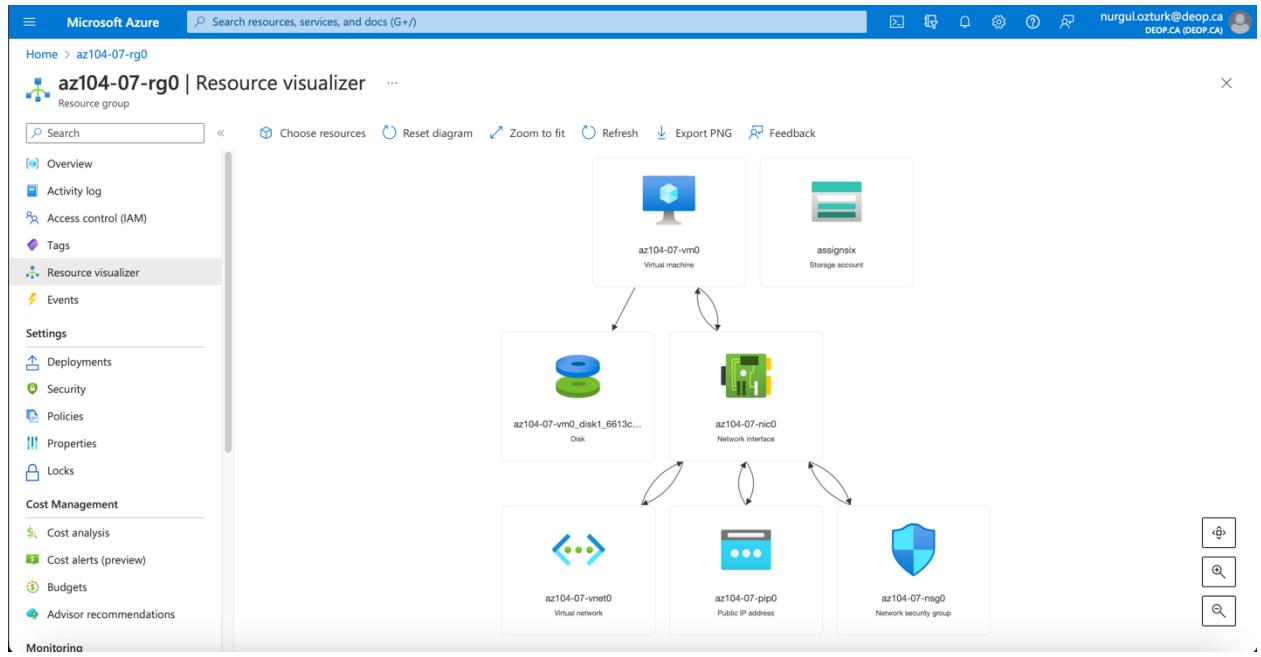
### 1. Provision the lab environment

In this task the resource group Az104-07-rg0, the virtual network **az104-07-vnet0** with subnet were created and the Azure virtual machine **az104-07-vm0** was deployed

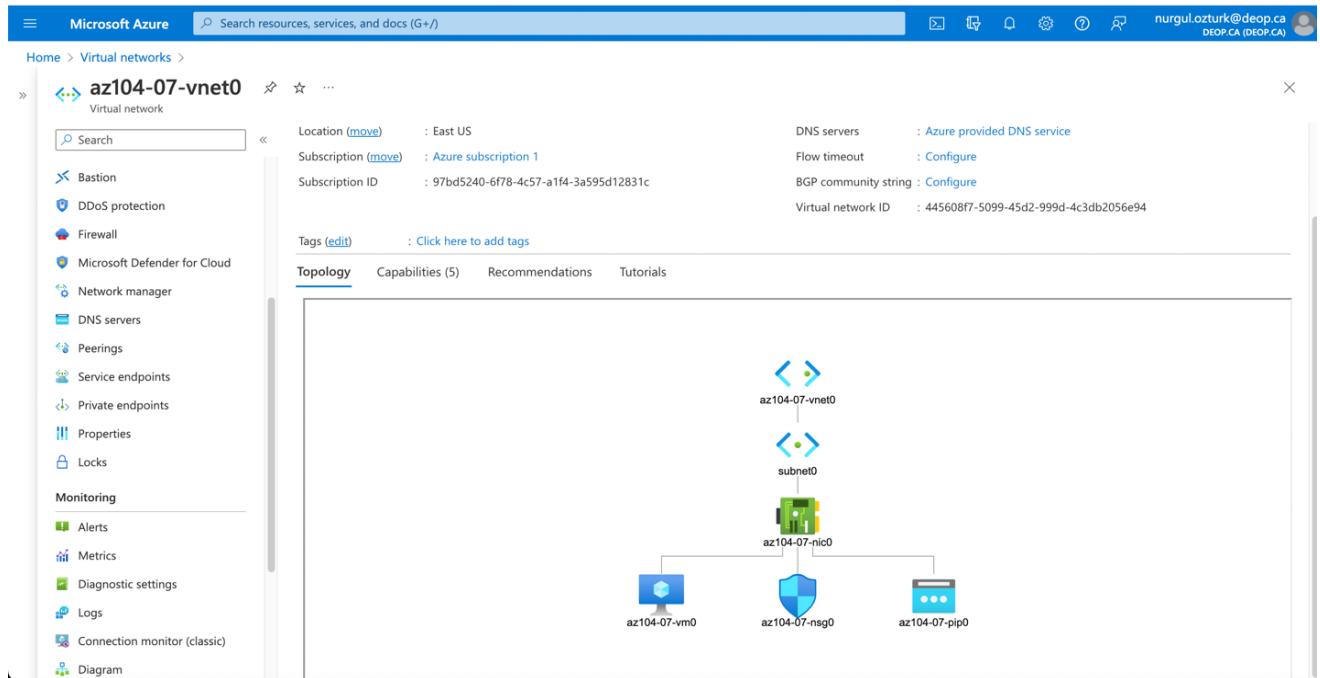
### Az104-07-rg0 resource group

The screenshot shows the Microsoft Azure portal interface for the resource group "az104-07-rg0". The left sidebar contains navigation links for Overview, Activity log, Access control (IAM), Tags, Resource visualizer, Events, Settings (Deployments, Security, Policies, Properties, Locks), Cost Management (Cost analysis, Cost alerts (preview), Budgets, Advisor recommendations), and Monitoring. The main content area displays the "Essentials" section with details about the subscription (move: Azure subscription 1, Subscription ID: 97bd5240-6f78-4c57-a1f4-3a595d12831c, Deployments: 2 Succeeded, Location: East US) and tags (Click here to add tags). Below this, a table lists the resources:

Name	Type	Location
az104-07-nic0	Network Interface	East US
az104-07-nsg0	Network security group	East US
az104-07-pip0	Public IP address	East US
az104-07-vm0	Virtual machine	East US
az104-07-vm0_disk1_6613c3a403af403bafef373b8b5efb3	Disk	East US
az104-07-vnet0	Virtual network	East US



## az104-07-vnet0



## Task 2.-3 and 4 -Create and configure Azure storage accounts 3. Manage blob storage

In this task,

- the Azure Storage account "assigntsix" was created and configured
- a blob container "az104-07-container" was created, and a blob was uploaded into the blob container.

the Azure Storage account "assigntsix"

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and a user profile. Below the navigation bar, the URL is visible as [portal.azure.com/#@deop.ca/resource/subscriptions/97bd5240-6f78-4c57-a1f4-3a595d12831c/resourceGroups/az104-07-rg0/providers/Microsoft.Storage/storageAccounts/assigntsix](https://portal.azure.com/#@deop.ca/resource/subscriptions/97bd5240-6f78-4c57-a1f4-3a595d12831c/resourceGroups/az104-07-rg0/providers/Microsoft.Storage/storageAccounts/assigntsix). The main content area displays the 'Overview' page for the storage account 'assigntsix'. The left sidebar contains links for Activity log, Tags, Diagnose and solve problems, Access Control (IAM), Data migration, Events, and Storage browser. The main content area has tabs for Overview, Properties, Monitoring, Capabilities (7), Recommendations (0), Tutorials, and Developer Tools. The 'Properties' tab is selected. It shows the following details:

Setting	Value
Resource group (move)	az104-07-rg0
Location	East US
Subscription (move)	Azure subscription 1
Subscription ID	97bd5240-6f78-4c57-a1f4-3a595d12831c
Disk state	Available
Tags (edit)	assignment : 6
Performance	Standard
Replication	Locally-redundant storage (LRS)
Account kind	StorageV2 (general purpose v2)
Provisioning state	Succeeded
Created	11/7/2022, 10:23:36 PM

The 'Properties' tab also includes sections for Blob service, Security, Networking, and a file preview section at the bottom showing 'topology (1).svg' and 'az104-07-rg0 (1).png'.

## "az104-07-container"

The screenshot shows the Microsoft Azure portal interface for managing storage containers. The top navigation bar includes the Microsoft Azure logo, a search bar, and a user profile. The main title is "assignsix | Containers". On the left, a sidebar menu lists various storage-related options like Overview, Activity log, Tags, and Data migration. The "Containers" option is selected and highlighted in grey. The main content area displays a table of containers with columns for Name, Last modified, Public access level, and Lease state. Two containers are listed: "\$logs" and "az104-07-container". Both are private and available. At the bottom, there are two preview cards: "topology (1).svg" and "az104-07-rg0 (1).png".

Name	Last modified	Public access level	Lease state
\$logs	11/7/2022, 10:23:59 PM	Private	Available
az104-07-container	11/7/2022, 10:38:27 PM	Private	Available

## Task 4: Manage authentication and authorization for Azure Storage

- A storage data owner was assigned
- Licence was added
- SAS token was generated
- the Authentication method was switched to (Switch to Azure AD User Account)

-A storage data owner was assigned

The screenshot shows the Azure Storage Blob Data Owner assignments page. The left sidebar lists options like Home, Overview, Diagnose and solve problems, Access Control (IAM), Settings, Shared access tokens, Access policy, Properties, and Metadata. The main content area is titled 'Storage Blob Data Owner' and shows the 'BuiltinRole' assignment. It has tabs for Permissions, JSON, and Assignments, with 'Assignments' selected. A search bar allows searching by name. Below it, a '+ Add assignment' button is visible. A table lists one assignment:

Name	Type	Scope
NO Nurgul Ozturk nurgul.ozturk@deop.ca	User	This resource

At the bottom, there are file thumbnails for 'topology (1).svg' and 'az104-07-rg0 (1).png', and a 'Show All' button.

The Authentication method was switched  
Access key (Switch to Azure AD User Account)

Microsoft Azure

az104-07-container

Container

Search

Upload Change access level Refresh Delete Change tier Acquire lease Break lease View snapshots ...

Overview Diagnose and solve problems Access Control (IAM) Settings Shared access tokens Access policy Properties Metadata

Authentication method: Azure AD User Account (Switch to Access key)  
Location: az104-07-container

Search blobs by prefix (case-sensitive) Show deleted blobs

Name	Modified	Access tier	Archive status	Blob type	Size
LICENCES					

https://portal.azure.com/#

topology (1).svg az104-07-rg0 (1).png Show All X

## Task 5 Azure Files shares 'az104-07-share' was created and configured

The screenshot shows the Azure Storage account settings for the 'assignsix' storage account. On the left, the navigation menu is open, with 'File shares' selected. A large blue arrow points from the 'File shares' menu item to the 'az104-07-share' entry in the main table. The table lists one file share:

Name	Modified	Tier	Quota
az104-07-share	11/7/2022, 11:29:46 PM	Transaction optimized	5 TiB

The screenshot shows the Azure Virtual Machines blade for the 'az104-07-vm0' virtual machine. In the center, a 'Run Command Script' dialog is open. The 'Operations' section shows 'Run command' selected. The PowerShell script content is as follows:

```
1 $connectTestResult = Test-NetConnection -ComputerName assignsix.file.core.windows.net -Port 445
2 if ($connectTestResult.TcpTestSucceeded) {
3     # Save the password so the drive will persist on reboot
4     cmd.exe /C "cmdkey /add:"assignsix.file.core.windows.net" /user:'localhost\assignsix' /pass:'"
5     # Mount the drive
6     New-PSDrive -Name Z -PSProvider FileSystem -Root "\\assignsix.file.core.windows.net\az104-07-share"
7 } else {
8     Write-Error -Message "Unable to reach the Azure storage account via port 445. Check to make sure you have the correct port open in your network security group settings."
9 }
```

A blue 'Run' button is visible at the bottom of the dialog.

## az104-07-folder was created

The screenshot shows the Microsoft Azure portal interface for file shares. The top navigation bar includes 'Microsoft Azure', a search bar, and user information ('nurgul.ozturk@deop.ca DEOP.CA (DEOP.CA)'). Below the navigation is a breadcrumb trail: 'Home > assignsix | File shares > az104-07-share'. The main content area displays the 'az104-07-share' file share. On the left, a sidebar shows 'Overview', 'Diagnose and solve problems', 'Access Control (IAM)', 'Settings', 'Properties', 'Operations' (with 'Snapshots' and 'Backup' options), and a 'Search' bar. The main pane lists files and folders. A table shows two entries:

Name	Type	Size
az104-07-folder	Directory	...
from myvm	Directory	...

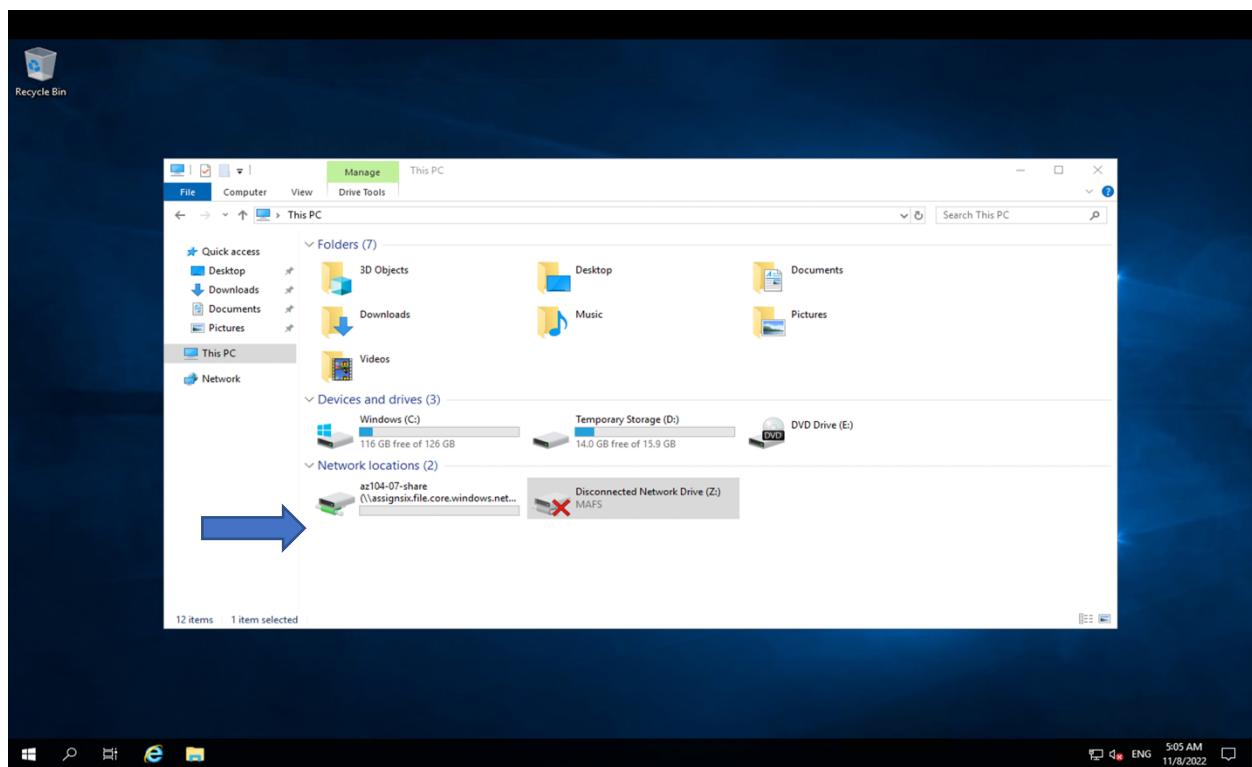
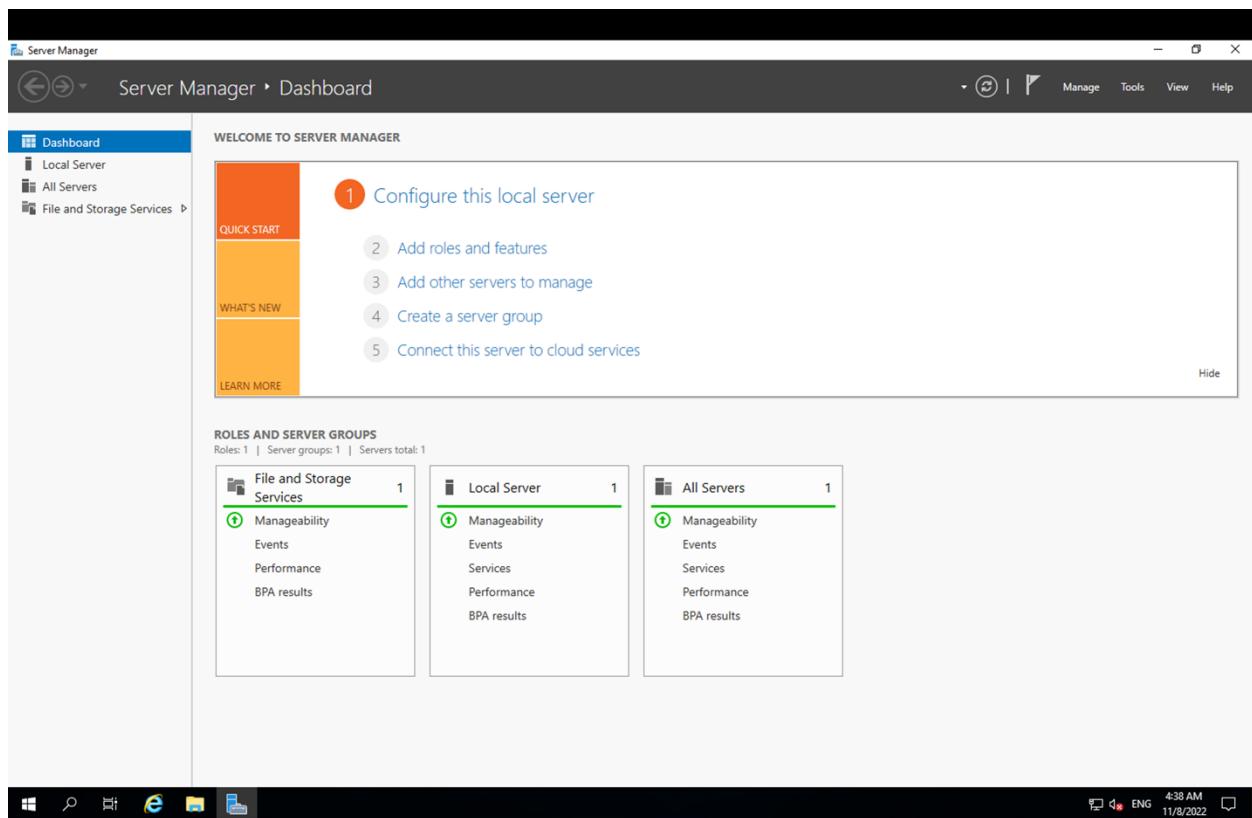
At the bottom, there are file thumbnails for 'topology (1).svg' and 'az104-07-rg0 (1).png', and a 'Show All' button.

## az104-07-file.txt was inserted into az104-07-folder

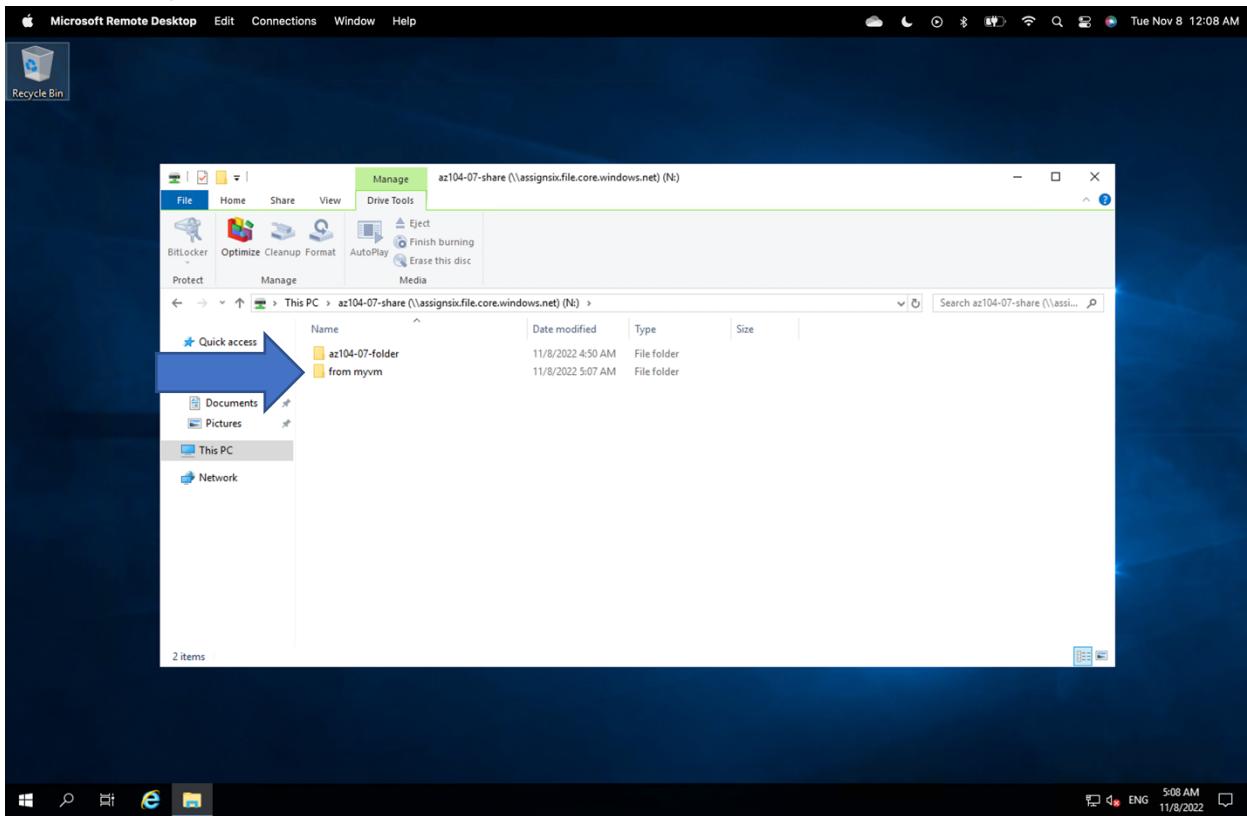
The screenshot shows the Microsoft Azure portal interface for file shares, similar to the previous one. The top navigation bar and user information are identical. The breadcrumb trail is 'Home > assignsix | File shares > az104-07-share'. The main content area displays the 'az104-07-share' file share. The 'Properties' link in the sidebar is highlighted with a large blue arrow pointing towards the file list. The main pane lists files and folders. A table shows one entry:

Name	Type	Size
az-104-07-file.txt	File	0 B

At the bottom, there are file thumbnails for 'topology (1).svg' and 'az104-07-rg0 (1).png', and a 'Show All' button.



"frommmmyvm" folder was created and shared



## Task 6: Manage network access for Azure Storage

In this final task network access was configured for Azure Storage.

Security + Networking section selected virtual networks and IP addresses was enabled the selected Ip addresses was added The MIT License (MIT) page was presented.

