

Azure Data Lake Storage Setup

Step 1:

- Creating a resource group (This will help to manage your resources)

The screenshot shows the 'Create a resource group' wizard in the Microsoft Azure portal. The 'Basics' tab is selected. Under 'Project details', the 'Subscription' is set to 'Azure subscription 1' and the 'Resource group' is a new group. Under 'Resource details', the 'Region' is set to '(US) East US'. At the bottom, there are buttons for 'Review + create', '< Previous', and 'Next: Tags >'.

Step 2:

- Create a Storage Account with the following appropriate options selected. (Make sure to use only lowercase and numbers to write the Storage account Name)

The screenshot shows the 'Create a storage account' wizard in the Microsoft Azure portal. The 'Project details' section shows 'Subscription' as 'Azure subscription 1' and 'Resource group' as 'Practice1'. The 'Instance details' section shows 'Storage account name' as 'aman1507' and 'Region' as '(US) East US'. The 'Performance' section has 'Standard' selected. The 'Redundancy' section has 'Geo-redundant storage (GRS)' selected, with the checkbox 'Make read access to data available in the event of regional unavailability' checked. At the bottom, there are buttons for 'Previous', 'Next', and 'Review + create'.

- Once you click on next, the advanced section will be shown, **make sure to enable Hierarchial namespaces** to enable Data Lake Storage Gen2 Features.

Microsoft Azure

Home > Storage accounts >

Create a storage account

Basics **Advanced** Networking Data protection Encryption Tags Review + create

Security
Configure security settings that impact your storage account.

Require secure transfer for REST API operations ☒

Allow enabling anonymous access on individual containers ☐

Enable storage account key access ☒

Default to Microsoft Entra authorization in the Azure portal ☐

Minimum TLS version

Permitted scope for copy operations (preview)

Hierarchical Namespace
Hierarchical namespace, complemented by Data Lake Storage Gen2 endpoint, enables file and directory semantics, accelerates big data analytics workloads, and enables access control lists (ACLs) [Learn more](#)

Enable hierarchical namespace ☒

Access protocols
Blob and Data Lake Gen2 endpoints are provisioned by default [Learn more](#)

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Microsoft Azure

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Enable hierarchical namespace ☒

Access protocols
Blob and Data Lake Gen2 endpoints are provisioned by default [Learn more](#)

Enable SFTP ☒
Local users feature will be enabled with SFTP. Create local user identities to access the SFTP endpoint after storage account is created.

Enable network file system v3 ☐
The current combination of storage account kind, performance, replication, and location does not support the NFS v3 feature. [Learn more about NFS v3](#)

Blob storage
Allow cross-tenant replication ☐
Cross-tenant replication and hierarchical namespace cannot be enabled simultaneously.

Access tier ☒ Hot: Optimized for frequently accessed data and everyday usage scenarios
☐ Cool: Optimized for infrequently accessed data and backup scenarios

Azure Files
Enable large file shares ☐

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- In networking section we are just going with the predefined settings.

Microsoft Azure

Home > Storage accounts >

Create a storage account

Basics Advanced **Networking** Data protection Encryption Tags Review + create

Network connectivity
You can connect to your storage account either publicly, via public IP addresses or service endpoints, or privately, using a private endpoint.

Network access * ☒ Enable public access from all networks
☐ Enable public access from selected virtual networks and IP addresses
☐ Disable public access and use private access
Enabling public access from all networks might make this resource available publicly. Unless public access is required, we recommend using a more restricted access type. [Learn more](#)

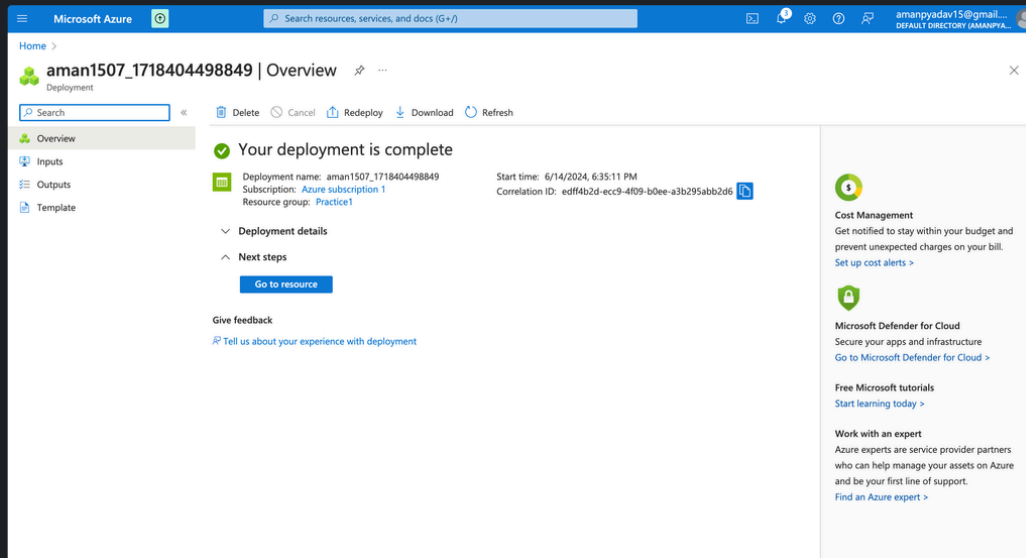
Network routing
Determine how to route your traffic as it travels from the source to its Azure endpoint. Microsoft network routing is recommended for most customers.

Routing preference * ☒ Microsoft network routing
☐ Internet routing

[Give feedback](#)

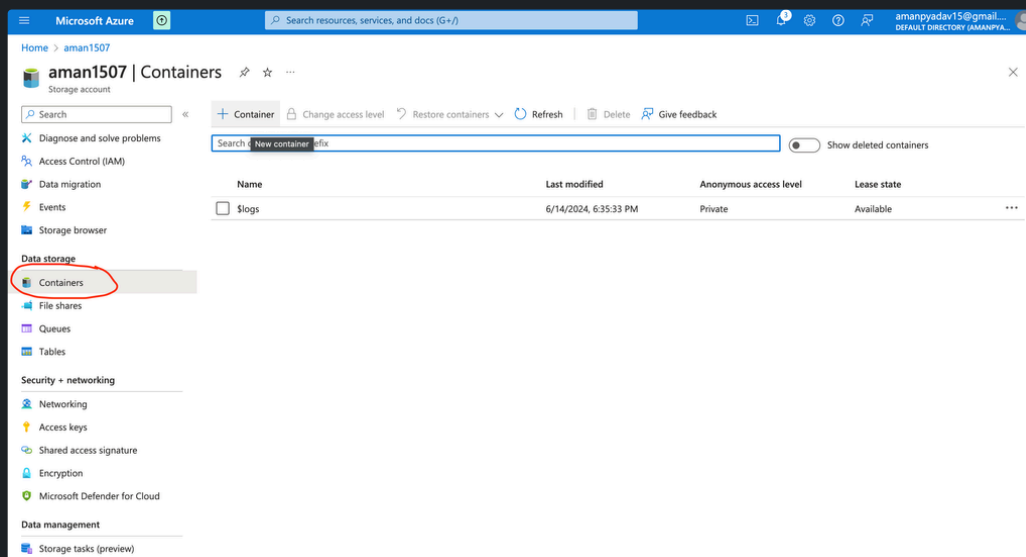
- Will do the same thing for the Data protection, Encryption and Tags section keeping the preset options.

- Once you click on **Review + create** → **create** it will start deploying your storage account and once it's deployed you will get an confirmation something like this.



Step 3:

- Once the deployment is completed navigate to the storage account which you just created, navigate to the Data Storage Section under there select containers.



- Select "+Container" to create a new file system. write the name of your new container and click **create**.

New container

Name *

amanfilesystem

Anonymous access level ⓘ

Private (no anonymous access)

The access level is set to private because anonymous access is disabled on this storage account.

^ Advanced

Encryption scope

Select from existing account scopes

☐ Use this encryption scope for all blobs in the container

☐ Enable version-level immutability support ⓘ

In order to enable version-level immutability support, your storage account must have versioning turned on.

Create

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- Once that done navigate to the container which you just created and select **upload**. Upload your appropriate data files over here from your local machine.

Microsoft Azure

Search resources, services, and docs (G+)

Home > aman1507 | Containers >

amanfilesystem

Container

Search

Upload

Add Directory

Refresh

Rename

Delete

Change tier

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

Shared access tokens

Manage ACL

Access policy

Properties

Metadata

Authentication method: Access key (Switch to Microsoft Entra user account)

Location: amanfilesystem

Search blobs by prefix (case-sensitive)

Name	Modified	Access tier	Actions
No results			

Upload blob

Drag and drop files here or

Browse for files

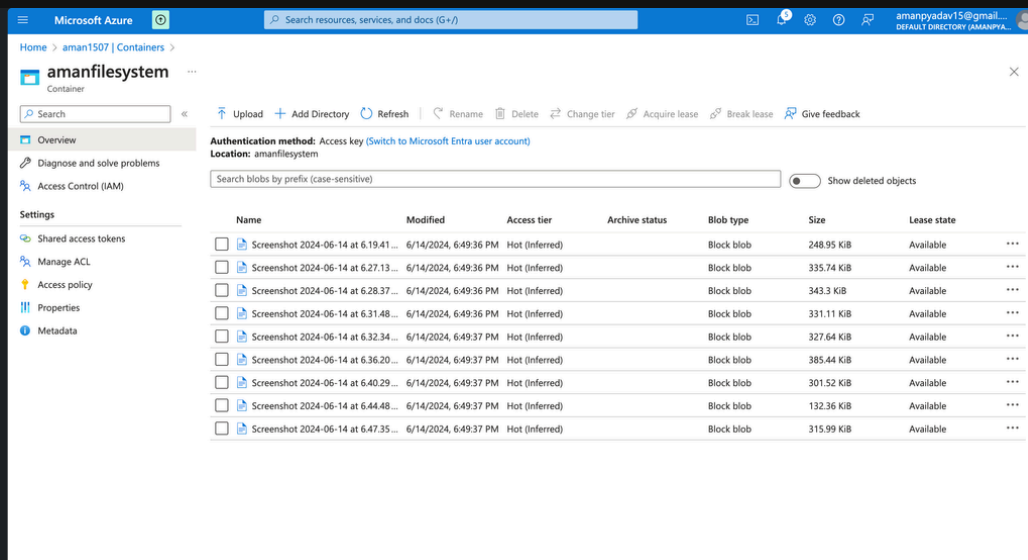
☐ Overwrite if files already exist

Advanced

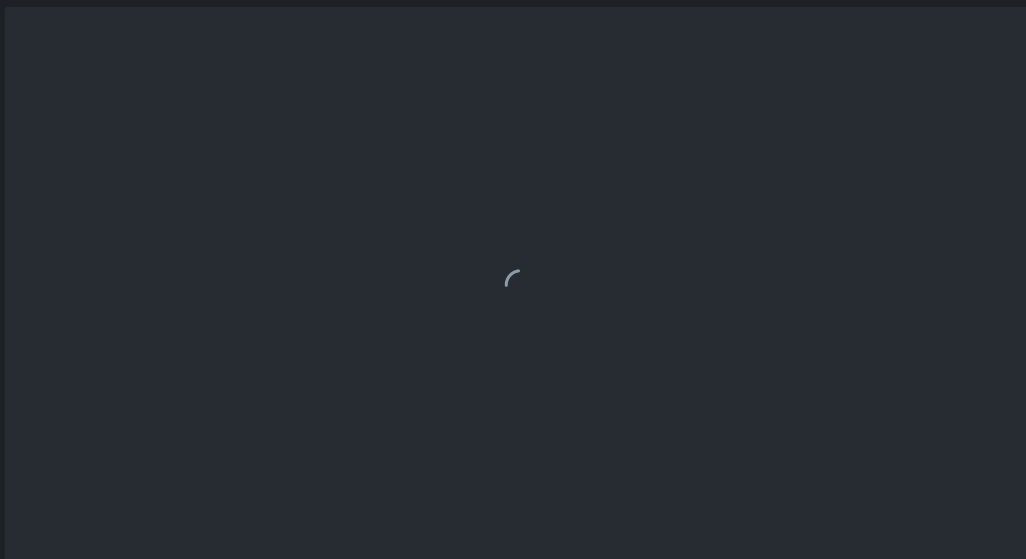
Upload

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- Once the upload has been complete you will see it in your file system.



- You can do similar step in the [Azure Storage Explorer](#) (needs to be downloaded locally on your machine).
- You can also add a directory by clicking on “+ Add Directory” next to upload to structure the data. In the below image I’ve created a sample directory in the name **samplendir**.



- We can change the tier of the data (assuming one data selected at a time) .



- Tier options available are as follow:

	Hot	Cool	Cold	Archive
	Low and consistent Latency data	Frequently Accessed Data	Less Frequently accessed Data	Rarely Accessed Data
Retrieve time	Immediate “SSD”	Immediate “HHD	Immediate “HDD	Long time “hours”
Use Case	Interactive Transaction telemetry	Cloud native application data storage	Repository for Server Backups	Archiving Data
Price	Very High	High	Cheap	Very Cheap
Minimum recommended data retention period	N/A	30 days	90 days	180 days

- We can also configure ACL to manage permission for users and applications which you can find under the **setting** section as **Manage ACL**.

