

ACE12449

Thanya Vellingiri

## Storage

Azure provides various storage services for storing and accessing our data.

In data, we have Structured Data, Unstructured Data and Semi-Structured Data.

- Structured Data – Data that are arranged in predefined format like tables.
- Unstructured Data – Data that doesn't have a predefined format like audio files, documents.
- Semi-Structured Data – Data that doesn't fit into traditional database table but still has some organizational elements like key-value pairs. Eg: JSON files, NoSQL

Azure Blob Storage:

Used to store large amounts of Unstructured Data like images, videos, audios etc.

Azure File Storage:

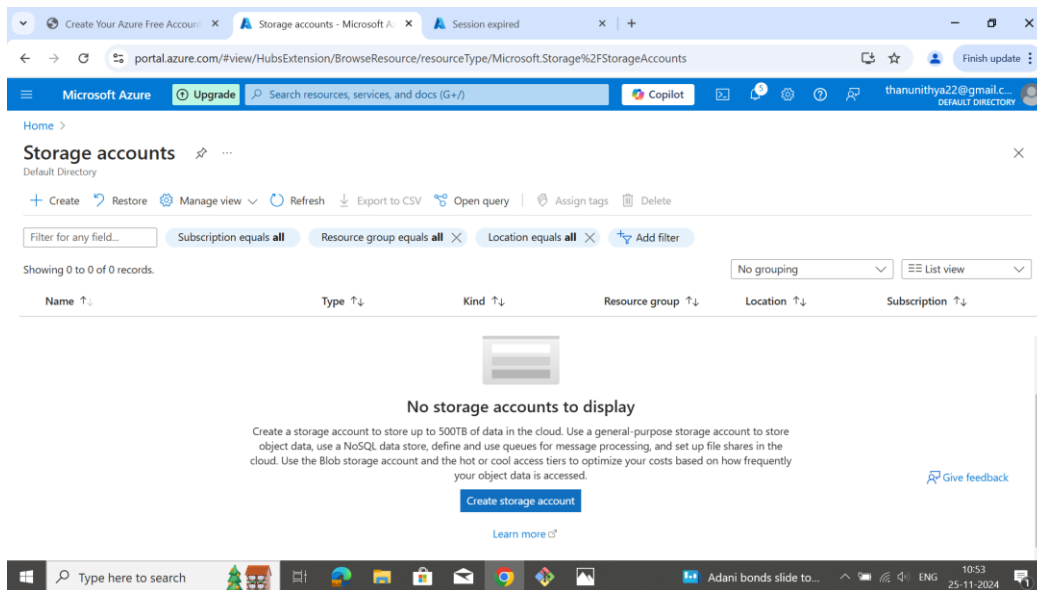
Used to store and share files using Server Message Block (SMB)

Azure Queue Storage:

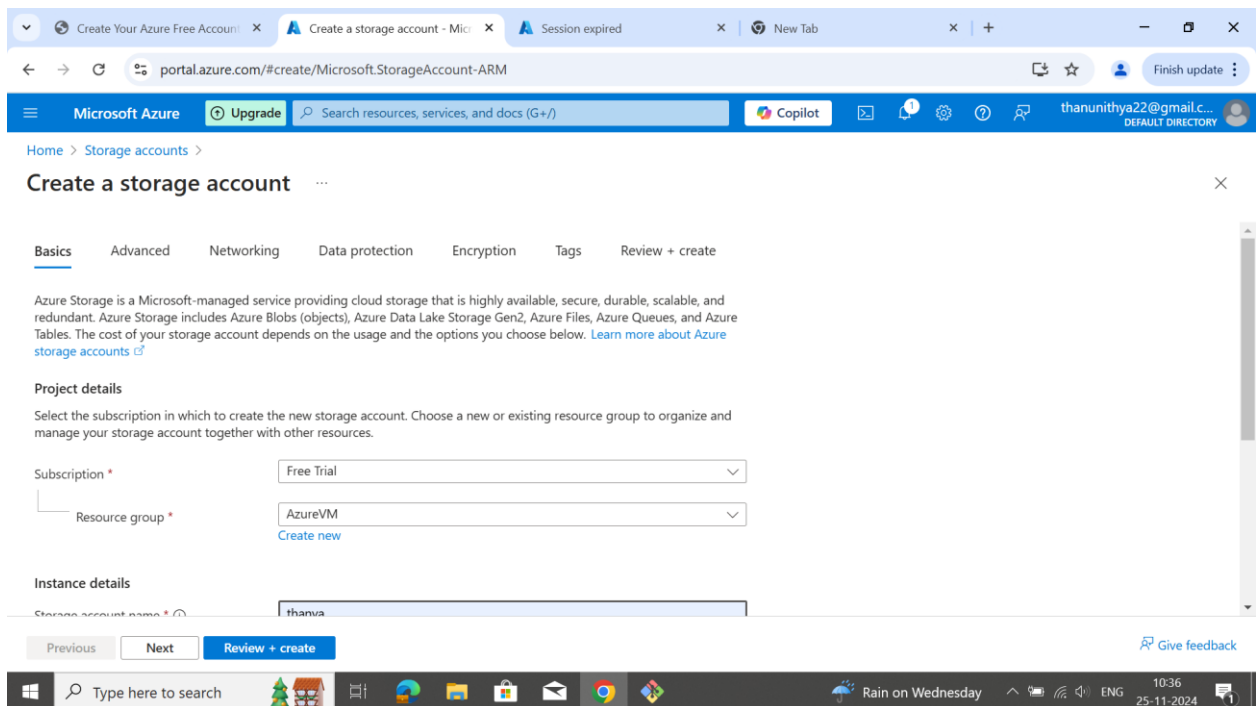
Used to store and manage large numbers of messages in a queue and is used for asynchronous messaging where messages are sent from one application/system to another in a reliable and scalable manner.

Creating Storage Account on Microsoft Azure:

- Sign in to Azure Portal: <https://portal.azure.com/>
- Search and Click on Storage Account
- Click on Create Storage Account



Choose a Resource group and enter a unique name for Storage Account name and  
Choose region, performance and redundancy



Microsoft Azure portal interface showing the "Create a storage account" wizard. The browser tabs include "Create Your Azure Free Account", "Create a storage account - Micro...", "Session expired", and "New Tab". The address bar shows "portal.azure.com/#create/Microsoft.StorageAccount-ARM". The user is logged in as "thanunithya22@gmail.c..." with a "Finish update" button.

### Create a storage account

[Create new](#)

**Instance details**

Storage account name \*

Region \*   
[Deploy to an Azure Extended Zone](#)

Primary service

Performance \* ☒ **Standard:** Recommended for most scenarios (general-purpose v2 account)  
☐ **Premium:** Recommended for scenarios that require low latency.

Redundancy \*   
☒ Make read access to data available in the event of regional unavailability.

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Windows taskbar shows: Type here to search, Adani bonds slide to..., 10:36, 25-11-2024.

Fill in the required Security details, Networking and Encryption. Most of the details are set default since few options are paid

Create Your Azure Free Account xCreate a storage account - Mic xSession expired xNew Tab x

portal.azure.com/#create/Microsoft.StorageAccount-ARM

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Home > Storage accounts >

Create a storage account

BasicsAdvancedNetworkingData protectionEncryptionTagsReview + 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 ⓘ

Version 1.2

Permitted scope for copy operations (preview) ⓘ

From any storage account

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Home > Storage accounts >

Create a storage account

SFTP can only be enabled for hierarchical namespace accounts

Enable network file system v3 ⓘ

☐

To enable NFS v3 'hierarchical namespace' must be enabled. [Learn more about NFS v3](#) ⓘ

Blob storage

Allow cross-tenant replication ⓘ

☐

Access tier ⓘ

☒ Hot: Optimized for frequently accessed data and everyday usage scenarios

☐ Cool: Optimized for infrequently accessed data and backup scenarios

☐ Cold: Optimized for rarely accessed data and backup scenarios

Azure Files

Enable large file shares ⓘ

☒

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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](#)

Private endpoint

Create a private endpoint to allow a private connection to this resource. Additional private endpoint connections can be created for this resource.

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Recovery

Protect your data from accidental or erroneous deletion or modification.

☐ Enable point-in-time restore for containers

Use point-in-time restore to restore one or more containers to an earlier state. If point-in-time restore is enabled, then versioning, change feed, and blob soft delete must also be enabled. [Learn more](#)

☒ Enable soft delete for blobs

Soft delete enables you to recover blobs that were previously marked for deletion, including blobs that were overwritten. [Learn more](#)

Days to retain deleted blobs

☒ Enable soft delete for containers

Soft delete enables you to recover containers that were previously marked for deletion. [Learn more](#)

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Encryption type \* ⓘ

☒ Microsoft-managed keys (MMK)

☐ Customer-managed keys (CMK)

Enable support for customer-managed keys ⓘ

☐ Blobs and files only

☒ All service types (blobs, files, tables, and queues)

⚠ This option cannot be changed after this storage account is created.

Enable infrastructure encryption ⓘ☐

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[View automation template](#)

Basics

Subscription

Free Trial

Resource group

AzureVM

Location

Central India

Storage account name

thanya

Primary service

Performance

Standard

Replication

Read-access geo-redundant storage (RA-GRS)

Advanced

Enable hierarchical namespace

Disabled

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Create Your Azure Free Account

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Home > Storage accounts >

Create a storage account

Blob soft delete

Enabled

Blob retainment period in days

7

Container soft delete

Enabled

Container retainment period in days

7

File share soft delete

Enabled

File share retainment period in days

7

Versioning

Disabled

Blob change feed

Disabled

Version-level immutability support

Disabled

Encryption

Encryption type

Microsoft-managed keys (MMK)

Enable support for customer-managed keys

All service types (blobs, files, tables, and queues)

Enable infrastructure encryption

Disabled

Previous

Next

Create

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Create Your Azure Free Account

thanya\_1732511615681 - Micro

Session expired

portal.azure.com/#view/HubsExtension/DeploymentDetailsBlade/~/\_/overview/id/%2Fsubscriptions%2Fcc96d142-6b39-4272-9c30-81fe4079b...

Microsoft Azure Upgrade Search resources, services, and docs (G+/) Copilot thanunithya22@gmail.c... DEFAULT DIRECTORY

Home >

thanya\_1732511615681 | Overview

Deployment

Search

Delete Cancel Redeploy Download Refresh

Overview

Inputs

Outputs

Template

✓ Your deployment is complete

Deployment name: thanya\_173251161...

Subscription: Free Trial

Resource group: AzureVM

Start time: 11/25/2024, 10:45:19 AM

Correlation ID: 7f643b46-41ae-4eba-912c-6ddd9c055d83

Deployment details

Next steps

Go to resource

Give feedback

Tell us about your experience with deployment

Deployment succeeded

Deployment 'thanya\_1732511615681' to resource group 'AzureVM' was successful.

Go to resource

Pin to dashboard

Cost Management

Get notified to stay within your budget and prevent unexpected charges on your bill.

Set up cost alerts >

Microsoft Defender for Cloud

Secure your apps and infrastructure

Go to Microsoft Defender for Cloud >

Free Microsoft tutorials

Start learning today >

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Microsoft Azure portal interface showing the Overview page for a Storage account named 'thanya'.

**Navigation:** Home > thanya\_1732511615681 | Overview

**Storage account details:**

- Resource group: (move)
- Location: centralindia
- Primary/Secondary Location: Primary: Central India, Secondary: South India
- Subscription: (move)
- Subscription ID: cc96d142-6b39-4272-9c30-81fe4079b58f
- Disk state: Primary: Available, Secondary: Available
- Tags: (edit)
- Add tags

**Performance and Configuration:**

- Performance: Standard
- Replication: Read-access geo-redundant storage (RA-GRS)
- Account kind: StorageV2 (general purpose v2)
- Provisioning state: Succeeded
- Created: 11/25/2024, 10:45:22 AM

**Left sidebar (Navigation):**

- Overview
- Activity log
- Tags
- Diagnose and solve problems
- Access Control (IAM)
- Data migration
- Events
- Storage browser
- Storage Mover
- Partner solutions
- Data storage
- Security + networking
- Data management

**Top bar:** Microsoft Azure, Upgrade, Search resources, services, and docs (G+), Copilot, thanunithya22@gmail.com, Finish update

**Taskbar:** Type here to search, 29°C Partly sunny, 10:46 25-11-2024

## Upload a file

Microsoft Azure portal interface showing the Upload blob page.

**Navigation:** Home > thanya\_1732511615681 | Overview

**Storage account details:**

- Resource group: (move)
- Location: centralindia
- Primary/Secondary Location: Primary: Central India, Secondary: South India
- Subscription: (move)
- Subscription ID: cc96d142-6b39-4272-9c30-81fe4079b58f
- Disk state: Primary: Available, Secondary: Available
- Tags: (edit)
- Add tags

**Upload blob details:**

- 1 file(s) selected: Virtual\_Machine.pdf
- Drag and drop files here or [Browse for files](#)
- Select an existing container:
- Create new
- ☐ Overwrite if files already exist
- Advanced
- Upload
- [Give feedback](#)

**Left sidebar (Navigation):**

- Overview
- Activity log
- Tags
- Diagnose and solve problems
- Access Control (IAM)
- Data migration
- Events
- Storage browser
- Storage Mover
- Partner solutions
- Data storage
- Security + networking
- Data management

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**Taskbar:** Type here to search, 29°C Partly sunny, 10:47 25-11-2024



Microsoft Azure portal interface showing the 'Upload blob' dialog box. The dialog prompts for a 'New container' name (input: 'container') and an 'Anonymous access level' (selected: 'Private (no anonymous access)'). A message states: 'Anonymous access to this container is being blocked because anonymous access is disabled on this storage account.' Buttons 'Ok' and 'Cancel' are visible. The background shows the 'thanya' storage account overview with a sidebar menu and a list of essentials.

Microsoft Azure portal interface showing the 'thanya' storage account overview after successful upload. A notification banner at the top right states: 'Successfully uploaded blob(s). Successfully uploaded 1 blob(s)'. The main content area displays the 'Essentials' section with details for the storage account, including Resource group (AzureVM), Location (centralindia), Primary/Secondary Location (Primary: Central India, Secondary: South India), Subscription ID (cc96d142-6b39-4272-9c30-81fe4079b58f), and Disk state (Primary: Available, Secondary: Available). The 'Performance' section shows Standard, Replication, Read-access geo-redundant storage (RA-GRS), Account kind, StorageV2 (general purpose v2), Provisioning state (Succeeded), and Created (11/25/2024, 10:45:22 AM). The sidebar menu and top navigation bar are also visible.

Create Your Azure Free Account

thanya - Microsoft Azure

Session expired

portal.azure.com/#@thanunithya22gmail.onmicrosoft.com/resource/subscriptions/cc96d142-6b39-4272-9c30-81fe4079b58f/resourcegroups...

Finish update

Microsoft Azure

Upgrade

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DEFAULT DIRECTORY

Home > thanya\_1732511615681 | Overview > thanya

thanya | Containers

Storage account

Search

+ Container

Change access level

Restore containers

Refresh

Delete

Give feedback

Data migration

Events

Storage browser

Storage Mover

Partner solutions

Data storage

Containers

File shares

Queues

Tables

Security + networking

Data management

Settings

Search containers by prefix

Show deleted containers

Name	Last modified	Anonymous access level	Lease state
<input type="checkbox"/> \$logs	11/25/2024, 10:45:52 AM	Private	Available
<input type="checkbox"/> container	11/25/2024, 10:47:57 AM	Private	Available

Type here to search

29°C Partly sunny

10:48  
25-11-2024

Create Your Azure Free Account

Virtual\_Machine.pdf - Microsoft

Session expired

portal.azure.com/#view/Microsoft\_Azure\_Storage/BlobPropertiesBladeV2/storageAccountId/%2Fsubscriptions%2Fcc96d142-6b39-4272-9c30...

Finish update

Microsoft Azure

Upgrade

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DEFAULT DIRECTORY

Home > thanya\_1732511615681 | Overview > thanya | Containers > container

container

Container

Search

Upload

Change access level

...

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

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

Location: container

Search blobs by prefix (case-...)

Show deleted blobs

Add filter

Name
<input checked="" type="checkbox"/> Virtual_Machine.pdf

Virtual\_Machine.pdf

Blob

Save

Discard

Download

Refresh

Delete

Change tier

...

Overview

Versions

Snapshots

Edit

Generate SAS

Properties

URL: https://thanya.blob.core...

LAST MODIFIED: 11/25/2024, 10:48:11 AM

CREATION TIME: 11/25/2024, 10:48:11 AM

VERSION ID: -

TYPE: Block blob

SIZE: 3.07 MiB

ACCESS TIER: Hot (Inferred)

ACCESS TIER LAST MODIFIED: N/A

ARCHIVE STATUS: -

REHYDRATE PRIORITY: -

SERVER ENCRYPTED: true

ETAG: 0x8DD0D108E184901

VERSION-LEVEL IMMUTABILITY POLICY: Disabled

Type here to search

HDFCBANK +1.74%

10:49  
25-11-2024