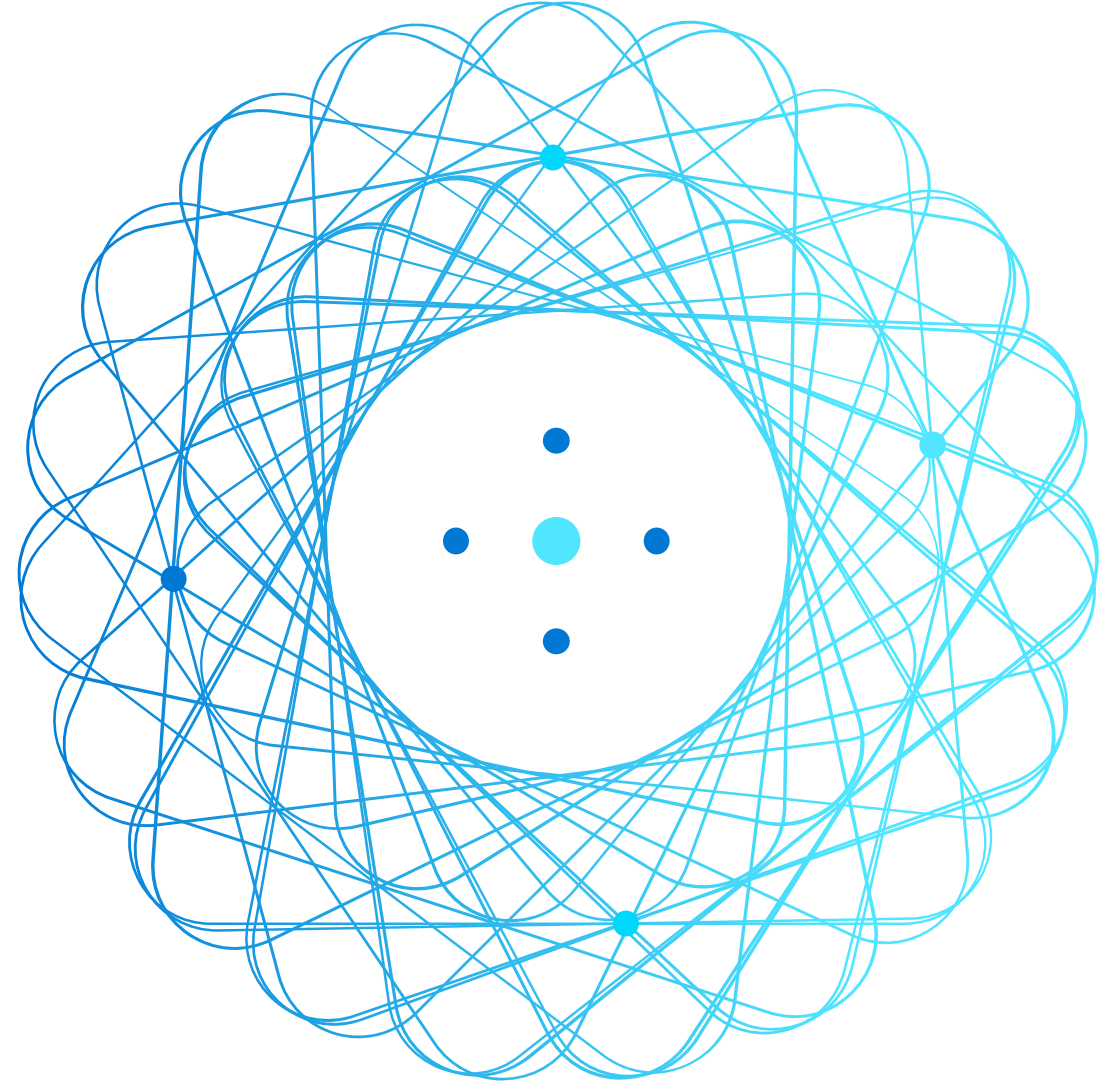Microsoft Azure

AZ-900T0x Module 04: Cloud concepts

Ravindra Kudache
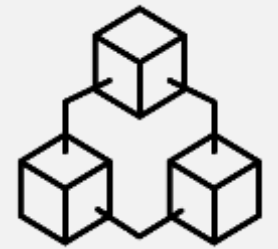
Module Outline

Module 03 - Outline

You will learn the following concepts:

- **Storage**

Cloud Models

Azure Storage Accounts

What are Azure storage accounts

- This service allows you to store objects on the cloud.

- Here you can make use of different services – Blob, Queue, File and Table.

- There are also different types of storage accounts.

Storage account types

Standard-general purpose v2

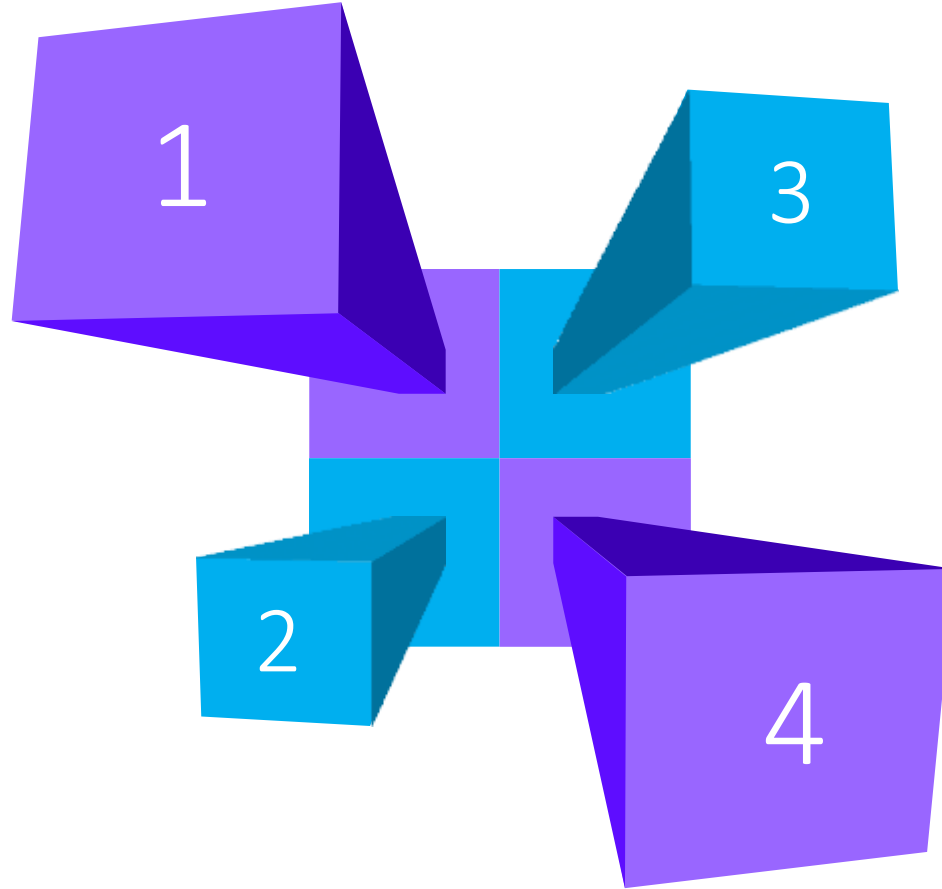Gives you access to Blob, Queue, Table and File service

Premium file shares

This is a premium storage account for your file shares.

Premium block blobs

This is premium storage for your block blobs

Premium page blobs

This is premium storage for your page blobs.

Azure storage accounts

What is Blob storage

- This service is optimized for storing large amounts of unstructured data.

- Use case examples – storing images, videos, log files, documents.

- In the blob service, you will create a container. This is used to organize a set of blobs.

- Block blobs – This is used to store text and binary data.

- Page blobs – This is used to store virtual hard drive files that are used as disks for your Azure virtual machines.

Azure Storage accounts

What is the File service

- This is used for hosting file shares on the cloud.

- This shares can be accessed via the SMB – Server Message Blob protocol.

- You can mount the file shares from Windows, Linux and macOS clients.

What is Azure Queue storage

- This service is used for storing large amounts of messages.

- These messages can then be accessed from anywhere in the world via the HTTP or HTTPS protocol.

- You can store millions of messages in the queue.

What is Azure Table storage

- This service is used for storing non-relational structured data.

- Its ideal for storing flexible data sets because it does not conform to any sort of schema.

- In the table , you store an entity which is a set of properties.

- A property is nothing but a name-value pair.

- The partition key is used to split the data across various partitions. And the row key is used to identify an item within a partition.
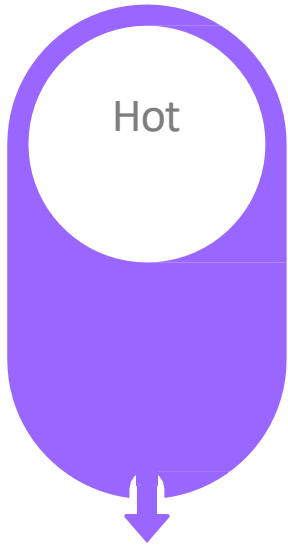
What is Azure File Sync service

- This service can be used to transform the Windows server into a quick cache of the Azure File share.

- You create an Azure File Sync resource.

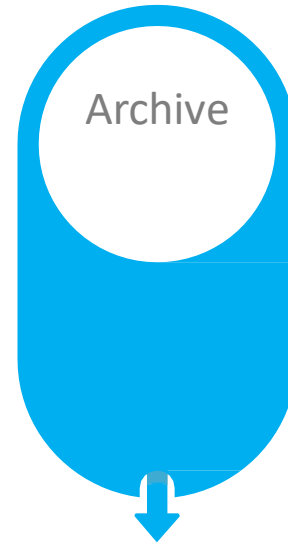- You also need to deploy the Azure File Sync agent to the Windows server.

Access tiers

Hot

This is optimized for data that is accessed frequently.

Cool

This is optimized for data that is infrequently accessed and stored for at least 30 days.

Archive

This is optimized for storing data that is rarely accessed and stored for at least 180 days.

Access tiers

- The Archive access tier is good for long-term backups.

- You can set the access tier at the Storage account level to Hot or Cool.

- At the object level, you can also set the Archive access tier.

Data Redundancy

Locally redundant storage

Here data is copied synchronously three times within a single physical location in the primary region

Zone-redundant storage

Here data is copied synchronously across three Azure availability zones in the primary region

Geo-redundant storage

Here data is copied synchronously three times within a single physical location in the primary region using LRS. It then copies your data asynchronously to a single physical location in the secondary region

Geo-zone-redundant storage

Here data is copied synchronously across three Azure availability zones in the primary region using ZRS. It then copies your data asynchronously to a single physical location in the secondary region

Walkthrough - Create blob storage

Create a storage account with a blob storage container. Work with blob files.

1. Create a storage account.

2. Work with blob storage.

3. Monitor the storage account.