Azure Storage

Monday, September 4, 2023 9:38 AM

Creating a storage account

1. Storage Accounts
2. Create storage account
3. Resource group
4. Storage account name
5. Region
6. Performance
7. Redundancy
   a. GRS
   b. ZRS
   c. LRS
   d. GZRS
8. Create
9. Go to Resource

Note:- If in advance the Hierarchical namespace is enabled it creates a data lake storage other vise it creates a blob storage.

Azure Blob Storage:
Used for general purpose data storage and basics analystics
Azure Data lake Storage gen 2:
Used for Advance analytics and big data processing.
Created on top of Azure Blob storage.

Storage Browser (online Azure Storage Explorer)
Explorer can also be downloaded

- Displays the things stored
  - Blob containers
  - Files shares
  - Queues
  - Tables

Data storage

- Create new data resources and files

Configuration

- Allow blob anonymous access as enabled

Goto Storage browser -> Blob containers->container and change access level to container(anonymous read access to container and blob) from private(no anonymous access).

Exercise : Static Website Hosting

Data Management -> Static Website ->enable

Add index and error document name
index.html
error.html

Go to $web opens a container
Upload all the files related to website there
For maintaining the structure of the folders, in advance there is a option to upload the files to a particular folder
For specific location upload provide the path e.g. css/fonts (note: the path needs to be provided with reference to the folder that is open from which upload has been clicked on.)

After uploading all the files go to the primary endpoint present in the static website and copy the link.

Open the link to view the website

One Storage account can contain only one static website.

Azure lab issues:-
support@nuvepro.freshdesk.com

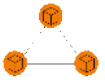
Types of Storage

File Storage/File Level Storage

- Is a data stored as a single piece of information inside a folder just like we organize pieces of paper inside a folder
- Hierarchically stored as files and folders
- Accessed Directly

Block Storage

- Chops the data into blocks, and stores them as separate pieces.
- Each block of data is given a unique identifier, which allows the storage system to place the smaller piece the data where it is most convenient
- Data is stored in fixed size blocks



Object Storage/Object-based storage

- Is a flat structure in which files are broken into pieces and spread out among hardware.
- In object storage, the data is broken into discrete units called objects and is kept in a single repository, instead of being kept as files in folders or as blocks on servers.
- Stored as objects in buckets
- To access requires a simple HTTP API which is used by most clients in all languages.

Types of Storage in Azure storage account

BLOB Storage - Binary Large Object

- Is designed to store and manage large amounts of unstructured data, such as documents, images, videos, and backups.
- It offers three tiers: Hot, Cool, and Archive, with varying costs and access times based on the frequency of access.
- Azure storage offers different access tiers so that you can store your blob data in the most cost effective manner.
  - Hot Tier:
    - Online
    - Access or modified frequently
    - Highest storage cost
    - Lowest access costs
  - Cool Tier:
    - Online
    - Infrequently accessed or modified
    - Data in cool tier should be stored for minimum 30 days.
    - Lower storage cost as compared to hot tier
    - Higher access cost as compared to hot tier
  - Cold Tier:
    - Online
    - Infrequently accessed or modified
    - Data in cold tier should be stored for minimum 90 days.
    - Lower storage cost as compared to cool tier
    - Higher access cost as compared to cool tier
  - Archive
    - Offline
    - Rarely accessed
    - Flexible latency requirements on the order of hours
    - Data in archive tier should be stored for minimum 180 days

File Storage:

- Azure File Storage provides fully managed file shares that can be accessed using the standard Server Message Block (SMB) protocol.
- It's suitable for migrating on-premises file shares to the cloud, as well as for sharing files across virtual machines.

Queue Storage:

- Azure Queue Storage offers a message queuing service for decoupling and asynchronous communication between application components.
- It's commonly used for building scalable and resilient applications.
- Service for storing large no. of messages.
- Queues are commonly used to create a backlog of work to process asynchronously.

Table Storage:

- Azure Table Storage is a NoSQL data store that provides key/attribute store capabilities for semi-structured data.
- It's suitable for applications that require schema-less data storage and fast access to data.