

Lab 3

CST8912_011

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February 01, 2025

Submitted to :

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Lab Report Format

Title

Managing Azure Storage Account and Blob Lifecycle

Introduction or Purpose

This lab is intended to teach how to configure a Storage account. After all the configuration, the uploaded file can be access through Blob SAS URL.

Steps covered in the lab

Create a Storage Account

- Create a storage account named labtest8912 under the **student subscription** and resource group CST8912-demo.
- Set the region to **Canada Central** and choose **Geo Redundant Storage (GRS)**.
- Keep the **networking** and **data protection** options as default.

Change Redundancy and Blob Access Tier

- In the storage account, go to **Data Management > Redundancy** and change redundancy to **Local Redundant Storage (LRS)**.
- Under **Settings > Configuration**, set the **Blob Access Tier** to **Cool** and save changes.

Create a Container and Upload a Blob

- Navigate to **Data Storage > Containers**, create a new container named labtestcontainer8912.
- Upload a blob into a folder named sampletest8912 using files from the shared lab sample links.
- While uploading, change the **Access Tier** to **Hot** in advanced settings.

Test Blob URL Access

- Click the uploaded file in the container and copy its **Blob URL**.
- Open the Blob URL in a private browser window. The URL should not work as the container's public access is set to private.

Generate SAS Token for Access

- In the file's blade, click **Generate SAS**, copy the **SAS Token**, and paste the **Blob SAS URL** into a private browser window.
- You should now be able to view the file.

Create a Lifecycle Management Rule

- In the container blade, go to **Data Management > Lifecycle Management**.
- Create a new rule named myrule8912.
- Set the **rule scope** to "limit blobs with filters," and use the default blob type and subtype.
- Add a condition: If base blobs were last modified **more than 15 days ago**, move them to **Cool Storage**.

Cleanup and Report

- Delete all resources created during the lab.

Results

Create a Storage Account

The screenshot displays the Microsoft Azure portal interface. At the top, the header shows the Microsoft Azure logo, a search bar, and user information for 'degu0055@algonquinl...'. The main content area is titled 'labtest8912 Storage account'. On the left, a navigation pane lists various services, with 'Data storage' expanded to show 'Storage account'. The main pane shows the 'Overview' tab for the storage account. It includes a search bar, action buttons (Upload, Open in Explorer, Delete, Move, Refresh, Open in mobile, CLI / PS, Feedback), and a 'JSON View' link. The 'Essentials' section lists key properties: Resource group (CST8912-demo), Location (Canada Central), Primary/Secondary Location (Primary: Canada Central, Secondary: Canada East), Subscription (Azure for Students), Subscription ID (cdb9bdf3-e7ee-43e9-8f6c-ba7327868df1), and Disk state (Primary: Available, Secondary: Available). Below this, the 'Properties' tab is active, showing settings for 'Blob service' (Hierarchical namespace: Disabled, Default access tier: Hot, Blob anonymous access: Disabled, Blob soft delete: Enabled (7 days), Container soft delete: Enabled (7 days), Versioning: Disabled, Change feed: Disabled, NFS v3: Disabled, Allow cross-tenant replication: Disabled) and 'Security' (Require secure transfer for REST API operations: Enabled, Storage account key access: Enabled, Minimum TLS version: Version 1.2, Infrastructure encryption: Disabled). The 'Networking' section shows 'Allow access from' set to 'All networks' and 'Private endpoint connections' set to '0'. The bottom of the page shows the URL 'https://portal.azure.com/#' and a 'Show portal menu' button.

Local Redundant Storage

Microsoft Azure | Search resources, services, and docs (G+)

Home > labtest8912

labtest8912 | Redundancy

Storage account

Search

Save Discard → Prepare for failover Refresh Give feedback

Failover cannot yet be initiated because initial data synchronization from the primary to secondary region is in progress. Failover will be available when synchronization is complete. Click here for more information. →

Azure Storage redundancy copies your data so that it is protected from transient hardware failures, network or power outages, and natural disasters. If an outage renders the primary endpoint unavailable, then you can initiate a failover to the secondary endpoint to rapidly restore write access to your data. [Learn more about storage account failover](#)

Redundancy Locally-redundant storage (LRS)

Last failover time -

Storage endpoints [View all](#)

Location	Data center type	Status	Failover
Canada Central	Primary	Available	-
Canada East	Secondary	Available	-

[Show portal menu](#)

<https://portal.azure.com/#>

Blob Access Tier

Microsoft Azure | Search resources, services, and docs (G+)

Home > labtest8912

labtest8912 | Configuration

Storage account

Search

Save Discard Refresh Give feedback

Secure transfer required ☐ Disabled ☒ Enabled

Allow Blob anonymous access ☒ Disabled ☐ Enabled

Allow storage account key access ☐ Disabled ☒ Enabled

Allow recommended upper limit for shared access signature (SAS) expiry interval ☒ Disabled ☐ Enabled

Default to Microsoft Entra authorization in the Azure portal ☒ Disabled ☐ Enabled

Minimum TLS version Version 1.2

Permitted scope for copy operations (preview) From any storage account

Blob access tier (default) ☐ Hot ☒ Cool ☐ Cold

Large file shares ☐ Disabled ☒ Enabled

Container

Microsoft Azure

Search resources, services, and docs (G+/)

Copilot

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ALGONQUIN COLLEGE (ALGONQ...

Home > labtest8912

labtest8912 | Containers

Storage account

Data Storage

+ Container

Change access level

Restore containers

Refresh

Delete

Give feedback

Search containers by prefix

Show deleted containers

Name	Last modified	Anonymous access level	Lease state
<input type="checkbox"/> \$logs	1/27/2025, 6:25:14 PM	Private	Available
<input type="checkbox"/> labtestcontainer8912	1/27/2025, 6:32:02 PM	Private	Available

Overview

Activity log

Tags

Diagnose and solve problems

Access Control (IAM)

Data migration

Events

Storage browser

Storage Mover

Partner solutions

Data storage

Containers

File shares

Queues

Tables

Security + networking

Data management

Storage tasks (preview)

https://portal.azure.com/#

Blob

Microsoft Azure

Search resources, services, and docs (G+/)

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Home >

labtestcontainer8912

Container

Search

Upload

Change access level

Refresh

Delete

Change tier

Acquire lease

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

Location: labtestcontainer8912

Search blobs by prefix (case-sensitive)

Add filter

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

Shared access tokens

Access policy

Properties

Metadata

Upload blob

1 file(s) selected: placeholder.json

Drag and drop files here or [Browse for files](#)

Overwrite if files already exist

Advanced

Blob type

Block blob

Upload .vhd files as page blobs (recommended)

Block size

4 MiB

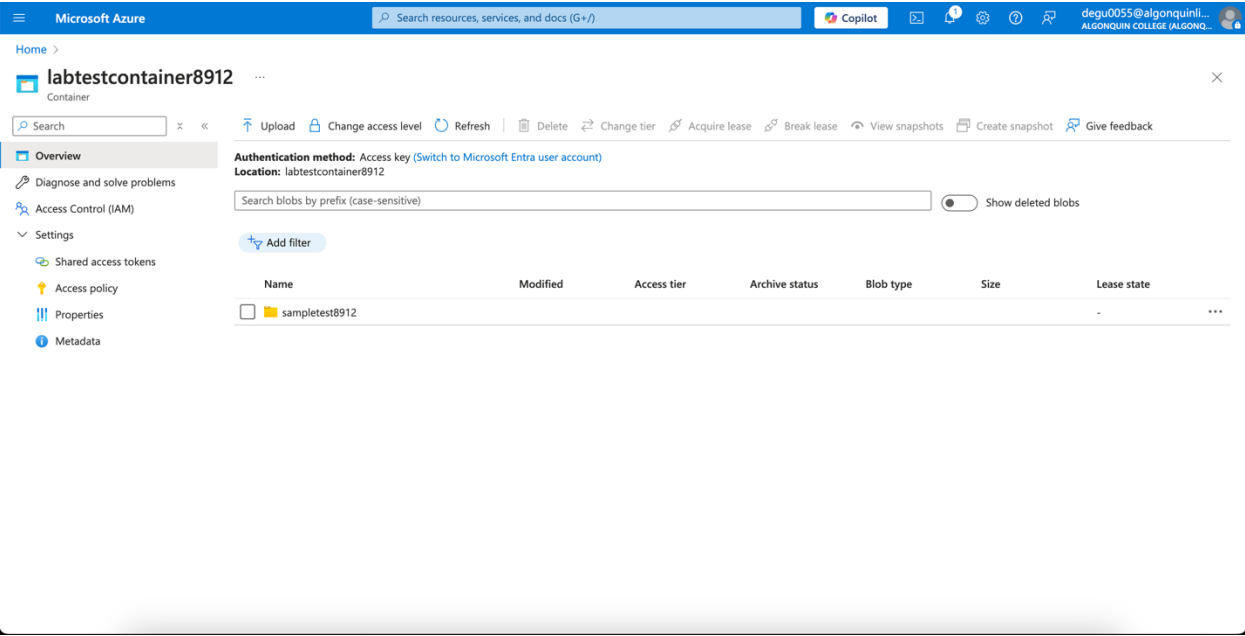
Access tier

Hot

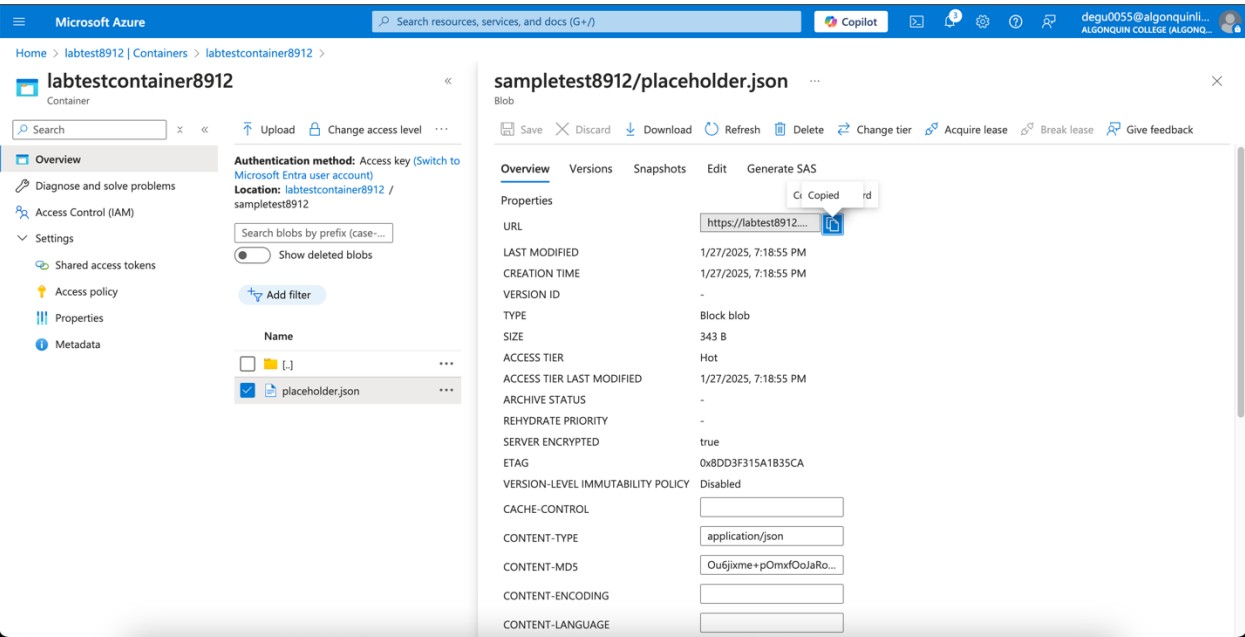
Upload to folder

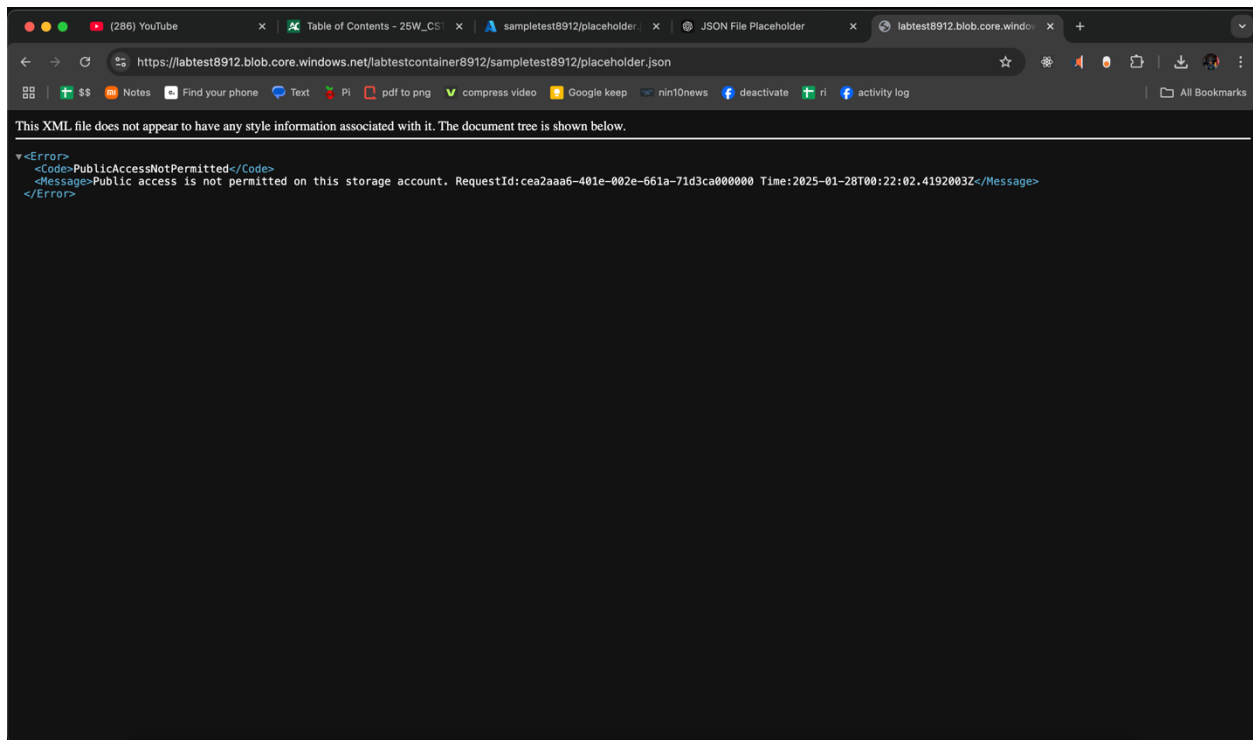
Blob index tags

Key	Value

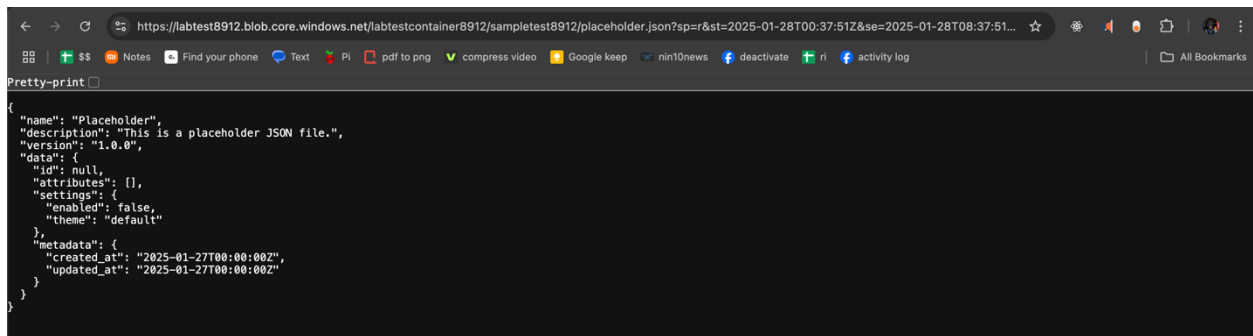


Blob link





From SAS Token



Create a Lifecycle Management Rule

Microsoft Azure

Search resources, services, and docs (G+/I)

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Home > labtest8912 | Lifecycle management >

Add a rule

1 Details

2 Base blobs

3 Filter set

A rule is made up of one or more conditions and actions that apply to the entire storage account. Optionally, specify that rules will apply to particular blobs by limiting with filters.

Rule name *

myrule8912

Rule scope *

Apply rule to all blobs in your storage account

Limit blobs with filters

Blob type *

Block blobs

Append blobs

Blob subtype *

Base blobs

Snapshots

Versions

Previous

Next

Microsoft Azure

Search resources, services, and docs (G+/I)

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Home > labtest8912 | Lifecycle management >

Add a rule

1 Details

2 Base blobs

3 Filter set

Lifecycle management uses your rules to automatically move blobs to cooler tiers or to delete them. If you create multiple rules, the associated actions must be implemented in tier order (from hot to cool storage, then archive, then deletion).

If

Base blobs were *

Last modified

Created

More than (days ago) *

15

Then

Move to cold storage

+ Add conditions

Previous

Next

Microsoft Azure

Search resources, services, and docs (G+/I)

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Home > labtest8912

labtest8912 | Lifecycle management

Storage account

Data Management

+ Add a rule

Enable

Disable

Refresh

Delete

Give feedback

Data migration

Data management

Data protection

Lifecycle management

Settings

Data Lake Gen2 upgrade

Lifecycle management offers a rich, rule-based policy for general purpose v2 and blob storage accounts. Use the policy to transition your data to the appropriate access tiers or expire at the end of the data's lifecycle. A new or updated policy may take up to 48 hours to complete. [Learn more](#)

List ViewCode View

Enable access tracking

Name	Status	Blob type
myrule8912	Enabled	Block

Successfully updated lifecycle management policy

Successfully updated lifecycle management policy for storage account 'labtest8912'.

<https://portal.azure.com/#@AlgonquinLivecom.onmicrosoft.com/resource/subscriptions/cdb9bdf3-e7ee-43e9-8f6c-ba7327868df1/resourceGroups/CST8912-demo/providers/Microsoft.Storage/storageAccounts/labtest8912/managementPolicies>

Delete all resources

Microsoft Azure

Search resources, services, and docs (G+/I)

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Home >

All resources

Algonquin College (AlgonquinLivecom.onmicrosoft.com)

Create

Manage view

Refresh

Export to CSV

Open query

Assign tags

Delete

Filter for any field...

Subscription equals all

Resource group equals all

Type equals all

Location equals all

Add filter

Unsecure resources

Recommendations

Changed resources

No grouping

List view

Name

Type

Resource group

Location

Subscription

No resources match your filters

Try changing or clearing your filters.

Create resources

Clear filters

Learn more

Give feedback