Lab 3

CST8912_011

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Submitted to:

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Practice generate shared access signatures for Azure Cloud and manage lifecycle of cloud storage

Introduction or Purpose

Introduction:

Cloud storage solution provides secure, durable, and highly scalable object storage. To upload data such as photos, videos, and static documents, you must first create a logical storage bucket in one of the cloud regions. Then you can upload any number of objects to it. Buckets and objects are resources, and cloud provider provides both APIs and a web console to manage them.

Cloud storage can be used alone or together with other cloud services Cloud storage provides costeffective object storage for a wide variety of use cases including web applications, content distribution, backup and archiving, disaster recovery, and big data analytics.

A shared access signature (SAS) provides secure delegated access to resources in your storage account. With a SAS, you have granular control over how a client can access your data for a specific period of time. For example:

- What resources the client may access.
- What permissions they have to those resources.
- How long the SAS is valid.

Purpose:

In this lab, you will explore the Azure storage account, and generate shared access signatures for Azure Cloud, how to change rules and conditions to manage lifecycle of cloud storage.

Steps covered in the lab

Step 1:

Aim:

Create a storage account "labtest8912" under student subscription and resource group "CST8912-demo" for region Canada central and select geo-redundant storage (geo-redundant storage GRS), keep networking and data protection options default

Steps:

Log into Azure portal homepage and select "Resource Groups" under "Azure Services", Then choose "Creat", then select "Azure for Students" under "Subscription" and fill in "CTS8912-demo" under "Resource group", then select "(Canada) Canada Central" under "Region". Click "Review + Create" then click "create".

Under Resource Group "CTS8912-demo", select "Storage account" and create it using this name "dytlabtest8912" (as there's a warning which I can't fix, I change the storage account's name) Region "Canada Central", primary service "Azure Blob Storage or Azure Data Lake Storage Gen 2", and select geo-redundant storage (geo-redundant storage GRS). Then click "Review + Create", then "Create".

Step 2:

Aim:

Go to your storage account resource blade, in data management section, go to redundancy tab and change redundancy to "local redundant storage" from dropdown, and under settings choose configuration and set blob access tier to cool and save the change.

Steps:

Under Resource Group CTS8912-demo, choose storage account "dytlabtest8912, under "Data management", choose "Redundancy" and change it to "Locally redundant storage (LRS)", then click "Save".

Go to "Settings", choose "Configuration", under "Blob access tire (default)", choose "Cold" and finally click "Save".

Step 3:

Aim:

under data storage in left, click containers and add new container named "labtestcontainer8912" and select upload a blob and change the advance settings and change the access tier to "hot" and upload to folder named "sampletest8912", browse the files from the sample files links shared in this lab (check with your instructor if you cannot find the sample file link)

Steps:

Under Storage account "dytlabtest8912", go to "Data storage", choose "Containers", then "+ Container". Name the new container as "labtestcontainer8912" and then click "Create".

Go to the container created, click "Upload" and change the access tier under advance settings to "hot", input "sampletest8912" in "Upload to folder". Drag files (I selected 7 csv files) to the upload section and create the folder.

Step 4:

Aim:

click the file uploaded in the container to see the configuration options and copy the blob url and open a new private window from the browser to paste the copied url.

note: The url should not work since the containers public access is set to private, resource was not found.

Steps:

Under "sampletest8912" folder, choose one of the csv files, then copy its' blob url, open a new browser window to test it. Of course it presents "Public access is not permitted".

Step 5:

Aim:

On the file blade, click generate SAS and copy the SAS token generated and paste the blob SAS URL on the private window of the browser, you must be able to see the file.

Steps:

Under "sampletest8912" folder, choose one of the csv files, then choose "generate SAS", click "Generate SAS token and URL". Copy the URL to a new window in the browser, the .csv file is automatically downloaded and could be successfully opened.

Step 6:

Aim:

On the container blade under data management tab go to "Lifecycle Management" and create a new rule name "myrule8912", rule scope should be "limit blobs with filters" and blob type and blob subtype should be default, add condition if base blobs were last modified more than "15 days" ago then "move to cool storage"

Steps:

Go back to container "dytlabtest8912", under "Data management", choose "Lifecycle management" and choose "Add a rule". Set rule name as "myrule8912", rule scope as "limit blobs with filters", then click

"Next". Add condition if base blobs were last modified more than "15 days" ago then "move to cool storage", click "Next" and "Add rule"

Step 7:

Aim:

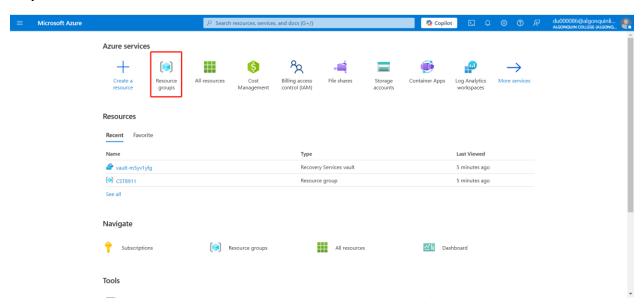
After demo delete all the resources created during lab and create a lab report documenting all the steps with screenshots

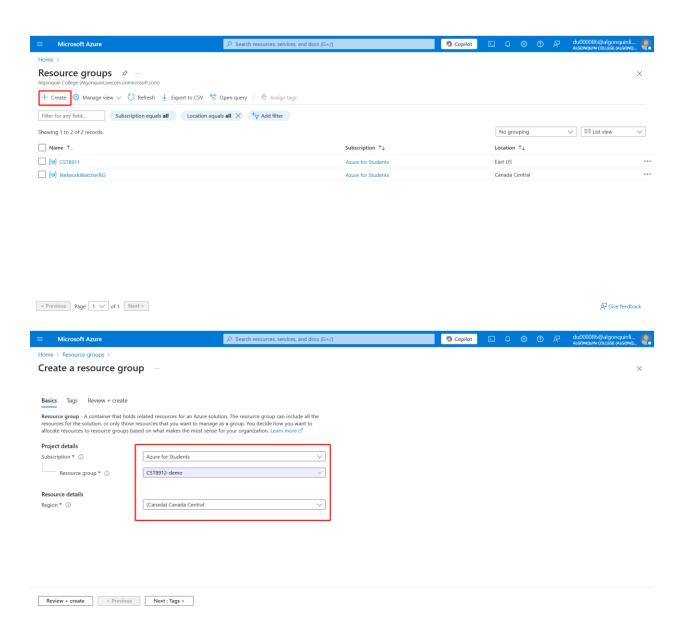
Steps:

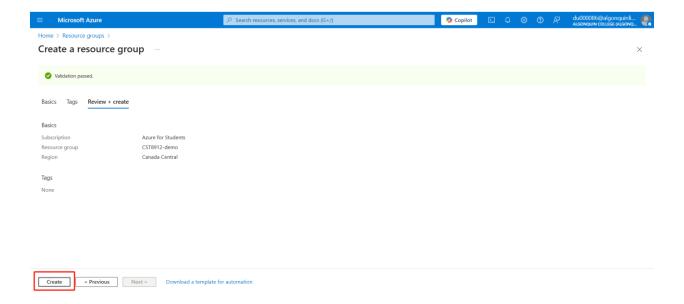
Delete the whole resource group "CTS8912-demo".

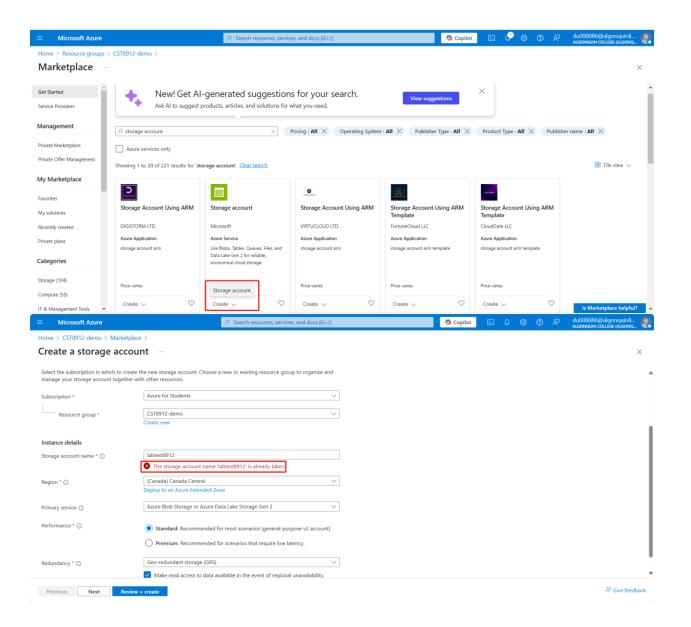
Results

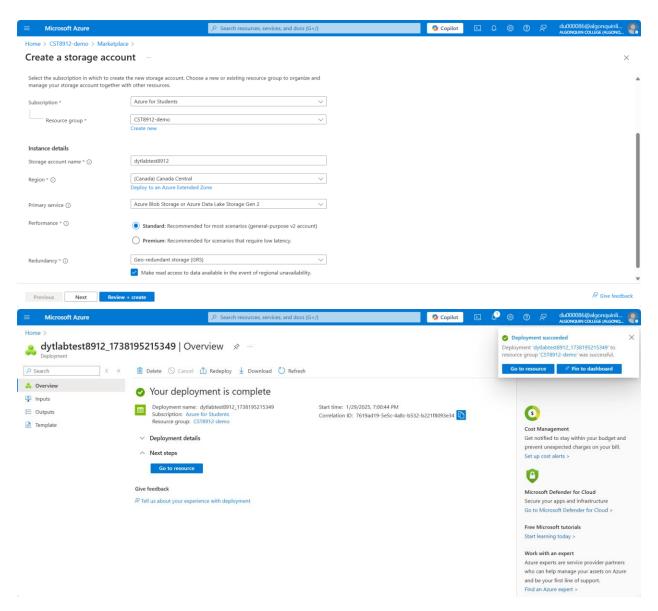
Step 1:



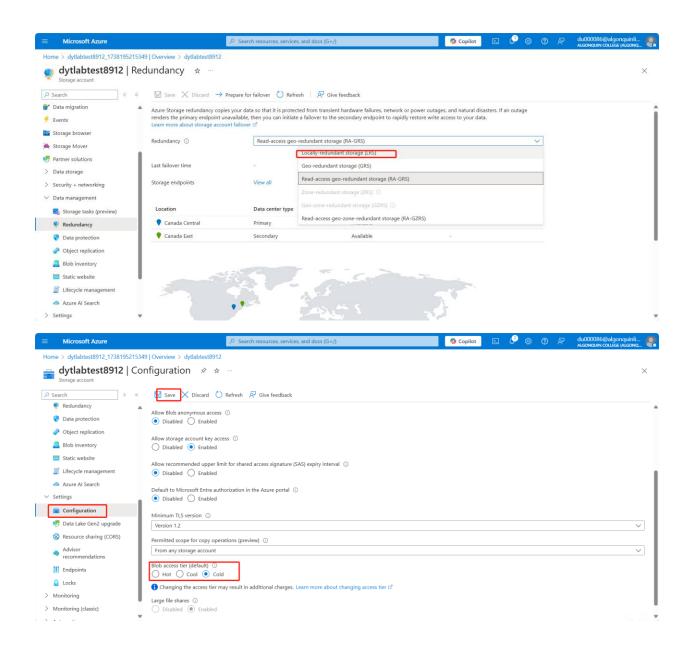




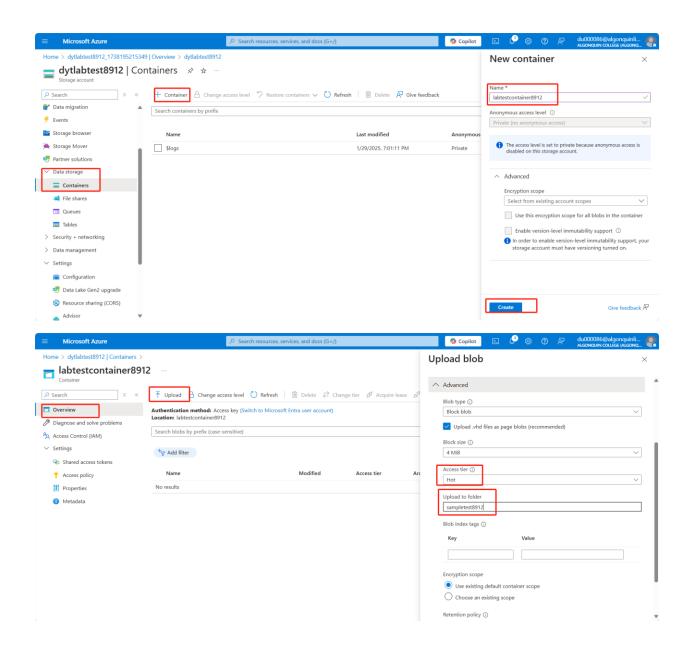


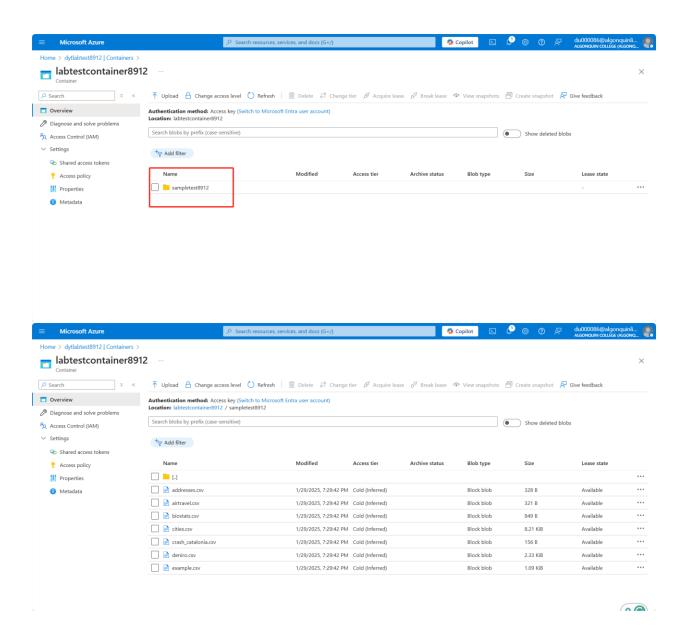


Step 2:

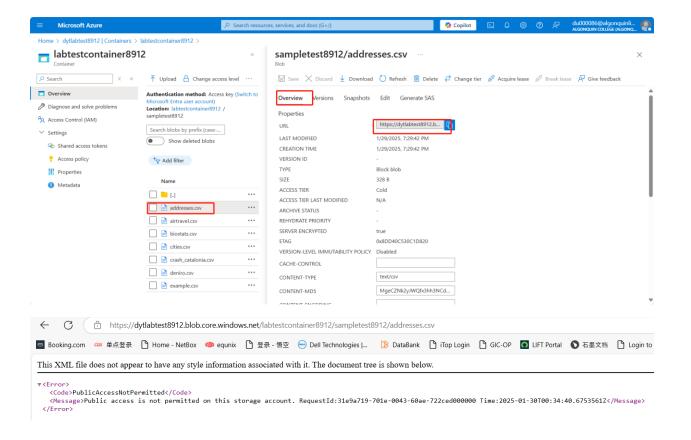


Step 3:

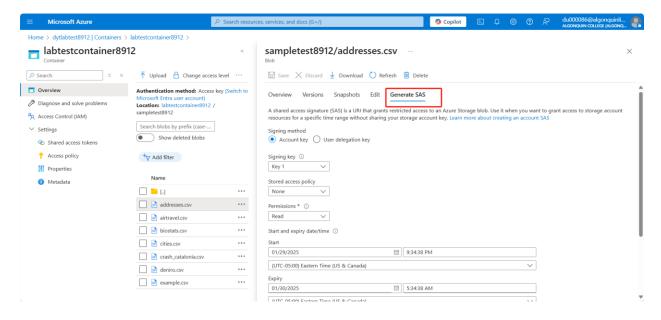


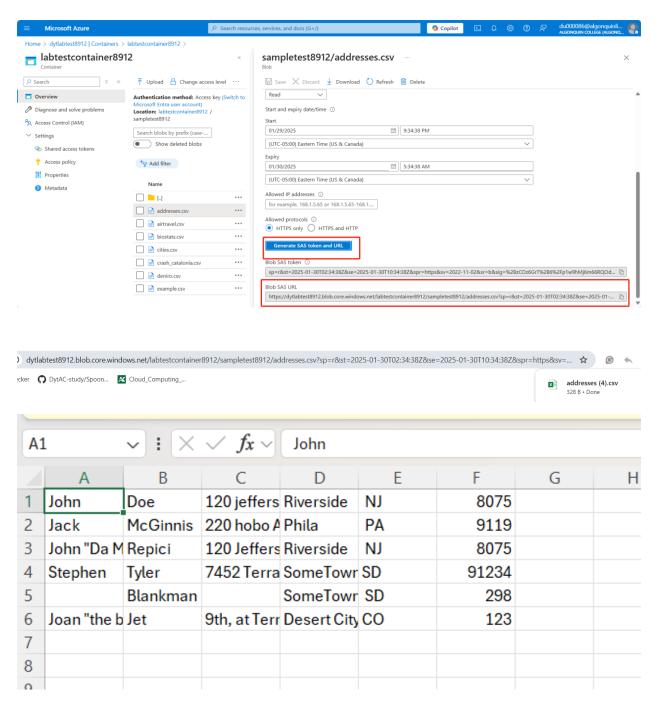


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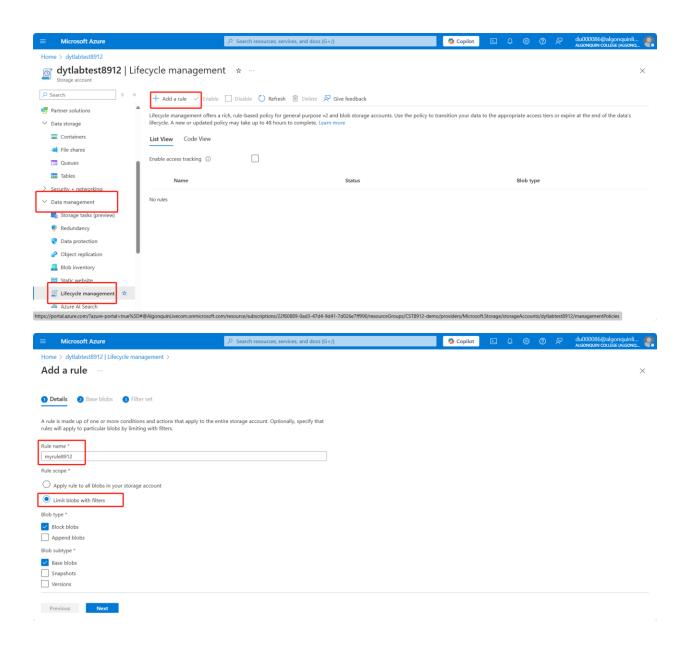


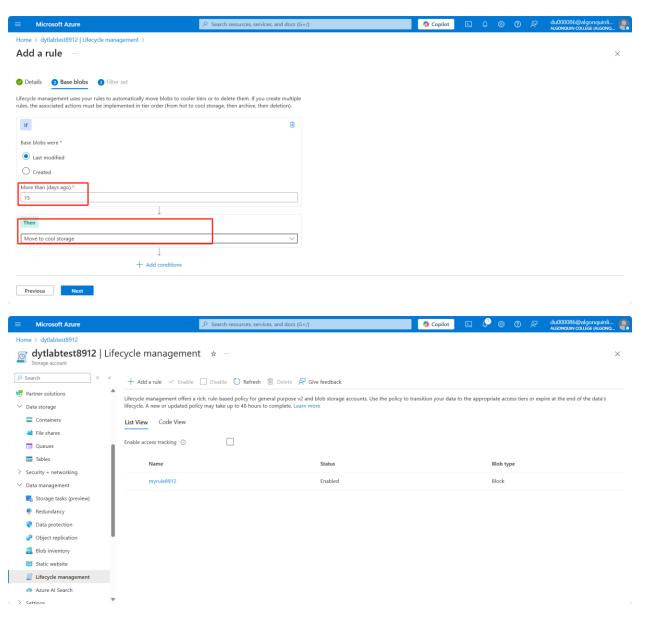
Step 5:



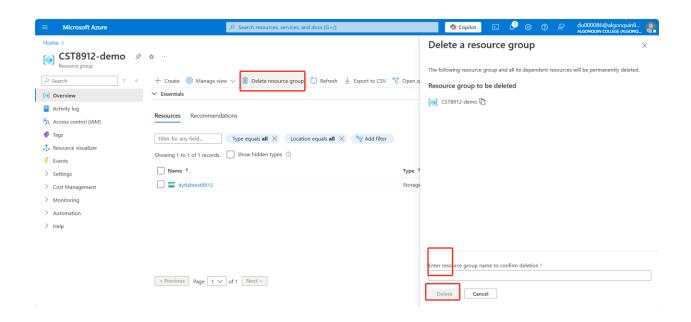


Step 6:





Step 7:



References

None.