Lab 3 CST8912_011

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Submitted to:

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Lab-3

Title

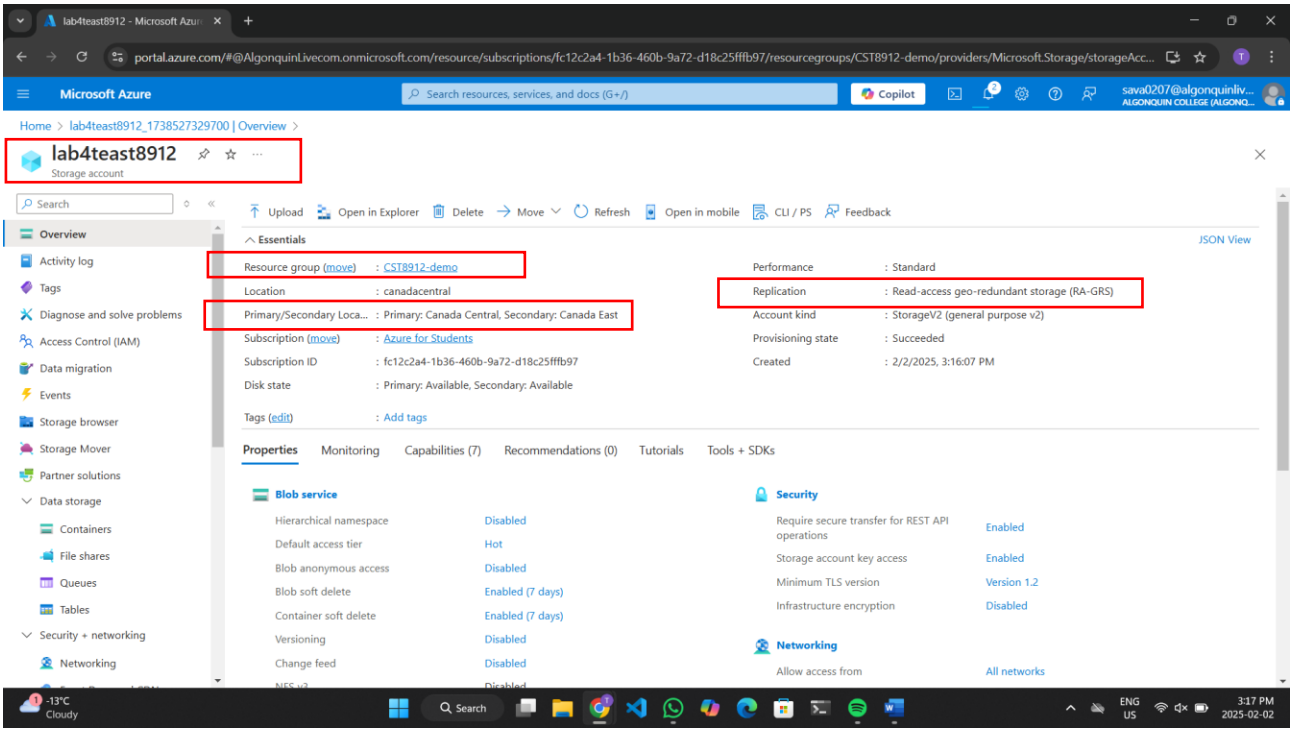
- Azure Storage Configuration

Introduction

- This lab focuses on accurately configuring Azure Storage, managing Shared Access Signatures (SAS), and implementing effective storage lifecycle policies. The lab teaches fundamental storage account setup and adjustments, alongside redundancy control, public access restrictions, and setting blob access tiers. It also guides users in creating SAS tokens for secure data access and implementing automated storage access rules for optimal cost savings. Users who complete this lab gain enhanced expertise in Azure Storage management methods, along with best security practices and cost-effective data retention strategies.

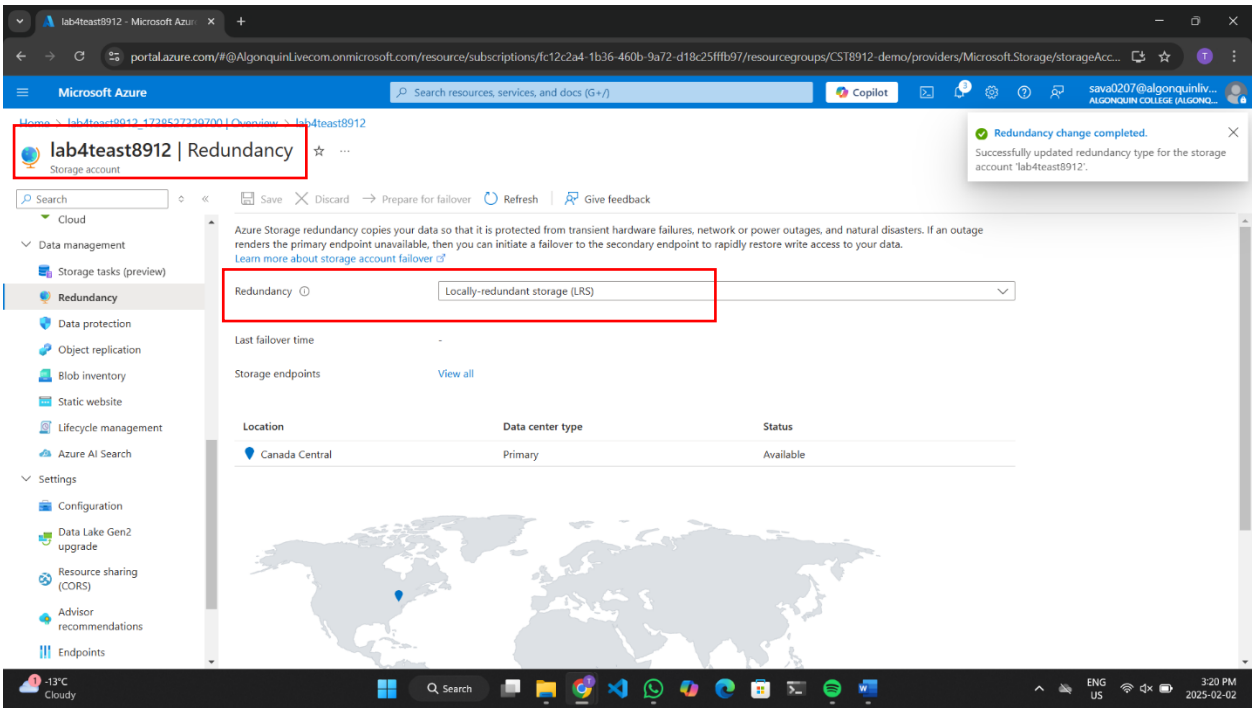
Q-1 Create a storage account “labtest8912” under student subscription and resource group “CST8912-demo” for region Canada central and select geo redundant storage (geo redundant storage GRS), keep networking and data protection options default.

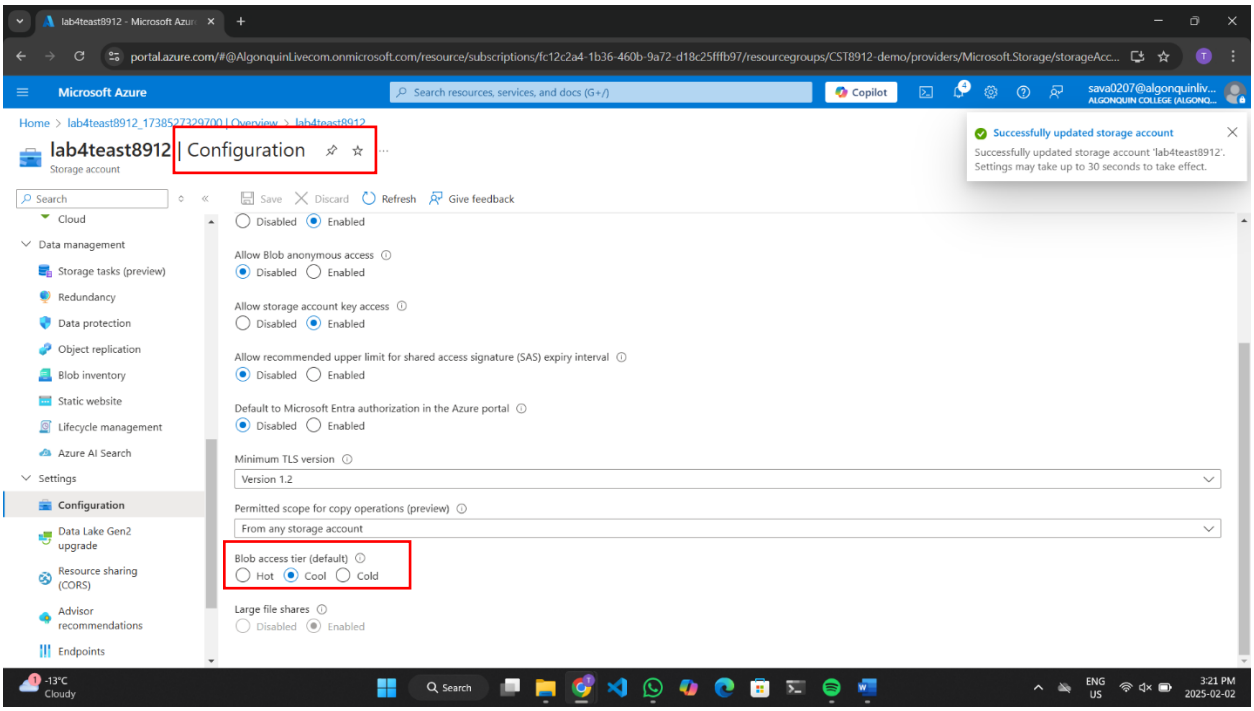
Ans: The first step in creating a storage account involves visiting the **Azure Portal** and navigating to **Storage Accounts**. From there, click **+ Create**, select the **CST8912-demo** resource group, and enter **labtest8912** as the storage account name. Choose **Canada Central** as the region and set redundancy to **Geo-Redundant Storage (GRS)**. Keep the default settings for networking and data protection, then click **Review + Create** and finalize the setup by selecting **Create**.



Q-2 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.

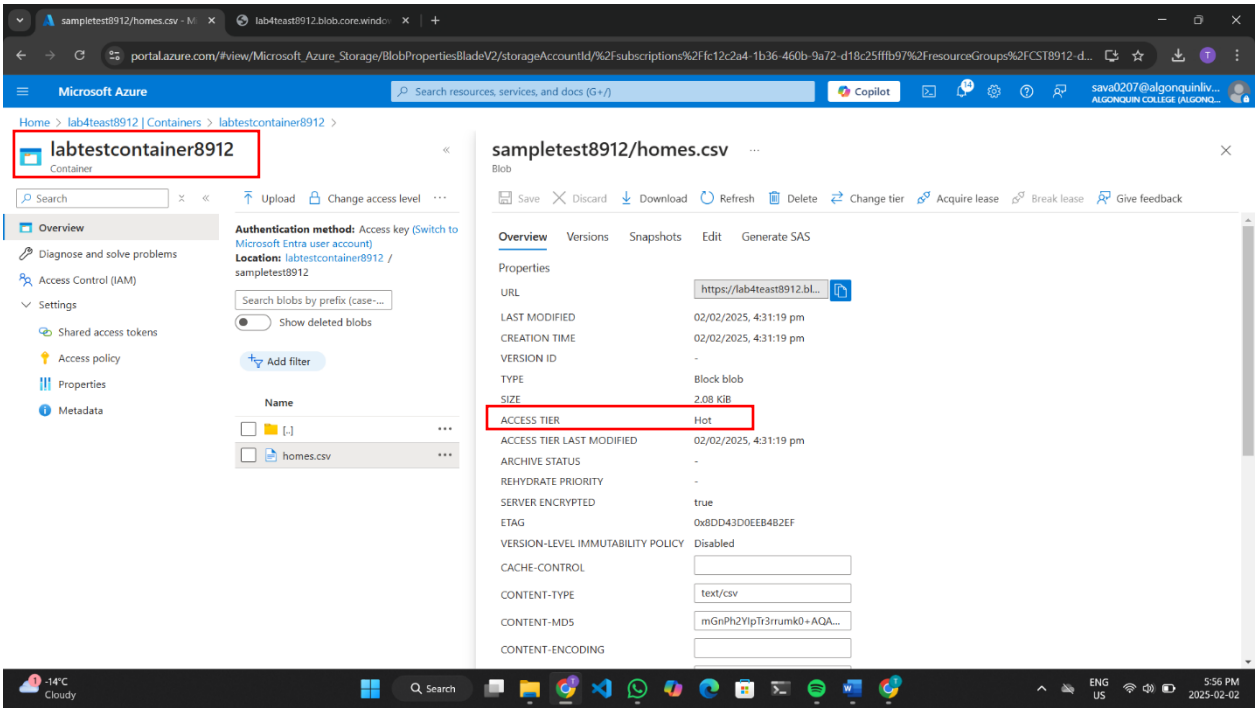
Ans: Start by logging into the **Azure Portal**, then select **Storage Accounts**, followed by opening **labtest8912**. Move to **Data Management**, then click **Redundancy** to change from **Geo-Redundant Storage (GRS)** to **Local Redundant Storage (LRS)**. Under **Settings**, navigate to **Configuration**, where you can adjust the **Blob access tier** to **Cool** before saving your updates.




lab4teast8912 - Microsoft Azure
portal.azure.com/#@AlgonquinLivecom.onmicrosoft.com/resource/subscriptions/fc12c2a4-1b36-460b-9a72-d18c25fffb97/resourcegroups/CST8912-demo/providers/Microsoft.Storage/storageAcc...
Microsoft Azure
Search resources, services, and docs (G+/)
Copilot
sava0207@algonquinliv...
ALGONQUIN COLLEGE (ALGONQ...
Home > lab4teast8912_1738527329700 | Overview > lab4teast8912
lab4teast8912 | Configuration
Storage account
Successfully updated storage account
Successfully updated storage account 'lab4teast8912'. Settings may take up to 30 seconds to take effect.
Search
Save
Discard
Refresh
Give feedback
Cloud
Data management
Storage tasks (preview)
Redundancy
Data protection
Object replication
Blob inventory
Static website
Lifecycle management
Azure AI Search
Settings
Configuration
Data Lake Gen2 upgrade
Resource sharing (CORS)
Advisor recommendations
Endpoints
Disabled
Enabled
Allow Blob anonymous access
Allow storage account key access
Allow recommended upper limit for shared access signature (SAS) expiry interval
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
Blob access tier (default)
Hot
Cool
Cold
Large file shares
-13°C
Cloudy
Search
ENG
US
3:21 PM
2025-02-02

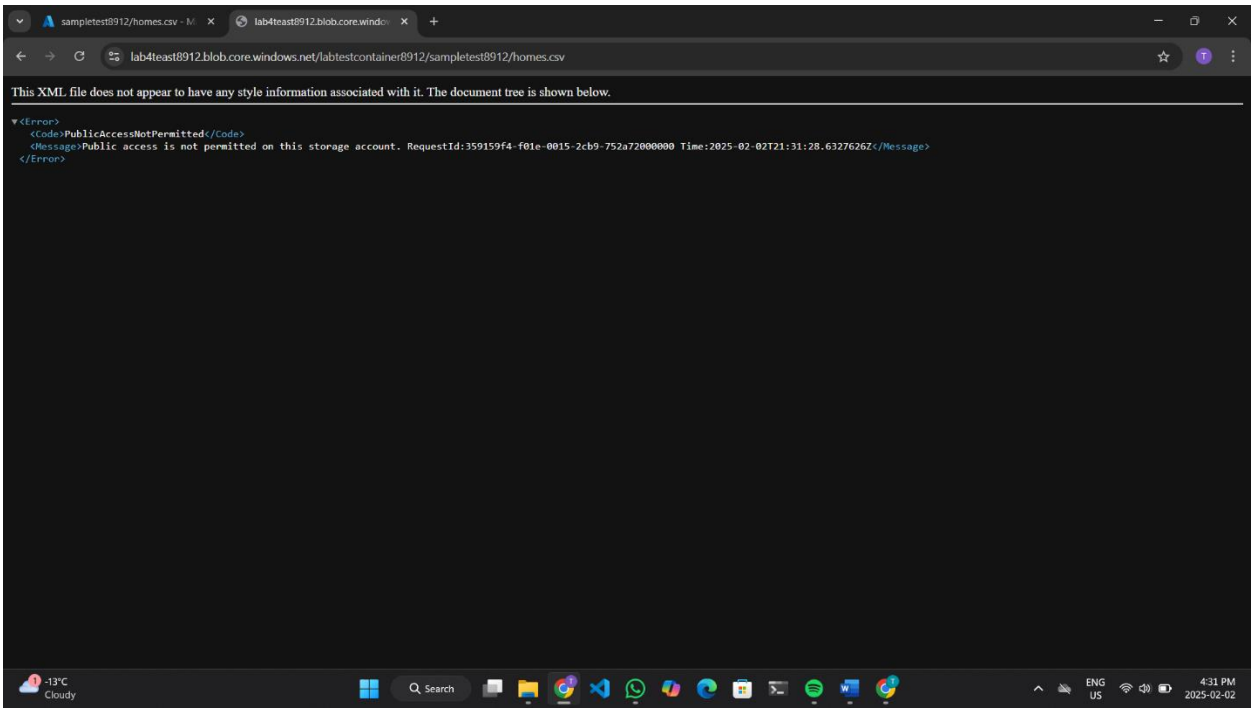
Q-3 under data storage in left, click containers and add new container named “labtestcontainer8912” and select upload a blob and change the advance settings and change the access tier to “hot” and upload to folder named “sampletest8912”, browse the files from the sample files links shared in this lab (check with your instructor if you cannot find the sample file link)

Ans= Navigate to the storage account named labtest8912 in the Data Storage section where you will find the option to select Containers from the left panel. Use the + Container option to create labtestcontainer8912 before saving it. To upload files, choose the Upload button in the container interface and follow with a selection then navigate to Advanced settings to modify the Access tier to Hot. Select the sampletest8912 folder as your destination for uploading files from the provided sample file links under the Advanced settings menu.



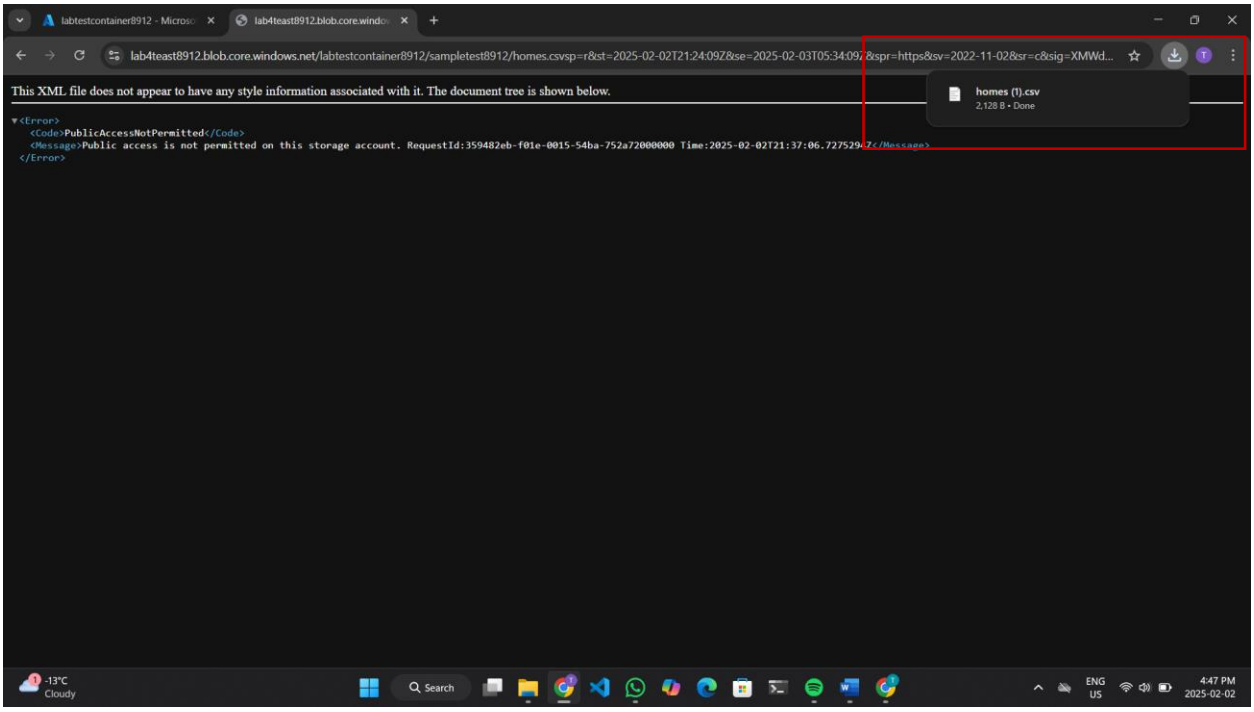
Q-4 click the file uploaded in the container to see the configuration options and copy the blob URL and open a new private window from the browser to paste the copied URL.

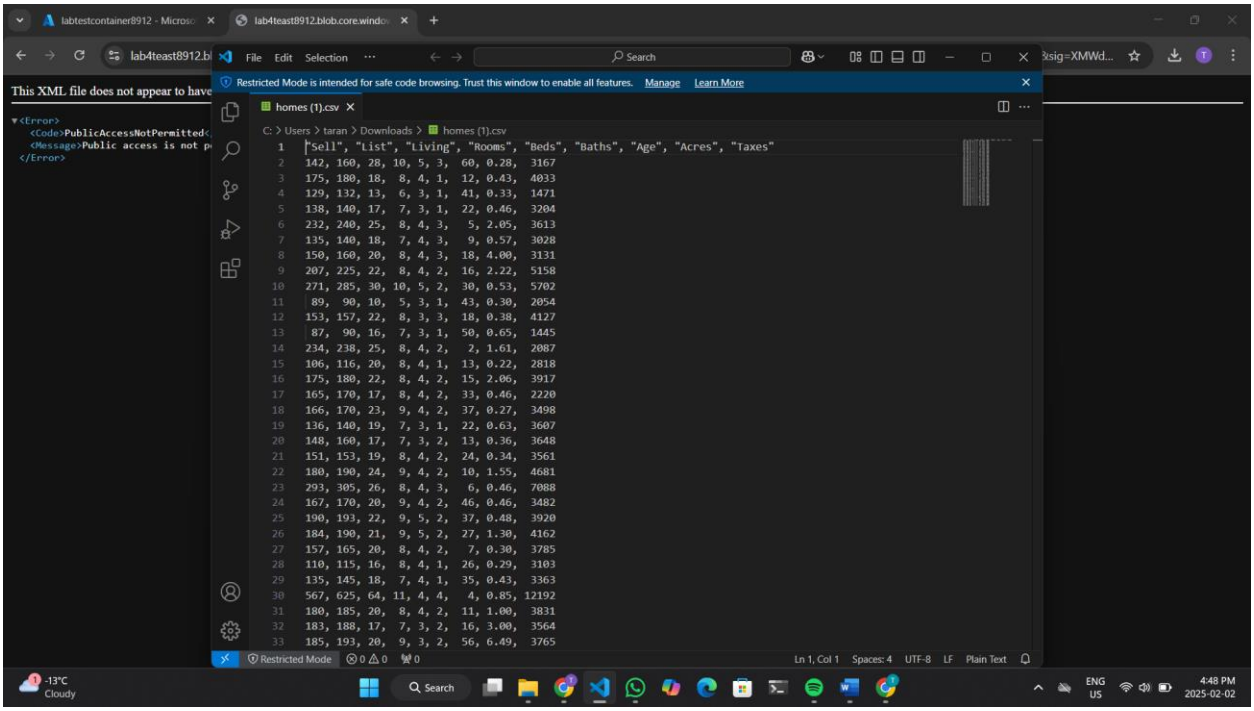
Ans= The labtest8912 storage account contains the storage elements where you must access Containers labtestcontainer8912. A click on the uploaded file lets you access configuration options from which you can copy the Blob URL. Open a new browser window in private mode and paste the URL you copied and attempt file access.



Q-5 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

Ans= Select the **storage account (labtest8912)** and proceed to **Containers**, then access **labtestcontainer8912**. To access the **file blade**, select the uploaded file and choose **Generate SAS**. Copy the **SAS token** from the **storage account (labtest8912)** page and combine it with the **Blob URL** to create the **Blob SAS URL**. Open a **private/incognito browser window**, paste the **Blob SAS URL**, and verify the file's accessibility.




This XML file does not appear to have
<Error>
<Code>PublicAccessNotPermitted
<Message>Public access is not p
</Error>
File Edit Selection
Search
Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More
homes (1).csv
C: > Users > taran > Downloads > homes (1).csv
"Sell", "List", "Living", "Rooms", "Beds", "Baths", "Age", "Acres", "Taxes"
142, 160, 28, 10, 5, 3, 60, 0.28, 3167
175, 180, 18, 8, 4, 1, 12, 0.43, 4033
129, 132, 13, 6, 3, 1, 41, 0.33, 1471
138, 140, 17, 7, 3, 1, 22, 0.46, 3204
232, 240, 25, 8, 4, 3, 5, 2.05, 3613
135, 140, 18, 7, 4, 3, 9, 0.57, 3028
150, 160, 20, 8, 4, 3, 18, 4.00, 3131
207, 225, 22, 8, 4, 2, 16, 2.22, 5158
271, 285, 30, 10, 5, 2, 30, 0.53, 5702
89, 90, 10, 5, 3, 1, 43, 0.30, 2054
153, 157, 22, 8, 3, 3, 18, 0.38, 4127
87, 90, 16, 7, 3, 1, 50, 0.65, 1445
234, 238, 25, 8, 4, 2, 2, 1.61, 2087
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157, 165, 20, 8, 4, 2, 7, 0.30, 3785
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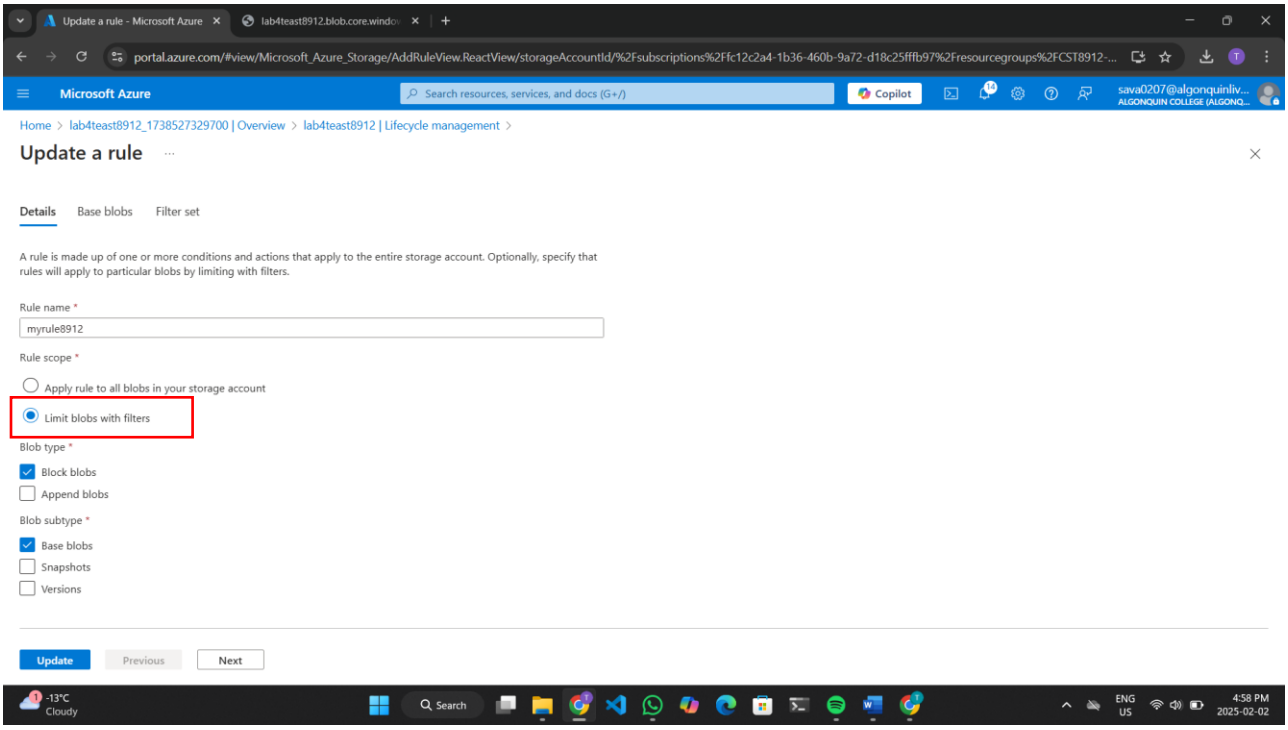
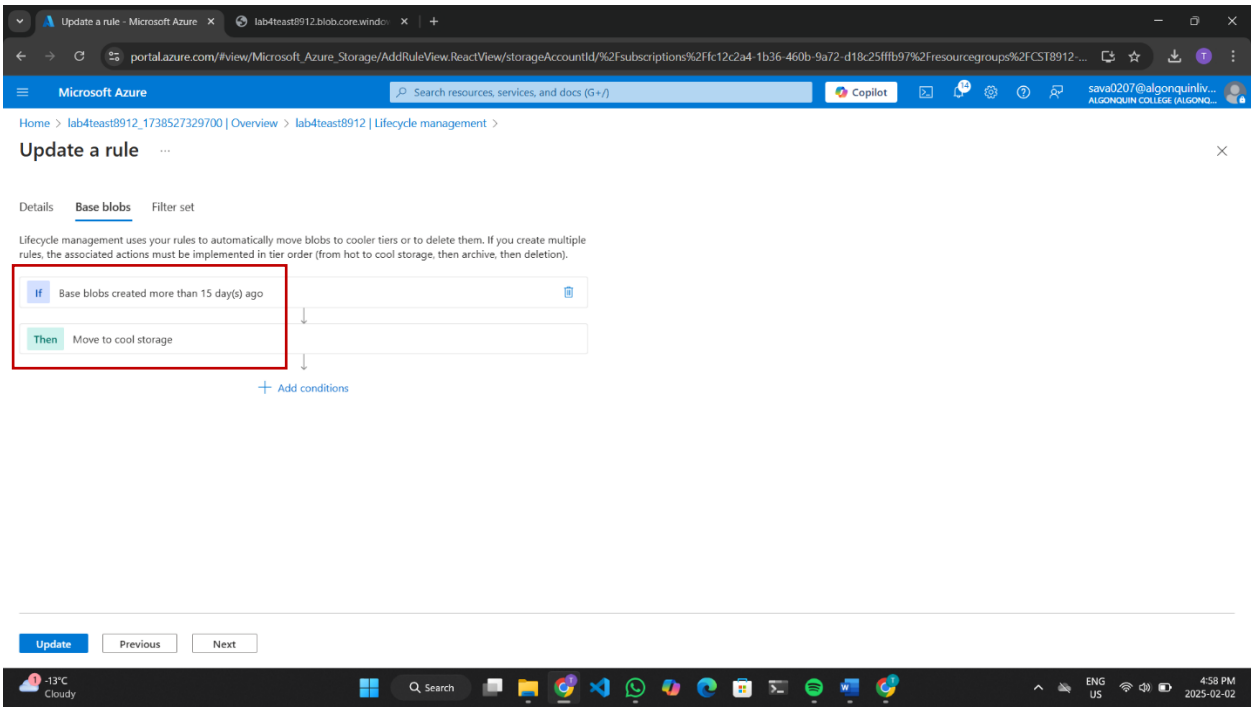
135, 145, 18, 7, 4, 1, 35, 0.43, 3363
567, 625, 64, 11, 4, 4, 4, 0.85, 12192
180, 185, 20, 8, 4, 2, 11, 1.00, 3831
183, 188, 17, 7, 3, 2, 16, 3.00, 3564
185, 193, 20, 9, 3, 2, 56, 6.49, 3765
Restricted Mode
Ln 1, Col 1 Spaces: 4 UTF-8 LF Plain Text
-13°C
Cloudy
Search
ENG
US
4:48 PM
2025-02-02

Q-6 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”

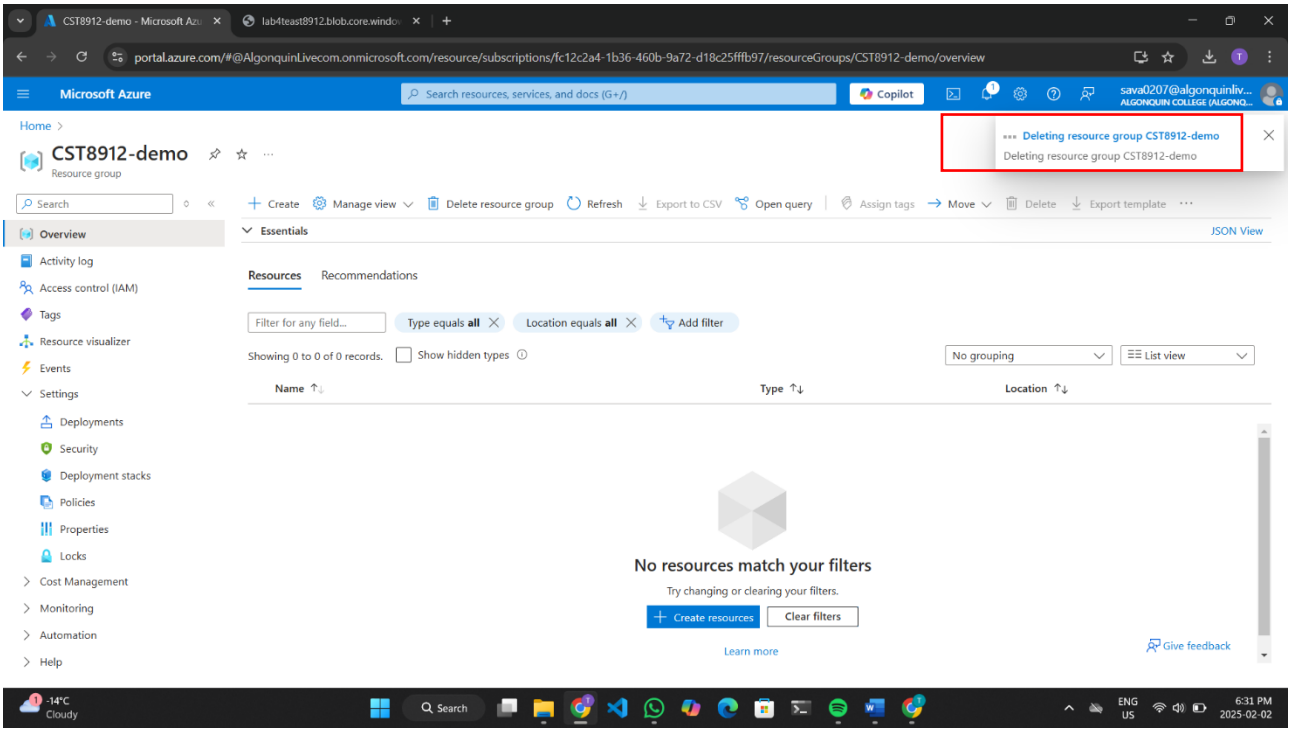
Ans= Navigate to the **storage account (labtest8912)** and go to **Containers** > **labtestcontainer8912**, then open **Lifecycle Management** under **Data Management**. Create a rule named **myrule8912**, set the **rule scope** to **"Limit blobs with filters"**, keep the default **blob type** settings, and add a condition to move **blobs older than 15 days** to **Cool storage**, then save the rule.

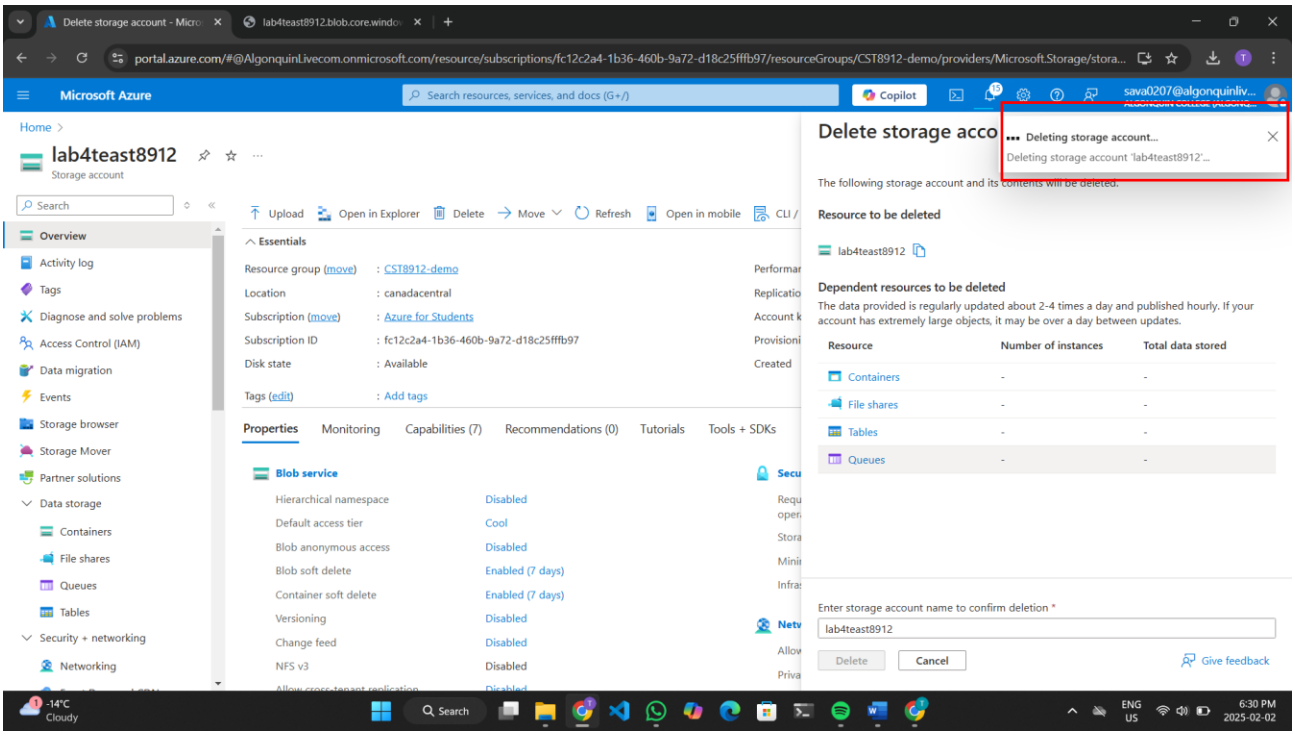



Update a rule - Microsoft Azure
lab4teast8912.blob.core.windo
portal.azure.com/#view/Microsoft_Azure_Storage/AddRuleView.ReactView/storageAccountId/%2Fsubscriptions%2Ffc12c2a4-1b36-460b-9a72-d18c25fffb97%2Fresourcegroups%2FCST8912-...
Microsoft Azure
Search resources, services, and docs (G+/)
Copilot
sava0207@algonquinliv...
ALGONQUIN COLLEGE (ALGONQ...
Home > lab4teast8912_1738527329700 | Overview > lab4teast8912 | Lifecycle management >
Update a rule
Details
Base blobs
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 created more than 15 day(s) ago
Then
Move to cool storage
Add conditions
Update
Previous
Next
-13°C
Cloudy
Search
ENG
US
4:58 PM
2025-02-02

Q-7 After demo delete all the resources created during lab and create a lab report documenting all the steps with screenshots.

Ans= Just delete the all the resources which was used in lab report.





References

- **YouTube videos for reference for azure:**
- https://www.youtube.com/watch?v=sI2ahWX8RH8
- Azure SAS token: https://www.youtube.com/watch?v=0PX1eW1sCGg
- **YouTube videos for reference for AWS:**
- **https://www.youtube.com/watch?v=xFzJw6wJ8eY**
- **YouTube videos for reference for GCP:**
- **https://www.youtube.com/watch?v=DviqTrRZJ44**