Full Stack Application Development with MS Azure Cloud

Module 6 – Application Deployment and Management with Azure

Lab Practical Manual

Topic: Blob Storage– Solved Question

Lab 1: Create a Blob Storage and add a Disk in Virtual Machine.

Creating Storage Service Instances for Archival & Backup

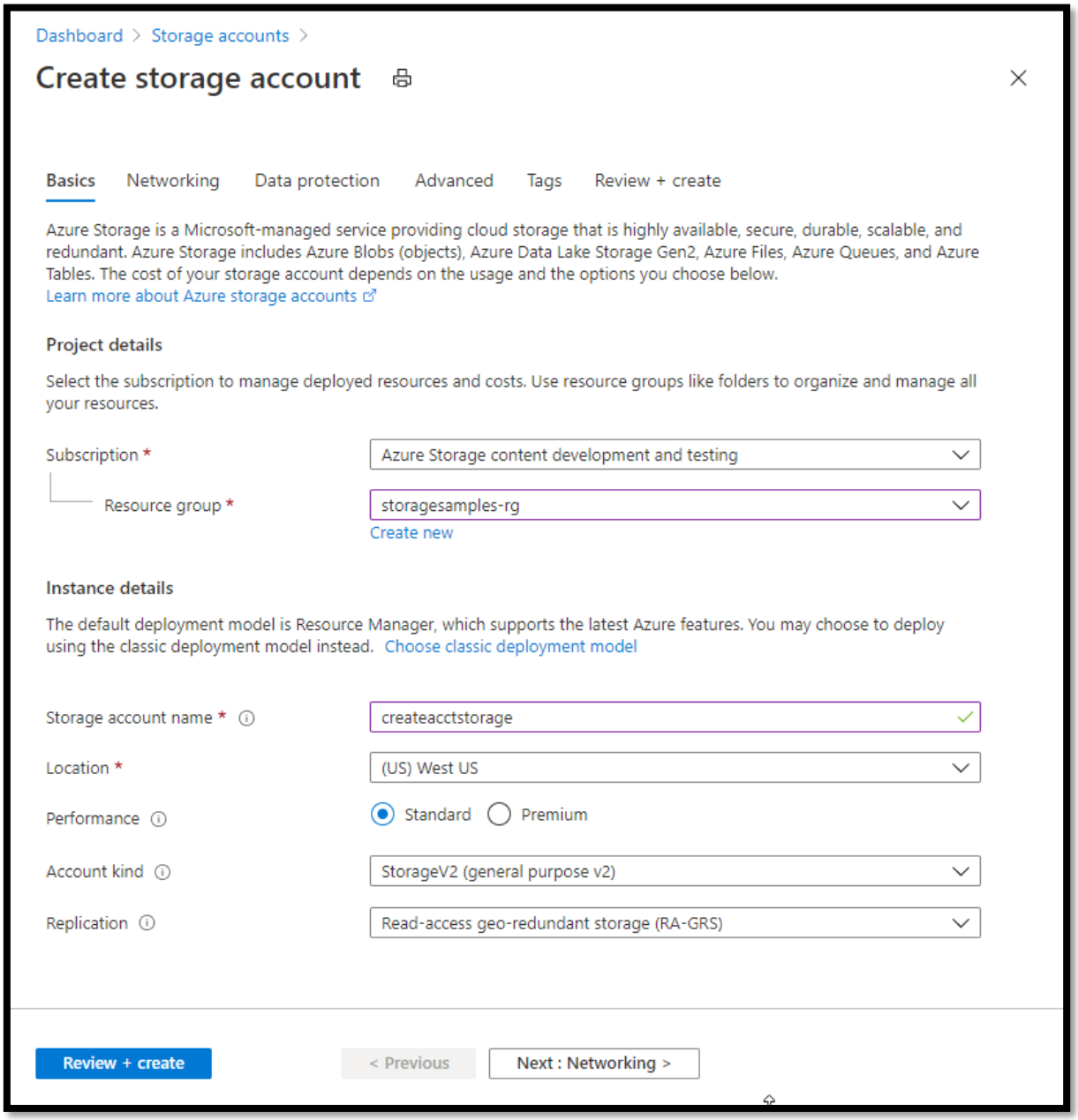
Activity: *This* activity focuses on creating a storage account in Azure cloud and use it to store the important files. The storage services available are of variety of types. Choosing the right service depends on type of storage requirements.

Create a Storage Account

To create a general-purpose v2 storage account in the Azure portal, follow these steps:

1. On the Azure portal menu, select **all services**. In the list of resources, type **Storage Accounts**. As you begin typing, the list filters based on your input. Select **Storage Accounts**.
2. On the **Storage Accounts** window that appears, choose **Add**.

The following image shows the settings on the **Basics** tab for a new storage account:



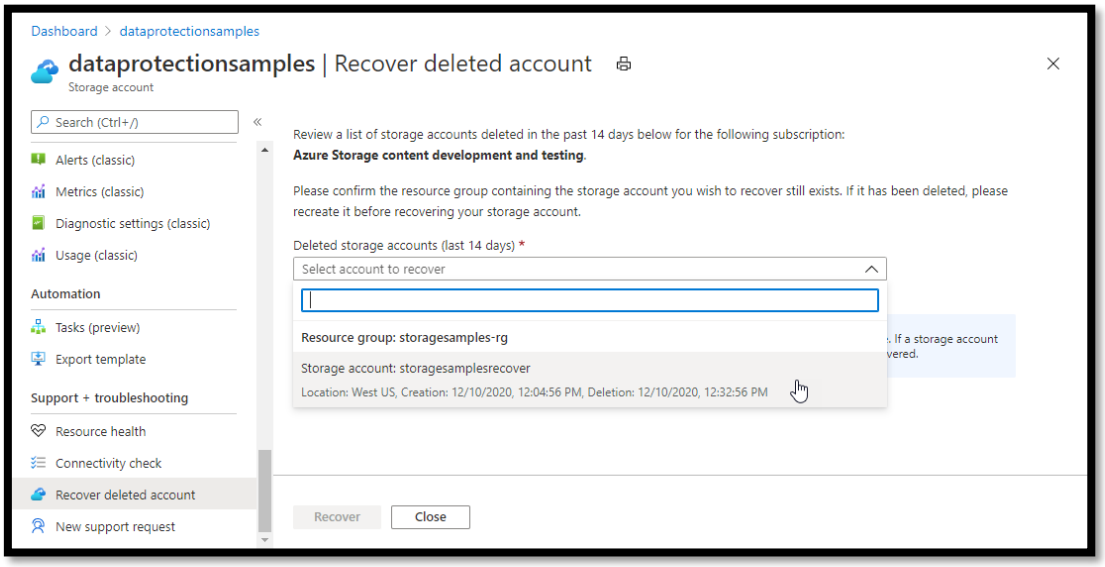
3. On the **Basics** tab, select the subscription in which to create the storage account.
4. Under the **Resource group** field, select your desired resource group, or create a new resource group. For more information on Azure resource groups, see Azure Resource Manager overview.
5. Next, enter a name for your storage account. The name you choose must be unique across Azure. The name also must be between 3 and 24 characters in length, and may include only numbers and lowercase letters.
6. Select a location for your storage account, or use the default location.
7. Select a performance tier. The default tier is *Standard*.
8. Set the **Account kind** field to *Storage V2 (general-purpose v2)*.
9. Specify how the storage account will be replicated. The default replication option is *Read-access geo-redundant storage (RA-GRS)*. For more information about available replication options, see Azure Storage redundancy

10. Additional options are available on the **Networking**, **Data protection**, **Advanced**, and **Tags** tabs. To use Azure Data Lake Storage, choose the **advanced** tab, and then set **Hierarchical namespace** to **Enabled**.
11. Select **Review + Create** to review your storage account settings and create the account.
12. Select **Create**.

2.3.9 Recover a deleted account from the Azure portal

To recover a deleted storage account from within another storage account, follow these steps:

1. Navigate to the overview page for an existing storage account in the Azure portal.
2. In the **Support + troubleshooting** section, select **Recover deleted account**.
3. From the dropdown, select the account to recover, as shown in the following image. If the storage account that you want to recover is not in the dropdown, then it cannot be recovered.



4. Select the **Recover** button to restore the account. The portal displays a notification that the recovery is in progress.

2.3.10 Create a Block Blob Storage account

Create a BlockBlobStorage account in the Azure portal, follow these steps:

1. In the Azure portal, select **All services** > the **Storage** category > **Storage accounts**.
2. Under **Storage accounts**, select **Add**.

3. In the **Subscription** field, select the subscription in which to create the storage account.
4. In the **Resource group** field, select an existing resource group or select **Create new**, and enter a name for the new resource group.
5. In the **Storage account name** field, enter a name for the account. Note the following guidelines:

- The name must be unique across Azure.
- The name must be between three and 24 characters long.
- The name can include only numbers and lowercase letters.

6. In the **Location** field, select a location for the storage account, or use the default location.
7. For the rest of the settings, configure the following:

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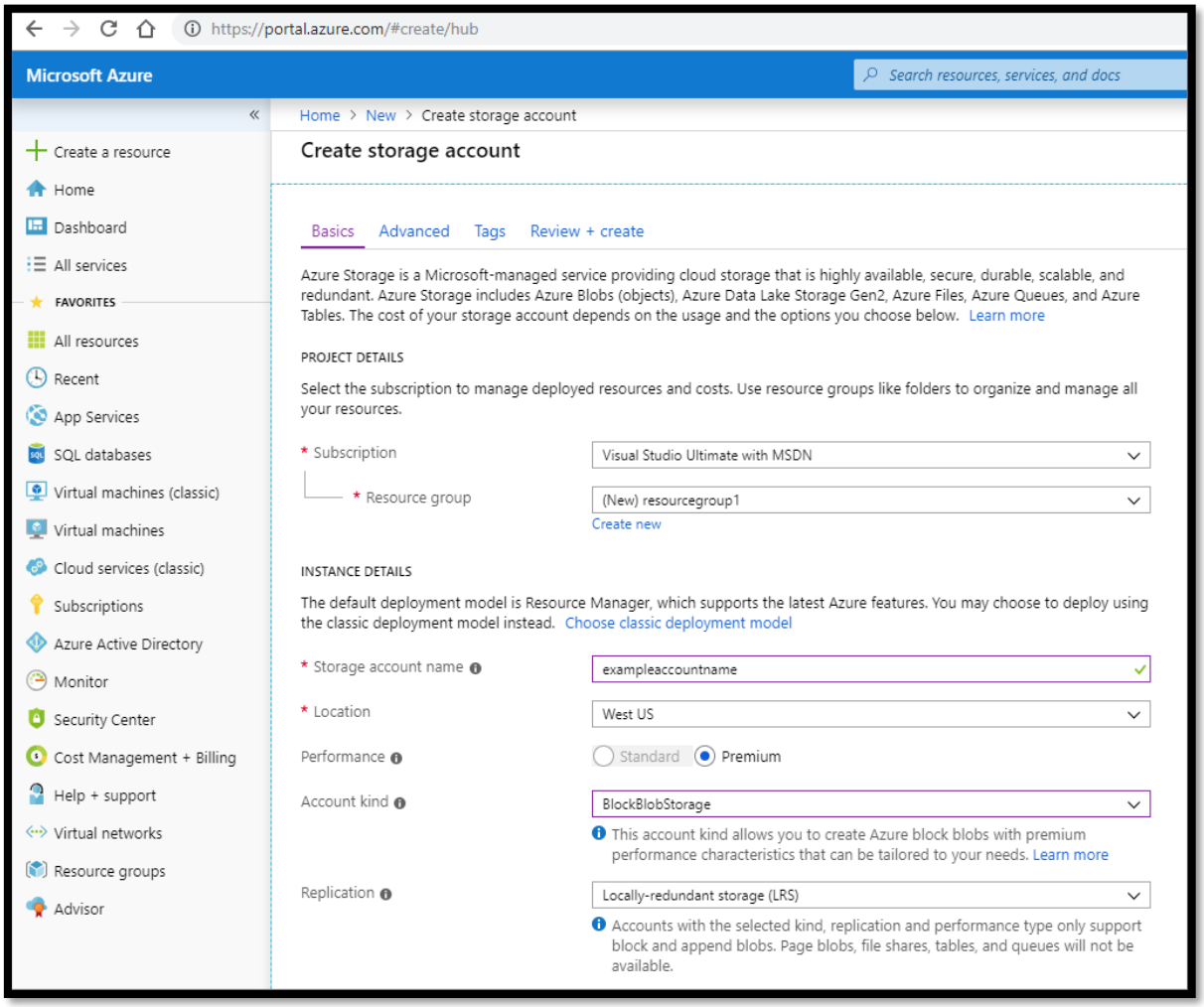
eld	**lue**
rformance	lect **Premium**.
count kind	lect **BlockBlobStorage**.
plication	ave the default setting of **Locally-redundant storage (LRS)**.

8. Choose the **Advanced** tab.
9. If you want to optimize your storage account for data analytics, then set **Hierarchical namespace** to **Enabled**. Otherwise, leave this option set to its default value. Enabling this setting with your BlockBlobStorage account gives you the premium tier for Data Lake Storage. To learn more about Data Lake Storage, see Introduction to Azure Data Lake Storage Gen2.
10. Select **Review + create** to review the storage account settings.
11. Select **Create**.

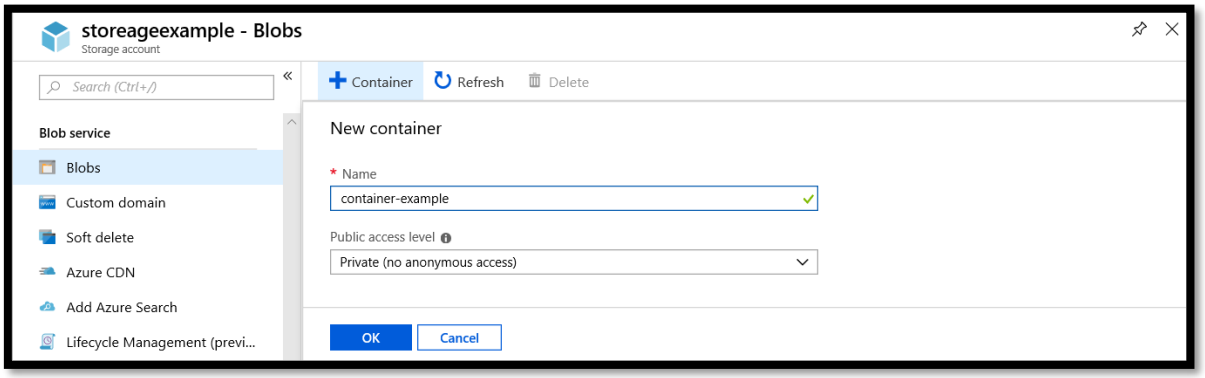


2.3.11 Upload, download, and list blobs with the Azure portal.

Create a container

To create a container in the Azure portal, follow these steps:

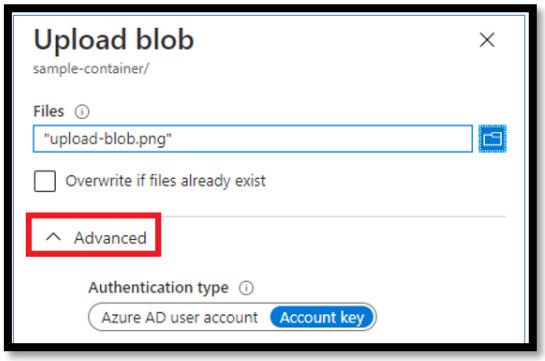
1. Navigate to your new storage account in the Azure portal.
2. In the left menu for the storage account, scroll to the **Blob service** section, then select **Containers**.
3. Select the **+ Container** button.
4. Type a name for your new container. The container name must be lowercase, must start with a letter or number, and can include only letters, numbers, and the dash (-) character. For more information about container and blob names, see Naming and referencing containers, blobs, and metadata.

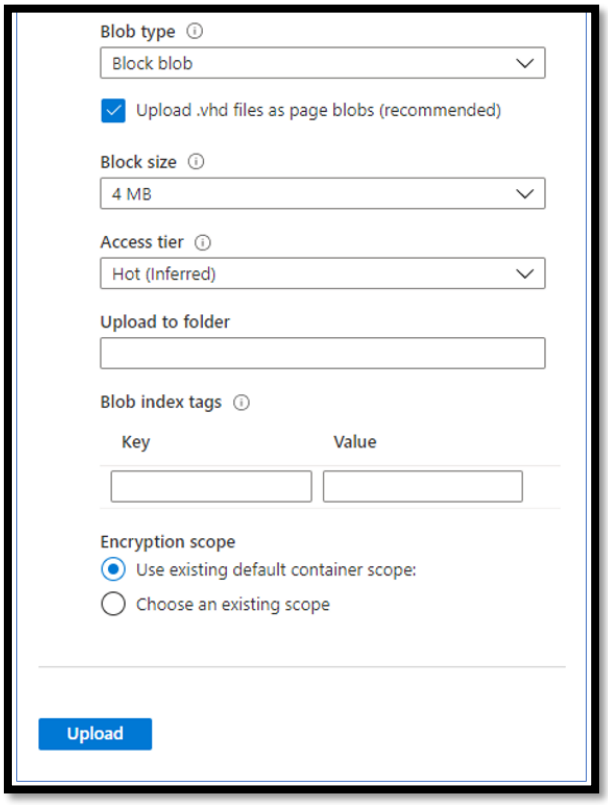


5. Set the level of public access to the container. The default level is **Private (no anonymous access)**.
6. Select **OK** to create the container.

Upload a block blob

Block blobs consist of blocks of data assembled to make a blob. Most scenarios using Blob storage employ block blobs. Block blobs are ideal for storing text and binary data in the cloud, like files, images, and videos. This quick start shows how to work with block blobs.





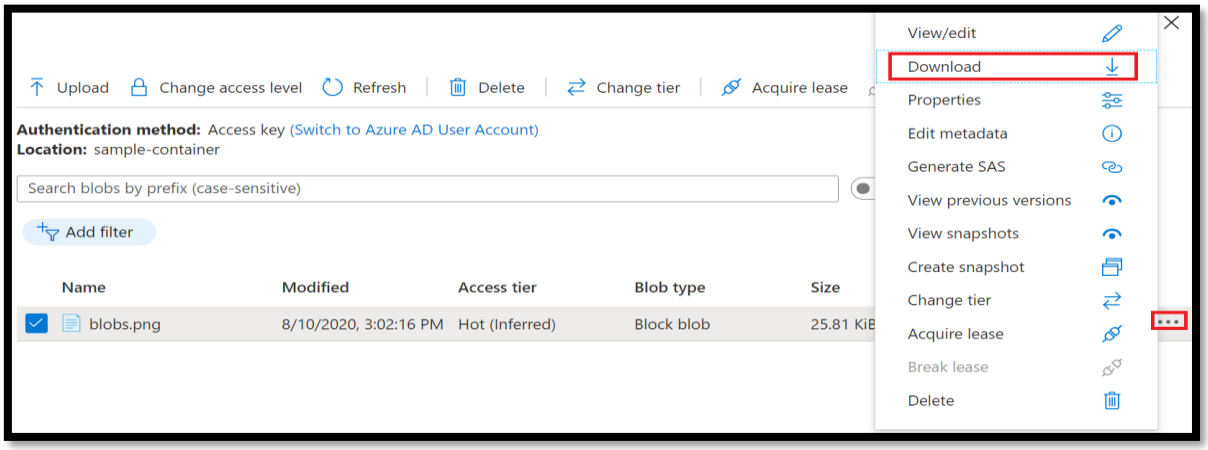
To upload a block blob to your new container in the Azure portal, follow these steps:

1. In the Azure portal, navigate to the container you created in the previous section.
2. Select the container to show a list of blobs it contains. This container is new, so it won't yet contain any blobs.
3. Select the **Upload** button to open the upload blade and browse your local file system to find a file to upload as a block blob. You can optionally expand the **Advanced** section to configure other settings for the upload operation.
4. Select the **Upload** button to upload the blob.
5. Upload as many blobs as you like in this way. You'll see that the new blobs are now listed within the container.

Download a block blob

You can download a block blob to display in the browser or save to your local file system. To download a block blob, follow these steps:

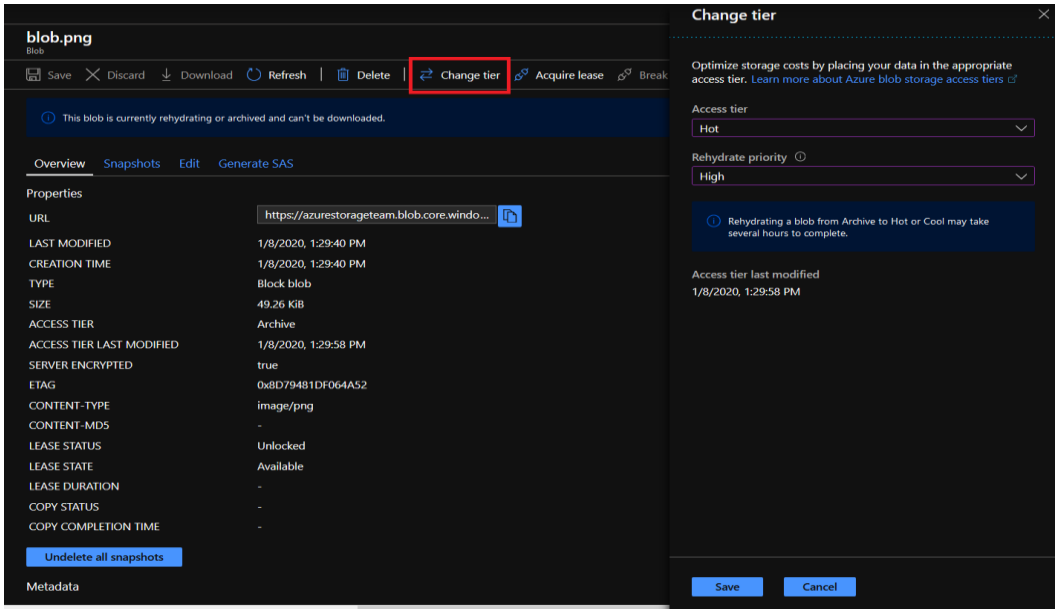
1. Navigate to the list of blobs that you uploaded in the previous section.
2. Right-click the blob you want to download, and select **Download**.

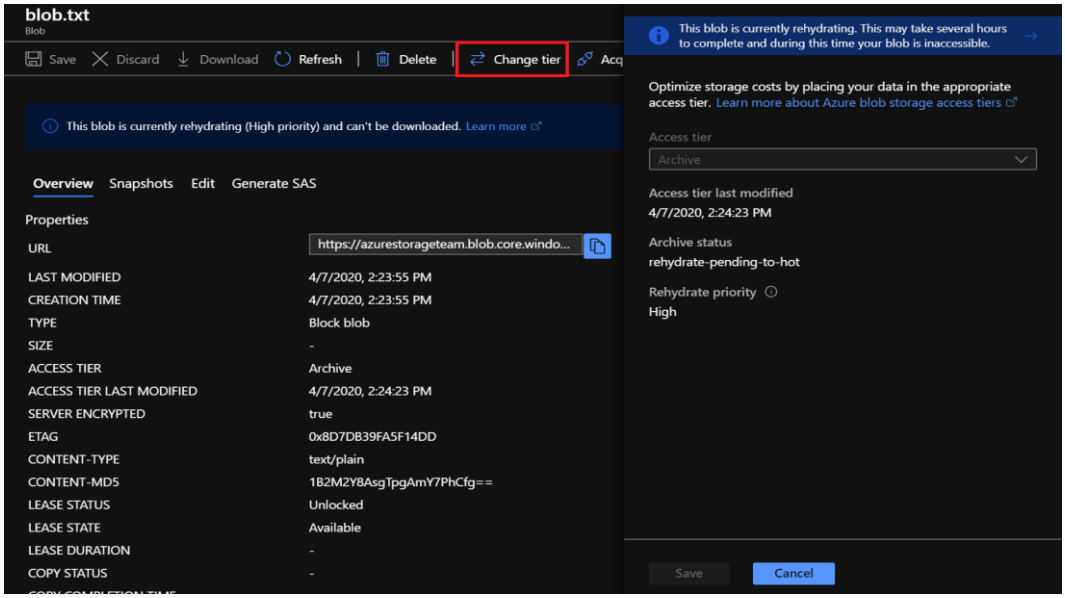


Archive Blob

Enabling Archiving with Azure Blob Storage

1. Sign in to the Azure portal.
2. In the Azure portal, search for and select All Resources.
3. Select your storage account.
4. Select your container and then select your blob.
5. In the Blob properties, select Change tier.
6. Select the Hot or Cool access tier.
7. Select a Rehydrate Priority of Standard or High.
8. Select Save at the bottom.




blob.txt
Blob
Save
Discard
Download
Refresh
Delete
Change tier
This blob is currently rehydrating (High priority) and can't be downloaded. Learn more
Overview
Snapshots
Edit
Generate SAS
Properties
URL
https://azurestorageteam.blob.core.windo...
LAST MODIFIED
4/7/2020, 2:23:55 PM
CREATION TIME
4/7/2020, 2:23:55 PM
TYPE
Block blob
SIZE
-
ACCESS TIER
Archive
ACCESS TIER LAST MODIFIED
4/7/2020, 2:24:23 PM
SERVER ENCRYPTED
true
ETAG
0x8D7DB39FA5F14DD
CONTENT-TYPE
text/plain
CONTENT-MD5
1B2M2Y8AsgTpgAmY7PhCfg==
LEASE STATUS
Unlocked
LEASE STATE
Available
LEASE DURATION
-
COPY STATUS
-
This blob is currently rehydrating. This may take several hours to complete and during this time your blob is inaccessible.
Optimize storage costs by placing your data in the appropriate access tier. Learn more about Azure blob storage access tiers
Access tier
Archive
Access tier last modified
4/7/2020, 2:24:23 PM
Archive status
rehydrate-pending-to-hot
Rehydrate priority
High
Save
Cancel