

# 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:

Dashboard > Storage accounts >

## Create storage account

Basics
Networking
Data protection
Advanced
Tags
Review + create

Azure Storage is a Microsoft-managed service providing cloud storage that is highly available, secure, durable, scalable, and redundant. Azure Storage includes Azure Blobs (objects), Azure Data Lake Storage Gen2, Azure Files, Azure Queues, and Azure Tables. The cost of your storage account depends on the usage and the options you choose below. [Learn more about Azure storage accounts](#)

### Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription \*

Azure Storage content development and testing

Resource group \*

storagesamples-rg

[Create new](#)

### Instance details

The default deployment model is Resource Manager, which supports the latest Azure features. You may choose to deploy using the classic deployment model instead. [Choose classic deployment model](#)

Storage account name \* ⓘ

createacctstorage

Location \*

(US) West US

Performance ⓘ

☒ Standard
☐ Premium

Account kind ⓘ

StorageV2 (general purpose v2)

Replication ⓘ

Read-access geo-redundant storage (RA-GRS)

Review + create

< Previous

Next : Networking >

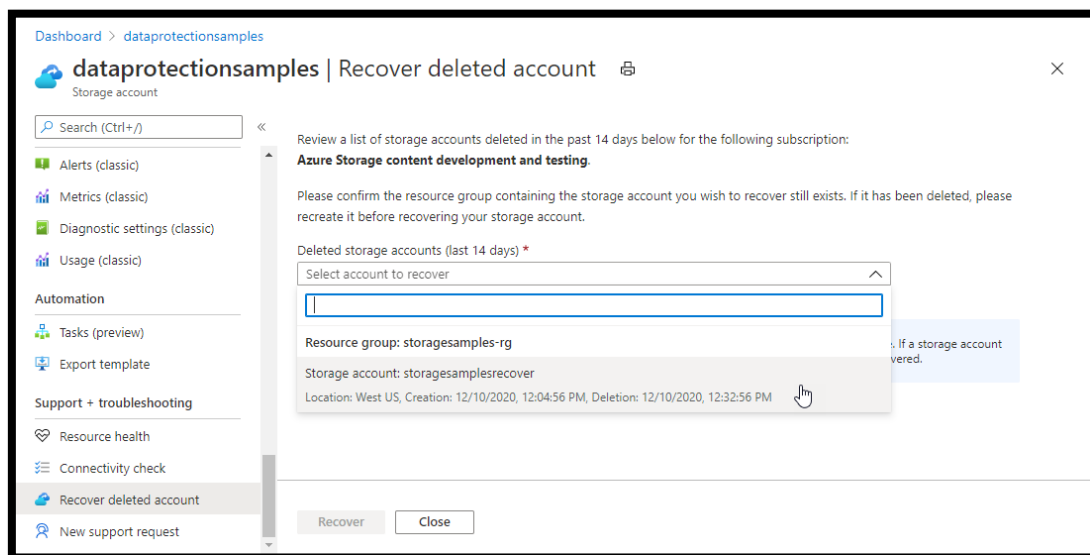
- On the **Basics** tab, select the subscription in which to create the storage account.
- Under the **Resource group** field, select your desired resource group, or create a new resource group. For more information on Azure resource groups, see [Azure Resource Manager overview](#).
- Next, enter a name 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.
- Select a location for your storage account, or use the default location.
- Select a performance tier. The default tier is *Standard*.
- Set the **Account kind** field to *Storage V2 (general-purpose v2)*.
- 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:

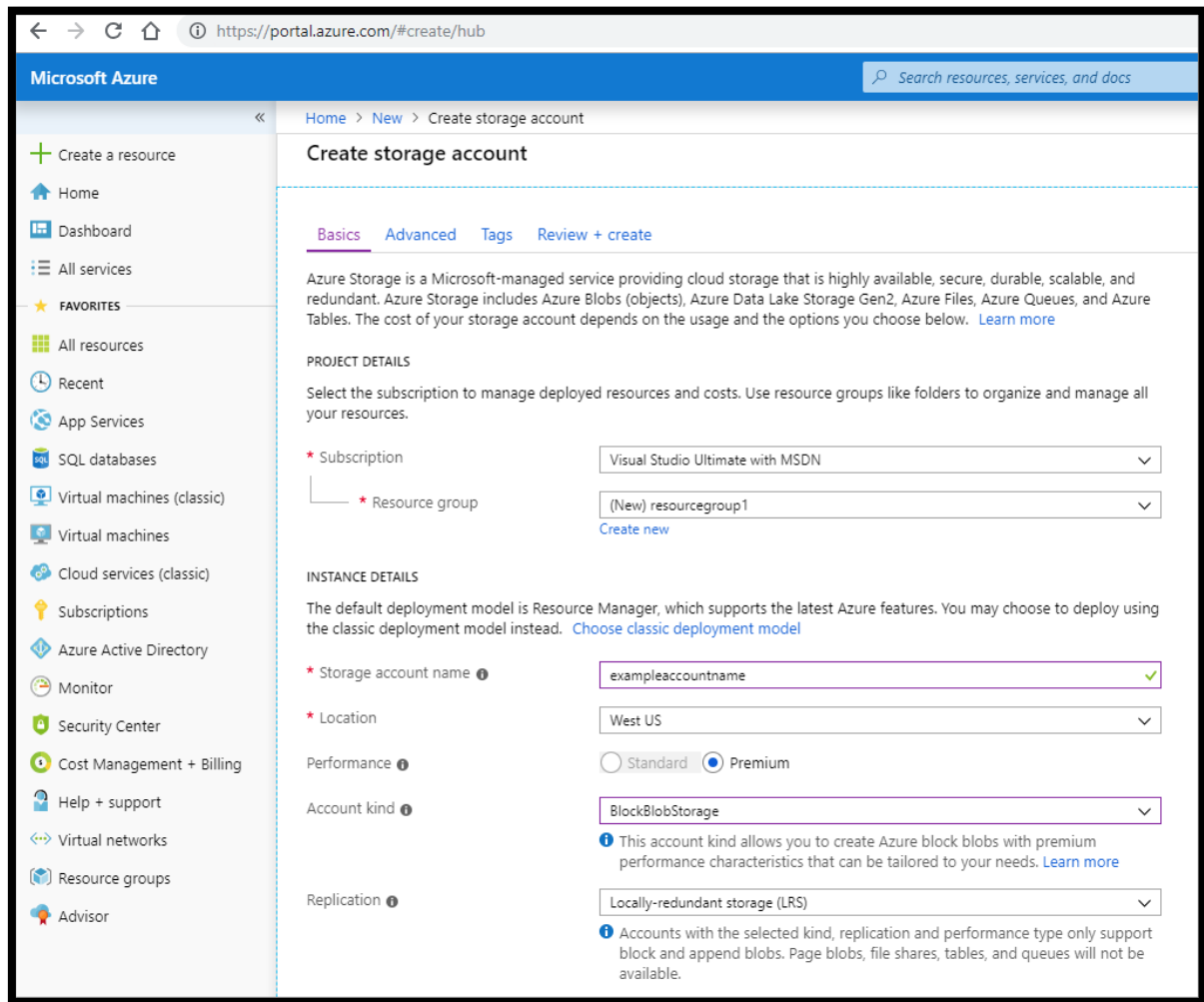
1. In the Azure portal, select **All services** > the **Storage** category > **Storage accounts**.
2. Under **Storage accounts**, select **Add**.

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:

**TABLE 3**

Field	Value
Performance	Select <b>Premium</b> .
Account kind	Select <b>BlockBlobStorage</b> .
Redundancy	Leave the default setting of <b>Locally-redundant storage (LRS)</b> .

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**.



Microsoft Azure

Home > New > Create storage account

## Create storage account

Basics Advanced Tags Review + create

Azure Storage is a Microsoft-managed service providing cloud storage that is highly available, secure, durable, scalable, and redundant. Azure Storage includes Azure Blobs (objects), Azure Data Lake Storage Gen2, Azure Files, Azure Queues, and Azure Tables. The cost of your storage account depends on the usage and the options you choose below. [Learn more](#)

**PROJECT DETAILS**

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

\* Subscription Visual Studio Ultimate with MSDN

\* Resource group (New) resourcegroup1 [Create new](#)

**INSTANCE DETAILS**

The default deployment model is Resource Manager, which supports the latest Azure features. You may choose to deploy using the classic deployment model instead. [Choose classic deployment model](#)

\* Storage account name exampleaccountname ✓

\* Location West US

Performance ☐ Standard ☒ Premium

Account kind BlockBlobStorage

**Replication** Locally-redundant storage (LRS)

**Notes:**

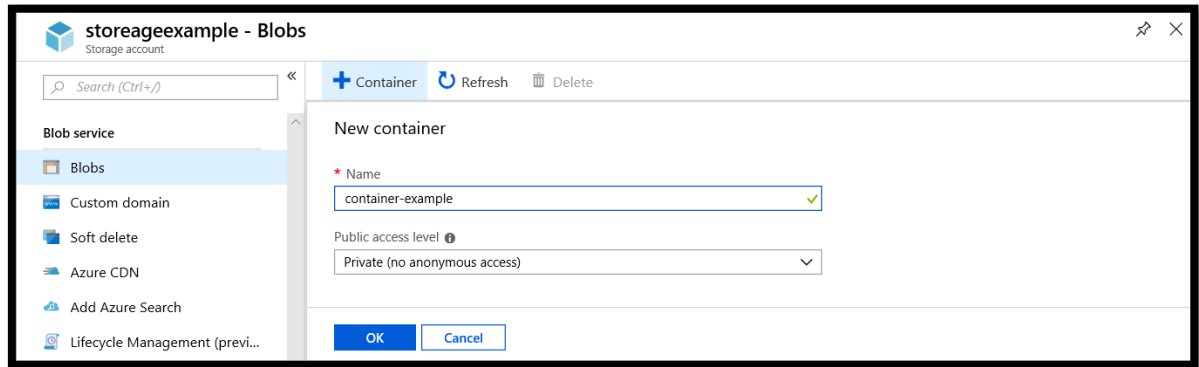
- This account kind allows you to create Azure block blobs with premium performance characteristics that can be tailored to your needs. [Learn more](#)
- Accounts with the selected kind, replication and performance type only support block and append blobs. Page blobs, file shares, tables, and queues will not be available.

### 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:

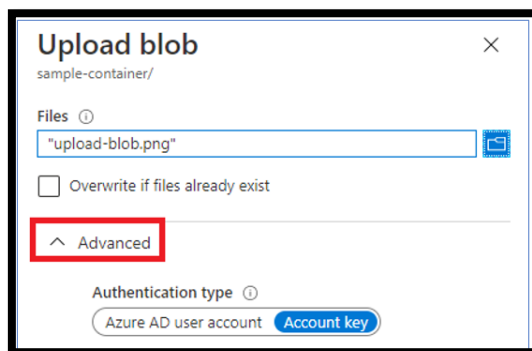
1. Navigate to your new storage account in the Azure portal.
2. In the left menu for the storage account, scroll to the **Blob service** section, then select **Containers**.
3. Select the **+ Container** button.
4. Type a name for your new container. The container name must be lowercase, must start with 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.

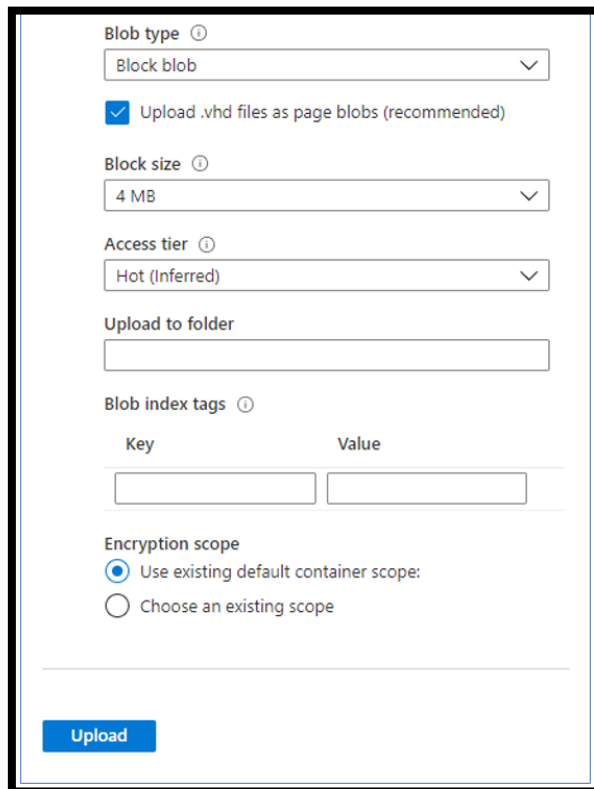


5. Set the level of public access to the container. The default level is **Private (no anonymous access)**.
6. Select **OK** to create the container.

### 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.





The screenshot shows the 'Upload' blade in the Azure portal for a block blob. It includes the following fields and options:

- Blob type:** A dropdown menu set to 'Block blob'.
- Upload .vhd files as page blobs (recommended):** A checked checkbox.
- Block size:** A dropdown menu set to '4 MB'.
- Access tier:** A dropdown menu set to 'Hot (Inferred)'.
- Upload to folder:** An empty text input field.
- Blob index tags:** A section with two columns, 'Key' and 'Value', each with an empty text input field.
- Encryption scope:** Two radio button options: 'Use existing default container scope:' (selected) and 'Choose an existing scope'.
- Upload button:** A blue button at the bottom left.

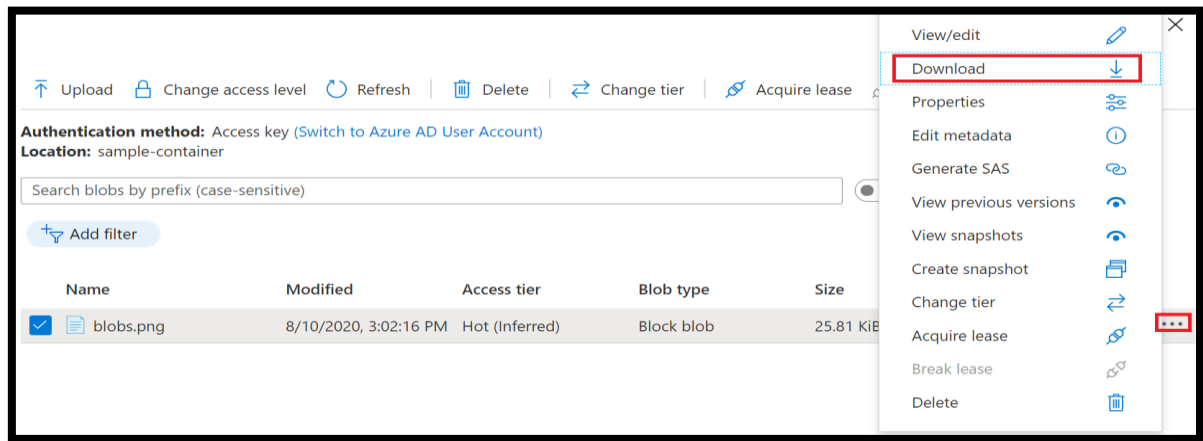
To upload a block blob to your new container in the Azure portal, follow these steps:

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:

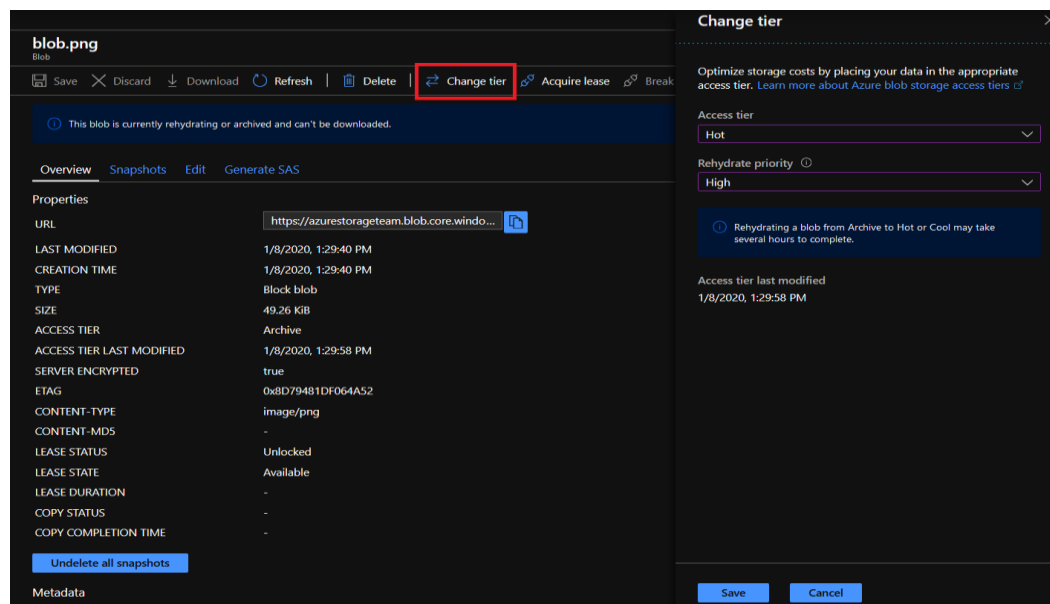
1. Navigate to the list of blobs that you uploaded in the previous section.
2. Right-click the blob you want to download, and select **Download**.



## 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

Acq

This blob is currently rehydrating (high priority) and can't be downloaded. [Learn more](#)

Overview

Snapshots

Edit

Generate SAS

Properties

URL	<a href="https://azurestorageteam.blob.core.windows.net/...">https://azurestorageteam.blob.core.windows.net/...</a>
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	0x8D7DB839FA5F14DD
CONTENT-TYPE	text/plain
CONTENT-MD5	1B2M2Y8AsgTpgAmY7PhCfG==
LEASE STATUS	Unlocked
LEASE STATE	Available
LEASE DURATION	-
COPY STATUS	-
COPY COMPLETION TIME	-

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