

## Transferring data with AzCopy in Windows

### Introduction:

The Engineering team of Fabrikam is impressed by the throughput that they got while using Azure SQL Datawarehouse with Data Factory. The team is now working with Azure Blob storage using AZCopy commands. They are trying to utilize the power of CLI to upload, download and manage their object data into Azure Blob Storage Account. Their goal is to upload object data from on-premises to Azure Blob storage and download the same from there using AZCopy commands. They are also trying to understand how the data can be copied between different blob storage accounts in Azure. On a successful execution of this, the team is going to get adopted with AZCopy commands to manage the object data in Azure Blobs.

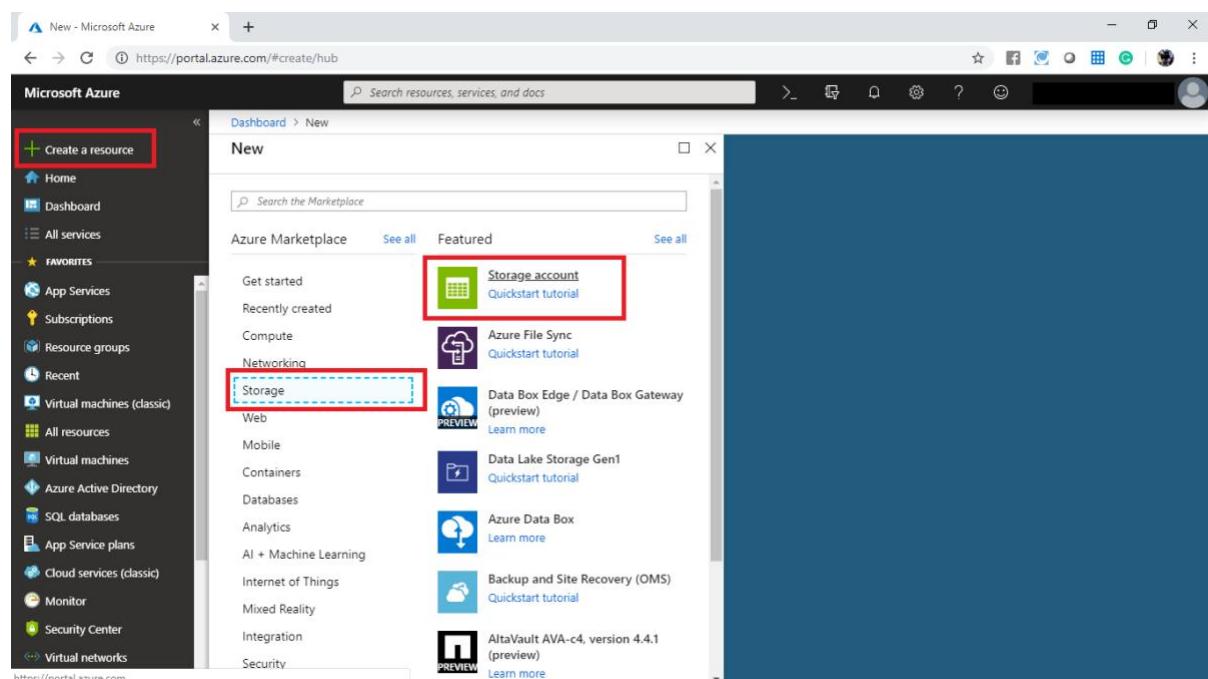
### Prerequisites:

To perform this demo user must have a valid Azure subscription and some knowledge on

- AzCopy
- Storage account
- Containers

### Demo:

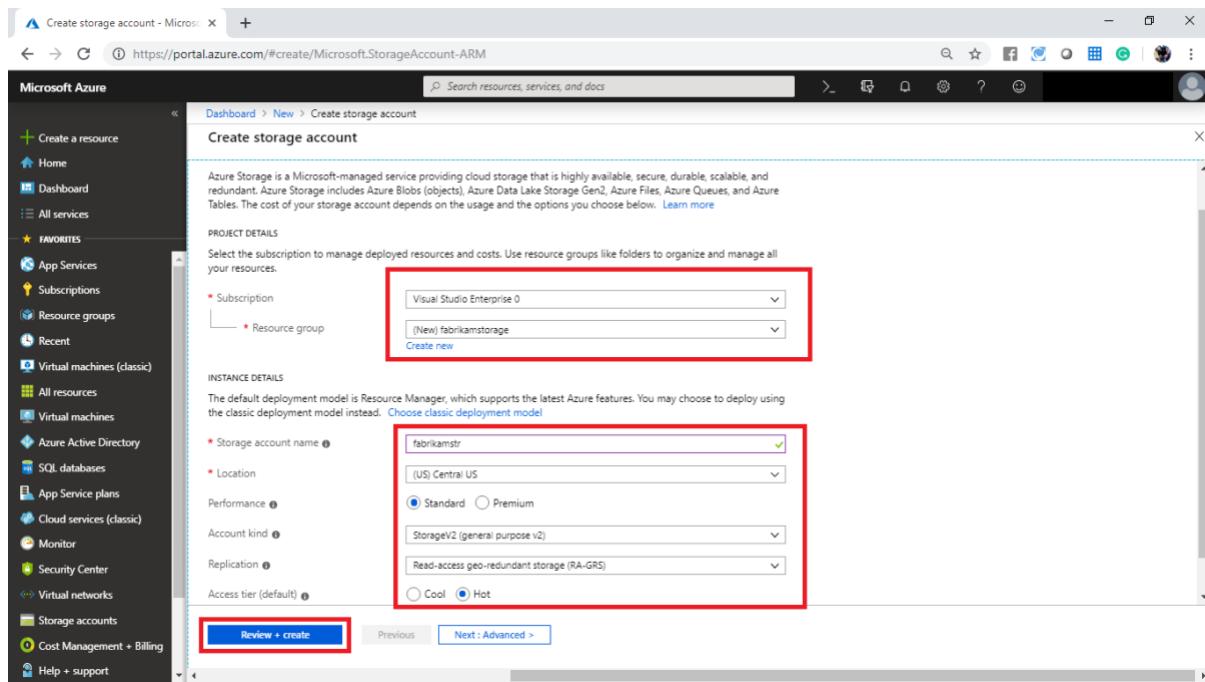
Log-in to Azure portal with your account using [www.portal.azure.com](https://www.portal.azure.com). In Azure portal click on **Create a new resource>Storage>Storage account**.



In the create storage account panel create a Storage account with following settings.

- Subscription: Select a valid subscription
- Resource group: Create a new resource group **fabrikamstorage**
- Storage account name: fabrikamstr
- Location: Select a valid location
- Performance: Standard
- Account kind: Storage V2
- Replication: RA-GRS
- Access tier: Hot

After configuring all the above settings click on Review + Create.



Once your validation gets paused click on create.

The screenshot shows the Microsoft Azure portal interface for creating a storage account. The left sidebar includes options like Home, Dashboard, and Storage accounts. The main window is titled 'Create storage account' and shows the 'Validation passed' step. The 'Basics' tab is selected, displaying configuration details such as Subscription (Visual Studio Enterprise 0), Resource group (new\_fabrikamstorage), Location (US Central US), and Storage account name (fabrikamstr). The 'Create' button at the bottom left is highlighted with a red box.

Wait until the deployment gets succeed. After the deployment get completed navigate to the created resource group. In the created storage account display the access key panel and take a note on access key you will use that.

The screenshot shows the Microsoft Azure portal for the 'fabrikamstr' storage account. The left sidebar lists various services. The main pane displays the storage account overview, including its name ('fabrikamstr'), status ('Available'), and location ('Central US, East US 2'). Under the 'Settings' section, the 'Access keys' link is highlighted with a red box. The right side of the screen shows service details for Blobs, Files, Tables, and Queues.

The screenshot shows the Microsoft Azure portal interface. The left sidebar has 'Storage accounts' selected. The main content area is titled 'fabrikamstr - Access keys'. It provides instructions on using access keys for authentication. Two keys are listed: 'key1' and 'key2'. Each key has a 'Copy to clipboard' button. Below each key is its corresponding connection string.

In the overview panel of the storage account click on blob storage.

The screenshot shows the Microsoft Azure portal interface. The left sidebar has 'Storage accounts' selected. The main content area is titled 'fabrikamstr - Overview'. It displays general information about the storage account, including resource group, status, location, and subscription details. In the 'Services' section, the 'Blobs' service is highlighted with a red box. Other services shown include 'Files', 'Tables', and 'Queues'.

In the blob storage panel click on +container and add a container with following configurations.

- Name: fabrikamcontainer
- Public access level: Container

The screenshot shows the Microsoft Azure portal interface. On the left, the navigation menu is visible with various service icons. The main area is titled 'fabrikamstr - Blobs' under 'Storage account'. A modal window is open for creating a new container. The 'Name' field contains 'fabrikamcontainer'. The 'Public access level' dropdown is set to 'Container (anonymous read access for containers and blobs)'. A warning message at the bottom of the modal states: 'All container and blob data can be read by anonymous request. Clients can enumerate blobs within the container by anonymous request, but cannot enumerate containers within the storage account.' At the bottom of the modal are 'OK' and 'Cancel' buttons, with 'OK' highlighted with a red box.

Navigate to the created container and click on upload to upload a sample file.

The screenshot shows the Microsoft Azure portal interface. The left navigation menu is visible. The main area is titled 'fabrikamstr - Blobs'. A table lists the containers in the storage account. The first row shows a single container named 'fabrikamcontainer'. The table has columns for NAME, LAST MODIFIED, PUBLIC ACCESS L., and LEASE STATE. The 'fabrikamcontainer' row is highlighted with a red box. The 'fabrikamstr' storage account name is also displayed above the table.

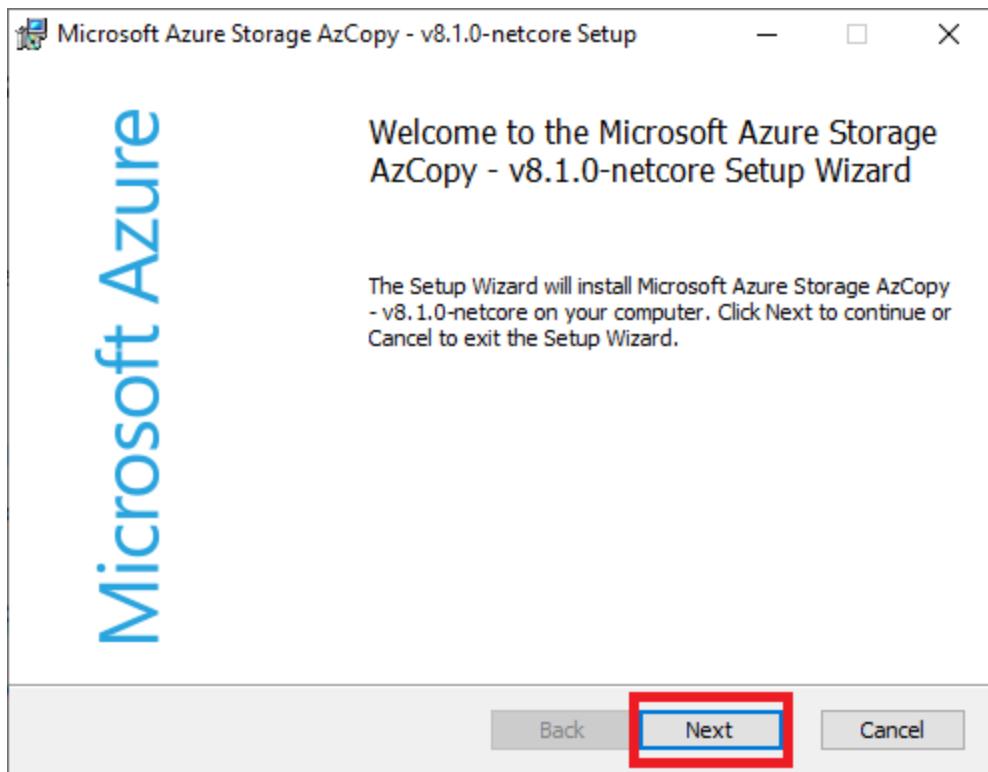
NAME	LAST MODIFIED	PUBLIC ACCESS L...	LEASE STATE
fabrikamcontainer		Container	Available

The screenshot shows the Microsoft Azure portal interface. On the left, the navigation menu is visible with various service icons. The main area shows a container named 'fabrikamcontainer'. A modal window titled 'Upload blob' is open, showing a file named 'AI.jpg' selected for upload. The 'Upload' button in the modal is highlighted with a red box.

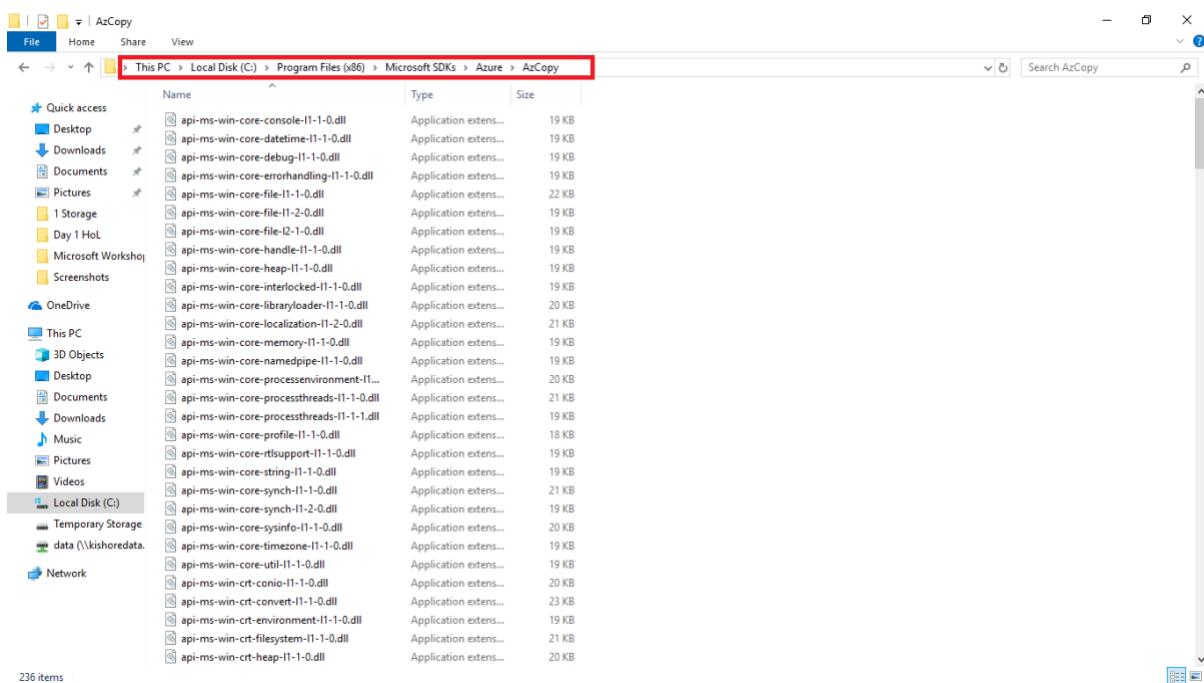
The screenshot shows the Microsoft Azure portal interface. The main area displays the contents of the 'fabrikamcontainer'. A table lists a single blob named 'AI.jpg'. The row containing 'AI.jpg' is highlighted with a red box. The table includes columns for NAME, MODIFIED, ACCESS TIER, BLOB TYPE, SIZE, and LEASE STATE.

NAME	MODIFIED	ACCESS TIER	BLOB TYPE	SIZE	LEASE STATE
AI.jpg		Hot (Infer...)	Block blob	33.85 KiB	Available

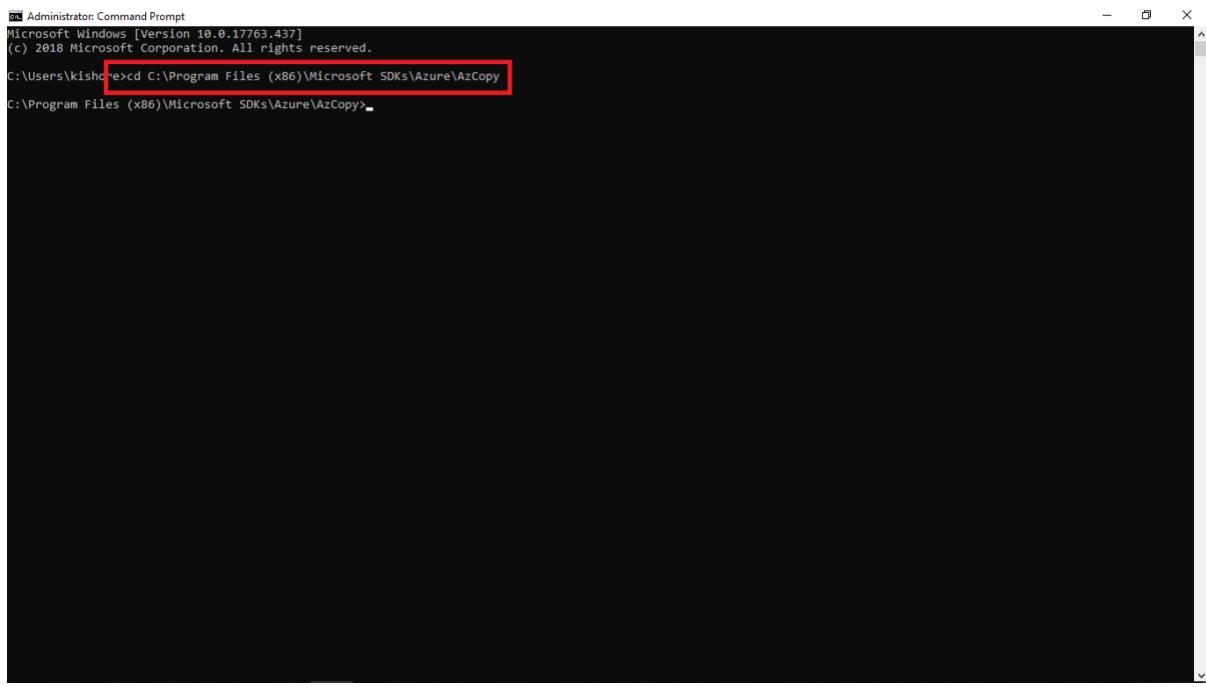
After uploading the sample file navigate to <https://aka.ms/downloadazcopy> and download the AzCopy on your machine. Install the AzCopy after the download completes.



Navigate to the path where the AzCopy is downloaded and copy the path.



Open the command prompt and change the directory to the copied path.



```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.17763.437]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\kishore>cd C:\Program Files (x86)\Microsoft SDKs\Azure\AzCopy
```

After changing the directory run the following command to transfer the file from your blob storage to your local machine. Replace the path where you need transfer the file.

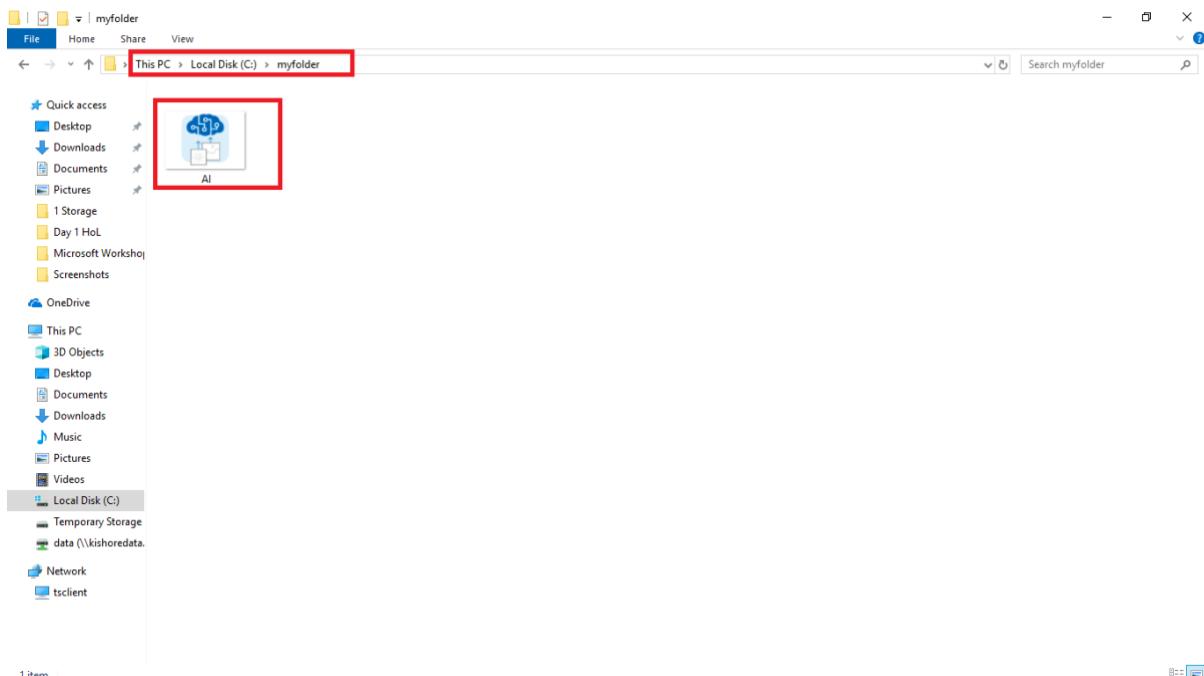
```
AzCopy /Source:https://fabrikamstr.blob.core.windows.net/fabrikamcontainer/
/Dest:C:\myfolder
/SourceKey:7gUGygpaAvjnB2PqmjINm651lzkIb6KRM1YyoOar80flwjFrbTRz2IQ393gbztMX8Oduaz
3YNDpFYdsgSVQgnA== /Pattern:"AI.jpg"
```

The screenshot shows a Windows Command Prompt window titled "Select Administrator: Command Prompt". The command entered is:

```
C:\Program Files (x86)\Microsoft SDKs\Azure\AzCopy>AzCopy /Source:https://fabrikamstr.blob.core.windows.net/fabrikamcontainer/ /Dest:C:\myfolder /SourceKey:7gUGygpaAvjnB2PqmjINm651lzkIb6KRM1YyoOar80flwjFrbTRz2IQ393gbztMX8Oduaz3YNDpFYdsgSVQgnA== /Pattern:"AI.jpg"
[2019/05/08 05:17:34] Transfer summary:
Total files transferred: 1
Transfer successfully: 1
Transfer skipped: 0
Transfer failed: 0
Elapsed time: 00:00:00:03
```

The command completes successfully, transferring one file ("AI.jpg") from the specified blob container to the local "myfolder" directory.

Navigate to the path and check that the file is transferred or not.



Navigate to the **fabrikamcontainer** and click on upload. When it prompts select multiple files to upload and click on upload.

Microsoft Azure

Dashboard > Resource groups > fabrikamstorage > fabrikamstr - Blobs > fabrikamcontainer

**fabrikamcontainer**

Container

Upload

Authentication method: Access key (Switch to Azure AD User Account)

Location: fabrikamcontainer

Search blobs by prefix (case-sensitive)

NAME	MODIFIED
AI.jpg	08/05/2019, 4:57:07 am

Upload blob

Files: "about-service-bus-queue.png" "about-service-bus-topic.png"

Upload

Microsoft Azure

Dashboard > Resource groups > fabrikamstorage > fabrikamstr - Blobs > fabrikamcontainer

**fabrikamcontainer**

Container

Upload

Authentication method: Access key (Switch to Azure AD User Account)

Location: fabrikamcontainer

Search blobs by prefix (case-sensitive)

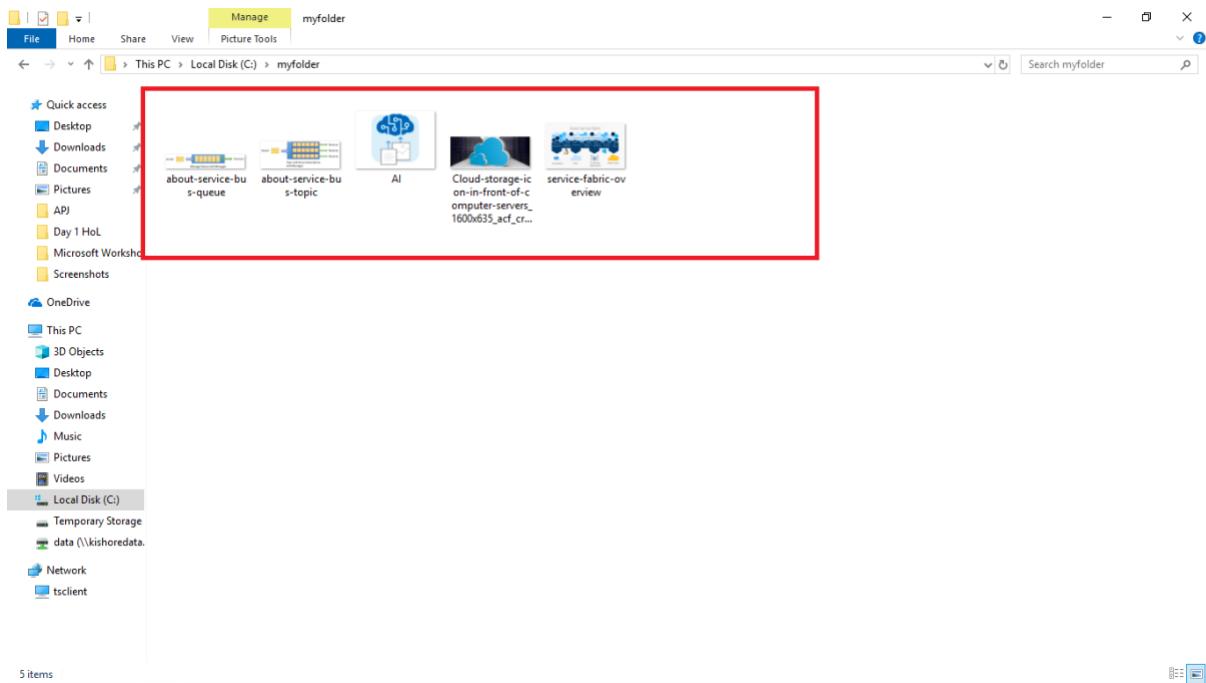
NAME	MODIFIED	ACCESS TIER	BLOB TYPE	SIZE	LEASE STATE
about-service-bus-queue.png	08/05/2019, 5:21:10 am	Hot (Infer...)	Block blob	27.01 KiB	Available
about-service-bus-topic.png	08/05/2019, 5:21:10 am	Hot (Infer...)	Block blob	45.11 KiB	Available
AI.jpg	08/05/2019, 4:57:07 am	Hot (Infer...)	Block blob	33.85 KiB	Available
Cloud-storage-icon-in-front-of-compu...	08/05/2019, 5:21:11 am	Hot (Infer...)	Block blob	562.93 KiB	Available
service-fabric-overview.png	08/05/2019, 5:21:11 am	Hot (Infer...)	Block blob	264.99 KiB	Available

Navigate to command prompt and run the following command to transfer the multiple files from blob storage to your machine.

```
AzCopy /Source:https://fabrikamstr.blob.core.windows.net/fabrikamcontainer/
/Dest:C:\myfolder
/SourceKey:7gUGygpAvjnB2PqmjINm651lzkIb6KRM1YyoOar80flwjFrbTRz2IQ393gbztMX8Oduaz
3YNPdsgSVQgnA== /S
```

```
Administrator: Command Prompt
C:\Program Files (x86)\Microsoft SDKs\Azure\AzCopy>
C:\Program Files (x86)\Microsoft SDKs\Azure\AzCopy>
C:\Program Files (x86)\Microsoft SDKs\Azure\AzCopy>AzCopy /Source:https://fabrikamstr.blob.core.windows.net/fabrikamcontainer/ /Dest:C:\myfolder /SourceKey:7gUGygpavjn
B2PgmjInm651lzlklb6KRMIYyoOar80f1wFrbdRz2I0Q93gbztM80duaz3NDpFydsSVQgnA== /S
Overwrite C:\myfolder\AI.jpg with https://fabrikamstr.blob.core.windows.net/fabrikamcontainer/AI.jpg? (Yes/No/All) Y
Finished 5 of total 5 file(s).
[05:22:26] Transfer summary:
Total files transferred: 5
Transfer successfully: 5
Transfer skipped: 0
Transfer failed: 0
Elapsed time: 00:00:00:08
C:\Program Files (x86)\Microsoft SDKs\Azure\AzCopy>
```

Check that the file were transferred or not.



Navigate to the blob storage and delete all the files.

Microsoft Azure

Dashboard > Resource groups > fabrikamstorage > fabrikamstr - Blobs > fabrikamcontainer

**fabrikamcontainer** Container

Upload Refresh Change access level Delete Acquire lease Break lease View snapshots More

Authentication method: Access key (Switch to Azure AD User Account)  
Location: fabrikamcontainer

Search blobs by prefix (case-sensitive) Show deleted blobs

NAME	MODIFIED	ACCESS TIER	BLOB TYPE	SIZE	LEASE STATE
about-service-bus-queue.png	5:21:10 am	Hot (Infer...)	Block blob	27.01 KiB	Available
about-service-bus-topic.png	5:21:10 am	Hot (Infer...)	Block blob	45.11 KiB	Available
AI.jpg	4:57:07 am	Hot (Infer...)	Block blob	33.85 KiB	Available
Cloud-storage-icon-in-front-of-compu...	5:21:11 am	Hot (Infer...)	Block blob	562.93 KiB	Available
service-fabric-overview.png	5:21:11 am	Hot (Infer...)	Block blob	264.99 KiB	Available

Create a resource Home Dashboard All services FAVORITES App Services Subscriptions Resource groups Recent Virtual machines (classic) All resources Virtual machines Azure Active Directory SQL databases App Service plans Cloud services (classic) Monitor Security Center Virtual networks Storage accounts

Microsoft Azure

Dashboard > Resource groups > fabrikamstorage > fabrikamstr - Blobs > fabrikamcontainer

**fabrikamcontainer** Container

Upload Refresh Change access level Delete Acquire lease Break lease View snapshots More

Delete blob(s)

Are you sure you would like to delete the selected blobs?

1. Blobs in leased state are locked for deletion and will be skipped.  
2. Folder deletion is not supported and any selected folders will be skipped. To delete a folder, delete all containing blobs.  
3. In order to delete a blob, all snapshots must be deleted.

Also delete blob snapshots

OK Cancel

Create a resource Home Dashboard All services FAVORITES App Services Subscriptions Resource groups Recent Virtual machines (classic) All resources Virtual machines Azure Active Directory SQL databases App Service plans Cloud services (classic) Monitor Security Center Virtual networks Storage accounts

The screenshot shows the Microsoft Azure portal interface. On the left, the navigation menu is visible with various service icons. The main content area displays a container named 'fabrikamcontainer'. A red box highlights a message at the top right of the page: 'Successfully deleted blob(s)' and 'Successfully deleted 5 blobs(s.)'. Below this message, there is a large red outline of an upward-pointing arrow. The table below shows 'No blobs found.'

Open the command prompt and run the following command to transfer a single file from local machine to blob storage.

```
AzCopy /Source:C:\myfolder  
/Dest:https://fabrikamstr.blob.core.windows.net/fabrikamcontainer/  
/DestKey:7gUGygpaAvjnB2PqmjINm651lzkib6KRM1YyoOar80flwjFrbtRz2IQ393gbztMX8Oduaz3Y  
NDpFYdsgSVQgnA== /Pattern:"AI.jpg"
```

The screenshot shows an 'Administrator: Command Prompt' window. The command entered is: 'AzCopy /Source:C:\myfolder /Dest:https://fabrikamstr.blob.core.windows.net/fabrikamcontainer/ /DestKey:7gUGygpaAvjnB2PqmjINm651lzkib6KRM1YyoOar80flwjFrbtRz2IQ393gbztMX8Oduaz3YNDpFYdsgSVQgnA== /Pattern:"AI.jpg"'. The output shows the transfer summary: 'Finished 1 of total 1 file(s). [0:26:56] Transfer summary: Total files transferred: 1 Transfer successfully: 1 Transfer skipped: 0 Transfer failed: 0 Elapsed time: 00:00:00:03'. The command prompt prompt is 'C:\Program Files (x86)\Microsoft SDKs\Azure\AzCopy>'.

Navigate to the blob storage and check that the files were transferred or not.

The screenshot shows the Microsoft Azure portal interface. The left sidebar lists various services under 'FAVORITES'. The main content area shows the 'Overview' of the 'fabrikamcontainer' blob storage. A red box highlights the container name 'fabrikamcontainer' in the URL bar and the file 'AI.jpg' in the list view.

Open the command prompt and run the following command to copy the file from local machine to the blob storage within a virtual folder.

```
AzCopy /Source:C:\myfolder  
/Dest:https://fabrikamstr.blob.core.windows.net/fabrikamcontainer/vd  
/DestKey:7gUGygpaAvjnB2PqmjINm651lzkib6KRM1YyoOar80flwjFrbTRz2IQ393gbztMX8Oduaz3Y  
NDpFYdsgSVQgnA== /Pattern:"AI.jpg"
```

```
C:\> Administrator: Command Prompt  
C:\> C:\Program Files (x86)\Microsoft SDKs\Azure\AzCopy>AzCopy /Source:C:\myfolder /Dest:https://fabrikamstr.blob.core.windows.net/fabrikamcontainer/vd /DestKey:7gUGygpaAvjnB2PqmjINm651lzkib6KRM1YyoOar80flwjFrbTRz2IQ393gbztMX8Oduaz3YNDpFYdsgSVQgnA== /Pattern:"AI.jpg"  
Finished 1 of total 1 file(s).  
[05:28:58] Transfer summary:  
Total files transferred: 1  
Transfer successfully: 1  
Transfer skipped: 0  
Transfer failed: 0  
Elapsed time: 00.00:00:03  
C:\>
```

Navigate to the blob storage and monitor that the file has been transferred to the virtual folder or not.

The screenshot shows the Microsoft Azure Storage Blob service interface. The left sidebar lists various services like App Services, Subscriptions, Resource groups, etc. The main area shows a container named 'fabrikamcontainer'. The 'Overview' tab is selected. The blob list table has columns: NAME, MODIFIED, ACCESS TIER, BLOB TYPE, SIZE, and LEASE STATE. Two blobs are listed: 'vd' and 'AI.jpg'. The 'vd' blob is highlighted with a red box.

NAME	MODIFIED	ACCESS TIER	BLOB TYPE	SIZE	LEASE STATE
vd	5:26:56 am	Hot (Infer...	Block blob	33.85 KiB	Available
AI.jpg	5:28:58 am	Hot (Infer...	Block blob	33.85 KiB	Available

This screenshot shows the same Azure Storage Blob service interface as the previous one, but the blob 'vd' has been deleted. Only the blob 'AI.jpg' remains in the list, which is highlighted with a red box.

NAME	MODIFIED	ACCESS TIER	BLOB TYPE	SIZE	LEASE STATE
AI.jpg	5:28:58 am	Hot (Infer...	Block blob	33.85 KiB	Available

Open the command prompt and run the following command to transfer multiple files from local machine to blob storage within a virtual folder.

```
AzCopy /Source:C:\myfolder  
/Dest:https://fabrikamstr.blob.core.windows.net/fabrikamcontainer/vd  
/DestKey:7gUGygpaAvjnB2PqmjINm651lzkIb6KRM1YyoOar80flwjFrbTRz2IQ393gbztMX8Oduaz3Y  
NDpFYdsgSVQgnA== /S
```

```

Administrator: Command Prompt
C:\Program Files (x86)\Microsoft SDKs\Azure\AzCopy>
C:\Program Files (x86)\Microsoft SDKs\Azure\AzCopy /Source:C:\myfolder /Dest:https://fabrikamstr.blob.core.windows.net/fabrikamcontainer/vd /DestKey:7gUGyypaAvjn
B2PqmjINm651zklb6KRMIYyoOar80fwiFrbtRz2IQ393gbztM80duaz3NDpFydsSVQgnA== /S
Overwrite https://fabrikamstr.blob.core.windows.net/fabrikamcontainer/vd/AI.jpg with C:\myfolder\AI.jpg? (Yes/No/All) Y
Finished 5 of total 5 file(s).
[05:31:17] Transfer summary:
Total files transferred: 5
Transfer successfully: 5
Transfer skipped: 0
Transfer failed: 0
Elapsed time: 00:00:00:06
C:\Program Files (x86)\Microsoft SDKs\Azure\AzCopy>_

```

After running the command navigate to the blob storage and note that the files are transferred to the virtual folder or not.

The screenshot shows the Microsoft Azure portal interface. On the left, there's a sidebar with various service icons like App Services, Subscriptions, Resource groups, and Virtual machines. The main area is titled 'fabrikamstorage > fabrikamstr - Blobs > fabrikamcontainer'. The container name 'fabrikamcontainer' is highlighted with a red box. Below it, there's an 'Overview' section with tabs for 'Upload', 'Refresh', 'Change access level', 'Delete', 'Acquire lease', and 'Break lease'. Underneath, it says 'Authentication method: Access key (Switch to Azure AD User Account)' and 'Location: fabrikamcontainer / vd'. A search bar for blobs is present. The main content area shows a table of uploaded files:

NAME	MODIFIED	ACCESS TIER	BLOB TYPE	SIZE	LEASE STATE	...
about-service-bus-queue.png	5:31:14 am	Hot (Infer...)	Block blob	27.01 KiB	Available	...
about-service-bus-topic.png	5:31:14 am	Hot (Infer...)	Block blob	45.11 KiB	Available	...
AI.jpg	5:31:16 am	Hot (Infer...)	Block blob	33.85 KiB	Available	...
Cloud-storage-icon-in-front-of-compu...	5:31:14 am	Hot (Infer...)	Block blob	562.93 KiB	Available	...
service-fabric-overview.png	5:31:14 am	Hot (Infer...)	Block blob	264.99 KiB	Available	...

Navigate to the blob overview page and add another container with following configurations.

- Name: fabrikamnewcontainer
- Public access resource: Container

Microsoft Azure

Dashboard > Resource groups > fabrikamstorage > fabrikamstr - Blobs

**fabrikamstr - Blobs**

**+ Container**

New container

Name: fabricamnewcontainer

Public access level: Container (anonymous read access for containers and blobs)

All container and blob data can be read by anonymous request. Clients can enumerate blobs within the container by anonymous request, but cannot enumerate containers within the storage account.

**OK** **Cancel**

Search resources, services, and docs

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Data transfer Events Storage Explorer (preview) Settings Access keys Geo-replication CORS Configuration Encryption Shared access signature Firewalls and virtual networks

Microsoft Azure

Dashboard > Resource groups > fabrikamstorage > fabrikamstr - Blobs

**fabrikamstr - Blobs**

Storage account: fabrikamstr

Search containers by prefix:

NAME	LAST MODIFIED	PUBLIC ACCESS L...	LEASE STATE
fabricamnewcontainer	5:32:28 am	Container	Available
fabrikamcontainer	4:53:46 am	Container	Available

**...**

Search resources, services, and docs

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Data transfer Events Storage Explorer (preview) Settings Access keys Geo-replication CORS Configuration Encryption Shared access signature Firewalls and virtual networks

The screenshot shows the Microsoft Azure portal interface. On the left, the navigation menu includes 'Create a resource', 'Home', 'Dashboard', 'All services', and a 'FAVORITES' section with links to App Services, Subscriptions, Resource groups, Recent, Virtual machines (classic), All resources, Virtual machines, Azure Active Directory, SQL databases, App Service plans, Cloud services (classic), Monitor, Security Center, Virtual networks, and Storage accounts. The main content area shows the 'fabricamnewcontainer' container under 'fabrikamstr - Blobs'. The 'Overview' tab is selected. The 'Settings' section on the left lists 'Access policy', 'Properties', and 'Metadata'. The main pane displays a table with columns: NAME, MODIFIED, ACCESS TIER, BLOB TYPE, SIZE, and LEASE STATE. A message at the top states 'No blobs found.' A red arrow is drawn from the bottom of the page upwards, pointing towards the 'Upload' button in the top navigation bar.

Open the command prompt and run the following command to transfer the files from container to container.

```
AzCopy /Source:https://fabrikamstr.blob.core.windows.net/fabrikamcontainer/vd  
/Dest:https://fabrikamstr.blob.core.windows.net/fabrikamnewcontainer  
/SourceKey:7gUGygpAvjnB2PqmjINm651lzkIb6KRM1YyoOar80flwjFrTRz2IQ393gbztMX8Oduaz  
3YNDpFYdsgSVQgnA==  
/DestKey:7gUGygpAvjnB2PqmjINm651lzkIb6KRM1YyoOar80flwjFrTRz2IQ393gbztMX8Oduaz3Y  
NDpFYdsgSVQgnA== /Pattern:"AI.jpg"
```

The screenshot shows an 'Administrator: Command Prompt' window. The command entered is:

```
C:\Program Files (x86)\Microsoft SDKs\Azure\AzCopy>AzCopy /Source:https://fabrikamstr.blob.core.windows.net/fabrikamcontainer/vd /Dest:https://fabrikamstr.blob.core.windows.net/fabrikamnewcontainer /SourceKey:7gUGygpAvjnB2PqmjINm651lzkIb6KRM1YyoOar80flwjFrTRz2IQ393gbztMX8Oduaz3YNDpFYdsgSVQgnA== /DestKey:7gUGygpAvjnB2PqmjINm651lzkIb6KRM1YyoOar80flwjFrTRz2IQ393gbztMX8Oduaz3YNDpFYdsgSVQgnA== /Pattern:"AI.jpg"  
Overwrite https://fabrikamstr.blob.core.windows.net/fabrikamnewcontainer/AI.jpg with https://fabrikamstr.blob.core.windows.net/fabrikamcontainer/vd/AI.jpg? (Yes/No/All)  
[N]  
Finished 0 of total 1 file(s).  
[05:37:07] Transfer summary:  
-----  
Total files transferred: 1  
Transfer successfully: 0  
Transfer skipped: 1  
Transfer failed: 0  
Elapsed time: 00:00:00:10
```

After running the command navigate to the newly created container and note that the file was transferred or not.

The screenshot shows the Microsoft Azure portal interface. On the left, the navigation menu is visible with various service icons. In the center, a specific blob container named 'fabrikamnewcontainer' is selected. The container's properties are displayed on the right, including its authentication method (Access key) and location (fabrikamnewcontainer). Below these details is a table listing blobs. One blob, 'AI.jpg', is highlighted with a red box. The table columns include NAME, MODIFIED, ACCESS TIER, BLOB TYPE, SIZE, and LEASE STATE. The blob 'AI.jpg' has a modified time of 5:35:15 am, is in the Hot (Infer... access tier, is a Block blob, has a size of 33.85 KiB, and is in an Available lease state.

In Azure portal click on **Create a new resource>Storage>Storage account**. User the search list to create a storage account.

The screenshot shows the Microsoft Azure portal's 'Create a resource' search interface. The search bar at the top contains the text 'Storage'. Below the search bar, the 'Storage' category is selected, indicated by a red box around the category name. Within the 'Storage' category, the 'Storage account' option is also highlighted with a red box. Other options listed in the search results include 'Azure File Sync', 'Data Box Edge / Data Box Gateway (preview)', 'Data Lake Storage Gen1', 'Azure Data Box', 'Backup and Site Recovery (OMS)', and 'AltaVault AVA-c4, version 4.4.1 (preview)'. Each item has a corresponding icon and a 'Quickstart tutorial' link.

Create a Storage account with following configurations

- Subscription: Select a valid one
- Resource group: fabrikamstorage
- Storage account name: fabrikamnewstorage

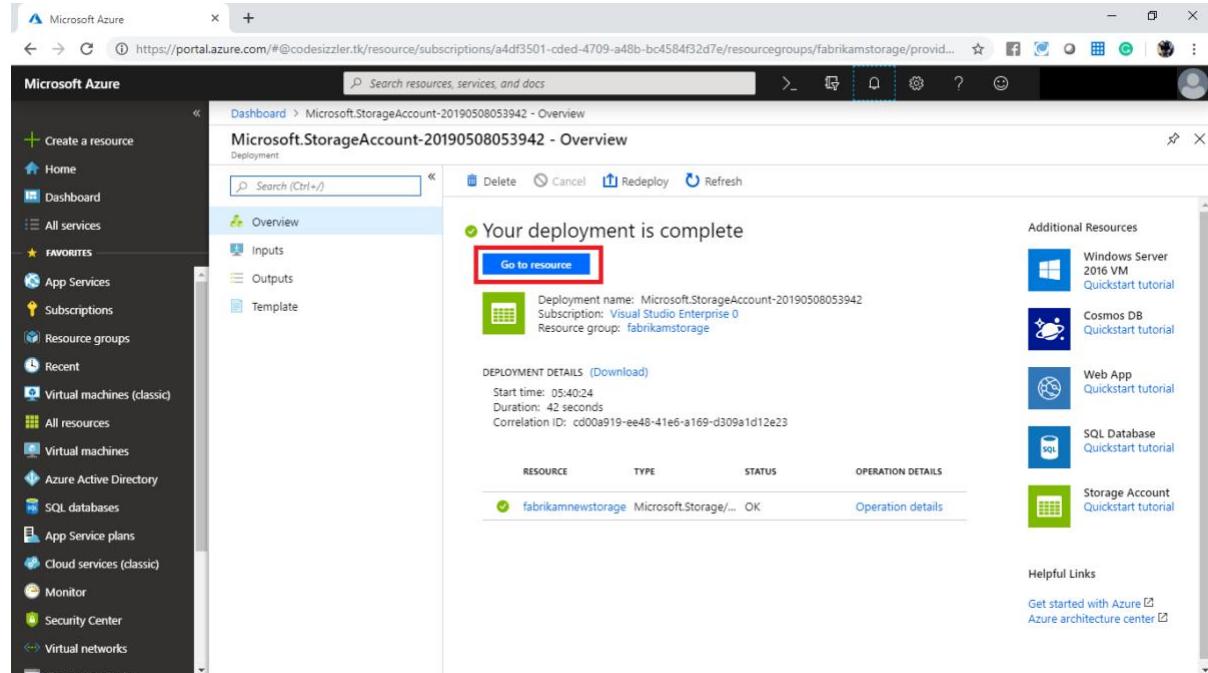
- Location: Select a valid location
- Performance: Standard
- Account kind: Storage V2
- Replication: RA-GRS
- Access tier: Hot

After configuring all the above settings click on Review + Create.

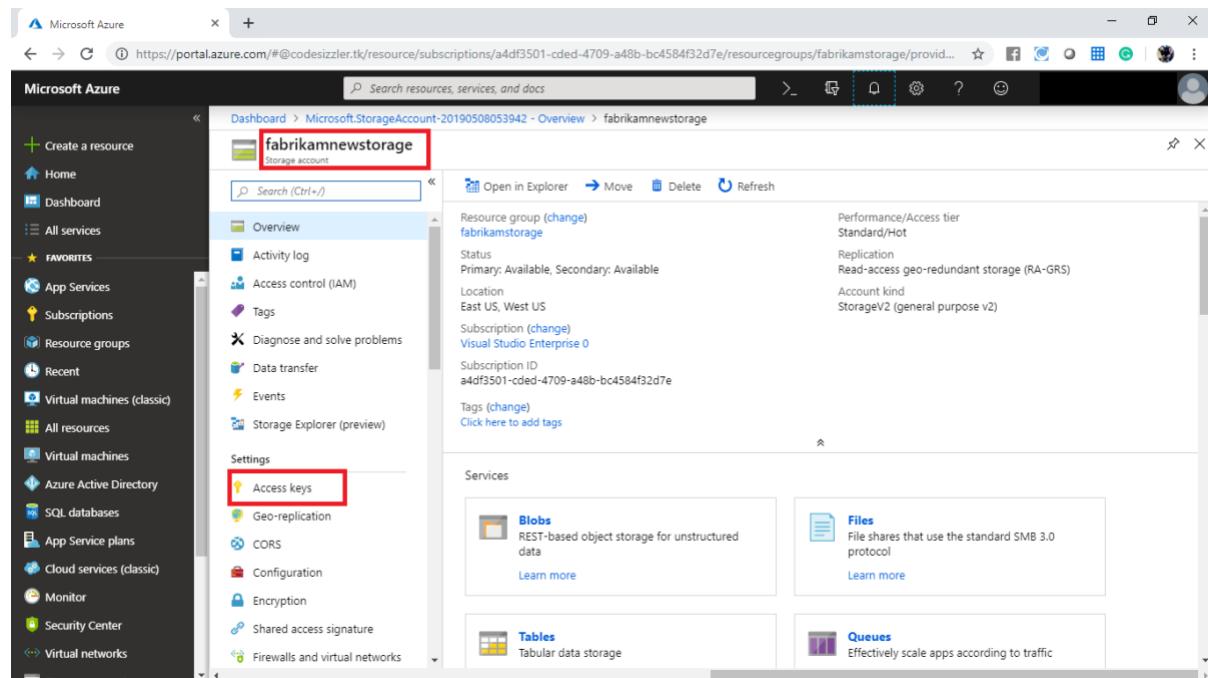
Once your validation gets paused click on create.

BASICS	
Subscription	Visual Studio Enterprise 0
Resource group	fabrikamstorage
Location	(US) East US
Storage account name	fabrikamnewstorage
Deployment model	Resource manager
Account kind	StorageV2 (general purpose v2)
Replication	Read-access geo-redundant storage (RA-GRS)
Performance	Standard
Access tier (default)	Hot
ADVANCED	
Secure transfer required	Enabled
Allow access from	All networks
Hierarchical namespace	Disabled
Blob soft delete	Disabled

Wait until the deployment gets succeed. After the deployment get completed navigate to the created resource group. In the created storage account display the access key panel and take a note on access key you will use that in the next step.



The screenshot shows the Microsoft Azure Storage Account Overview page for 'Microsoft.StorageAccount-20190508053942'. A red box highlights the 'Go to resource' button. Below it, deployment details are listed: Deployment name: Microsoft.StorageAccount-20190508053942, Subscription: Visual Studio Enterprise 0, Resource group: fabrikamstorage. DEPLOYMENT DETAILS show start time 05:40:24, duration 42 seconds, and correlation ID cd00a919-ee48-41e6-a169-d309a1d12e23. A table shows one resource: fabrikamnewstorage (Microsoft.Storage/StorageAccounts), Type: Microsoft.Storage/StorageAccounts, Status: OK, with an 'Operation details' link. The right sidebar shows 'Additional Resources' for Windows Server 2016 VM, Cosmos DB, Web App, SQL Database, and Storage Account, each with a 'Quickstart tutorial' link. A 'Helpful Links' section includes 'Get started with Azure' and 'Azure architecture center'.

The screenshot shows the Microsoft Azure Storage Account Overview page for 'fabrikamnewstorage'. A red box highlights the 'Access keys' link under the 'Settings' section of the left sidebar. The main pane displays storage account details: Resource group: fabrikamstorage, Status: Available, Primary: Available, Secondary: Available, Location: East US, West US, Subscription: Visual Studio Enterprise 0, Subscription ID: a4df3501-cded-4709-a48b-bc4584f32d7e, and Tags. The 'Services' section lists Blobs, Files, Tables, and Queues. The right sidebar shows 'Performance/Access tier' as Standard/Hot, 'Replication' as Read-access geo-redundant storage (RA-GRS), and 'Account kind' as StorageV2 (general purpose v2).

The screenshot shows the Microsoft Azure portal interface. On the left, the navigation menu is visible with various service options like App Services, Subscriptions, Resource groups, and Virtual machines. The main content area is titled 'fabrikamnewstorage - Access keys' under the 'Storage account' category. It provides instructions on how to use access keys for authentication. A 'Storage account name' field contains 'fabrikamnewstorage'. Below it, two sets of 'Access keys' are listed: 'key1' and 'key2'. The 'key1' key's value is highlighted with a red box. The 'key2' key's value is also shown below it.

Open the command prompt and run the following command to transfer the files from one blob storage to another blob storage. Replace the respective values with your values.

```
AzCopy /Source:https://fabrikamstr.blob.core.windows.net/fabrikamcontainer/vd
/Dest:https://fabrikamnewstorage.blob.core.windows.net/newcontainer
/SourceKey:7gUGygpaAvjnB2PqmjINm651lzk1b6KRM1YyoOar80flwjFrBTRz2IQ393gbztMX8Oduaz
3YNDpFYdsgSVQgnA==
/DestKey:JcTam7XXYYzldLEeJJmn5OoXijEQ6SiUc9n40tNIk/nEO7LH8LY6zwEVM0W2Ieq7naEcFuhn
MK0u/CnWM3YvBQ== /S
```

The screenshot shows an 'Administrator: Command Prompt' window. The command entered is:

```
C:\Program Files (x86)\Microsoft SDKs\Azure\AzCopy>AzCopy /Source:https://fabrikamstr.blob.core.windows.net/fabrikamcontainer/vd /Dest:https://fabrikamnewstorage.blob.core.windows.net/newcontainer /SourceKey:7gUGygpaAvjnB2PqmjINm651lzk1b6KRM1YyoOar80flwjFrBTRz2IQ393gbztMX8Oduaz3YNDpFYdsgSVQgnA== /DestKey:JcTam7XXYYzldLEeJJmn5OoXijEQ6SiUc9n40tNIk/nEO7LH8LY6zwEVM0W2Ieq7naEcFuhnMK0u/CnWM3YvBQ== /S
```

The output of the command shows the transfer summary:

```
Finished 5 of total 5 file(s).
[05:44:04] Transfer summary:
Total files transferred: 5
Transfer successfully: 5
Transfer skipped: 0
Transfer failed: 0
Elapsed time: 00:00:00:10
```

After running the command navigate to the newly created blob storage account and note that the files were transferred or not.

The screenshot shows the Microsoft Azure portal. The left sidebar lists various services like Home, Dashboard, App Services, Subscriptions, Resource groups, etc. The main content area is titled 'fabrikamnewstorage - Storage account'. A red box highlights the account name 'fabrikamnewstorage' in the top navigation bar. Below it, there's a search bar and a list of account settings: Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Data transfer, Events, Storage Explorer (preview), Settings (Access keys, Geo-replication, CORS, Configuration, Encryption, Shared access signature, Firewalls and virtual networks), and Services. Under Services, a red box highlights the 'Blobs' section, which describes REST-based object storage for unstructured data. Other sections shown are 'Files' (file shares using SMB 3.0) and 'Tables' (tabular data storage). The right side of the screen displays detailed account information: Resource group (changed to fabrikamstorage), Status (Primary: Available, Secondary: Available), Location (East US, West US), Subscription (Visual Studio Enterprise), and Account kind (StorageV2 (general purpose v2)).

The screenshot shows the Microsoft Azure portal. The left sidebar is identical to the previous screenshot. The main content area is titled 'fabrikamnewstorage - Blobs'. A red box highlights the container name 'newcontainer' in the list table. The table has columns: NAME, LAST MODIFIED, PUBLIC ACCESS L..., and LEASE STATE. The 'newcontainer' row shows '5:43:55 am' in the LAST MODIFIED column, 'Private' in the PUBLIC ACCESS L... column, and 'Available' in the LEASE STATE column. There is also a '...' button at the end of the row.

NAME	LAST MODIFIED	PUBLIC ACCESS L...	LEASE STATE
newcontainer	5:43:55 am	Private	Available

The screenshot shows the Microsoft Azure portal interface. On the left, the navigation menu includes 'Create a resource', 'Home', 'Dashboard', 'All services', and a 'FAVORITES' section with links to App Services, Subscriptions, Resource groups, Recent, Virtual machines (classic), All resources, Virtual machines, Azure Active Directory, SQL databases, App Service plans, Cloud services (classic), Monitor, Security Center, Virtual networks, and Storage accounts. The main content area is titled 'newcontainer' under 'Container'. It displays an 'Overview' tab, which includes a search bar, upload, refresh, and other management buttons. Below this, it shows the 'Authentication method: Access key (Switch to Azure AD User Account)' and the 'Location: newcontainer'. A table lists five blobs: 'about-service-bus-queue.png', 'about-service-bus-topic.png', 'AI.jpg', 'Cloud-storage-icon-in-front-of-compu...', and 'service-fabric-overview.png'. Each entry includes columns for NAME, MODIFIED, ACCESS TIER, BLOB TYPE, SIZE, and LEASE STATE. A red box highlights the list of blobs.

NAME	MODIFIED	ACCESS TIER	BLOB TYPE	SIZE	LEASE STATE
about-service-bus-queue.png	5:44:04 am	Hot (Infer...)	Block blob	27.01 KiB	Available
about-service-bus-topic.png	5:44:04 am	Hot (Infer...)	Block blob	45.11 KiB	Available
AI.jpg	5:44:00 am	Hot (Infer...)	Block blob	33.85 KiB	Available
Cloud-storage-icon-in-front-of-compu...	5:44:01 am	Hot (Infer...)	Block blob	562.93 KiB	Available
service-fabric-overview.png	5:44:03 am	Hot (Infer...)	Block blob	264.99 KiB	Available

## Summary:

AZCopy command line environment has well suited for the Fabrikam team. The team felt that management of Azure Blob resources by using AZCopy commands was quite easy and adoptable. With the power of AZCopy, the team will be able to upload and download and even manage the object data using AZCopy commands.