

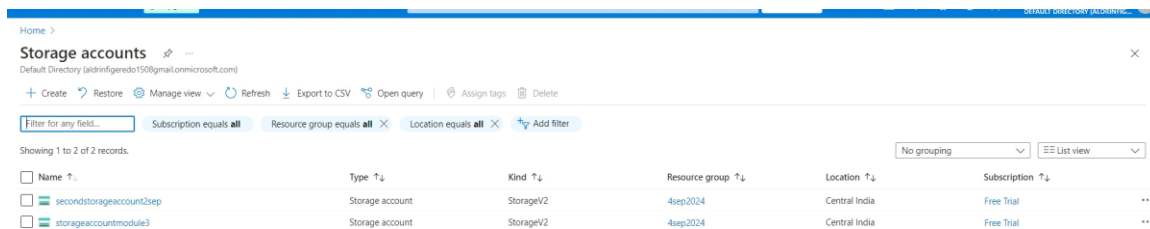
## Module 3: Assignment 4

### Tasks To Be Performed:

1. Use the same storage accounts from previous assignment
2. Use AzCopy utility to copy data from one storage container to another

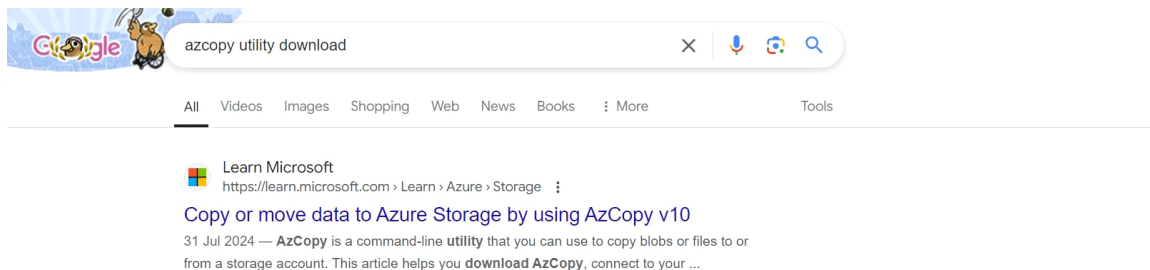
### Solution:

#### 1. Use the same storage accounts from previous assignment



Name	Type	Kind	Resource group	Location	Subscription
secondstorageaccount2sep	Storage account	StorageV2	4sep2024	Central India	Free Trial
storageaccountmodule3	Storage account	StorageV2	4sep2024	Central India	Free Trial

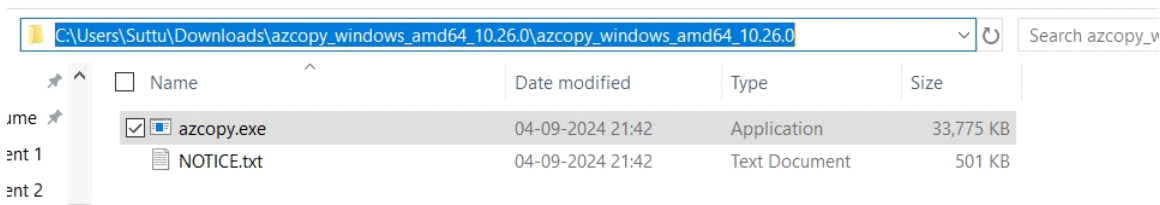
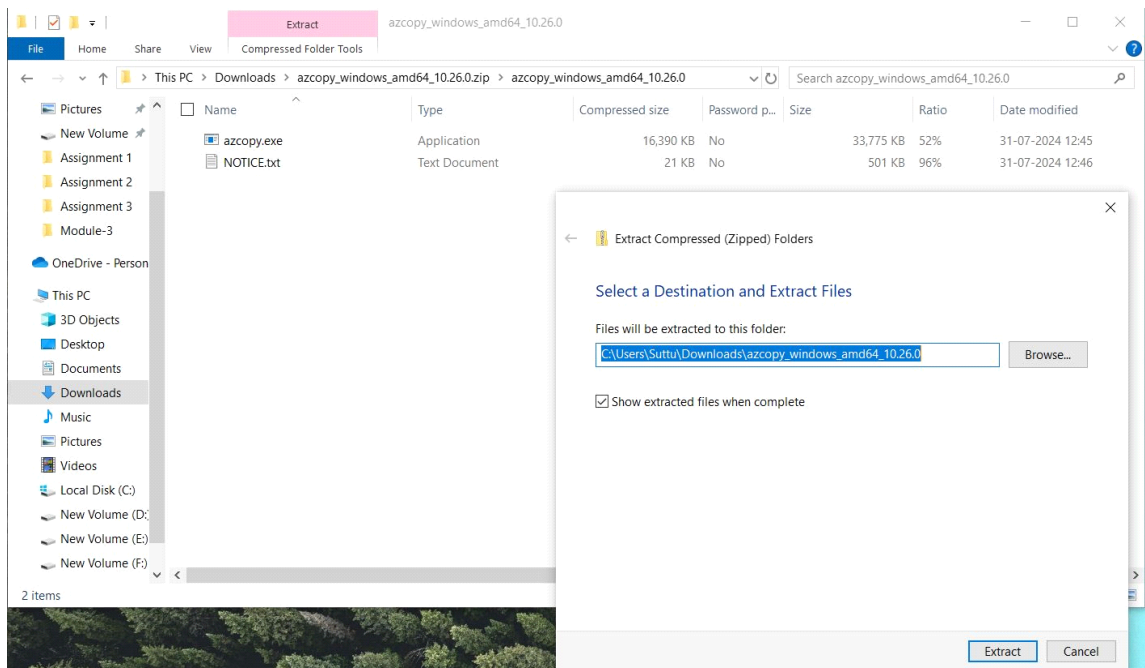
#### 2. Use AzCopy utility to copy data from one storage container to another



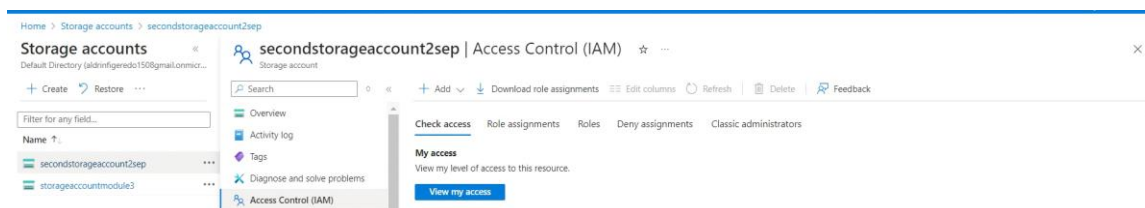
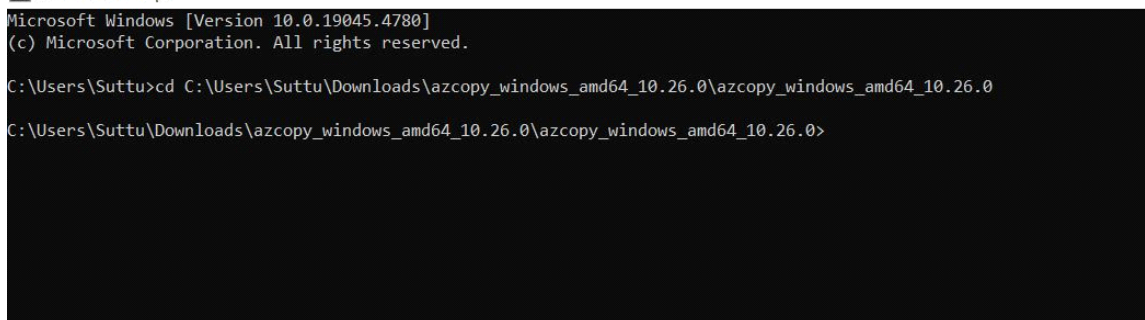
Learn Microsoft  
<https://learn.microsoft.com > Learn > Azure > Storage>

**Copy or move data to Azure Storage by using AzCopy v10**

31 Jul 2024 — **AzCopy** is a command-line utility that you can use to copy blobs or files to or from a storage account. This article helps you **download AzCopy**, connect to your ...



#### Command Prompt



## Add role assignment



Role **Members** Conditions Review + assign

A role definition is a collection of permissions. You can use the built-in roles or you can create your own custom roles. [Learn more](#)

**Job function roles** Privileged administrator roles

Grant access to Azure resources based on job function, such as the ability to create virtual machines.

storage blob data contributor Type: All Category: All

Name ↑	Description ↑	Type ↑	Category ↑	Details
Storage Blob Data Contributor	Allows for read, write and delete access to Azure Storage blob containers and data	BuiltInRole	Storage	<a href="#">View</a>

Showing 1 - 1 of 1 results.

## Add role assignment

Role **Members** Conditions Review + assign

**Selected role** Storage Blob Data Contributor

**Assign access to** ☒ User, group, or service principal ☐ Managed identity

**Members** + Select members

Name	Object ID	Type
No members selected		

**Description** Optional

[Review + assign](#) [Previous](#) [Next](#)

### Select members



Search by name or email address

Aldrin Figaredo(Guest)  
aldrinfigaredo1508\_gmail.com#EXT#@aldrinfigaredo1508gmail.onmicrosoft.com

Selected members:

Aldrin Figaredo(Guest)  
aldrinfigaredo1508\_gmail.com#EXT#@aldrinfigaredo1508gmail.onmicrosoft.com

[Select](#) [Close](#)

## Add role assignment

Role **Members** Conditions Review + assign

**Selected role** Storage Blob Data Contributor

**Assign access to** ☒ User, group, or service principal  
☐ Managed identity

**Members** + Select members

Name	Object ID	Type	
Aldrin Figeredo(Guest)	9aaaaf4d-9cd8-4b87-9b09-fd68fe0970f4	User	

**Description**

Optional

Review + assign

Previous

Next



### Added Role assignment



Aldrin Figeredo(Guest) now has Active Timebound assignment for Storage Blob Data Contributor role on secondstorageaccount2sep.

### Storage accounts

Default Directory (aldrinfigeredo1508@gmail.com)...

+ Create Restore ...

Filter for any field...

Name ↑

secondstorageaccount2sep ...

storageaccountmodule3 ...



storageaccountmodule3

Storage account

Search

Overview

Activity log

Tags

Diagnose and solve problems

Access Control (IAM)

### storageaccountmodule3 | Access Control (IAM)

Storage account

Search

Overview

Activity log

Tags

Diagnose and solve problems

Access Control (IAM)

+ Add Download role assignments Edit columns Refresh Delete Feedback

Check access Role assignments Roles Deny assignments Classic administrators

#### My access

View my level of access to this resource.

View my access

## Add role assignment



[Role](#) [Members](#) [Conditions](#) [Review + assign](#)

A role definition is a collection of permissions. You can use the built-in roles or you can create your own custom roles. [Learn more](#)

### Job function roles

Privileged administrator roles

Grant access to Azure resources based on job function, such as the ability to create virtual machines.

<input type="text" value="storage blob"/>	Type: All	Category: All		
Name ↑	Description ↑	Type ↑	Category ↑	Details
Defender for Storage Data Scanner	Grants access to read blobs and update index tags. This role is used by the data scanner of Defender for Storage.	BuiltInRole	None	<a href="#">View</a>
Storage Blob Data Contributor	Allows for read, write and delete access to Azure Storage blob containers and data	BuiltInRole	Storage	<a href="#">View</a>
Storage Blob Data Owner	Allows for full access to Azure Storage blob containers and data, including assigning POSIX access control.	BuiltInRole	Storage	<a href="#">View</a>
Storage Blob Data Reader	Allows for read access to Azure Storage blob containers and data	BuiltInRole	Storage	<a href="#">View</a>
Storage Blob Delegator	Allows for generation of a user delegation key which can be used to sign SAS tokens	BuiltInRole	Storage	<a href="#">View</a>

Showing 1 - 5 of 5 results.

## Add role assignment

[Role](#) [Members](#) [Conditions](#) [Review + assign](#)

**Selected role** Storage Blob Data Contributor

**Assign access to** ☒ User, group, or service principal  
☐ Managed identity

**Members** [+ Select members](#)

Name	Object ID	Type
No members selected		

**Description**

Optional

[Review + assign](#) [Previous](#) [Next](#)

## Select members



Aldrin Figaredo(Guest)  
aldrinfigaredo1508\_gmail.com#EXT#@aldrinfigaredo1508gmail.onmicrosof...

Selected members:

Aldrin Figaredo(Guest)  
aldrinfigaredo1508\_gmail.com#EXT#@aldrinfigaredo1508gmail.on...

[Select](#) [Close](#)

## Add role assignment

Role **Members** Conditions Review + assign

**Selected role** Storage Blob Data Contributor

**Assign access to** ☒ User, group, or service principal  
☐ Managed identity

**Members** [+ Select members](#)

Name	Object ID	Type	
Aldrin Figeredo(Guest)	9aaaaf4d-9cd8-4b87-9b09-fd68fe0970f4	User	

**Description**

Optional

[Review + assign](#)

[Previous](#)

[Next](#)

### ✓ Added Role assignment

Aldrin Figeredo(Guest) now has Active Timebound assignment for Storage Blob Data Contributor role on storageaccountmodule3.



## Storage accounts

Default Directory (aldrinfigeredo1508gmail.onmicr...

[+ Create](#) [Restore](#) ...

Filter for any field...

Name ↑↓


 secondstorageaccount2sep	...
 storageaccountmodule3	...

## storageaccountmodule3

Storage account

▼ Security + networking

 Shared access signature

 Upload

^ Essential:

Resource gr

Location

Subscriber

Subscriber

Home > Storage accounts > storageaccountmodule3

## Storage accounts

Default Directory |aldrinfigerado150@gmail.onmicr...

+ Create ↻ Restore ...

Filter for any field...

Name ↑

- secondstorageaccount2sep ...
- storageaccountmodule3 ...

storageaccountmodule3 | Shared access signature ☆ ...

Storage account

sas Give feedback

Security + networking

Shared access signature

A shared access signature (SAS) is a URI that grants restricted access rights to Azure Storage resources. You can provide a shared access signature to clients who should not be trusted with your storage account key but whom you wish to delegate access to certain storage account resources. By distributing a shared access signature URI to these clients, you grant them access to a resource for a specified period of time.

An account-level SAS can delegate access to multiple storage services (i.e. blob, file, queue, table). Note that stored access policies are currently not supported for an account-level SAS.

[Learn more about creating an account SAS](#)

Allowed services ☐

☒ Blob ☐ File ☐ Queue ☐ Table

Allowed resource types ☐

☒ Service ☒ Container ☒ Object

Allowed permissions ☐

☒ Read ☒ Write ☒ Delete ☒ List ☒ Add ☒ Create ☐ Update ☐ Process ☒ Immutable storage ☒ Permanent delete

Blob versioning permissions ☐

☒ Enables deletion of versions

Allowed blob index permissions ☐

☒ Read/Write ☒ Filter

Start and expiry date/time ☐

Start

End

(UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi

Microsoft Azure Upgrade

Search resources, services, and docs (G+)

Copilot

aldrinfigerado150@gmail...  
DEFAULT DIRECTORY |aldrinfigerado150@gmail.onmicr...

Home > Storage accounts > storageaccountmodule3

## Storage accounts

Default Directory |aldrinfigerado150@gmail.onmicr...

+ Create ↻ Restore ...

Filter for any field...

Name ↑

- secondstorageaccount2sep ...
- storageaccountmodule3 ...

storageaccountmodule3 | Shared access signature ☆ ...

Storage account

sas Give feedback

Security + networking

Shared access signature

Start

End

(UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi

Allowed IP addresses ☐

For example, 168.1.5.65 or 168.1.5.65-168.1.5.70

Allowed protocols ☐

☒ HTTPS only ☐ HTTPS and HTTP

Preferred routing tier ☐

☒ Basic (default) ☐ Microsoft network routing ☐ Internet routing

Some routing options are disabled because the endpoints are not published.

Signing key ☐

key1

Generate SAS and connection string

Connection string

BlobEndpoint=https://storageaccountmodule3.blob.core.windows.net/QueueEndpoint=https://storageaccountmodule3.queue.core.windows.net/FileEndpoint=https://storageacc...

SAS token ☐

sv=2022-11-02&ss=b&srt=sco&sp=rwdlacietyfx&se=2024-09-04T16:40:15Z&st=2024-09-04T16:29:15Z&spr=https&sig=jLIdqgoD8LYuU7jPZKfjK81IW7D1Ect2mEVvYh75g%3D

Blob service SAS URL

https://storageaccountmodule3.blob.core.windows.net/?sv=2022-11-02&ss=b&srt=sco&sp=rwdlacietyfx&se=2024-09-04T16:40:15Z&st=2024-09-04T16:29:15Z&spr=https&sig=j...

### Blob service SAS URL

https://storageaccountmodule3.blob.core.windows.net/?sv=2022-11-02&ss=b&srt=sco&sp=rwdlacietyfx&se=2024-09-04T16:40:15Z&st=2024-09-04T16:29:15Z&spr=https&sig=

Untitled - Notepad

File Edit Format View Help

"https://storageaccountmodule3.blob.core.windows.net/?sv=2022-11-02&ss=b&srt=sco&sp=rwdlacietyfx&se=2024-09-04T16:40:15Z&st=2024-09-04T16:29:15Z&spr=https&sig=jLIdqgoD8LYuU7jPZKfjK81IW7D1Ect2mEVvYh75g%3D"

Home > Storage accounts > secondstorageaccount2sep

## Storage accounts

Default Directory (admin@firedo1508@gmail.onmic...

+ Create Restore ...

Filter for any field...

Name ↑

- secondstorageaccount2sep
- storageaccountmodule3

secondstorageaccount2sep | Shared access signature ☆ ...

Storage account

sas Give feedback.

A shared access signature (SAS) is a URI that grants restricted access rights to Azure Storage resources. You can provide a shared access signature to clients who should not be trusted with your storage account key but whom you wish to delegate access to certain storage account resources. By distributing a shared access signature URI to these clients, you grant them access to a resource for a specified period of time.

An account-level SAS can delegate access to multiple storage services (i.e. blob, file, queue, table). Note that stored access policies are currently not supported for an account-level SAS.

Learn more about creating an account SAS

Allowed services ☐ ☒ Blob ☐ File ☐ Queue ☐ Table

Allowed resource types ☐ ☒ Service ☒ Container ☒ Object

Allowed permissions ☐ ☒ Read ☒ Write ☒ Delete ☒ List ☒ Add ☒ Create ☐ Update ☐ Process ☒ Immutability storage ☒ Permanent delete

Blob versioning permissions ☐ ☒ Enables deletion of versions

Allowed blob index permissions ☐ ☒ Read/Write ☒ Filter

Start and expiry date/time ☐    
   
(UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi

Microsoft Azure Upgrade Search resources, services, and docs (G+)

Home > Storage accounts > secondstorageaccount2sep

## Storage accounts

Default Directory (admin@firedo1508@gmail.onmic...

+ Create Restore ...

Filter for any field...

Name ↑

- secondstorageaccount2sep
- storageaccountmodule3

secondstorageaccount2sep | Shared access signature ☆ ...

Storage account

sas Give feedback.

Start    
End    
(UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi

Allowed IP addresses ☐

Allowed protocols ☒ HTTPS only ☐ HTTPS and HTTP

Preferred routing tier ☒ Basic (default) ☐ Microsoft network routing ☐ Internet routing  
Some routing options are disabled because the endpoints are not published.

Signing key

[Generate SAS and connection string](#)

Connection string

SAS token

Blob service SAS URL

Blob service SAS URL

https://secondstorageaccount2sep.blob.core.windows.net/?sv=2022-11-02&ss=b&srt=sco&sp=rwdlacytfx&se=2024-09-04T16:40:46Z&st=2024-09-04T16

\*Untitled - Notepad

File Edit Format View Help

"https://storageaccountmodule3.blob.core.windows.net/?sv=2022-11-02&ss=b&srt=sco&sp=rwdlacytfx&se=2024-09-04T16:40:15Z&st=2024-09-04T16:29:15Z&spr=https&sig=jLIIdqgoD8LYuU7jPZKfjFk81IW7D3J1Ect2mEVywh75g%3D"

"https://secondstorageaccount2sep.blob.core.windows.net/?sv=2022-11-02&ss=b&srt=sco&sp=rwdlacytfx&se=2024-09-04T16:40:46Z&st=2024-09-04T16:33:46Z&spr=https&sig=%2FbH5WT8HRfqNMTNpGgN3a1pISLrTVCJ78vLr70gZno%3D"



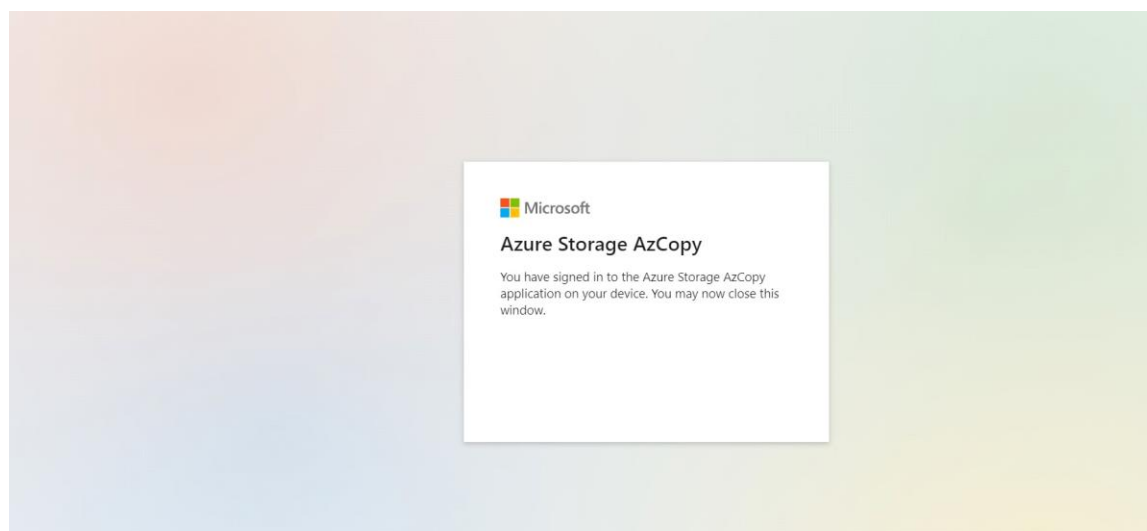
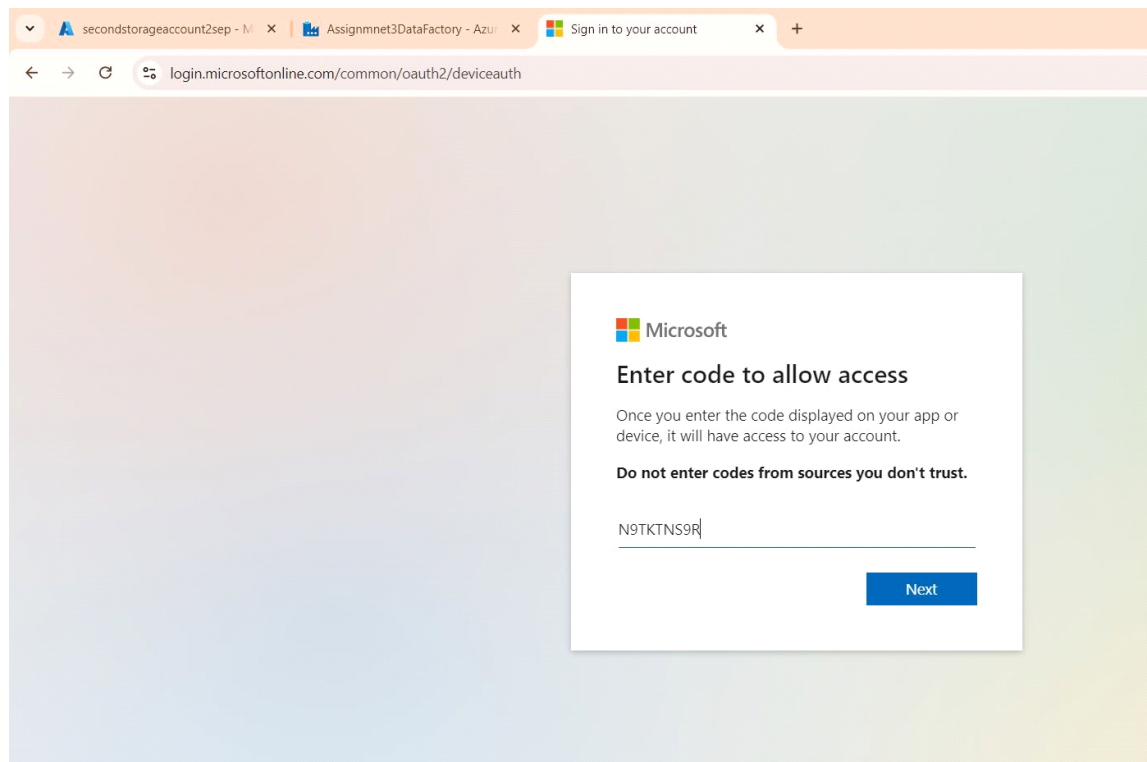
```
Command Prompt - azcopy login --tenant-id b45d49ef-2a94-45e8-a05e-9325b2b218d9
```

```
Microsoft Windows [Version 10.0.19045.4780]
```

```
(c) Microsoft Corporation. All rights reserved.
```

```
C:\Users\Suttu>cd C:\Users\Suttu\Downloads\azcopy_windows_amd64_10.26.0\azcopy_windows_amd64_10.26.0
```

```
C:\Users\Suttu\Downloads\azcopy_windows_amd64_10.26.0\azcopy_windows_amd64_10.26.0>azcopy login --tenant-id b45d49ef-2a94-45e8-a05e-9325b2b218d9  
To sign in, use a web browser to open the page https://microsoft.com/devicelogin and enter the code N9TKTNS9R to authenticate.
```



```
C:\Users\Suttu\Downloads\azcopy_windows_amd64_10.26.0\azcopy_windows_amd64_10.26.0>
C:\Users\Suttu\Downloads\azcopy_windows_amd64_10.26.0\azcopy_windows_amd64_10.26.0>azcopy login --tenant-id b45d49ef-2a94-45e8-a05e-9325b2b218d9
To sign in, use a web browser to open the page https://microsoft.com/devicelogin and enter the code SE82B5394 to authenticate.

INFO: Login succeeded.

C:\Users\Suttu\Downloads\azcopy_windows_amd64_10.26.0\azcopy_windows_amd64_10.26.0>https://microsoft.com/devicelogin
```

"https://storageaccountmodule3.blob.core.windows.net/?sv=2022-11-02&ss=b&srt=sco&sp=rwdlaciutfx&se=2024-09-04T16:40:15Z&st=2024-09-04T16:29:15Z&spr=https&sig=jLIdqgoD8LYuU7jPKfjFk81IW7JlEct2mEVwyh75g%3D" | "https://secondstorageaccount2sep.blob.core.windows.net/?sv=2022-11-02&ss=b&srt=sco&sp=rwdlaciutfx&se=2024-09-04T16:40:46Z&st=2024-09-04T16:33:46Z&spr=https&sig=%2FbH5WT8HRfqNMTNpGgN3a1p15JLrTvCj78vLr70gZno%3D"

```
C:\Users\Suttu\Downloads\azcopy_windows_amd64_10.26.0\azcopy_windows_amd64_10.26.0>azcopy copy "https://secondstorageaccount2sep.blob.core.windows.net/?sv=2022-11-02&ss=b&srt=sco&sp=rwdlaciutfx&se=2024-09-04T17:30:10Z&st=2024-09-04T16:47:10Z&spr=https&sig=BLX2Fh6FYov3NgQ0t0X28IVhhaBo6p1YUo3asF72p2IX3D" "https://storageaccountmodule3.blob.core.windows.net/?sv=2022-11-02&ss=b&srt=sco&sp=rwdlaciutfx&se=2024-09-04T17:30:17Z&st=2024-09-04T16:48:17Z&spr=https&sig=CuH9Hnd0o3CQvxiwazZuI373Gk50Q5g%289N00JcinJ%3D" --recursive
INFO: Scanning...
INFO: Any empty folders will not be processed, because source and/or destination doesn't have full folder support

Job 8d5c2e20-d20c-b644-7ed0-05af01779703 has started
Log file is located at: C:\Users\Suttu\azcopy\8d5c2e20-d20c-b644-7ed0-05af01779703.log

100.0 %, 1 Done, 0 Failed, 0 Pending, 0 Skipped, 1 Total, 2-sec Throughput (Mb/s): 0.006

Job 8d5c2e20-d20c-b644-7ed0-05af01779703 summary
Elapsed Time (Minutes): 0.0336
Number of File Transfers: 1
Number of Folder Property Transfers: 0
Number of Symlink Transfers: 0
Total Number of Transfers: 1
Number of File Transfers Completed: 1
Number of Folder Transfers Completed: 0
Number of File Transfers Failed: 0
Number of Folder Transfers Failed: 0
Number of File Transfers Skipped: 0
Number of Folder Transfers Skipped: 0
Total Number of Bytes Transferred: 1501
Final Job Status: Completed

C:\Users\Suttu\Downloads\azcopy_windows_amd64_10.26.0\azcopy_windows_amd64_10.26.0>
```

Microsoft Azure

Upgrade

Search resources, services, and docs (G+)

Copilot

admin@gerardo1508@eg...  
Admin | Microsoft Azure

Home > Storage accounts > storageaccountmodule3

Storage accounts

Default Directory (admin@gerardo1508@gmail.com)...

+ Create + Restore ...

Filter for any field...

Name ↑

secondstorageaccount2sep ...

storageaccountmodule3 ...

storageaccountmodule3 | Containers

Storage account

+ Container + Change access level + Restore containers + Refresh + Delete + Give feedback

Search containers by prefix

Show deleted containers

Name	Last modified	Anonymous access level	Lease state
<input type="checkbox"/> slogs	9/4/2024, 7:41:42 PM	Private	Available ...
<input type="checkbox"/> assignment2blob	9/4/2024, 8:30:35 PM	Private	Available ...
<input type="checkbox"/> destination	9/4/2024, 10:21:43 PM	Private	Available ...
<input type="checkbox"/> hello	9/4/2024, 7:55:28 PM	Private	Available ...
<input type="checkbox"/> source	9/4/2024, 9:01:39 PM	Container	Available ...

Home > Storage accounts > storageaccountmodule3 | Containers

destination

Container

Search

+ Upload + Change access level + Refresh + Delete + Change tier + Acquire lease + Break lease + View snapshots + Create snapshot + Give feedback

Overview

Diagnose and solve problems

Access Control (IAM)

Settings

Authentication method: Access key (Switch to Microsoft Entra user account)

Location: destination

Search blobs by prefix (case-sensitive)

Show deleted blobs

+ Add filter

Name	Modified	Access tier	Archive status	Blob type	Size	Lease state
<input type="checkbox"/> hashtags.txt	9/4/2024, 10:21:44 PM	Hot		Block blob	147 KB	Available ...



