

# Azure Storage

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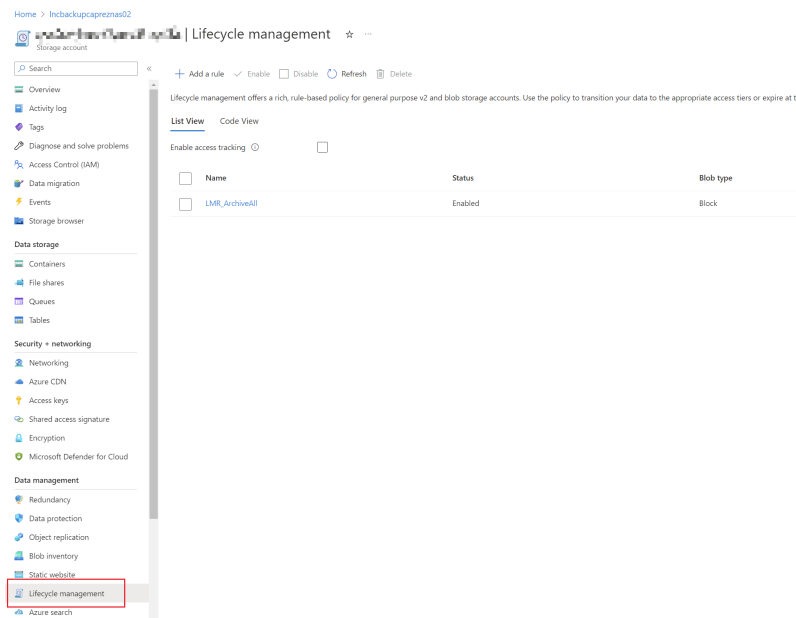
# Save money with lifecycle policies

## General information

Data sets have unique lifecycles. Early in the lifecycle, people access some data often. But the need for access often drops drastically as the data ages. Some data remains idle in the cloud and is rarely accessed once stored. Some data sets expire days or months after creation, while other data sets are actively read and modified throughout their lifetimes. Azure Storage lifecycle management offers a rule-based policy that you can use to transition blob data to the appropriate access tiers or to expire data at the end of the data lifecycle.

## Create lifecycle policy

### 1. Open storage account



### 2. Create rule and give name to the policy and set the scope and blob type / subtype.

1 Details 2 Base blobs

A rule is made up of one or more conditions and actions that apply to the entire storage account. Optionally, specify that rules will apply to particular blobs by limiting with filters.

Rule name \*

Rule scope \*

☒ Apply rule to all blobs in your storage account

☐ Limit blobs with filters

Blob type \*

☒ Block blobs

☐ Append blobs

Blob subtype \*

☒ Base blobs

☐ Snapshots

☐ Versions

### 3. The last step is to create conditions and apply actions on the blob.

✓ Details 2 Base blobs

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 were \*

☒ Last modified

☐ Created

More than (days ago) \*

↓

Then

Delete the blob

↓

+ Add conditions

# List table content with PowerShell via OAuth 2.0 authentication

Requirements: Permissions to create an App Registration and PowerShell Modules "AzTable" & "Az.Storage".

This tutorial describes how to use content from an Azure Storage Table in a PowerShell script. The authentication against the Azure Storage API is unattended and credentials are handled with an App Registration.

## Create App Registration

Create a new App Registration and get the three variables as described in this guide: [Get app details and gr...](#) | LNC DOCS ([lucanoahcaprez.ch](#))


## Add API permission

The only required permission for this App Registration is "user\_impersonation". This permission can be found under the Azure Service Management API.

## Request API permissions



< All APIs

 Azure Service Management  
<https://management.azure.com/> [Docs](#) 

What type of permissions does your application require?

### Delegated permissions

Your application needs to access the API as the signed-in user.



### Application permissions

Your application runs as a background service or daemon without a signed-in user.

Select permissions

[expand all](#)

 Start typing a permission to filter these results

 The "Admin consent required" column shows the default value for an organization. However, user consent can be customized per permission, user, or app. This column may not reflect the value in your organization, or in organizations where this app will be used. [Learn more](#) 

Permission	Admin consent required
▼ Permissions (1)	
<input checked="" type="checkbox"/> user_impersonation ⓘ Access Azure Service Management as organization users	No

# Grant permissions to Azure Storage Account

After you got all variables (Tenant ID, Client ID & Client Secret) you can add the permissions for Azure RBAC to the created App Registration. You need to go to the corresponding storage account within the azure portal. There you have to add the "Storage Account Contributor" role under "Access Control IAM":

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

**Selected role** Storage Account Contributor

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

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

Name	Object ID	Type	
AAP-FUNC-ALL-PERMISSION-GetStorag...	0f9b3930-fda9-48e1-b2d9-a2d511fd6487	App	
<b>Description</b> <input type="text" value="Optional"/>			

Unfortunately, the "Storage Account Contributor" role is mandatory and restricting to a Storage Table Reader for example is not possible, otherwise the data cannot be read.

## PowerShell Code

The following code can be used to read the data from the storage table specified. Here it is important that the variables are filled in correctly and that the PowerShell modules are accessible.

```
$TenantID = "<tenantid>"
$ClientId = "<cliendid>"
$ClientSecret = "<clientsecret>"

$SubscriptionId = "<subscriptionid>"
$resourceGroupName = "<resourceGroupName>"
$storageAccName = "<storageaccountname>"
$tableName = "<tablename>"

Import-Module -Name Az.Storage
Import-Module -Name AzTable

$Password = ConvertTo-SecureString -AsPlainText $ClientSecret -Force
$Credential = New-Object System.Management.Automation.PSCredential ($ClientId, $Password)
$ctx = Connect-AzAccount -ServicePrincipal -Credential $Credential -Tenant $TenantId -Subscription
$SubscriptionId
$ctx=(Get-AzStorageAccount -ResourceGroupName $resourceGroupName -Name $storageAccName).Context

$cloudTable = (Get-AzStorageTable -Name $tableName -Context $ctx.context).CloudTable
$TableContent = Get-AzTableRow -table $cloudTable
```

# Write table content with PowerShell via OAuth 2.0 authentication

This tutorial describes how to add new content to an Azure Storage Table with a PowerShell script. The authentication against the Azure Storage API is unattended and credentials are handled with an App Registration.

## Preparations

To gain access to the storage table you need to initialize an App Registration and add permission & a client secret. Then you have to add the Azure RBAC role to the storage account. Everything is documented here in detail: [List table content wit... | LNC DOCS \(lucanoahcaprez.ch\)](#)

## PowerShell Code

The following code can be used to write data to the storage table specified. Here it is important that the variables are filled in correctly and that the PowerShell modules are accessible.

```
$TenantID = "<tenantid>"
$ClientId = "<cliendid>"
$ClientSecret = "<clientsecret>"

$SubscriptionId = "<subscriptionid>"
$resourceGroupName = "<resourceGroupName>"
$storageAccName = "<storageaccountname>"
$tableName = "<tablename>"

Import-Module -Name Az.Storage
Import-Module -Name AzTable
```

```
$Password = ConvertTo-SecureString -AsPlainText $ClientSecret -Force
$Credential = New-Object System.Management.Automation.PSCredential ($ClientId, $Password)
$ctx = Connect-AzAccount -ServicePrincipal -Credential $Credential -Tenant $TenantId -Subscription
$SubscriptionId

$ctx = (Get-AzStorageAccount -ResourceGroupName $resourceGroupName -Name $storageAccName).Context

$cloudTable = (Get-AzStorageTable -Name $tableName -Context $ctx.context).CloudTable

Add-AzTableRow -partitionKey "dn" -Rowkey "$DomainName" -table $cloudTable -property @{ "<property1>" =
"value1"; "<property2>" = "value2"; "<property3>" = "value3"; } | Out-Null
```