



## Databricks-Azure Blob Storage Mounting



There are couple of ways to do this, I am going to use OAuth 2.0 with an Azure service principal

## Step 1



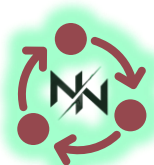
Azure  
Active Directory

Add New App Registration in Azure Active Directory  
Giving the Full permissions to the New App for Blob Storage

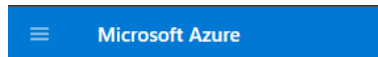
## Step 2



Storing Credentials using Databricks Secrets  
Mounting Blob Storage using Databricks Secrets



# Step1 – need client id, tenant id



Home > Default Directory >

**Default Directory** | A|  
Azure Active Directory

Overview

Preview features

Diagnose and solve problems

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Roles and administrators

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Devices

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+ New registration

Home > Default Directory >

**NN\_DataBricks**

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Overview

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Branding

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Home > Default Directory >

## Register an application

\* Name

The user-facing display name for this application (this can be changed later).

NN\_DataBricks

Register an app you're working on here. Integrat

By proceeding, you agree to the Microsoft Platfc

Register

Delete Endpoints Preview features

Got a second? We would love your feedback on Microsoft identity platform (previously

Essentials

Display name : NN\_DataBricks

Application (client) ID : 2cf594af-acaf-4c64-b614-cd72fb57749d

Object ID : 49bcb13d-bc7f-4be9-a904-99e8d3c01e70


Directory (tenant) ID : 7c15d04a-8442-41d2-a867-3c052719a548

Supported account types : My organization only



# Step1 – need secret

Home > Default Directory >

 NN\_DataBricks ✨ ...

Search (Ctrl+/) <<

- Overview
- Quickstart
- Integration assistant

## Manage

- Branding
- Authentication
- Certificates & secrets
- Token configuration

### Client secrets

A secret string that the application use

+ New client secret



### Add a client secret

Description

NN

Expires

Recommended: 6 months

NN	4/2/2022	a8v7Q~klv4kwdRO2gTTeGXPUQjTPHGnx...	8c2d69dd-5029-42bf-80d0-0d9b0f891255		
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Copy and store this secret immediately



## Step 2– Storing those Secret in Databricks using Databricks Secrets utils



The image shows a sequence of three screenshots from the Microsoft Azure Databricks interface, illustrating how to generate a new access token.

**First Screenshot:** The Databricks sidebar is visible. The 'Settings' option is highlighted in the bottom navigation bar. A red arrow points from the 'Settings' option to the 'User Settings' panel in the second screenshot.

**Second Screenshot:** The 'User Settings' panel is open, with the 'Access Tokens' tab selected. The 'Generate New Token' button is highlighted. A red arrow points from this button to the 'Generate New Token' dialog box in the third screenshot.

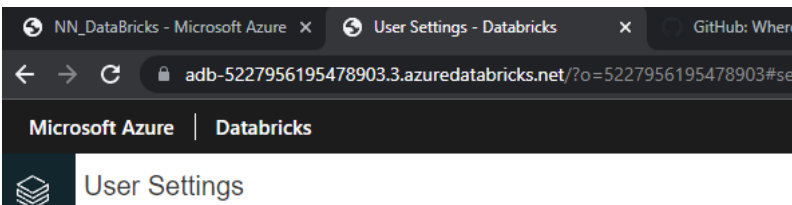
**Third Screenshot:** The 'Generate New Token' dialog box is shown. It contains a 'Comment' field, a 'Lifetime (days)' dropdown set to '90', and 'Cancel' and 'Generate' buttons. A red arrow points from the 'Generate' button to the final success dialog box.

**Fourth Screenshot:** A confirmation dialog box titled 'Generate New Token' displays the message 'Your token has been created successfully.' Below this, the generated token is shown in a text box: `dapi85be42b6f2c6c3defc57beb62e357371`. A warning message states: '⚠ Make sure to copy the token now. You won't be able to see it again.' A 'Done' button is at the bottom right.



# Step 2– Create scope and key

```
C:\Users\navat>databricks configure --token
Databricks Host (should begin with https://):
```



```
C:\Users\navat>databricks configure --token
Databricks Host (should begin with https://): https://adb-5227956195478903.3.azuredatabricks.net
Token:
C:\Users\navat>_
```

```
C:\Users\navat>databricks clusters list
0919-165300-sing913  NN  TERMINATED
C:\Users\navat>
```

```
C:\Users\navat>databricks secrets create-scope --scope azblobstorage
C:\Users\navat>databricks secrets put --scope azblobstorage --key accesskey
```

\*editor-8rf4s9ln - Notepad

File Edit Format View Help

ToS7Q~jHJrVJ4rhncZNoMrulNBewiQPp1DW1|

# -----

```
C:\Users\navat>databricks secrets list-scopes
Scope      Backend      KeyVault URL
-----
azblobstorage  DATABRICKS  N/A
C:\Users\navat>_
```





# Step 2– mounting azure blob in Databricks

## Azblob-mounting (Scala)

Cmd 1

```
1 val configs = Map(  
2   "fs.azure.account.auth.type" -> "OAuth",  
3   "fs.azure.account.oauth.provider.type" -> "org.apache.hadoop.fs.azurebfs.oauth2.ClientCredsTokenProvider",  
4   "fs.azure.account.oauth2.client.id" -> "2cf594af-acaf-4c64-b614-cd72fb57749d",  
5   "fs.azure.account.oauth2.client.secret" -> dbutils.secrets.get(scope="azblobstorage", key="accesskey"),  
6   "fs.azure.account.oauth2.client.endpoint" -> "https://login.microsoftonline.com/7c15d04a-8442-41d2-a867-3c052719a548/oauth2/token")  
  
configs: scala.collection.immutable.Map[String,String] = Map(fs.azure.account.oauth2.client.secret -> [REDACTED], fs.azure.account.auth.type -> OAuth, fs.azure.account.oauth2.client.id -> 2cf594af-acaf-4c64-b614-cd72fb57749d, fs.azure.account.oauth2.client.endpoint -> https://login.microsoftonline.com/7c15d04a-8442-41d2-a867-3c052719a548/oauth2/token, fs.azure.account.oauth.provider.type -> org.apache.hadoop.fs.azurebfs.oauth2.ClientCredsTokenProvider)  
  
Command took 13.73 seconds -- by naresh_neelam@outlook.com at 10/3/2021, 12:08:17 AM on NN
```

Cmd 2

```
1 dbutils.fs.mount(  
2   source = "abfss://rawsrc@admuser.dfs.core.windows.net/",  
3   mountPoint = "/mnt/azblob/rawsrc",  
4   extraConfigs = configs)  
  
res0: Boolean = true  
  
Command took 31.08 seconds -- by naresh_neelam@outlook.com at 10/3/2021, 12:08:36 AM on NN
```



# Step 2– mounting azure blob in Databricks



Cmd 3

```
1 %fs ls /mnt/azblob/rawsrc/customer_data/
```

	path	name	size
1	dbfs:/mnt/azblob/rawsrc/customer_data/Ajio_Customer_Data_20210112.json	Ajio_Customer_Data_20210112.json	3953
2	dbfs:/mnt/azblob/rawsrc/customer_data/Amazon_Customer_Data_20210111.csv	Amazon_Customer_Data_20210111.csv	712
3	dbfs:/mnt/azblob/rawsrc/customer_data/Amazon_Customer_Data_20210112.csv	Amazon_Customer_Data_20210112.csv	1034
4	dbfs:/mnt/azblob/rawsrc/customer_data/FlipKart_Customer_Data_20210112.xlsx	FlipKart_Customer_Data_20210112.xlsx	10004
5	dbfs:/mnt/azblob/rawsrc/customer_data/Myntra_Customers_Data_20210112.dat	Myntra_Customers_Data_20210112.dat	2072
6	dbfs:/mnt/azblob/rawsrc/customer_data/Snap_Customer_Data_20210112.xml	Snap_Customer_Data_20210112.xml	4357

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

Location: rawsrc / customer\_data

Search blobs by prefix (case-sensitive)

Name	Modified
<input type="checkbox"/> [.]	
<input type="checkbox"/> Ajio_Customer_Data_20210112.json	10/2/2021, 10:03:18 PM
<input type="checkbox"/> Amazon_Customer_Data_20210111.csv	10/2/2021, 10:03:18 PM
<input type="checkbox"/> Amazon_Customer_Data_20210112.csv	10/2/2021, 10:03:18 PM
<input type="checkbox"/> FlipKart_Customer_Data_20210112.xlsx	10/2/2021, 10:03:18 PM
<input type="checkbox"/> Myntra_Customers_Data_20210112.dat	10/2/2021, 10:03:18 PM
<input type="checkbox"/> Snap_Customer_Data_20210112.xml	10/2/2021, 10:03:18 PM

