

Create Azure Databricks Workspace

Create Azure Data Lake Gen2

Create Access Connector

Add role Storage Blob Data Contributor

Create Unit Catalog Metastore

Enable Databricks Workspace for Unity Catalog

Prerequisites

1. Create 1). Databricks workspace 2). ADLS Gen2 3). Access Connector for Azure Databricks
2. **Goto ADLS Gen2** (uc-metastore)- IAM - Add New Role Assignment - Search for (Storage Blob Data Contributor) - Next - select member (demo-uc-access-connector)- select

Creating Unity Catalog Metastore

1. Access <https://accounts.azuredatabricks.net/>
2. Click Catalog - Create Metastore
3. Provide Name, Region, ADLS gen2 path, access connector Id.
4. I will assign workspace later so Skip
5. Goto Catalog - Workspaces - assign workspace - select workspace - assigning

Managed tables : Creating catalog (uc_demo_catalog) and schema (uc_demo_schema)

External tables :

1. Create ADLS gen2 - create container (uc-ext-loc) - and upload files
2. Goto ADLS gen2 container (uc-ext-loc) - IAM - Add New Role Assignment - Search for (Storage Blob Data Contributor) - Next - select member (demo-uc-access-connector)- select
3. Goto databricks - Create credentials
- 4.



gpottabadls | Access Control (IAM)

Storage account



Add



Download role assignments



Edit columns



Refresh



Delete



Feedback



Overview



Activity log



Tags



Diagnose and solve problems



Access Control (IAM)



Data migration



Events



Storage browser



Partner solutions

Add role assignment

Check access

Role assignments

Roles

Deny assignments

Classic administrators

Number of role assignments for this subscription ⓘ

2

4000

Privileged ⓘ

1

[View assignments](#)

All

Job function (0)

Privileged (1)



Type : All

Role : All

Scope

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



Type : All

Category : All

Name ↑↓	Description ↑↓
Defender CSPM Storage Data Scanner	Grants access to read blobs and files. This role is used by the data scanner of Defender CSPM.
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.
Storage Blob Data Contributor	Allows for read, write and delete access to Azure Storage blob containers and data
Storage Blob Data Owner	Allows for full access to Azure Storage blob containers and data, including assigning POSIX access control.
Storage Blob Data Reader	Allows for read access to Azure Storage blob containers and data
Storage Blob Delegator	Allows for generation of a user delegation key which can be used to sign SAS tokens

Showing 1 - 6 of 6 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 managed identities

 Some results might be hidden due to your ABAC condition.

Subscription *

Pay-As-You-Go

Managed identity

Access Connector for Azure Databricks (2)

Select ⓘ

Search by name



unity-catalog-access-connector
/subscriptions/fbccdff5-5848-4765-8dc3-92b5207d0551/resourceGroups/...

Selected members:










demo-uc-access-connector
/subscriptions/fbccdff5-5848-4765-8dc3-92b5207d0551/resourceGroups/...

Select

Close

5

-  Workspaces
-  Catalog
-  Usage
-  User management
-  Cloud resources
-  Previews
-  Settings

Account console

Manage your Databricks account at scale



Workspaces

Configure workspace settings. Workspaces contain notebooks, libraries, queries, and workflows



Catalog

Manage metastores as your top-level container for catalogs, schemas (also called databases), views and tables



Usage

View usage details and graphs for your account in Databricks Units (DBU) or estimated costs (in \$USD)



Users & groups

Manage identities for use with jobs, automated tools and systems



Cloud resources

Manage network connectivity configurations for your



Settings

Configure your Databricks account user provisioning and

Creating Metastore

Workspaces

Catalog

Usage

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Previews

Settings

Catalog

Metastores

A metastore is the top-level container for catalog in Unity Catalog. Within a metastore, Unity Catalog provides a 3-level namespace for organizing data: catalogs, schemas (also called databases), and tables / views. [Learn more](#)

Create metastore

Name	Region	Path	Created at	Updated at

Get the Access connector Id from azure access connector - demo-uc-access-connector properties- id

Workspaces

Catalog

Usage

User management

Cloud resources

Previews

Settings

* Name

demo-uc-metastore

* Region

centralindia

Select the region for your metastore. You will only be able to assign workspaces in this region to this metastore.

ADLS Gen 2 path (optional)

uc-metastore@gpottabadls.dfs.core.windows.net/

Optional location for storing managed tables data across all catalogs in the metastore. Once configured this path can't be removed. [Learn more](#)

Access Connector Id

ceGroups/gpottab-rg/providers/Microsoft.Databricks/accessConnectors/demo-uc-access-connector

Advanced options


Access Connector f...

Default Directory

[+ Create](#) [Manage view](#) [...](#)

Filter for any field...

Name [↑↓](#)

 demo-uc-access-connector ...

 unity-catalog-access-connector ...



demo-uc-access-connector | Properties

Access Connector for Azure Databricks



[Search](#)

[Refresh](#)

[Overview](#)

[Activity log](#)

[Access control \(IAM\)](#)

[Tags](#)

[Settings](#)

[Properties](#)

[Locks](#)

[Identity](#)

[Automation](#)

Essentials

Id ⓘ	/subscriptions/fbccdff5-5848-4765-8dc3-92b520...	Copy to clipboard
Name ⓘ	demo-uc-access-connector	
Type ⓘ	Microsoft.Databricks/accessConnectors	
Tags ⓘ	View value as JSON	
Location ⓘ	centralindia	
Identity ⓘ	View value as JSON	
System data ⓘ	View value as JSON	

Create metastore

1 Create metastore — 2 Assign to workspaces

Assign demo-uc-metastore to workspaces

Filter workspaces



Name	Status	Pricing tier	Resource group	Region
gpottab-db-ws	Running	Premium	gpottab-rg	central

☐ Automatically assign new workspaces in centralindia to this metastore ⓘ

Select at least one workspace to proceed

Assign

Skip

Workspaces

Catalog

Usage

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Cloud resources

Previews

Settings

Catalog > demo-uc-metastore >

demo-uc-metastore

ConfigurationWorkspaces

Filter workspaces

Assign to workspace

Name	Resource group	Region	Subscription	Created

Account

Workspaces

Catalog

Usage

User management

Cloud resources

Previews

Settings

Catalog > demo-uc-metastore >

Assign demo-uc-metastore to workspaces

Filter workspaces

<input checked="" type="checkbox"/> Name	Status	Pricing tier	Resource group	Region	Created	Metastore
<input checked="" type="checkbox"/> gpottab-db-ws	Running	Premium	gpottab-rg	centralindia	today at 4:47 PM	-

☐ Automatically assign new workspaces in centralindia to this metastore ⓘ

1 workspace selected

AssignCancel

New

Workspace

Recents

Catalog

Workflows

Compute

SQL

SQL Editor

Queries

Dashboards

Genie

Alerts

Query History

SQL Warehouses

Data Engineering

Catalog

● uc cluster 14 GB, 4 Cores

Type to search...

▼ My organization

system

main

▼ Shared

samples

▼ Legacy

hive_metastore

Delta Sharing >

Clean Rooms >

External Data >

Add data ▼

Send

Quick access

Recents

Favorites

Catalogs

Create catalog

Filter

Name	Owner	Created at
<div><div></div>hive_metastore</div>		
<div><div></div>main</div>	gangadhar86050_outlo...	2024-12-12 17:34:
<div><div></div>samples</div>	System user	2024-12-12 17:34:
<div><div></div>system</div>	System user	2024-12-12 17:34:

+ New

Workspace

Recents

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Alerts

Query History

SQL Warehouses

Data Engineering

Job Runs

Catalog

● uc cluster 14 GB, 4 Cor

Type to search...

My organization

> system

> main

Shared

> samples

Legacy

> hive_metastore

Create a new catalog



A catalog is the first layer of Unity Catalog's three-level namespace and is used to organize your data assets. [Learn more](#)

* Catalog name

uc_demo_catalog

* Type

Standard

Storage location

Select external location



sub/path

[Create a new external location](#)

Location in cloud storage where data for managed tables will be stored. If not specified, the location will default to the metastore root location.

Cancel

Create

+ New

Workspace

Recents

Catalog

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Catalog

● uc cluster 14 GB, 4 Cores

Type to search...

My organization

> system

> main

uc_demo_catalog

> default

> information_schema

Shared

> samples

Legacy

> hive_metastore

Create a new schema



A schema is the second layer of Unity Catalog's three-level namespace and organizes tables and views. [Learn more](#)

* Schema name

uc_demo_schema

Storage location

Select external location



sub/path

[Create a new external location](#)

Location in cloud storage where data for managed tables will be stored. If the storage location is not specified, it will default to catalog location first and then metastore root location if catalog location is not specified as well.

Comment

Cancel

Create

Created at

outlook.com#ex... 2024-12-12 17:53:39

2024-12-12 17:53:39

information schema

System user



Microsoft Azure



databricks



Search data, notebooks, recents, and more...

CTRL + P

+ New

Workspace

Recents

Catalog

Workflows

Compute

SQL

SQL Editor

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Alerts

Query History

SQL Warehouses

unity catalog notebook

Python



File Edit View Run Help

Last edit was now

Run all

uc cluster

Just now (4s)

1

SQL

%sql

select * from uc_demo_catalog.uc_demo_schema.circuits limit 11

(1) Spark Jobs

_sqldf: pyspark.sql.dataframe.DataFrame = [circuitId: long, circuitRef: string ... 7 more fields]

Table

	circuitId	circuitRef	name	location	country	lat	lng
1	1	albert_park	Albert Park Grand Prix Circuit	Melbourne	Australia	-37.8497	144.9
2	2	sepang	Sepang International Circuit	Kuala Lumpur	Malaysia	2.76083	101.7
3	3	bahrain	Bahrain International Circuit	Sakhir	Bahrain	26.0325	50.51
4	4	catalunya	Circuit de Barcelona-Catalunya	Montmeló	Spain	41.57	2.261
5	5	istanbul	Istanbul Park	Istanbul	Turkey	40.9517	29.4

+ New

Workspace

Recents

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Dashboards

Catalog Explorer >

External Data

External Locations ⓘ

Credentials ⓘ

Connections ⓘ

Filter credentials

1 credential

Create credential

Name	Purpose	Credential Type	Properties	Owner	Comment
<div>Om</div> 4e399b05-b5af-4baf	STORAGE	Managed Identi...	Connector Id: /subscriptions/fbccdff5-5848-4765-8dc3-92b! User Assigned Managed Identity Id:	gangadhar86050_outlook.c...	

Create a new storage credential

A storage credential represents an authentication and authorization mechanism for accessing data stored on your cloud tenant. [Learn more](#)

Storage Credential

Service Credential

Preview

* Credential Type

Azure Managed Identity

* Credential name

uc-ext-credentials

* Access connector ID [Learn more](#)

roups/gpottab-rg/providers/Microsoft.Databricks/accessConnectors/demo-uc-access-connecto

User assigned managed identity ID (optional)

Cancel

Create

gpottab-db-ws

Create credential

Owner	Comment
gangadhar86050_outlook.c...	
gangadhar86050_outlook.c...	

+ New

Workspace

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Catalog Explorer >

External Data

External Locations ⓘ

Credentials ⓘ

Connections ⓘ

Filter locations

0 locations

Create external loca

Name

Credential

URL

Owner

Comment



New

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External Locations >

Create a new external location

An external location allows you to access your data stored in ADLS. You will need the ADLS path and a paired credential (e.g. managed identity) which gives access to that path [Learn more](#)

* External location name

uc_demo_ext_location

* URL ⓘ

Enter the bucket path that you want to use as the external location. Note: This must be an ADLS Gen2 storage account with a hierarchical namespace

abfss://uc-ext-loc@gpottabadls.dfs.core.windows.net/

Copy from DBFS

* Storage credential [Learn more](#) ⓘ

Provide a storage credential capable of accessing the URL

uc-ext-credential (Managed Identity)

Connector Id: /subscriptions/fbccdff5-5848-4765-8dc3-92b5207d0551/resourceGroups/gpottab-rg/providers/Microsoft...

User Assigned Managed Identity Id:

New

Workspace

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SQL Editor

Queries

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Genie

Alerts

Catalog Explorer > External Locations >

uc_demo_ext_location

⋮

Test connection

Overview

Permissions

Browse

Workspaces

Description

Add description

About this external location

Ownergangadhar pott

Fallback mode:

Credential	uc-ext-credential
URL	abfss://uc-ext-loc@gpottabadls.dfs.core.windows.net/
Limit to read-only use	Disabled

Create External locations

```
%sql  
CREATE EXTERNAL LOCATION databricks_bronze  
URL 'abfss://bronze@gpottabadls.dfs.core.windows.net'  
WITH (STORAGE CREDENTIAL `uc-ext-credential`);
```

Create Catalog

```
%sql  
CREATE CATALOG IF NOT EXISTS demo_dev
```

Use Catalog

```
use catalog demo_dev
```

Create Schema

```
%sql  
create schema if not exists bronze  
managed location 'abfss://bronze@gpottabadls.dfs.core.windows.net/bronze'
```

```
%sql
```

```
drop table if exists demo_dev.bronze.drivers;
```

```
CREATE TABLE IF NOT EXISTS demo_dev.bronze.drivers (
```

```
    driverId INT,
```

```
    driverRef string,
```

```
    number string,
```

```
    code string,
```

```
    name struct<forename:string, surname : string>,
```

```
    dob date,
```

```
    nationality string,
```

```
    url string
```

```
)
```

```
using json
```

```
options (path 'abfss://bronze@gpottabadls.dfs.core.windows.net/drivers.json')
```

