

# Snowflake Demo Azure Integration

Create an Azure account

Create a ADLS Gen2 Storage Account

Microsoft Azure

Upgrade

Search resources, services, and docs (G+)

Copilot

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## Create a storage account ...

**Project details**

Select the subscription in which to create the new storage account. Choose a new or existing resource group to organize and manage your storage account together with other resources.

Subscription \*

Azure subscription 1

Resource group \*

(New) snowflake-rg

Create new

**Instance details**

Storage account name \*

snowflakeaccountazure

Region \*

(US) West US 2

Deploy to an Azure Extended Zone

Preferred storage type

Azure Blob Storage or Azure Data Lake Storage Gen 2

This helps us provide relevant guidance. It doesn't restrict your storage to this resource type. [Learn more](#)

Primary workload

Big Data Analytics

Best for hosting a data lake for big data analytics

Pick the closest match to your workload to get a recommended configuration built on best practices. You can edit this configuration anytime. [See comparison table](#)

Performance \*

☒ Standard: Recommended for most scenarios (general-purpose v2 account)

☐ Premium: Recommended for scenarios that require low latency.

Standard performance is recommended for the Big Data Analytics workload.

Redundancy \*

Zone-redundant storage (ZRS)

ZRS is recommended for the Big Data Analytics workload.

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Basics

Subscription

Azure subscription 1

Resource group

snowflake-rg

Location

West US 2

Storage account name

snowflakeaccountazure

Preferred storage type

Azure Blob Storage or Azure Data Lake Storage Gen 2

Primary workload

Big Data Analytics

Performance

Standard

Replication

Zone-redundant storage (ZRS)

Advanced

Enable hierarchical namespace

Enabled

Enable SFTP

Disabled

Enable network file system v3

Disabled

Allow cross-tenant replication

Disabled

Access tier

Hot

Enable large file shares

Enabled

Security

Secure transfer

Enabled

Blob anonymous access

Disabled

Allow storage account key access

Enabled

Default to Microsoft Entra authorization in the Azure portal

Disabled

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snowflakeaccountazure\_1765161830013 | Overview

Deployment

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Redeploy

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Refresh

Overview

Inputs

Outputs

Template

Deployment is in progress

Deployment name: snowflakeaccountazure

Subscription: Azure subscription 1

Resource group: snowflake-rg

Start time: 12/7/2025, 6:45:11 PM

Correlation ID:

Deployment details

Resource	Type	Status
No results.		

Give feedback

Tell us about your experience with deployment

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snowflakeaccountazure\_1765161830013 | Overview

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Overview

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Template

✓ Your deployment is complete

Deployment name: snowflakeaccountazure\_1765161830013  
Subscription: Azure subscription 1  
Resource group: snowflake-rg

Start time: 12/7/2025, 6:45:11 PM  
Correlation ID: [REDACTED]

Deployment details

Next steps

Go to resource

Give feedback

Tell us about your experience with deployment

Create an external integration object

Look for tenant and copy tenant id from this.

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Home >

...

Name Default Directory \*

Tenant Country/Region United States

Data location (Primary Copy) United States datacenters

Notification language English

Tenant ID [REDACTED]

Technical contact abhijit@gmail.com

Global privacy contact

Privacy statement URL

Learn more about data location and residency.

Access management for Azure resources

Rakhi Biswas (abhijitsno@gmail.com) can manage access to all Azure subscriptions and management groups in this tenant.  
Learn more

No

Security defaults

Security defaults are basic identity security mechanisms recommended by Microsoft. When enabled, these recommendations will be automatically enforced in your organization. Administrators and users will be better protected from common identity-related attacks.  
Learn more

✓ Your organization is protected by security defaults.

Save Discard

Run Create Snowflake Integration Object for Azure

Load\_S3\_Data

Azure\_Integration

+▼

ACCOUNTADMIN · COMPUTE\_WH (X-Small) Share ▶▼

RETAILDB.PUBLIC Settings

Open in Workspaces 🔍

```
1
2
3 USE DATABASE RETAILDB;
4 -- create integration object that contains the access information
5 CREATE OR REPLACE STORAGE INTEGRATION azure_integration
6 TYPE = EXTERNAL_STAGE
7 STORAGE_PROVIDER = AZURE
8 ENABLED = TRUE
9 AZURE_TENANT_ID = '
10 STORAGE_ALLOWED_LOCATIONS = ('azure://', '.blob.core.windows.net/csv', 'azure://', '.blob.core.windows.net/json');
11
12 -- Describe integration object to provide access
13 DESC STORAGE integration azure_integration;
```

Results Chart 🔍 📄 ⬇️ 📄 ⌚

	property	property_type	property_value	property_default	property_value
1	ENABLED	Boolean	true	false	
2	STORAGE_PROVIDER	String	AZURE		
3	STORAGE_ALLOWED_LOCATIONS	List	azure://.blob.core.windows.	[]	
4	STORAGE_BLOCKED_LOCATIONS	List		[]	
5	USE_PRIVATELINK_ENDPOINT	Boolean	false	false	
6	AZURE_TENANT_ID	String			
7	AZURE_CONSENT_URL	String	https://login.microsoftonline.com/		
8	AZURE_MULTITENANT_APP_NAME	String	5xevojsnowflakep		
9	COMMENT	String			

property\_value  
5xevojsnowflakepacint

Verify the account (use incognito mode browser)

Check the box and save the application name.



abhijitsnowdemo2025@gmail.com

## Permissions requested

**snowflake**

unverified

**This application is not published by Microsoft or your organization.**

This app would like to:

✓ Sign in and read user profile

☒ **Consent on behalf of your organization**

If you accept, this app will get access to the specified resources for all users in your organization. No one else will be prompted to review these permissions.

Accepting these permissions means that you allow this app to use your data as specified in their terms of service and privacy statement. **The publisher has not provided links to their terms for you to review.** You can change these permissions at <https://myapps.microsoft.com>. [Show details](#)

Does this app look suspicious? [Report it here](#)

Cancel

Accept

It will create an entry under Entra-ID - > Enterprise Application - > All Application.

The image shows two screenshots. The top screenshot is of the Microsoft Azure portal, specifically the 'Enterprise applications | All applications' page. It displays a table with one application found, with columns for Name, Object ID, Application ID, Homepage URL, Created on, Certificate Expiry Status, Active Certificate Expiry D..., and Identifier URI (Entity ID). The bottom screenshot is of the Snowflake website, featuring the headline 'ALL YOUR KNOWLEDGE. ONE TRUSTED ENTERPRISE AGENT.' and a search bar with the text 'What|'. The website also includes a navigation bar with links like Product, Solutions, Why Snowflake, Resources, Developers, and Pricing, and a footer with a link to 'READ THE ANNOUNCEMENT BLOG'.

Create role and grant for access

Now we need to go to azure portal -> azure storage account -> IAM -> Add Role Assignment ->

Home > snowflakeaccountazure

snowflakeaccountazure

Access Control (IAM)

☆

...

Search

◦

◀

+ Add

Download role assignments

≡ Edit columns

🔄 Refresh

🗑 Delete

🗨 Feedback

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- Diagnose and solve problems
- Access Control (IAM)
- Data migration
- Events
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- > Settings
- > Monitoring
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- > Automation
- > Help

Check access

Role assignments

Roles

Deny assignments

Classic administrators

My access

View my level of access to this resource.

View my access

Check access

Review the level of access a user, group, service principal, or managed identity has to this resource. [Learn more](#)

Check access

Grant access to this resource

Grant access to resources by assigning a role. [Learn more](#)

Add role assignment

View access to this resource

View the role assignments that grant access to this and other resources. [Learn more](#)

View

View deny assignments

View the role assignments that have been denied access to specific actions at this scope. [Learn more](#)

View

Home > snowflakeaccountazure | Access Control (IAM) >

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](#)

Copilot can help pick a role

Job function roles

Privileged administrator roles

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

blob data container

×

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>
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>

Showing 1 - 3 of 3 results.

Microsoft Azure

Upgrade

Search resources, services, and docs (G+)

Copilot

ibhptnnowedemo2025...  
DEFAULT DIRECTORY (ADMINISTRATOR)

Home > snowflakeaccountazure | Access Control (IAM) >

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

Select members

search snowflake

Application

Selected members:

No members selected. Search for and add one or more members you want to assign to the role for this resource.

[Learn more about RBAC](#)

Microsoft Azure

Upgrade

Search resources, services, and docs (G+)

Copilot

Home > snowflakeaccountazure | Access Control (IAM) >

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
snowflakeaccountazure		App

Description

Optional

Review + assign

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### snowflakeaccountazure | Access Control (IAM)

Storage account

Search

+ Add Download role assignments Edit columns Refresh Delete Feedback

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Check access Role assignments Roles Deny assignments Classic administrators

**My access**  
View my level of access to this resource.  
[View my access](#)

**Check access**  
Review the level of access a user, group, service principal, or managed identity has to this resource. [Learn more](#)

[Check access](#)

**Grant access to this resource**  
Grant access to resources by assigning a role. [Learn more](#)  
[Add role assignment](#)

**View access to this resource**  
View the role assignments that grant access to this and other resources. [Learn more](#)  
[View](#)

**View deny assignments**  
View the role assignments that have been denied access to specific actions at this scope. [Learn more](#)  
[View](#)

Databases Worksheets

ACCOUNTADMIN COMPUTE\_WH (X-Small) Share

MANAGE\_DB.PUBLIC Settings

```
1  
2  
3 ---- Create file format & stage objects ----  
4  
5 -- create file format  
6 create or replace file format MANAGE_DB.public.fileformat_azure  
7   TYPE = CSV  
8   FIELD_DELIMITER = ','  
9   SKIP_HEADER = 1;  
10  
11 -- create stage object  
12 create or replace stage MANAGE_DB.public.stage_azure  
13   STORAGE_INTEGRATION = azure_integration  
14   URL = 'azure://snowflakeaccountazure.blob.core.windows.net/csv'  
15   FILE_FORMAT = fileformat_azure;  
16  
17 -- List files  
18 LIST @MANAGE_DB.public.stage_azure;  
19
```

Results Chart

	name	size	md5	last_modified	Query Details
1	azure://snowflakeaccountazure.blob.core.w	21687		Mon, 8 Dec 2025 02:49:16 GMT	Query duration 1.8s

```
22  
23 ---- Query files & Load data ----  
24  
25 --query files  
26 SELECT  
27 $1,  
28 $2,  
29 $3,  
30 $4,  
31 $5,  
32 $6,  
33 $7,  
34 $8,  
35 $9,  
36 $10,  
37 $11,  
38 $12,  
39 $13,  
40 $14,  
41 $15,  
42 $16,  
43 $17,  
44 $18,  
45 $19,  
46 $20  
47 FROM @MANAGE_DB.public.stage_azure;  
48
```

Results Chart

	\$1	\$2	\$3	\$4	\$5	\$6	\$7	\$8	\$9	\$10	\$11	\$12	\$13	\$14	Query Details
1	Finland	Western Europe	7.842	0.032	7.904	7.780	10.775	0.954	72.000	0.949	-0.098	0.186	2.430	1.446	Query duration 1.7s
2	Denmark	Western Europe	7.620	0.035	7.687	7.552	10.933	0.954	72.700	0.946	0.030	0.179	2.430	1.502	Rows 149
3	Switzerland	Western Europe	7.571	0.036	7.643	7.500	11.117	0.942	74.400	0.919	0.025	0.292	2.430	1.566	Query ID 01c0e827-0107-7898-0...

Load\_S3\_DataAzure\_IntegrationLoad\_ADLS\_Data+▼

ACCOUNTADMINCOMPUTE\_WH (X-Small)Share▶▼

MANAGE\_DB.PUBLIC▼Settings▼

Open in WorkspacesCode Versions

```
50 create or replace table happiness (  
51     country_name varchar,  
52     regional_indicator varchar,  
53     ladder_score number(4,3),  
54     standard_error number(4,3),  
55     upperwhisker number(4,3),  
56     lowerwhisker number(4,3),  
57     logged_gdp number(5,3),  
58     social_support number(4,3),  
59     healthy_life_expectancy number(5,3),  
60     freedom_to_make_life_choices number(4,3),  
61     generosity number(4,3),  
62     perceptions_of_corruption number(4,3),  
63     ladder_score_in_dystopia number(4,3),  
64     explained_by_log_gdp_per_capita number(4,3),  
65     explained_by_social_support number(4,3),  
66     explained_by_healthy_life_expectancy number(4,3),  
67     explained_by_freedom_to_make_life_choices number(4,3),  
68     explained_by_generosity number(4,3),  
69     explained_by_perceptions_of_corruption number(4,3),  
70     dystopia_residual number (4,3));  
71  
72  
73 COPY INTO HAPPINESS  
74 FROM @MANAGE_DB.public.stage_azure;  
75  
76 SELECT * FROM HAPPINESS;  
77  
78
```

ResultsChart

	COUNTRY_NAME	REGIONAL_INDICATOR	LADDER_SCORE	STANDARD_ERROR	UPPERWHISKER	LOWERWHISKER	LOGGED_GDP	SOCIAL_SUPPORT
1	Finland	Western Europe	7.842	0.032	7.904	7.780	10.775	0.954
2	Denmark	Western Europe	7.620	0.035	7.687	7.552	10.933	0.954
3	Switzerland	Western Europe	7.571	0.036	7.643	7.500	11.117	0.942

Query Details

Query duration249ms

Rows149

Query ID01c0e829-0107-782e-0...

2025-12-02 8:16pmS3\_IntegrationLoad\_S3\_DataAzure\_IntegrationLoad\_ADLS\_Data+▼

ACCOUNTADMINCOMPUTE\_WH (X-Small)Share▶▼

DatabasesWorksheets

MANAGE\_DB.PUBLIC▼Settings▼

Open in WorkspacesCode Versions

MANAGE\_DB

EXTERNAL\_STAGES

Stages

CSV\_FOLDER

JSON\_FOLDER

FILE\_FORMATS

File Formats

CSV\_FILEFORMAT

JSON\_FILEFORMAT

INFORMATION\_SCHEMA

PUBLIC

Tables

Stages

File Formats

FILEFORMAT\_AZURE

FILEFORMAT\_AZURE\_JSON

```
148  
149  
150 -- Alternative: Using a raw file table step  
151 truncate table car_owner;  
152 select * from car_owner;  
153  
154 create or replace table car_owner_raw (  
155     raw variant);  
156  
157 COPY INTO car_owner_raw  
158 FROM @MANAGE_DB.public.stage_azure;  
159  
160 SELECT * FROM car_owner_raw;  
161  
162  
163 INSERT INTO car_owner  
164 (SELECT  
165     $1::"Car Model"::STRING as car_model,  
166     $1::"Car Model Year"::INT as car_model_year,  
167     $1::"car make"::STRING as car_make,  
168     $1::"first name"::STRING as first_name,  
169     $1::"last name"::STRING as last_name  
170 FROM car_owner_raw) ;  
171  
172  
173 select * from car_owner;  
174  
175  
176
```

ResultsChart

	CAR_MODEL	CAR_MODEL_YEAR	CAR_MAKE	FIRST_NAME	LAST_NAME
1	C-Class		2001 Mercedes-Benz	Bronny	Bernardotte
2	Sonata		2007 Hyundai	Walker	Moorwood
3	Type 2		1987 Volkswagen	Nelis	Grichukhanov
4	DeVile		2003 Cadillac	Roda	Shute
5	xD		2012 Scion	Moria	Nam

Query Details

Query duration456ms

Rows324

Query ID01c0e832-0107-794c-0...

Show more