

Snowflake Demo Azure Integration

Create an Azure account

Create a ADLS Gen2 Storage Account

The screenshot shows the 'Create a storage account' wizard in the Microsoft Azure portal. The top navigation bar includes 'Microsoft Azure', 'Upgrade', a search bar, and a Copilot icon. The breadcrumb path is 'Home > Storage center | Blob Storage'. The main title is 'Create a storage account'. The form is divided into several sections:

- Project details**: Subsection 'Subscription' shows 'Azure subscription 1' selected. Subsection 'Resource group' shows '(New) snowflake-rg' selected, with a link to 'Create new'.
- Instance details**: Subsection 'Storage account name' shows 'snowflakeaccountazure'. Subsection 'Region' shows '(US) West US 2' selected, with a link to 'Deploy to an Azure Extended Zone'. Subsection 'Preferred storage type' shows 'Azure Blob Storage or Azure Data Lake Storage Gen 2' selected. A note explains this helps provide relevant guidance without restricting the storage type.
- Primary workload**: Shows 'Big Data Analytics' selected. A note says it's best for hosting a data lake for big data analytics, picking the closest match to the workload for recommended configuration, and that ZRS is recommended for this workload.
- Performance**: Shows 'Standard' selected (radio button). Other options are 'Premium' and a note that standard performance is recommended for the Big Data Analytics workload.
- Redundancy**: Shows 'Zone-redundant storage (ZRS)' selected. A note says ZRS is recommended for the Big Data Analytics workload.

At the bottom, there are 'Previous' and 'Next' buttons, and a highlighted 'Review + create' button.

Microsoft Azure Upgrade

Home > Storage center | Blob Storage >

Create a storage account ...

Basics Advanced Networking Data protection Encryption Tags Review + create

[View automation template](#)

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 this storage account	Disabled

[Previous](#) [Next](#) [Create](#)

Microsoft Azure Upgrade

Search resources, services, and docs (G+)

Home >

snowflakeaccountazure_1765161830013 | Overview

Deployment

[Search](#) [Delete](#) [Cancel](#) [Redeploy](#) [Download](#) [Refresh](#)

Overview

Deployment is in progress

Deployment name: snowflakeaccountazure [REDACTED]
Subscription: Azure subscription 1
Resource group: snowflake-rg
Start time: 12/7/2025, 6:45:11 PM
Correlation ID: [REDACTED] [Copy](#)

Deployment details

Resource	Type	Status
No results.		

[Give feedback](#)
[Tell us about your experience with deployment](#)

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

Home > snowflakeaccountazure_1765161830013 | Overview

Deployment

Search Delete Cancel Redeploy Download Refresh

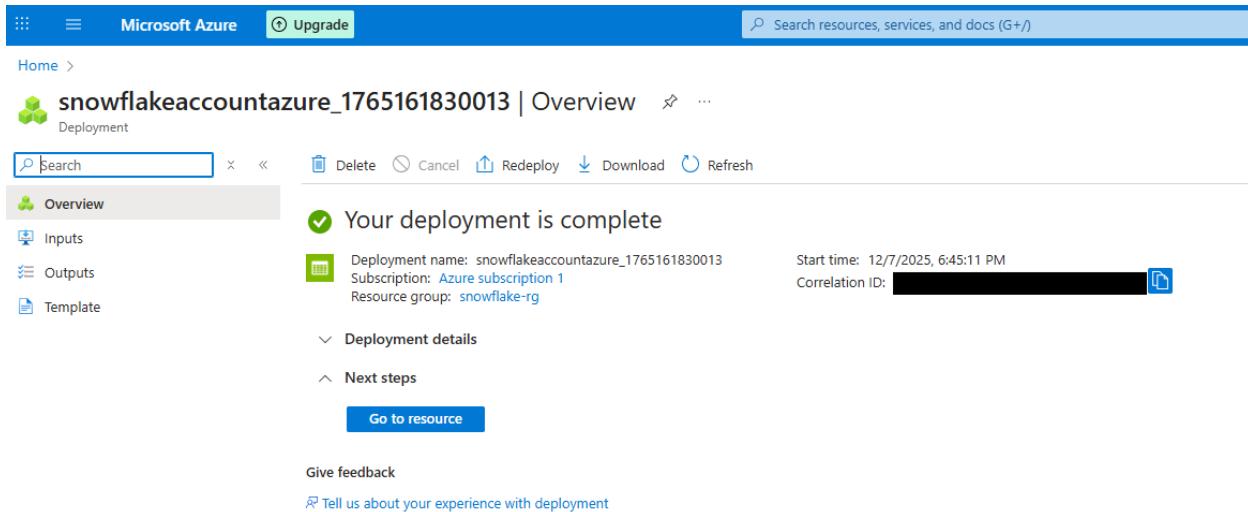
Overview Deployment Inputs Outputs Template

Your deployment is complete

Deployment name: snowflakeaccountazure_1765161830013 Start time: 12/7/2025, 6:45:11 PM
Subscription: Azure subscription 1 Resource group: snowflake-rg Correlation ID: [REDACTED] Copy

Deployment details Next steps

Go to resource Give feedback Tell us about your experience with deployment



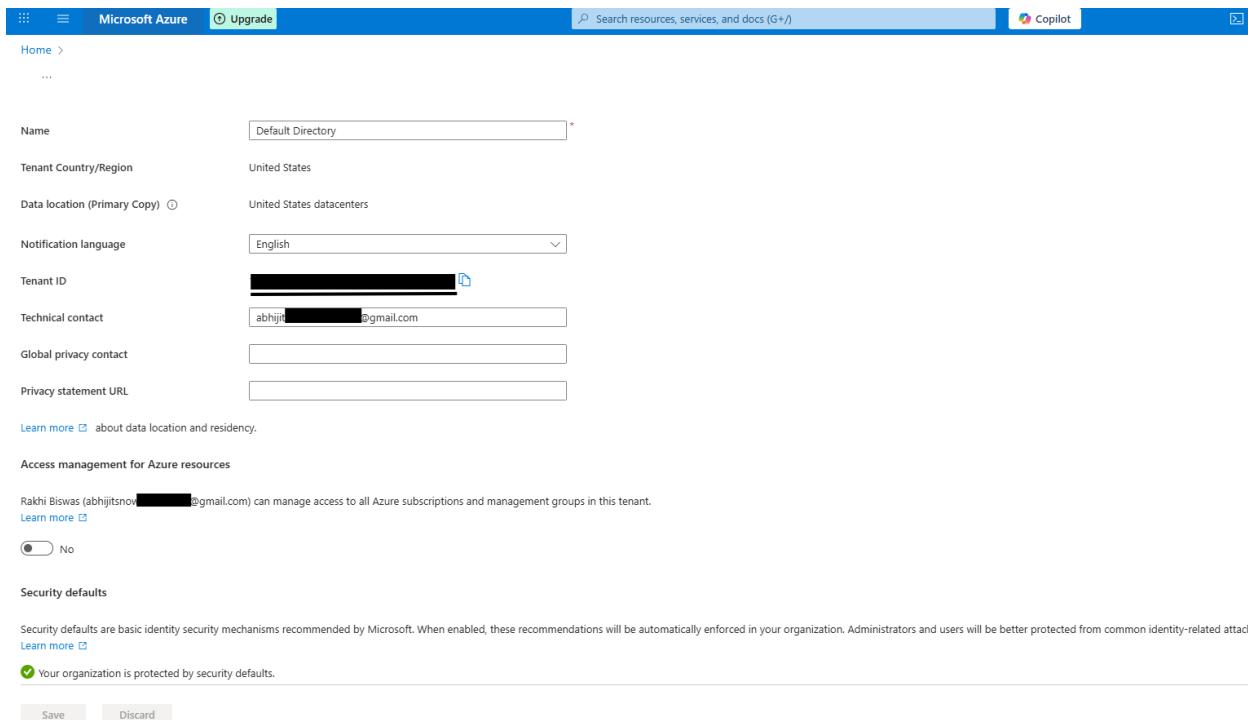
Create an external integration object

Look for tenant and copy tenant id from this.

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

Home > ...

Name: Default Directory * Tenant Country/Region: United States Data location (Primary Copy): United States datacenters Notification language: English Tenant ID: [REDACTED] Technical contact: abhijitsnow...@gmail.com Global privacy contact: Privacy statement URL: Learn more about data location and residency. Access management for Azure resources Rakhi Biswas (abhijitsnow...@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 attack. Learn more Your organization is protected by security defaults. Save Discard



Run Create Snowflake Integration Object for Azure

The screenshot shows the Snowflake UI interface. At the top, there are tabs for 'Load_S3_Data' and 'Azure_Integration'. The main area displays a SQL script for creating an integration:

```

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

```

Below the code, there is a table titled 'Results' showing the properties of the integration:

property	property_type	property_value	property_default	property_value
ENABLED	Boolean	true	false	5xevojsnowflakepacint
STORAGE_PROVIDER	String	AZURE		
STORAGE_ALLOWED_LOCATIONS	List	azure://blob.core.windows.net		
STORAGE_BLOCKED_LOCATIONS	List			
USE_PRIVATELINK_ENDPOINT	Boolean	false	false	
AZURE_TENANT_ID	String	https://login.microsoftonline.com/		
AZURE_CONSENT_URL	String			
AZURE_MULTI_TENANT_APP_NAME	String	5xevojsnowflakep		
COMMENT	String			

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 screenshot shows the Microsoft Azure portal interface. The user is navigating through the 'Enterprise applications' section under 'Default Directory'. The left sidebar includes sections for Overview, Diagnose and solve problems, Manage, and various connectors like Private Network, User settings, App launchers, and Custom authentication extensions. The main content area displays a table of applications, with one entry for 'Snowflake' visible:

Name	Object ID	Application ID	Homepage URL	Created on	Certificate Expiry Status	Active Certificate Expiry D...	Identifier URI (Entity ID)
Snowflake	98acf0f1-...-2fc...	https://snowflake.net	2025-07-12	-	-	-	https://azwest...

The screenshot shows the Snowflake homepage with the tagline 'THE AI DATA CLOUD'. The main heading reads 'ALL YOUR KNOWLEDGE. ONE TRUSTED ENTERPRISE AGENT.' Below it, a subtext says 'Turn enterprise data into instant insights with Snowflake Intelligence.' A search bar contains the placeholder 'What?' and has buttons for 'Store Insights' and 'Sources: Auto'. There are also icons for a microphone and a document. At the bottom, there are buttons for 'LEARN MORE ABOUT SNOWFLAKE INTELLIGENCE' and '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 - >

Microsoft Azure [Upgrade](#) [Copilot](#)

Home > snowflakeaccountazure

snowflakeaccountazure | Access Control (IAM)

Storage account

[Search](#) [Add](#) [Download role assignments](#) [Edit columns](#) [Refresh](#) [Delete](#) [Feedback](#)

[Overview](#) [Role assignments](#) [Roles](#) [Deny assignments](#) [Classic administrators](#)

[Check access](#) [My access](#)

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.

Name ↑	Description ↑	Type ↑↓	Category ↑↓	Details
blob data container	Type : All Category : All			
Storage Blob Data Contributor	Allows for read, write and delete access to Azure Storage blob containers and data	BuiltinRole	Storage	View
Storage Blob Data Owner	Allows for full access to Azure Storage blob containers and data, including assigning POSIX access control.	BuiltinRole	Storage	View
Storage Blob Data Reader	Allows for read access to Azure Storage blob containers and data	BuiltinRole	Storage	View

Showing 1 - 3 of 3 results.

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

Microsoft Azure Upgrade

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

Select members

Search resources, services, and docs (G+)

Search for [snowflake] [snowflake]

snowflake Application

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

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
[REDACTED]	[REDACTED]	App

Description

Review + assign **Previous** **Next**

```

22 ---- Query files & Load data ----
23
24 --query files
25
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
  
```

	\$1	\$2	\$3	\$4	\$5	\$6	\$7	\$8	\$9	\$10	\$11	\$12	\$13	\$14
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
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
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

Load_S3_Data Azure_Integration Load_ADLS_Data + -

ACCOUNTADMIN COMPUTE_WH (X-Small) Share Open in Workspaces Code Versions

```

MANAGE_DB.PUBLIC   Settings   

```

```

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_freedoms_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

```

Results Chart

	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 duration: 249ms
 Rows: 149
 Query ID: 01c0e829-0107-782c-0...

2025-12-02 8:16pm S3_Integration Load_S3_Data Azure_Integration Load_ADLS_Data + -

ACCOUNTADMIN COMPUTE_WH (X-Small) Share Open in Workspaces Code Versions

```

Databases   Worksheets   

```

```

MANAGE_DB   Settings   

```

```

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

```

Results Chart

CAR_MODEL	CAR_MODEL_YEAR	CAR_MAKE	FIRST_NAME	LAST_NAME
C-Class	2001	Mercedes-Benz	Bronny	Bernardotte
Sonata	2007	Hyundai	Walker	Moorwood
Type 2	1987	Volkswagen	Nells	Grichukhnenov
DeVille	2003	Cadillac	Roda	Shute
xD	2012	Scion	Moria	Nann

Query Details
 Query duration: 456ms
 Rows: 324
 Query ID: 01c0e832-0107-784c-0...
 Show more