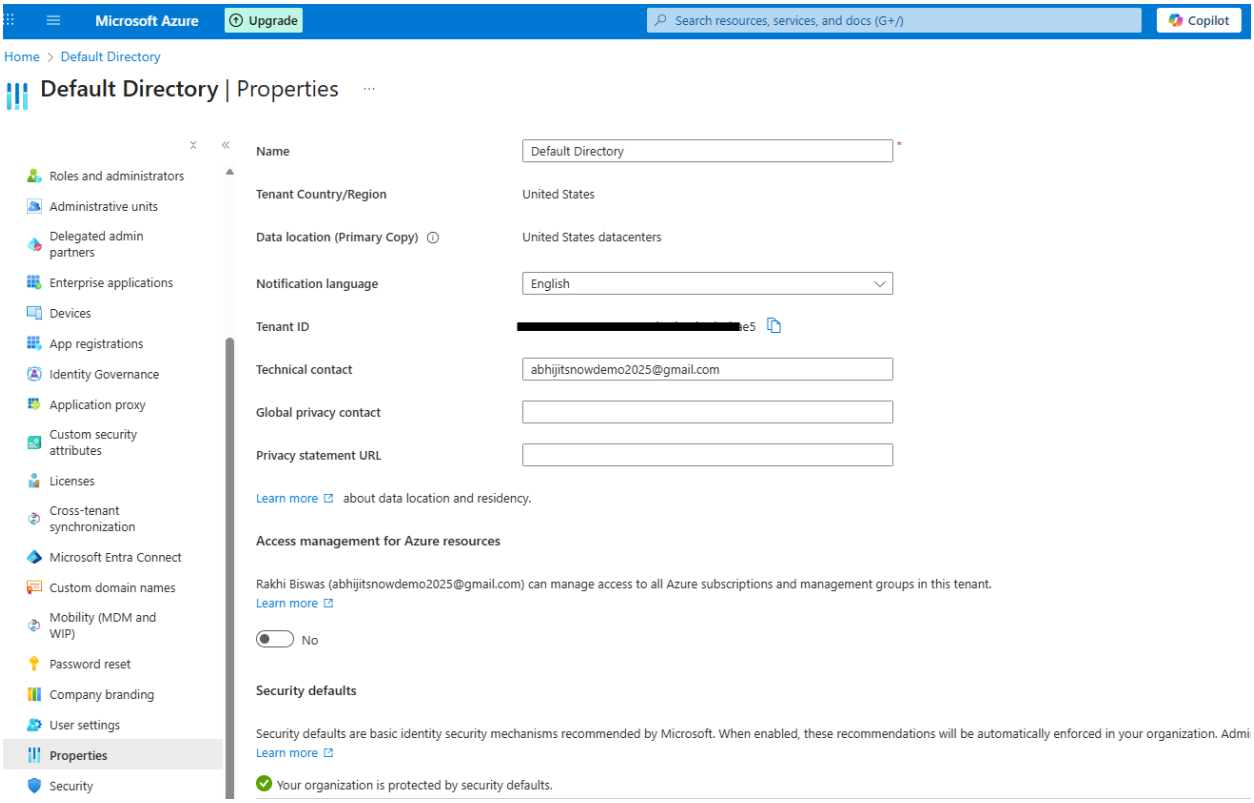
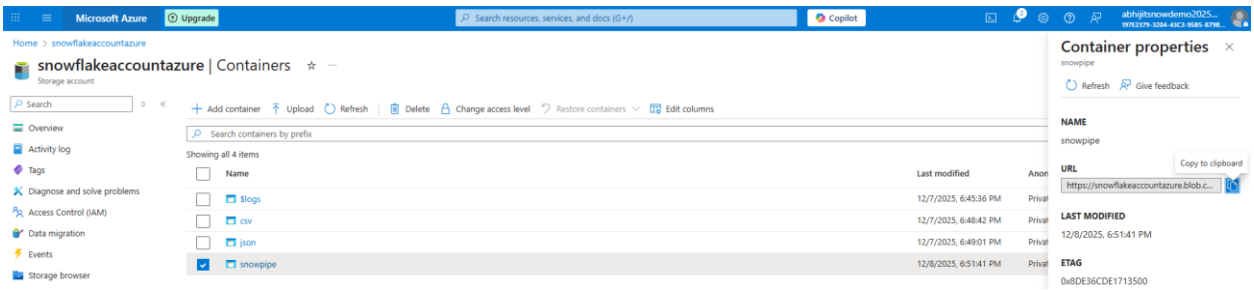
Snowflake Demo Azure Snowpipe Integration

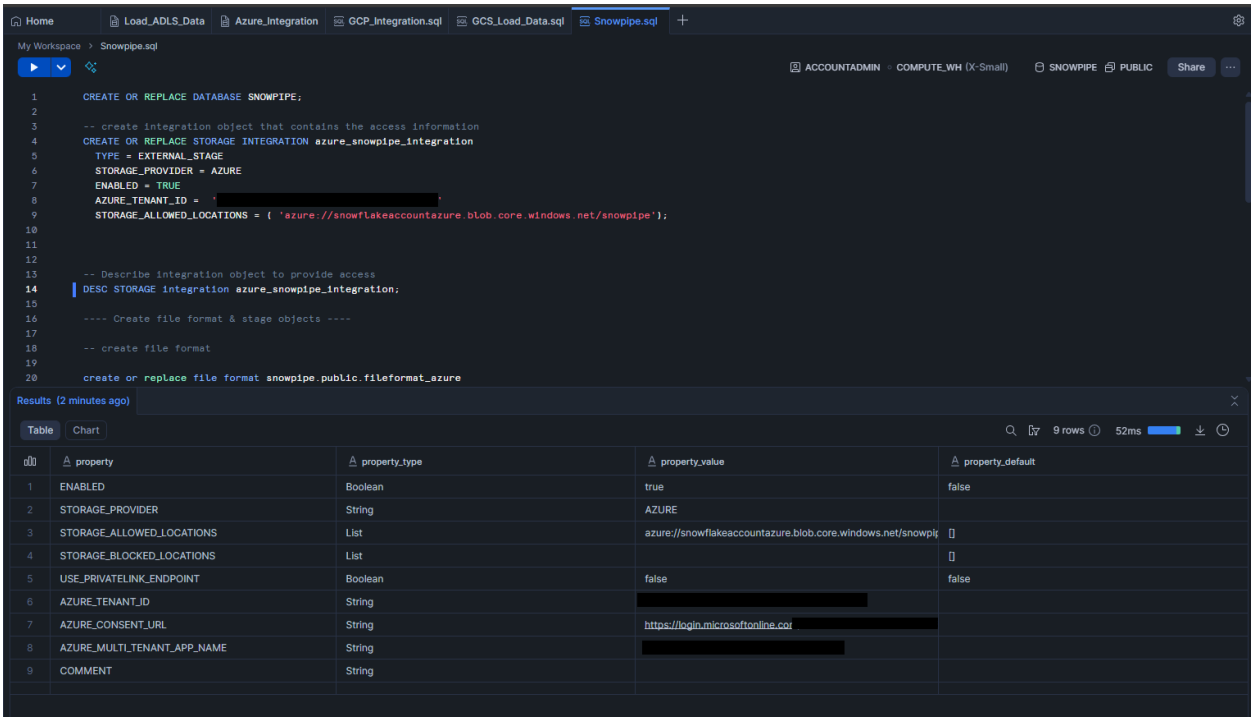
Create Azure Container - > get the tenant id from Entra-ID - > property



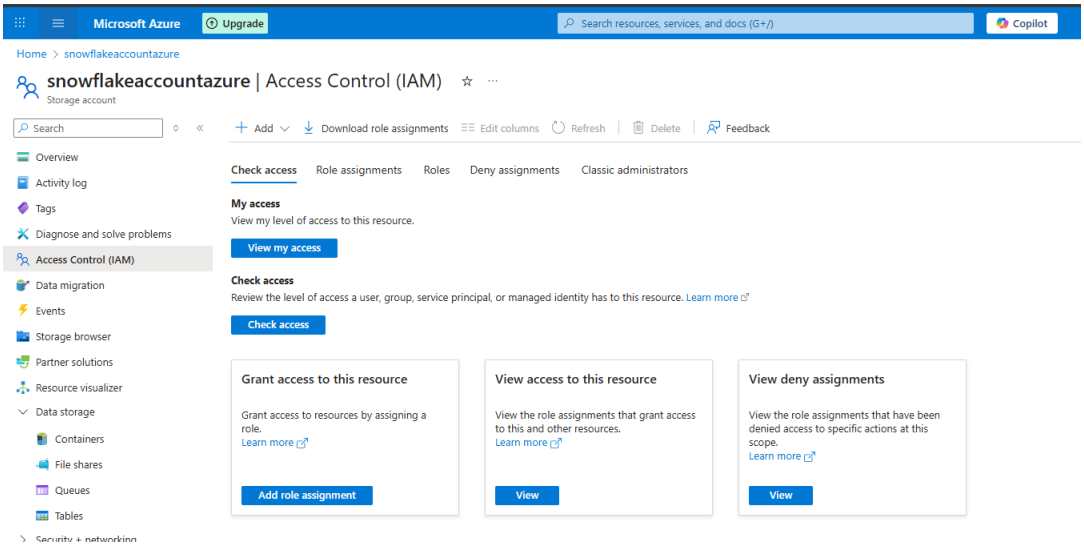
Copy url and replace https with azure

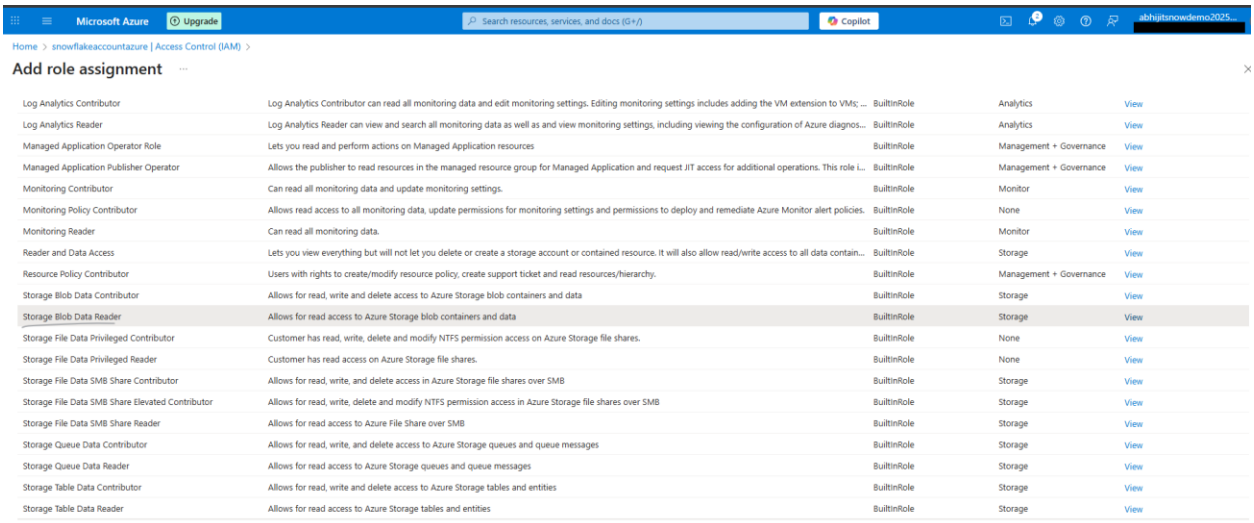


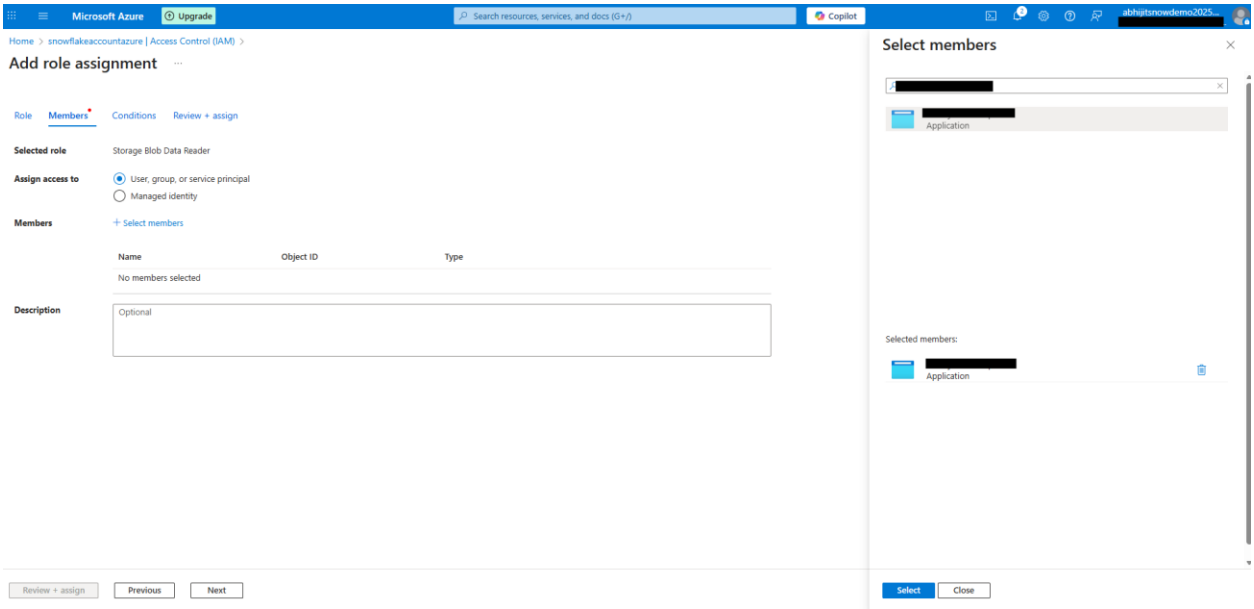
Update the query and test it

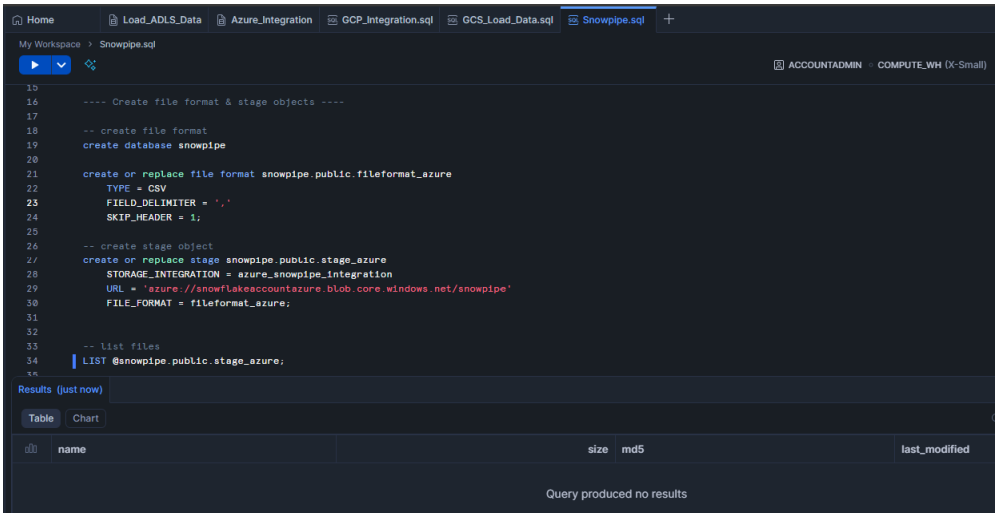


Add read role to Snowflake on Azure Storage - > IAM

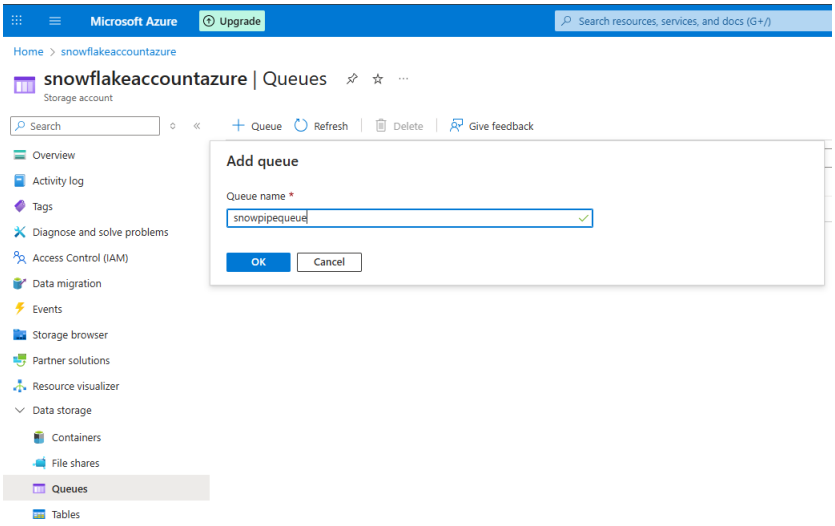


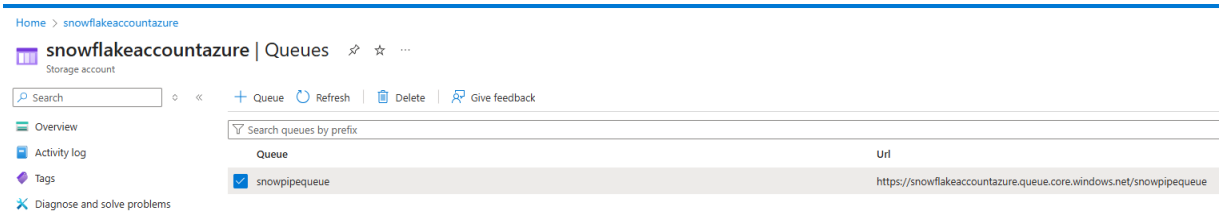

Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Copilot
Home > snowflakeaccountazure | Access Control (IAM) >
Add role assignment
Log Analytics Contributor | Log Analytics Contributor can read all monitoring data and edit monitoring settings. Editing monitoring settings includes adding the VM extension to VMs; ... | BuiltInRole | Analytics | View
Log Analytics Reader | Log Analytics Reader can view and search all monitoring data as well as and view monitoring settings, including viewing the configuration of Azure diagnos... | BuiltInRole | Analytics | View
Managed Application Operator Role | Lets you read and perform actions on Managed Application resources | BuiltInRole | Management + Governance | View
Managed Application Publisher Operator | Allows the publisher to read resources in the managed resource group for Managed Application and request JIT access for additional operations. This role i... | BuiltInRole | Management + Governance | View
Monitoring Contributor | Can read all monitoring data and update monitoring settings. | BuiltInRole | Monitor | View
Monitoring Policy Contributor | Allows read access to all monitoring data, update permissions for monitoring settings and permissions to deploy and remediate Azure Monitor alert policies. | BuiltInRole | None | View
Monitoring Reader | Can read all monitoring data. | BuiltInRole | Monitor | View
Reader and Data Access | Lets you view everything but will not let you delete or create a storage account or contained resource. It will also allow read/write access to all data contain... | BuiltInRole | Storage | View
Resource Policy Contributor | Users with rights to create/modify resource policy, create support ticket and read resources/hierarchy. | BuiltInRole | Management + Governance | View
Storage Blob Data Contributor | Allows for read, write and delete access to Azure Storage blob containers and data | BuiltInRole | Storage | View
Storage Blob Data Reader | Allows for read access to Azure Storage blob containers and data | BuiltInRole | Storage | View
Storage File Data Privileged Contributor | Customer has read, write, delete and modify NTFS permission access on Azure Storage file shares. | BuiltInRole | None | View
Storage File Data Privileged Reader | Customer has read access on Azure Storage file shares. | BuiltInRole | None | View
Storage File Data SMB Share Contributor | Allows for read, write, and delete access in Azure Storage file shares over SMB | BuiltInRole | Storage | View
Storage File Data SMB Share Elevated Contributor | Allows for read, write, delete and modify NTFS permission access in Azure Storage file shares over SMB | BuiltInRole | Storage | View
Storage File Data SMB Share Reader | Allows for read access to Azure File Share over SMB | BuiltInRole | Storage | View
Storage Queue Data Contributor | Allows for read, write, and delete access to Azure Storage queues and queue messages | BuiltInRole | Storage | View
Storage Queue Data Reader | Allows for read access to Azure Storage queues and queue messages | BuiltInRole | Storage | View
Storage Table Data Contributor | Allows for read, write and delete access to Azure Storage tables and entities | BuiltInRole | Storage | View
Storage Table Data Reader | Allows for read access to Azure Storage tables and entities | BuiltInRole | Storage | View


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 Reader
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 members
Application
Selected members:
Application
Select
Close

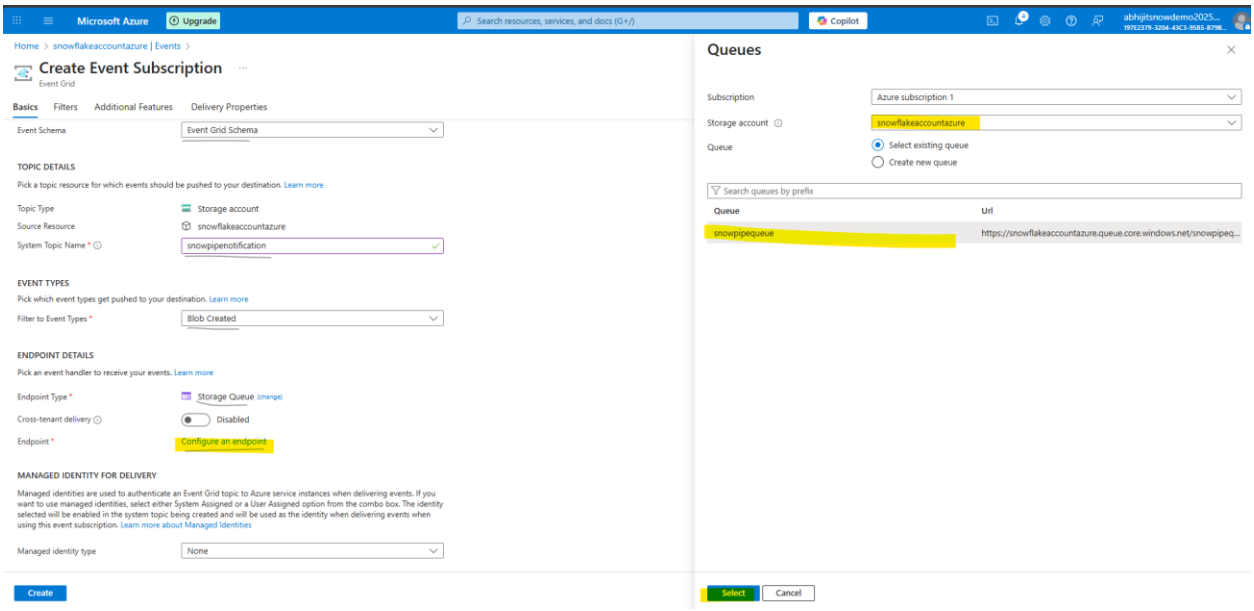

Home
Load_ADLS_Data
Azure_Integration
GCP_Integration.sql
GCS_Load_Data.sql
Snowpipe.sql
My Workspace > Snowpipe.sql
ACCOUNTADMIN
COMPUTE_WH (X-Small)
---- Create file format & stage objects ----
-- create file format
create database snowpipe
create or replace file format snowpipe.public.fileformat_azure
TYPE = CSV
FIELD_DELIMITER = ','
SKIP_HEADER = 1;
-- create stage object
create or replace stage snowpipe.public.stage_azure
STORAGE_INTEGRATION = azure_snowpipe_integration
URL = 'azure://snowflakeaccountazure.blob.core.windows.net/snowpipe'
FILE_FORMAT = fileformat_azure;
-- List files
LIST @snowpipe.public.stage_azure;
Results (just now)
Table
Chart
name
size
md5
last_modified
Query produced no results

Setup a queue on Azure Storage

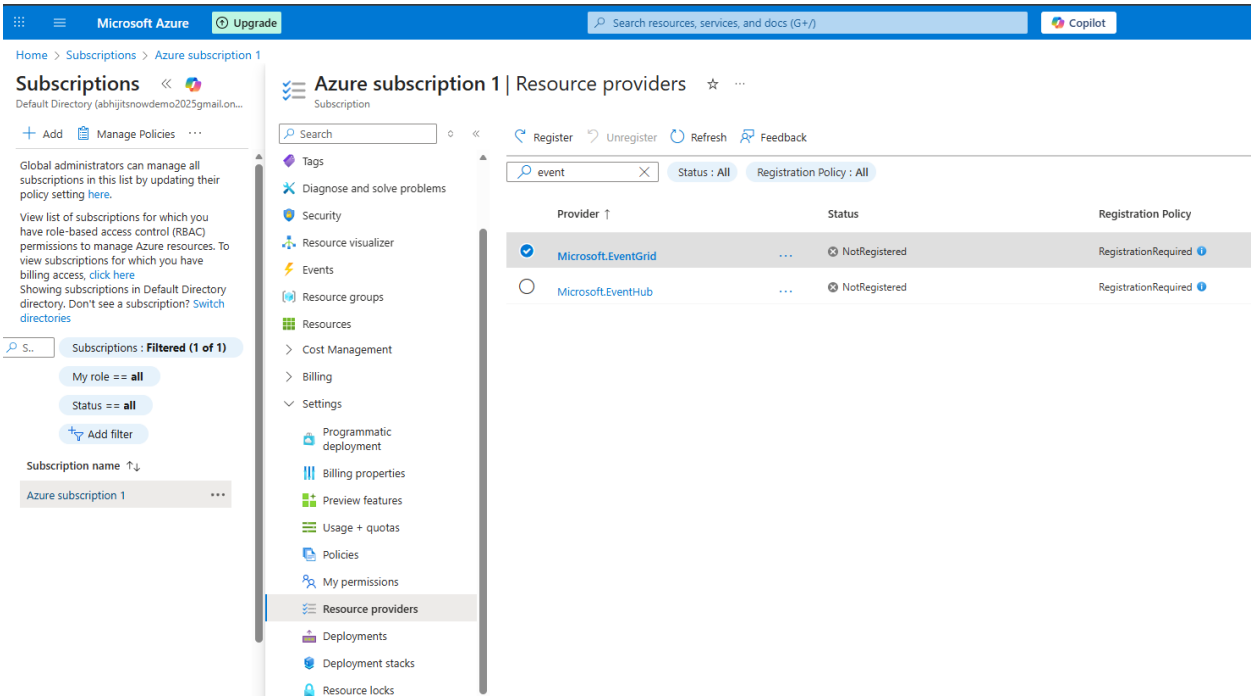


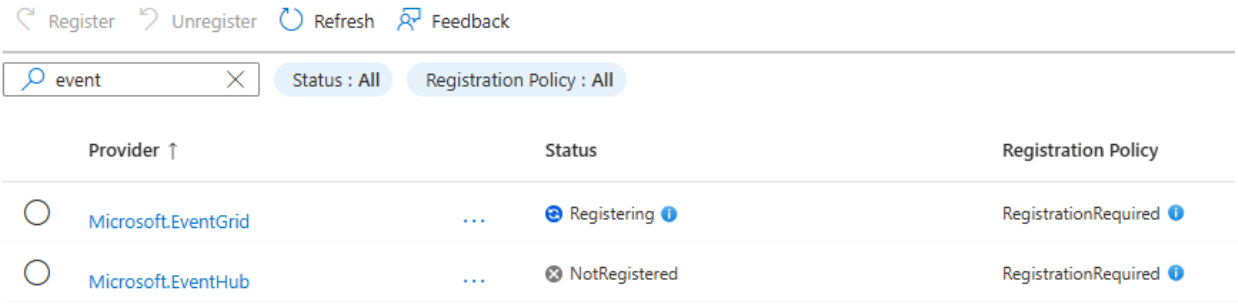


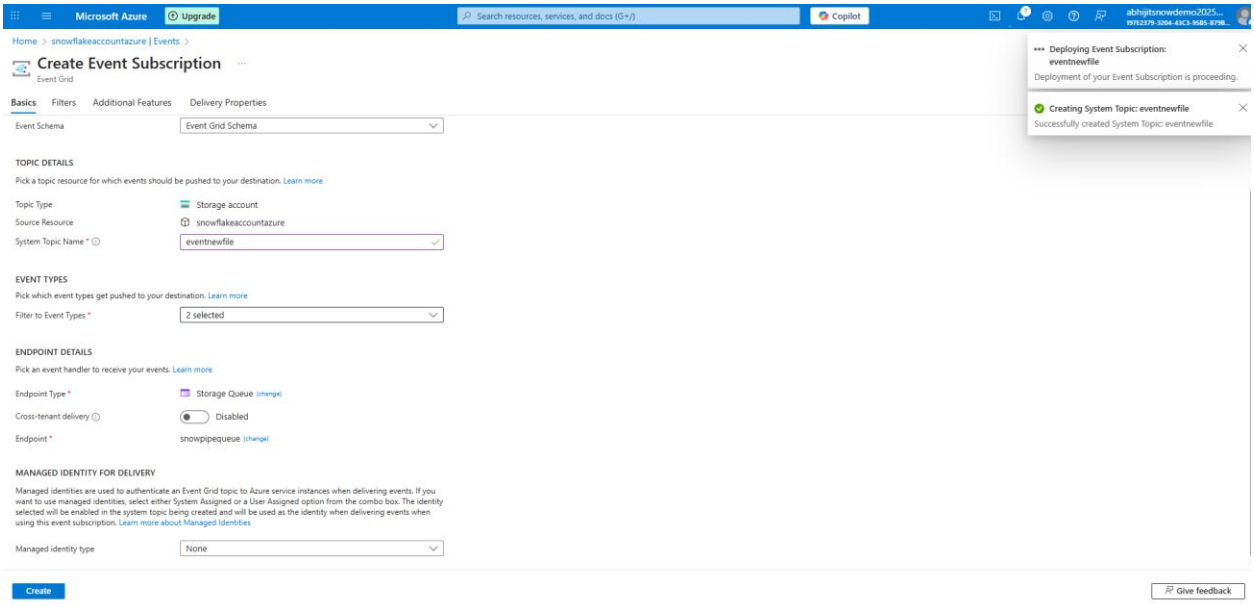
Create an Event

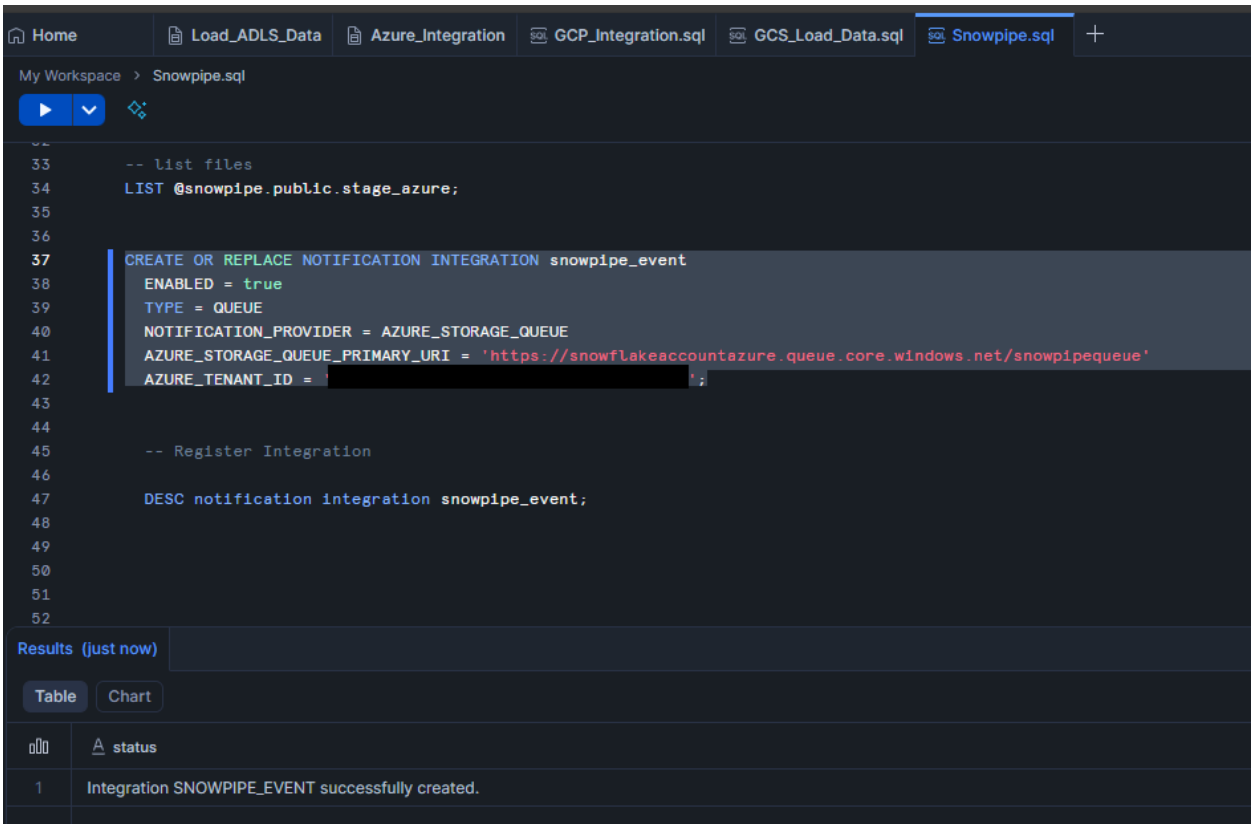


Next we need to register Event Grid

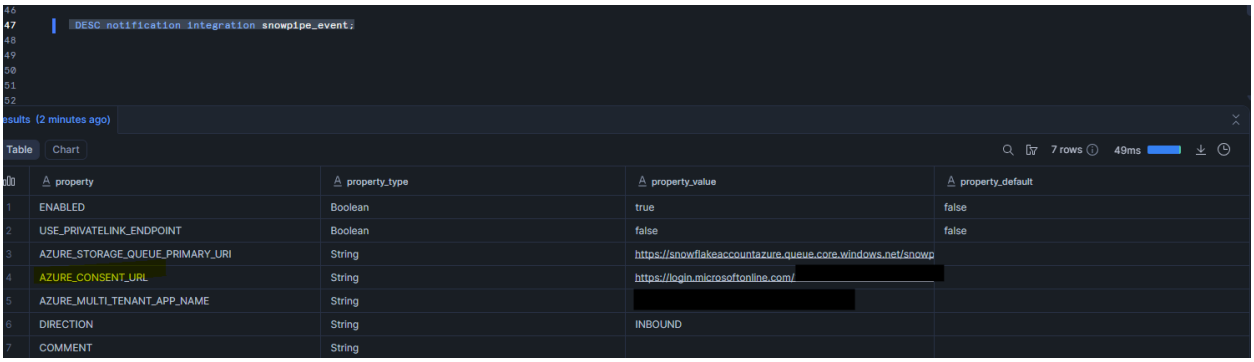

Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Copilot
Home > Subscriptions > Azure subscription 1
Subscriptions
Default Directory (abhijitsnowdemo2025gmail.on...
Add
Manage Policies
Global administrators can manage all subscriptions in this list by updating their policy setting here.
View list of subscriptions for which you have role-based access control (RBAC) permissions to manage Azure resources. To view subscriptions for which you have billing access, click here
Showing subscriptions in Default Directory directory. Don't see a subscription? Switch directories
Subscriptions : Filtered (1 of 1)
My role == all
Status == all
Add filter
Subscription name
Azure subscription 1
Azure subscription 1 | Resource providers
Subscription
Search
Tags
Diagnose and solve problems
Security
Resource visualizer
Events
Resource groups
Resources
Cost Management
Billing
Settings
Programmatic deployment
Billing properties
Preview features
Usage + quotas
Policies
My permissions
Resource providers
Deployments
Deployment stacks
Resource locks
Register
Unregister
Refresh
Feedback
event
Status : All
Registration Policy : All
Provider
Status
Registration Policy
Microsoft.EventGrid
NotRegistered
RegistrationRequired
Microsoft.EventHub
NotRegistered
RegistrationRequired


Register
Unregister
Refresh
Feedback
event
Status : All
Registration Policy : All
Provider
Status
Registration Policy
Microsoft.EventGrid
Registering
RegistrationRequired
Microsoft.EventHub
NotRegistered
RegistrationRequired

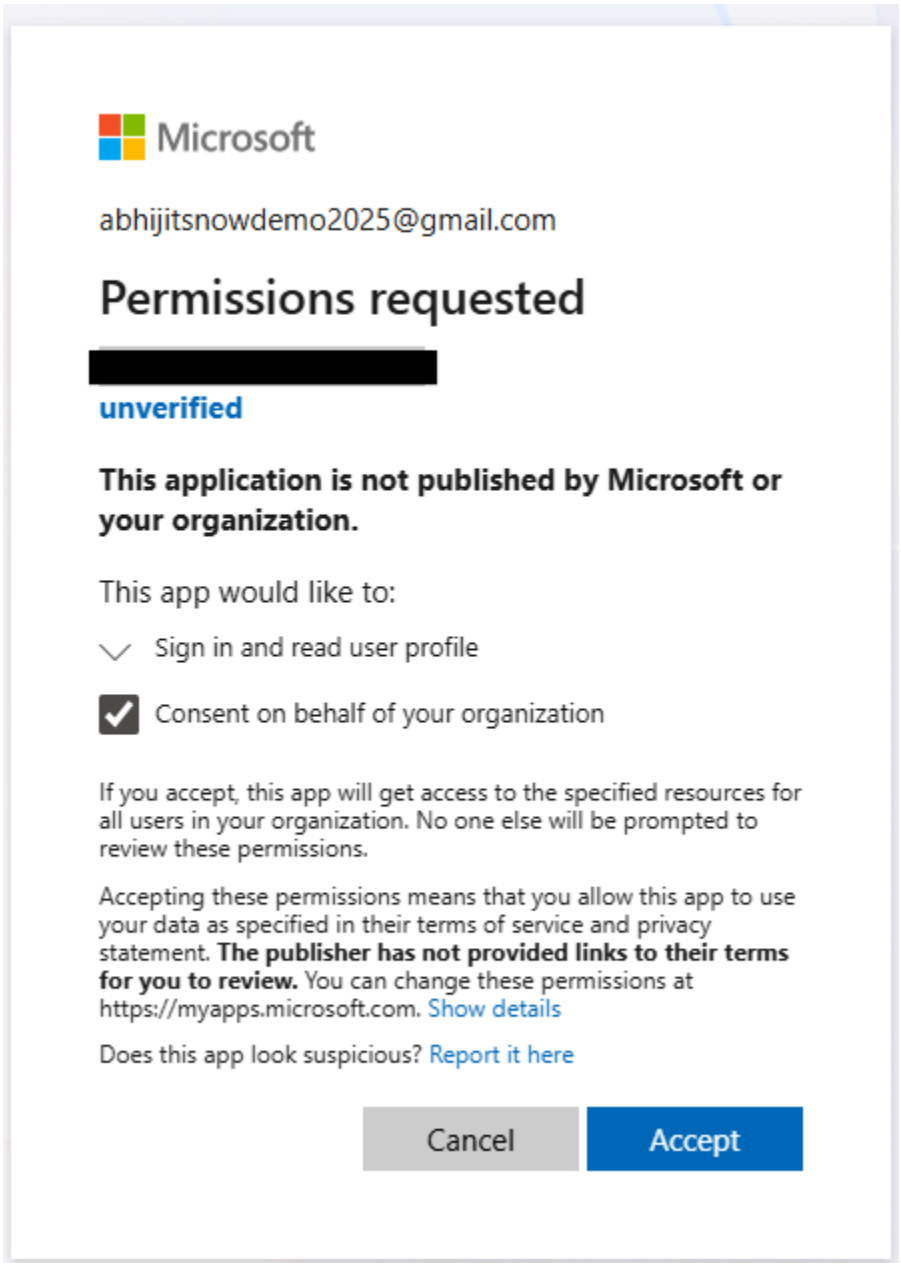

Microsoft Azure
Upgrade
Copilot
Home > snowflakeaccountazure | Events
Create Event Subscription
Event Grid
Basics
Filters
Additional Features
Delivery Properties
Event Schema
Event Grid Schema
TOPIC DETAILS
Pick a topic resource for which events should be pushed to your destination. Learn more
Topic Type
Storage account
Source Resource
snowflakeaccountazure
System Topic Name *
eventnewfile
EVENT TYPES
Pick which event types get pushed to your destination. Learn more
Filter to Event Types *
2 selected
ENDPOINT DETAILS
Pick an event handler to receive your events. Learn more
Endpoint Type *
Storage Queue (change)
Cross-tenant delivery
Disabled
Endpoint *
snowpipequeue (change)
MANAGED IDENTITY FOR DELIVERY
Managed identities are used to authenticate an Event Grid topic to Azure service instances when delivering events. If you want to use managed identities, select either System Assigned or a User Assigned option from the combo box. The identity selected will be enabled in the system topic being created and will be used as the identity when delivering events when using this event subscription. Learn more about Managed Identities
Managed identity type
None
Create
Give feedback
Deploying Event Subscription: eventnewfile
Deployment of your Event Subscription is proceeding.
Creating System Topic: eventnewfile
Successfully created System Topic: eventnewfile

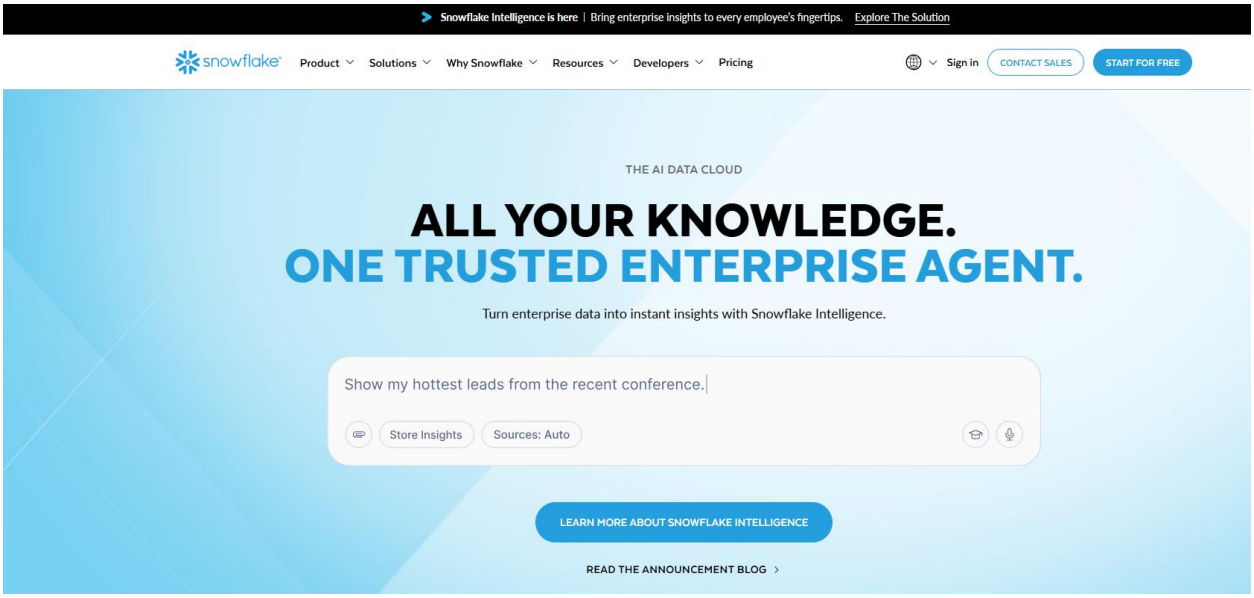


Select the consent url

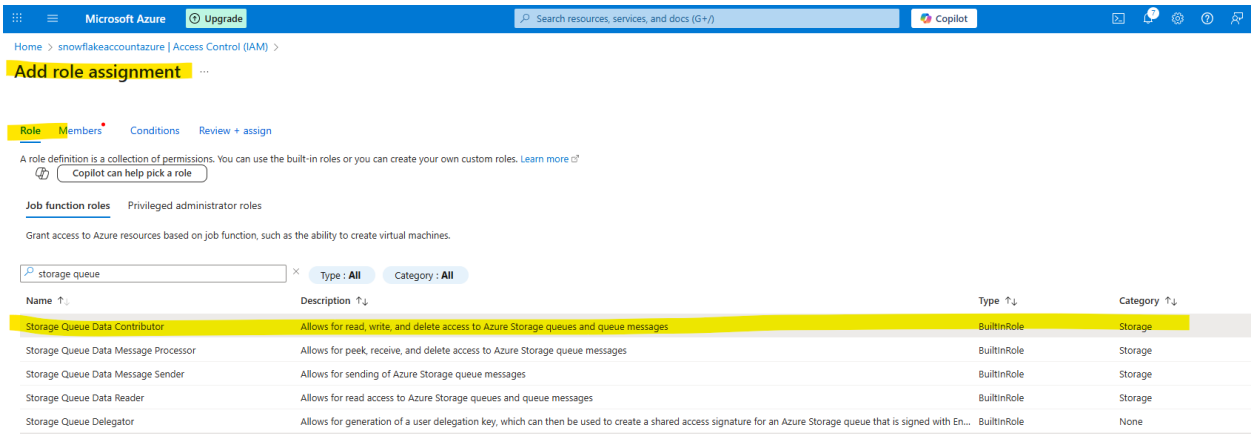


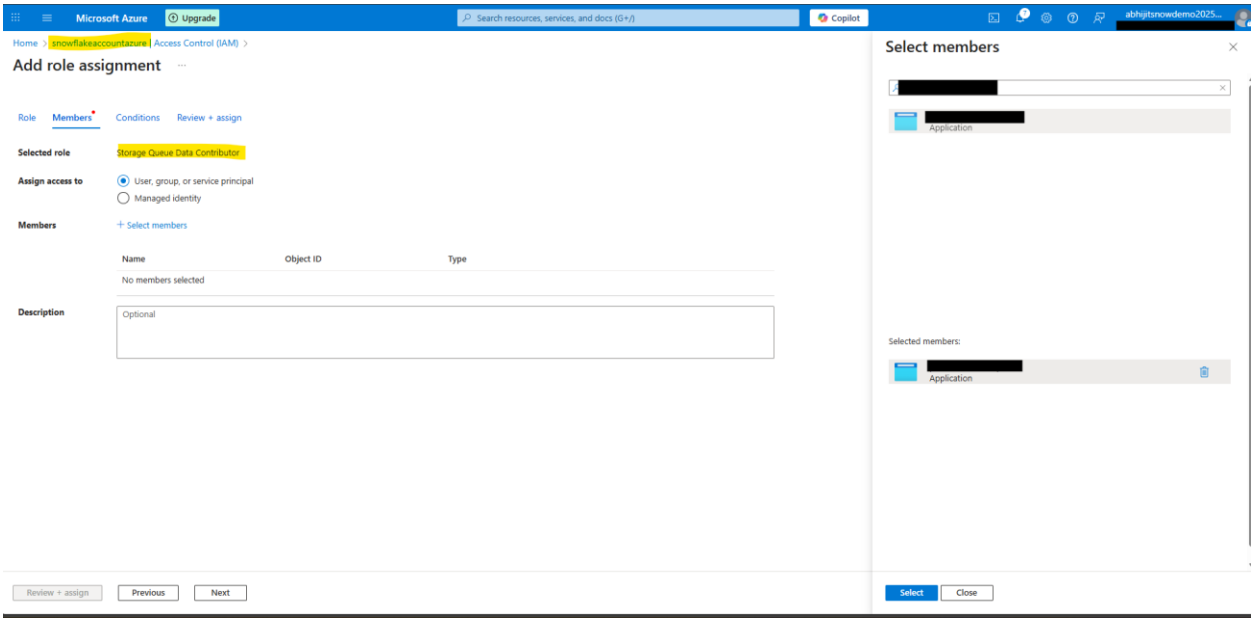
Copy & Save App Name, check the consent box

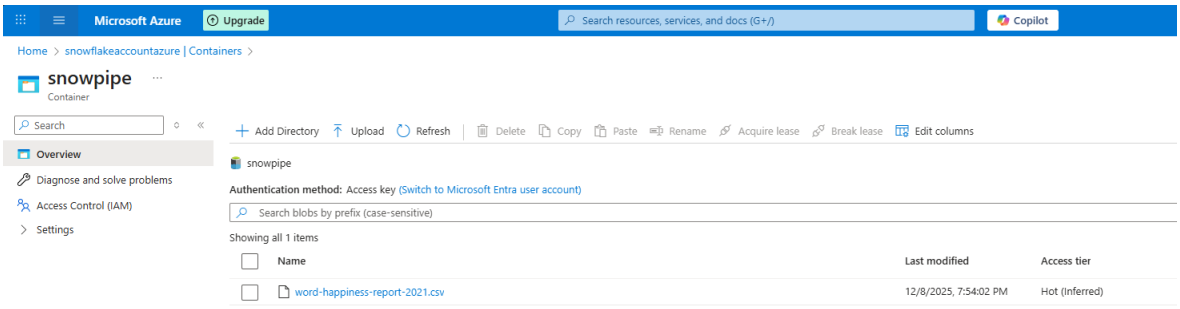

Microsoft
abhijitsnowdemo2025@gmail.com
Permissions requested
[redacted]
unverified
This application is not published by Microsoft or your organization.
This app would like to:
Sign in and read user profile
Consent on behalf of your organization
If you accept, this app will get access to the specified 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



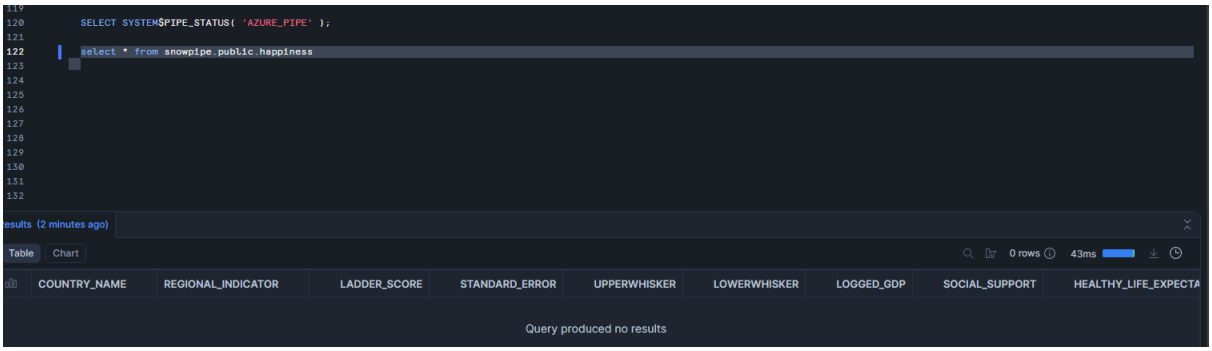
Add Storage Queue Data Contributor role

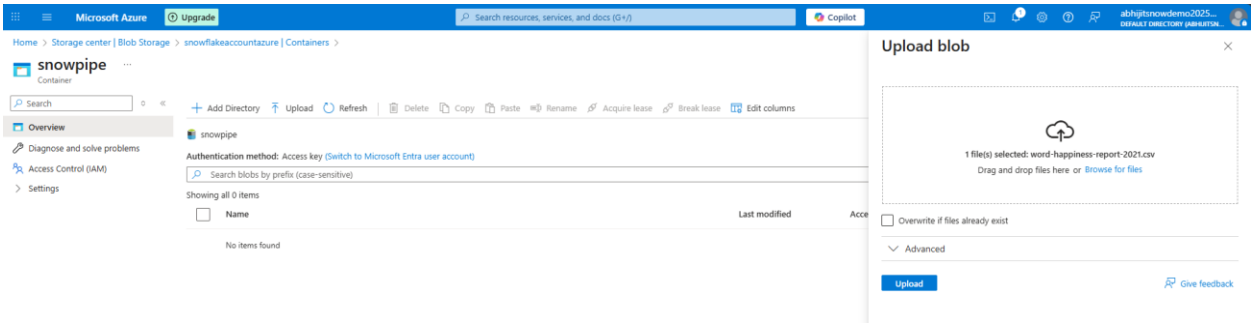


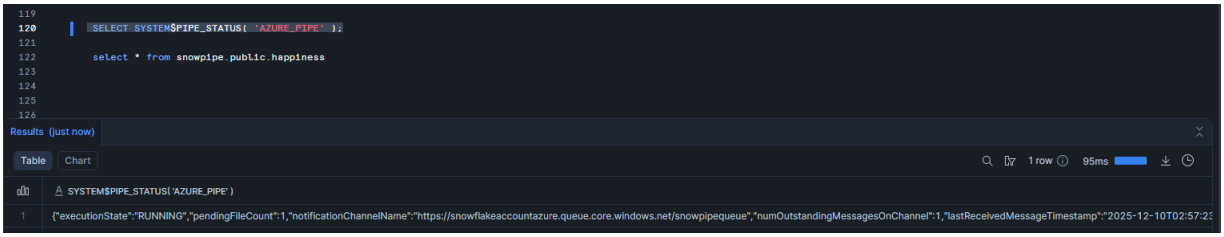


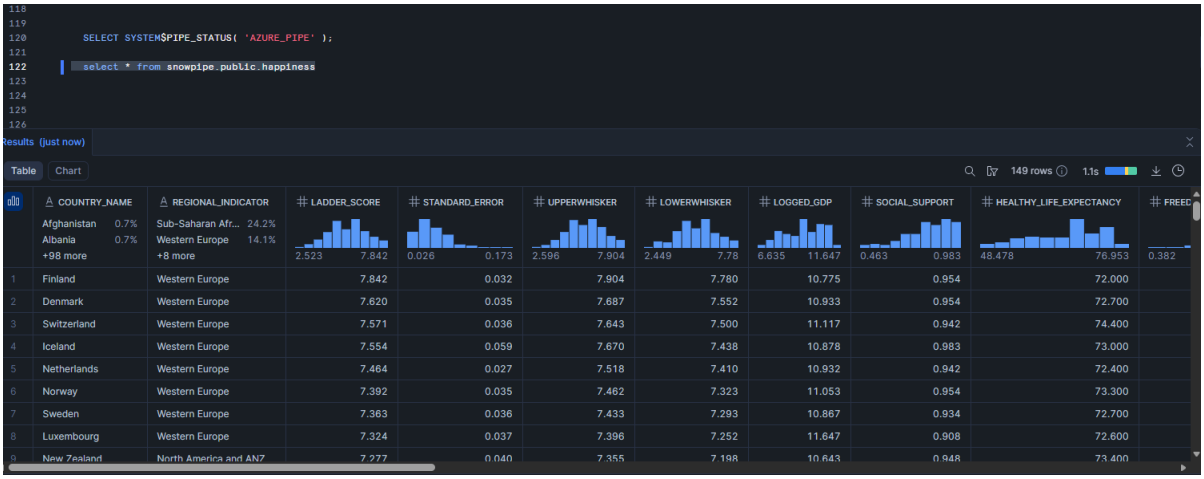


Upload to snowpipe folder while the table is emply









Yes, Snowpipe can cost money, but only minimally when idle. Actual cost occurs mainly when it ingests files. Snowpipe Streaming costs continuously.