SNOWFLAKE CASE-STUDY

**Case Study:** Azure → Snowflake with Snowpark, then Power BI

Scenario

You’re the data engineer at ItTechGenie Retail. Sales teams drop monthly CSVs into an Azure Storage container. You must:

upload the CSV to Azure,

ingest it into Snowflake using Snowpark,

model it into proper database/schema/table, and

build a quick Power BI report for business users.

**Prerequisites:**

Azure: subscription with permission to create Storage Account, Event Grid, Service Principal.

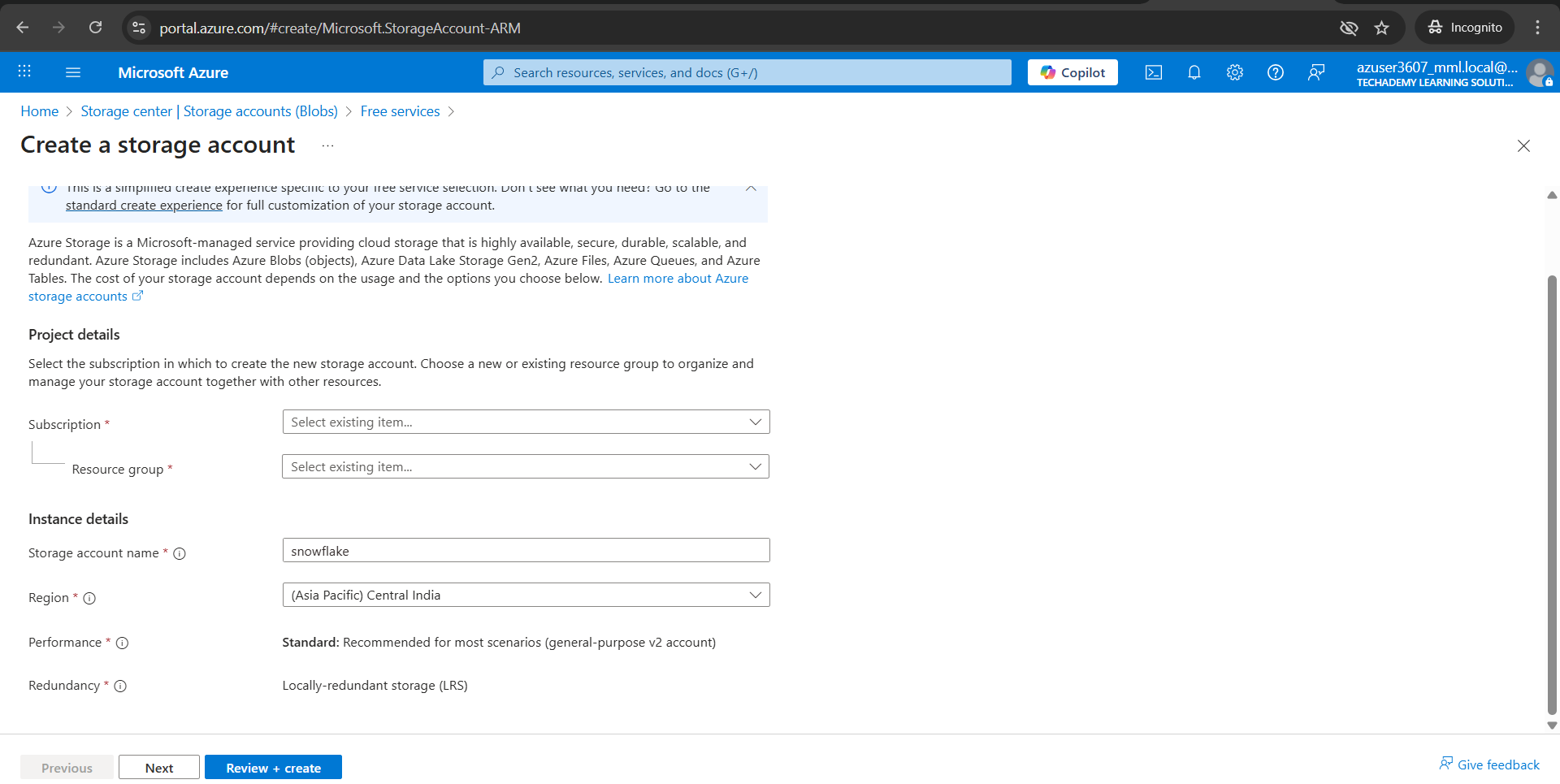
Snowflake: ACCOUNTADMIN or SECURITYADMIN to create storage/notification integrations, plus a role with privileges to create stages, pipes, file formats, and tables.

Local/dev: az cli and azcopy and Python environment with snowflake-connector-python + snowpark-python.

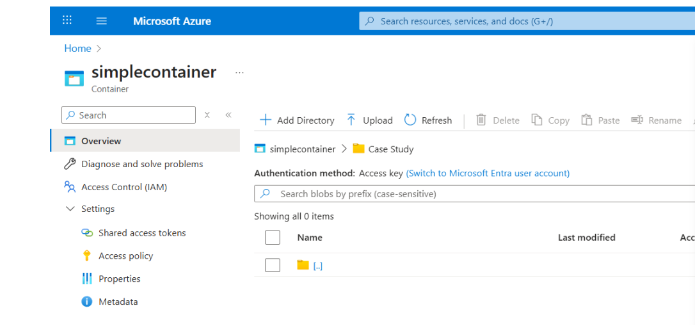
Power BI Desktop and Power BI Service account.

**Procedure:**

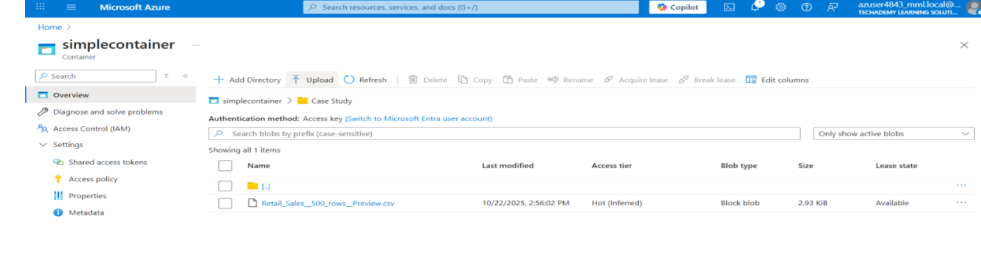
**Step 1:**Create an Azure Storage Account



**Step 2:**Create an container



**Step 3:**Upload data-set into the container



**Step 4:**Create storage integration in Snowflake (SQL)

%pip install snowflake-connector-python

%restart\_python

Using pandas in azure

import pandas as pd

from snowflake.connector import connect

from snowflake.connector.pandas\_tools import write\_pandas

url="https://unicron.blob.core.windows.net/simplecontainer/Case%20Study/Retail\_Sales\_500\_rows Preview.csv?sp=racwdyti& st-2025-10-22T09:37:177&se=2025-10-22T17:52:172&sv=2024-11-04&sr=b&sig=rPQW%2Fco0GpmdFsqXN1DmXy9dfc13tGmHDu2yBUOKI%2BI%30"

df=pd.read\_csv(url)

Output:



**Step 5:**Snowflake Schema

conn=connect(

    user="ABHI",

    password="Dwz123456789@",

    account="DQYZILX-ZU27027",

    warehouse="ABHI",

    database="ABHI\_SNOWFLAKE",

    schema="LASTDAY"

)

result=write\_pandas(

    conn=conn,

    df=df,

    table\_name="GENE\_RETAIL",

    schema="LASTDAY",

    database="ABHI\_SNOWFLAKE",

    auto\_create\_table=True,

    quote\_identifiers=False)

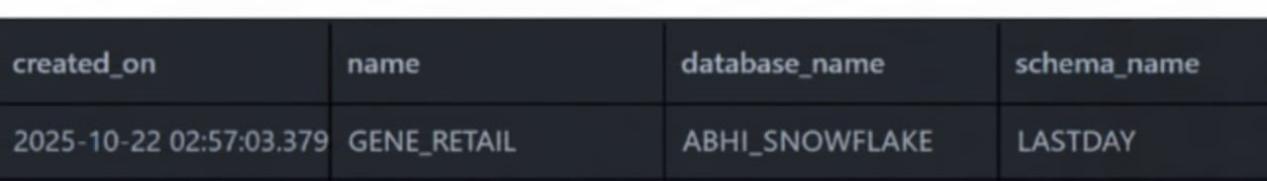
result[0]

True

**Step 6:**Executing vs code connected to snowflake

SHOW TABLES;

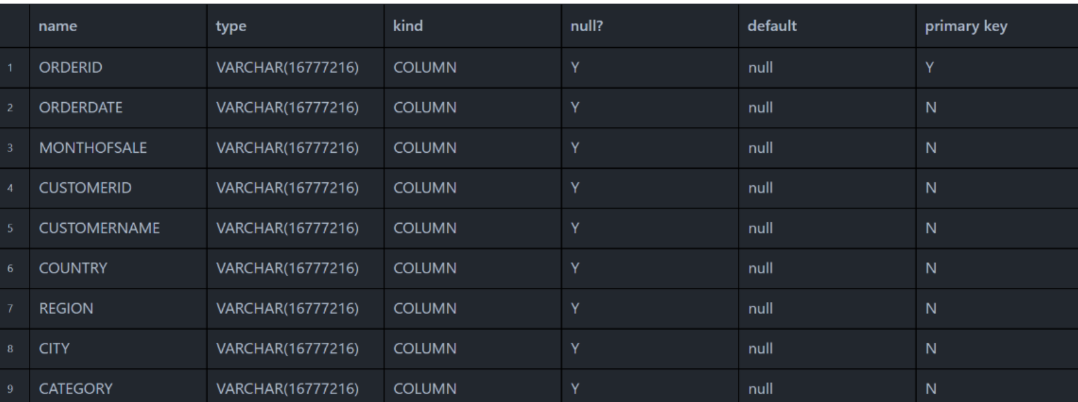
Output:



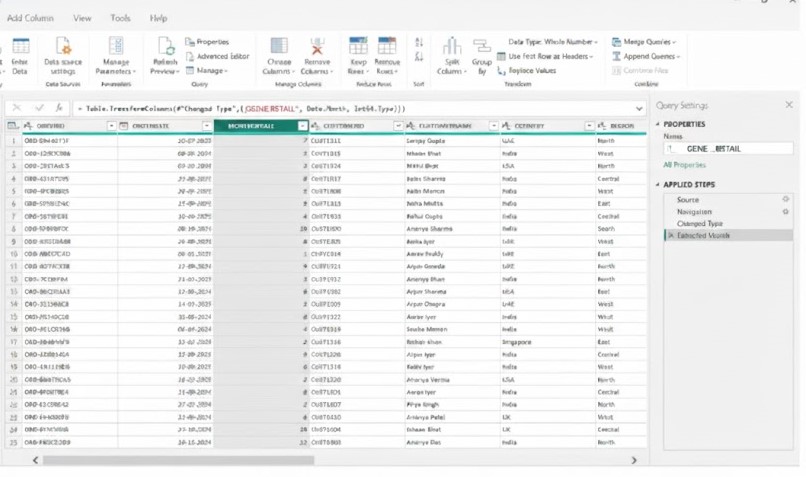
Code:

DESC TABLE GENE\_RETAIL;

Output:

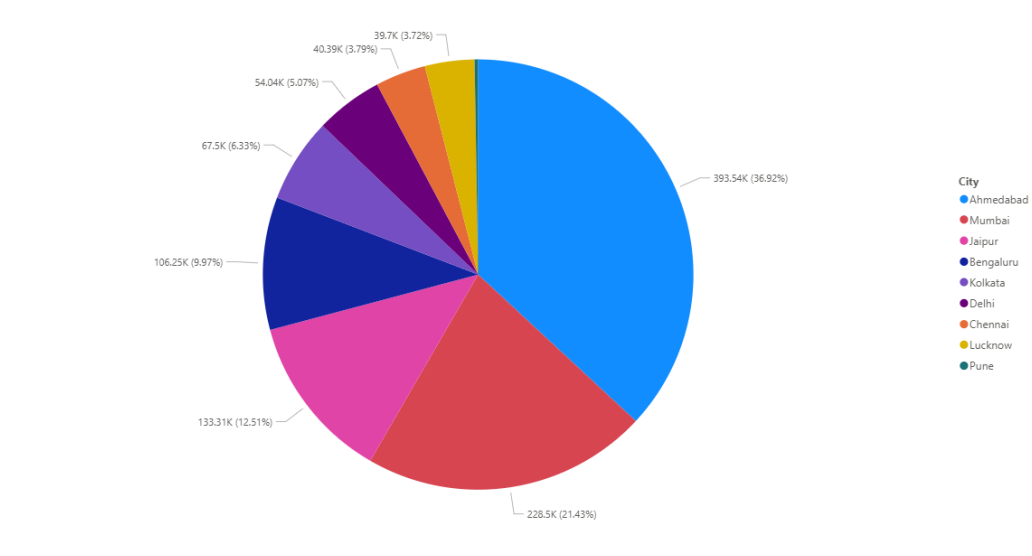


**Step 7:**Loading table

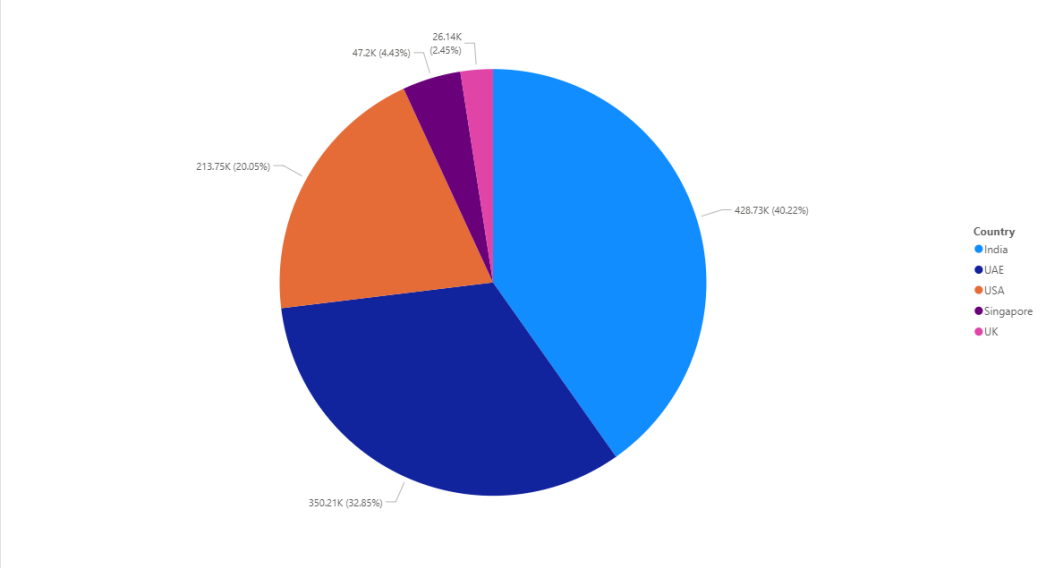


**Step 8:**Power BI report visualizations

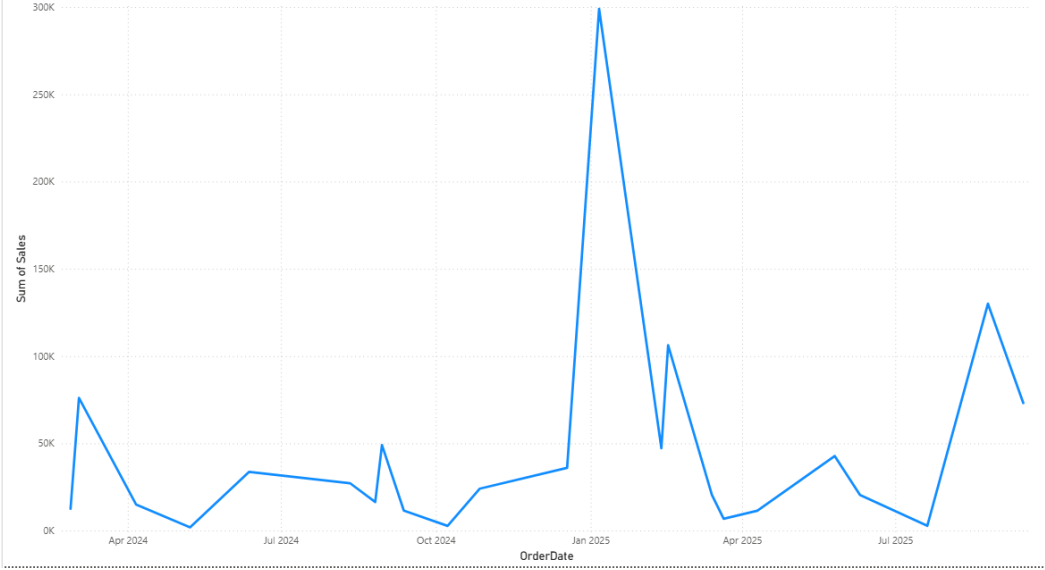
Sum of sales by city



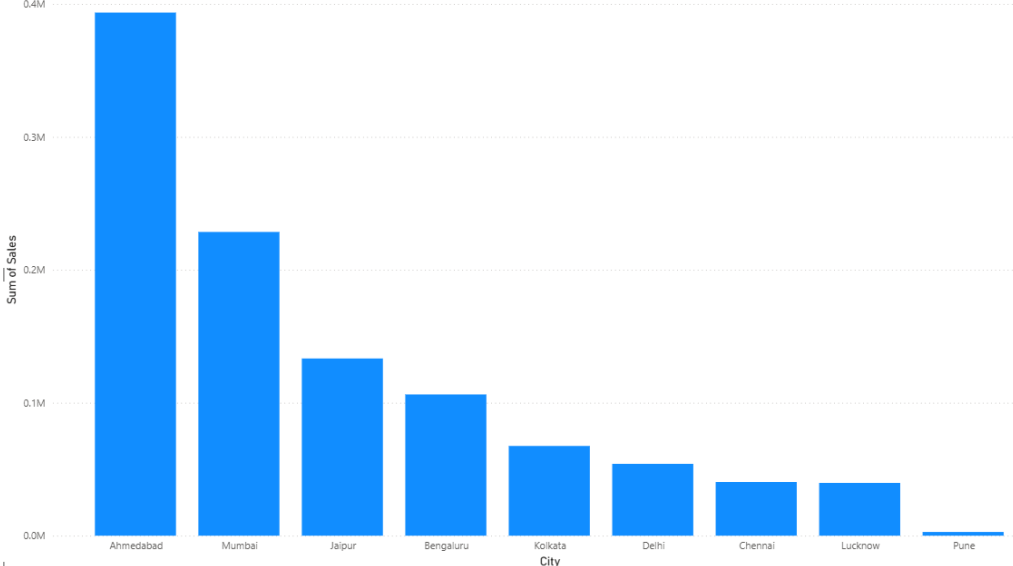
Sum of sales by country

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Sum of sales by order date

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Sum of profit by city

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