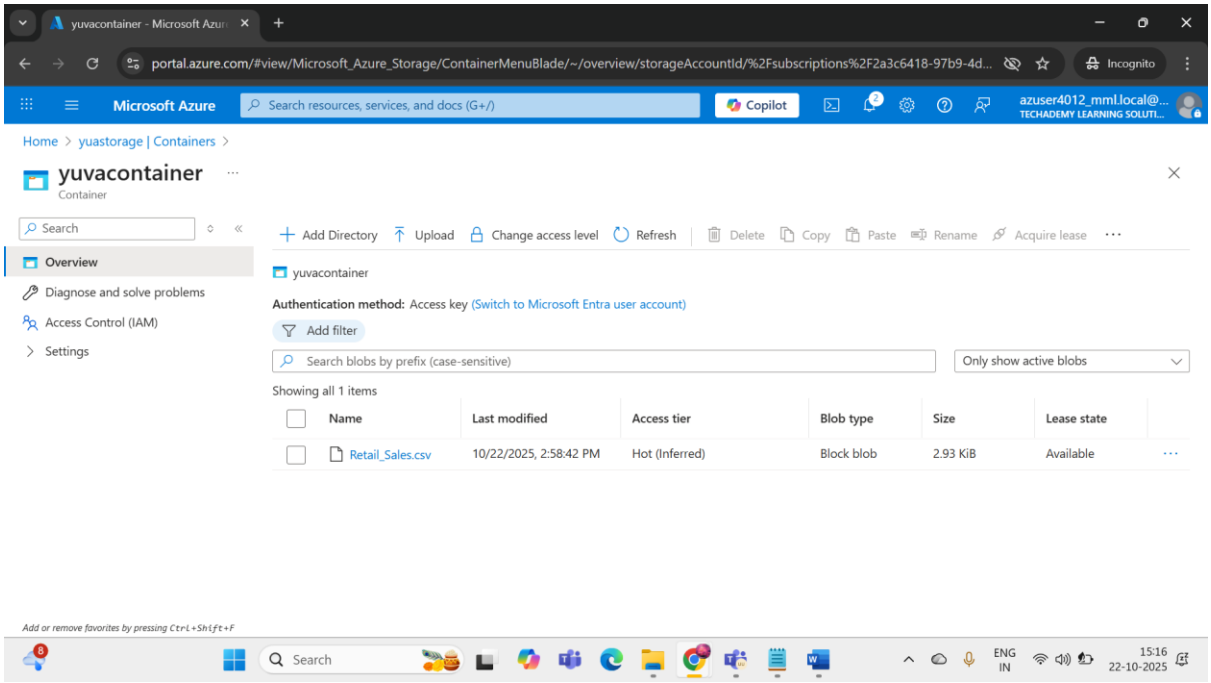
Case Study

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.

Step 1: Upload CSV to Azure Blob Storage



Step 2: Connect Azure to Snowflake (External Stage)

CREATE OR REPLACE DATABASE RETAIL_DB;

USE DATABASE RETAIL_DB;

CREATE SCHEMA SALES_SCHEMA;

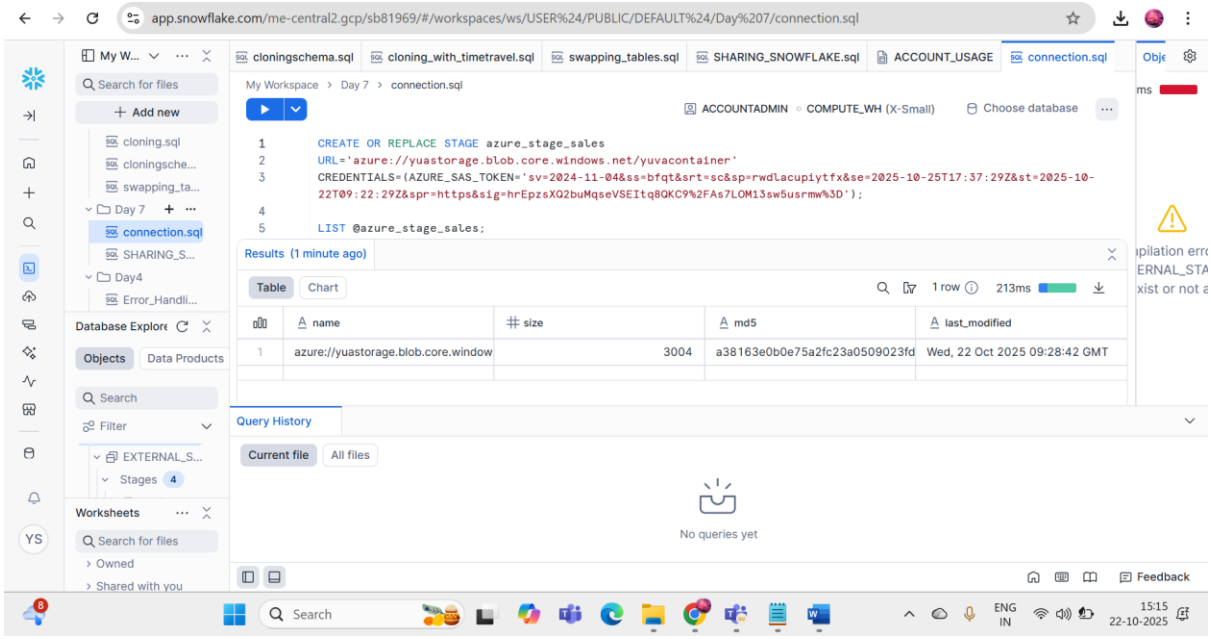
USE SCHEMA SALES_SCHEMA;

CREATE OR REPLACE STAGE azure_stage_sales

URL='azure://yuastorage.blob.core.windows.net/yuvacontainer'

CREDENTIALS=(AZURE_SAS_TOKEN='sv=2024-11-04&ss=bfqt&srt=sc&sp=rwdlacupiytfx&se=2025-10-25T17:37:29Z&st=2025-10-22T09:22:29Z&spr=https&sig=hrEpzsXQ2buMqseVSEItq8QKC9%2FAs7LOM13sw5usrmw%3D');

LIST @azure_stage_sales;



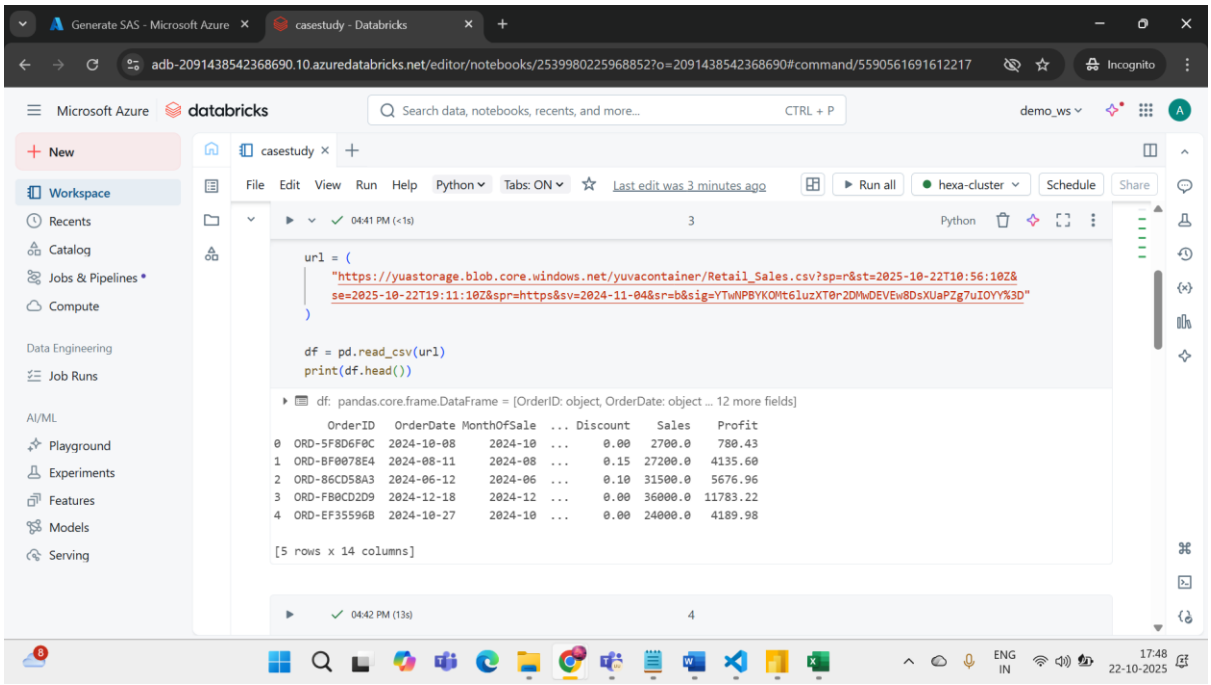
Step 3: Ingest Data Using Snowpark (Python)

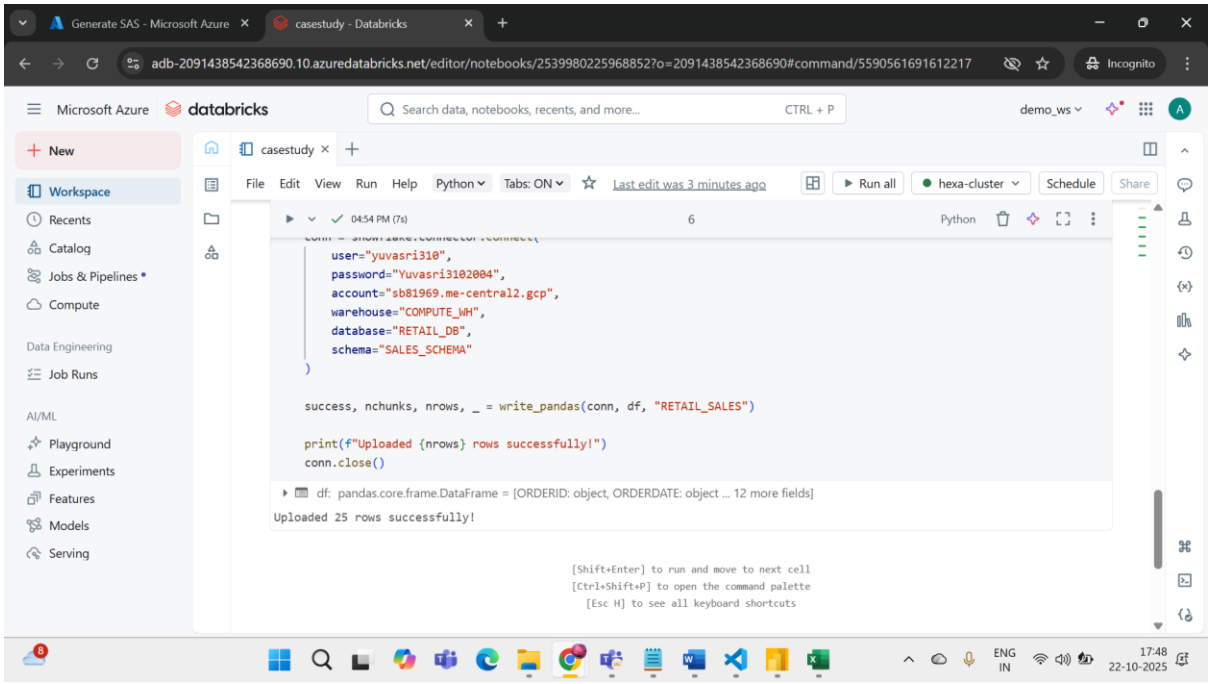
```
from snowflake.snowpark import Session
import pandas as pd
connection_parameters = {
    "account": "sb81969.me-central2.gcp",
    "user": "yuvasri310",
    "password": "Yuvasri3102004",
    "role": "SYSADMIN",
    "warehouse": "COMPUTE_WH",
    "database": "RETAIL_DB",
    "schema": "SALES_SCHEMA"
}

session = Session.builder.configs(connection_parameters).create()
df = pd.read_csv("Retail_Sales.csv")
snow_df = session.create_dataframe(df)
```

```
snow_df.write.save_as_table("retail_sales", mode="overwrite")

print("Retail_Sales table created in Snowflake!")
```

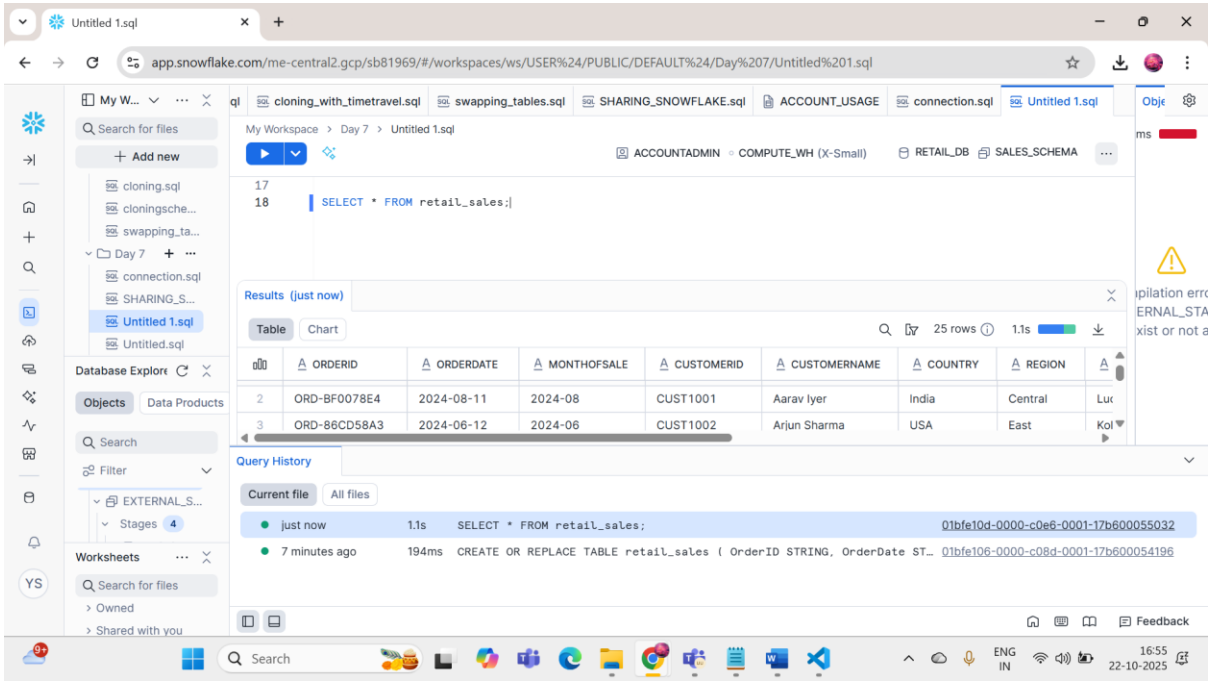




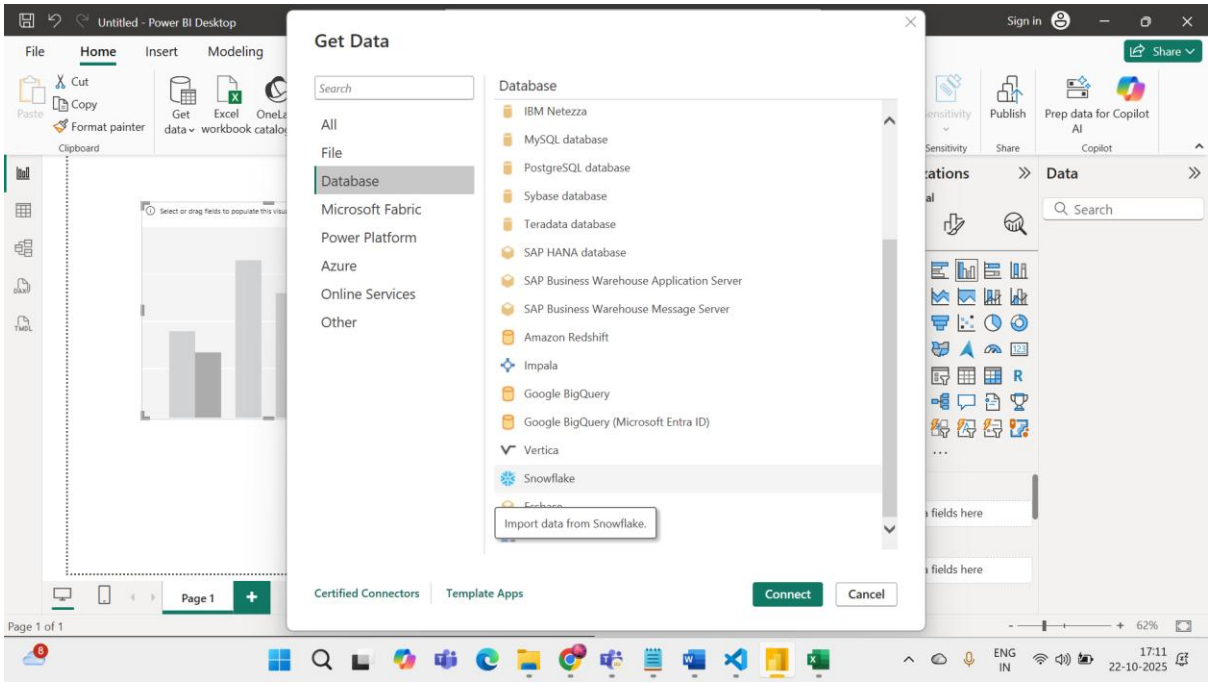
Step 4: Create Database, Schema & Model Tables in Snowflake

```
CREATE OR REPLACE TABLE retail_sales (
    OrderID STRING,
    OrderDate STRING,
    MonthOfSale STRING,
    CustomerID STRING,
    CustomerName STRING,
    Country STRING,
    Region STRING,
    City STRING,
    Category STRING,
    Subcategory STRING,
    Quantity INT,
    Discount FLOAT,
    Sales FLOAT,
    Profit FLOAT
);
```

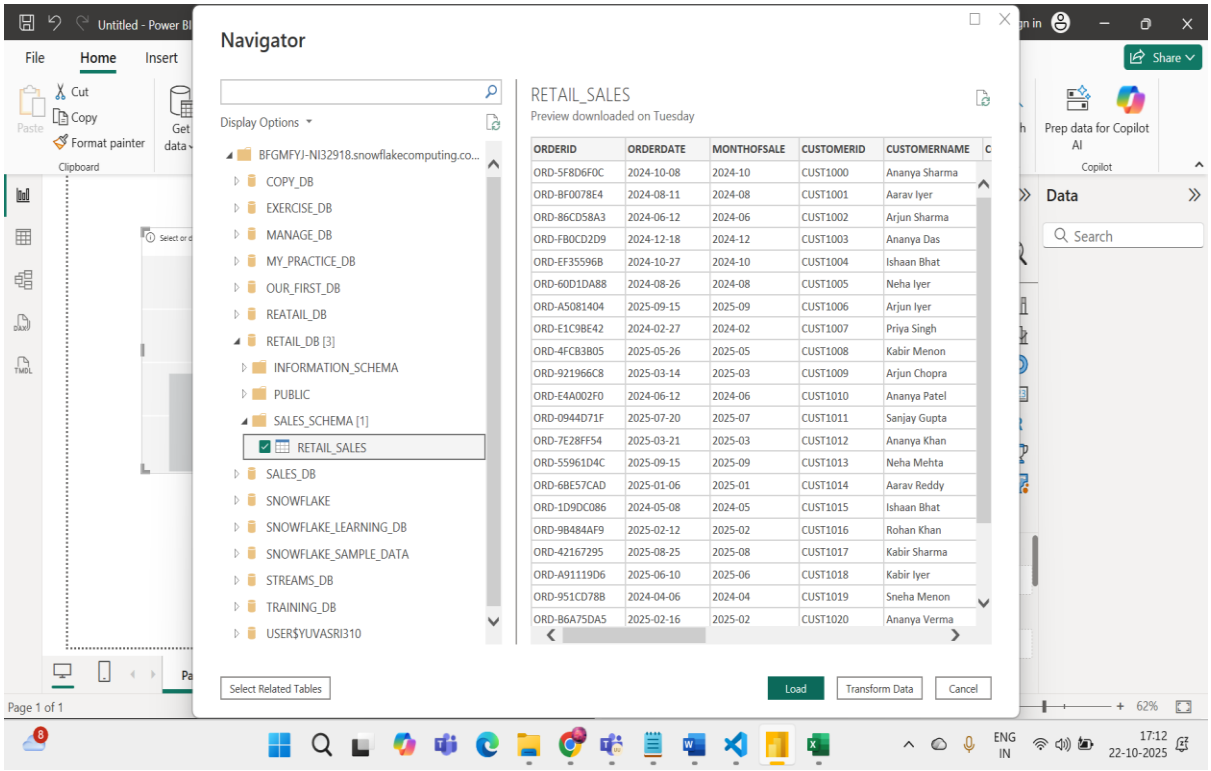
```
SELECT * FROM retail_sales;
```

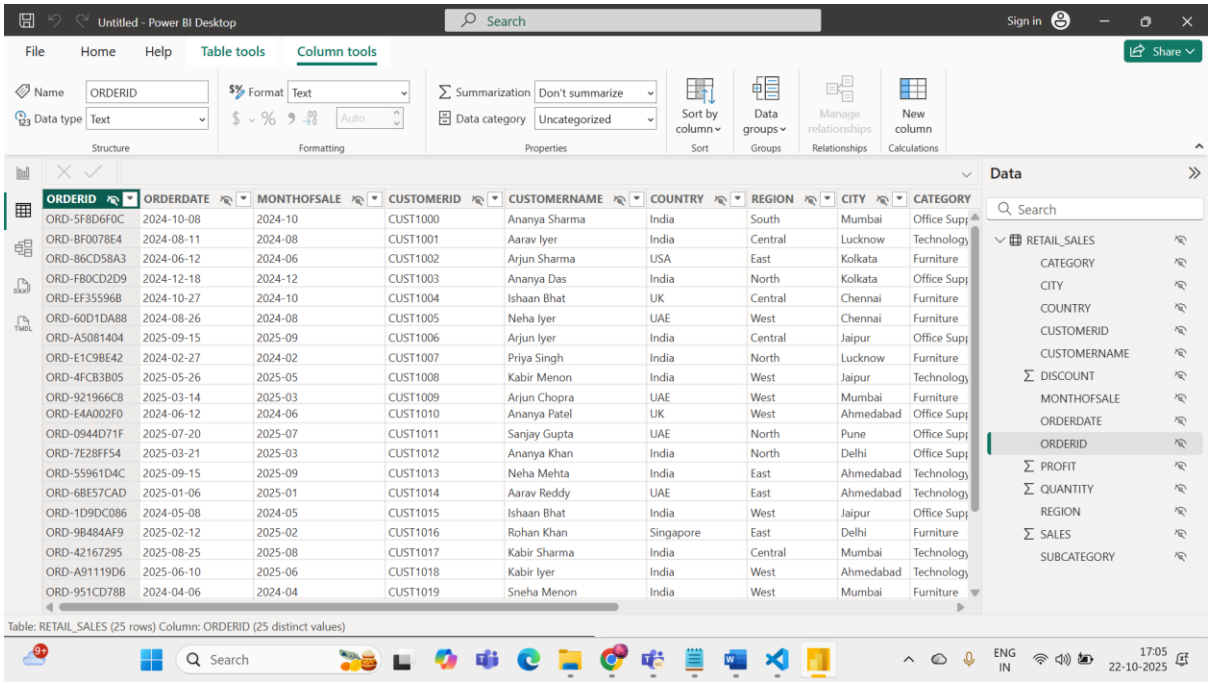


Step 5: Connect Power BI to Snowflake

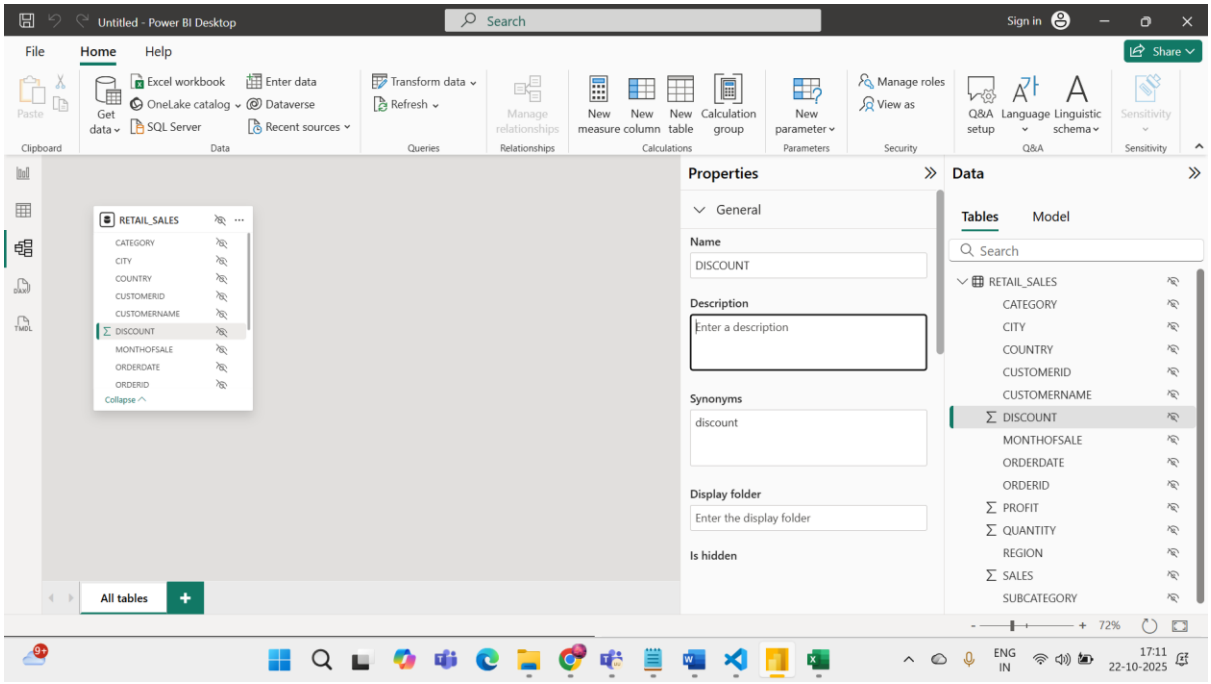


Choose the database

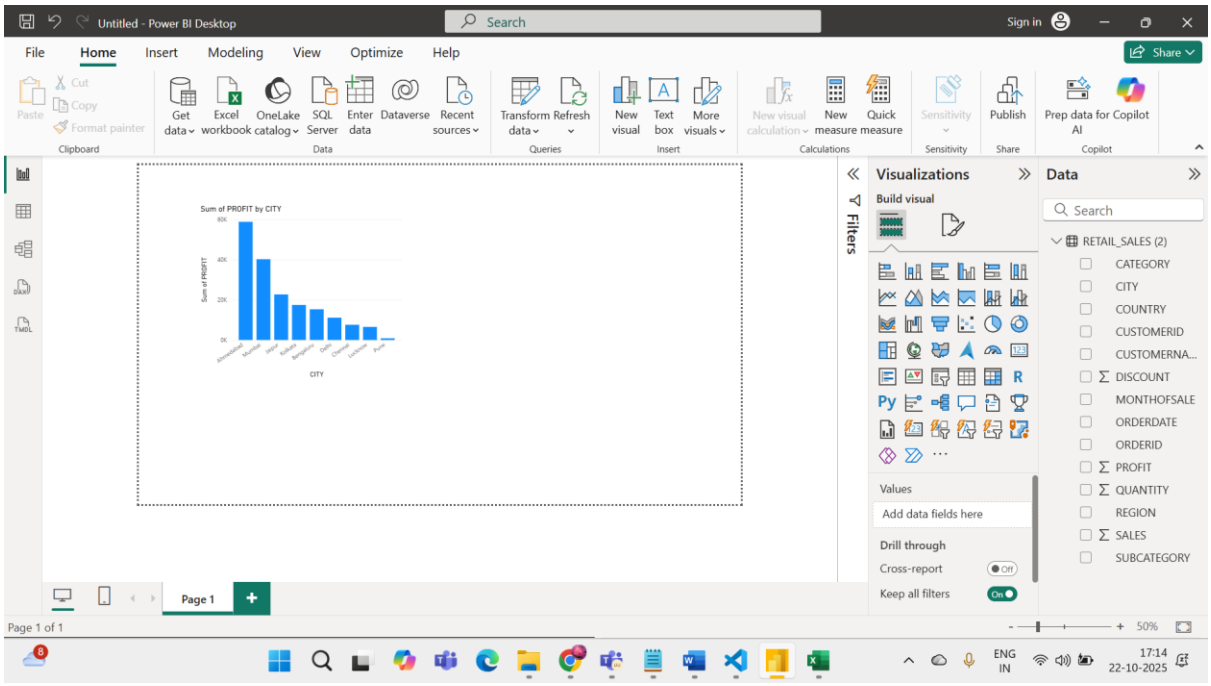


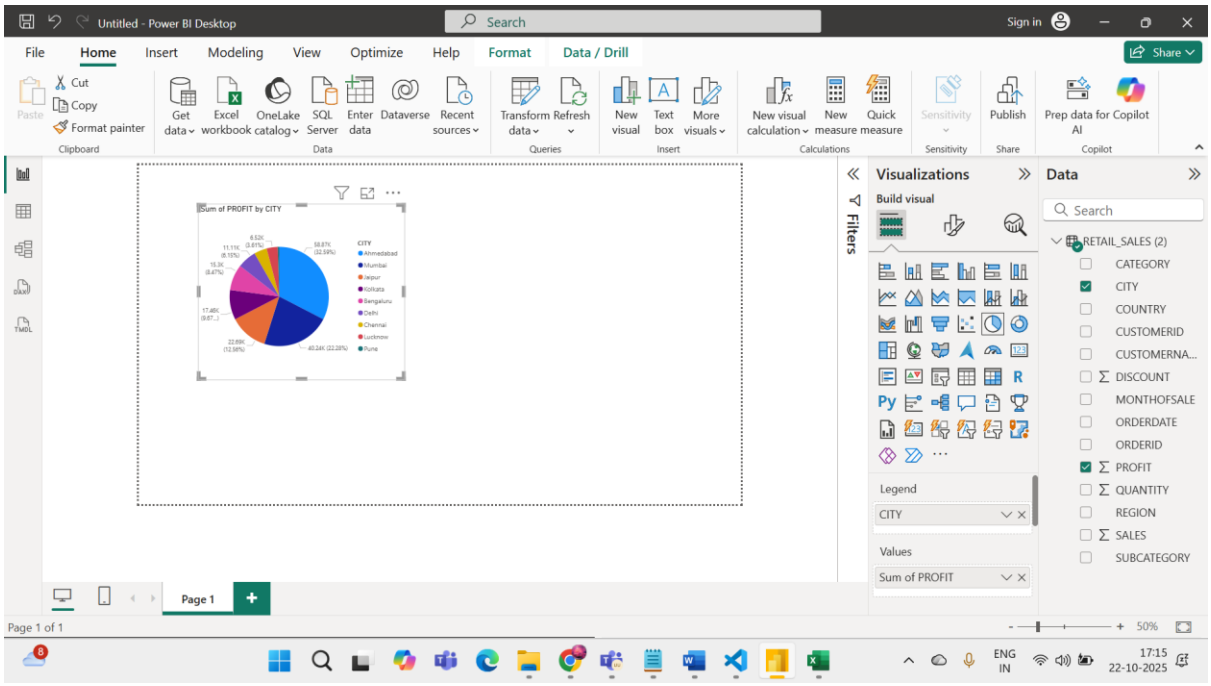


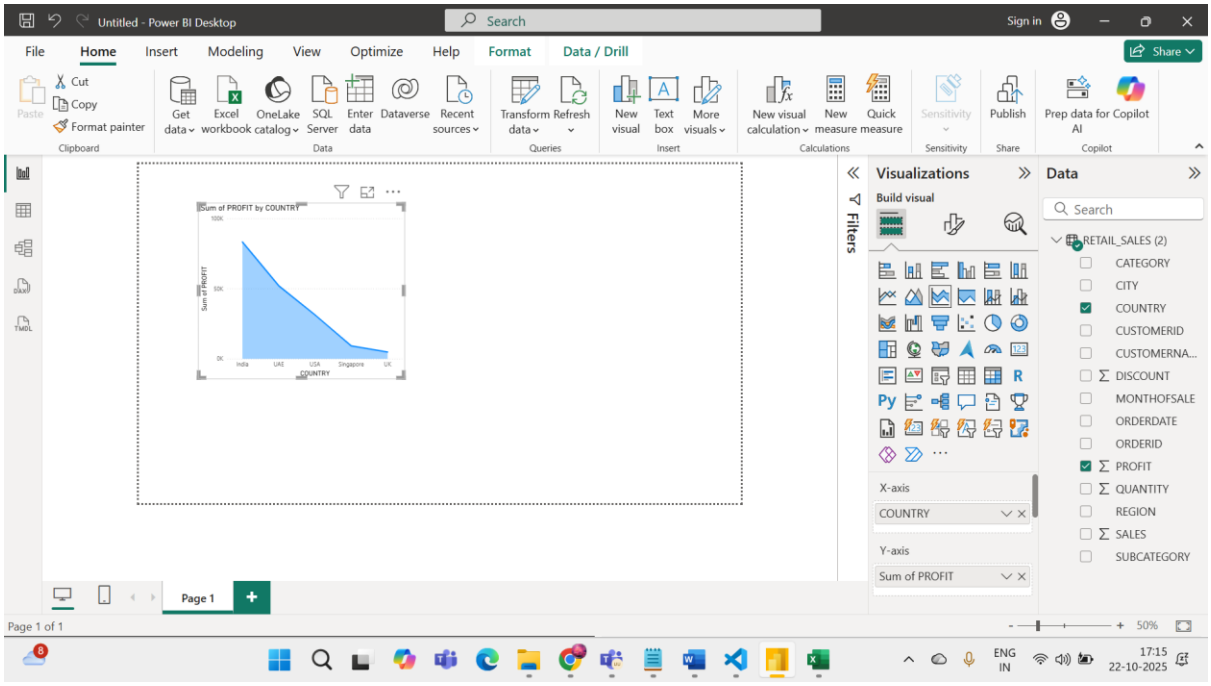
ORDERID	ORDERDATE	MONTHOFSALE	CUSTOMERID	CUSTOMERNAME	COUNTRY	REGION	CITY	CATEGORY
ORD-5F8D6F0C	2024-10-08	2024-10	CUST1000	Ananya Sharma	India	South	Mumbai	Office Supp
ORD-BF0078E4	2024-08-11	2024-08	CUST1001	Aarav Iyer	India	Central	Lucknow	Technology
ORD-86CD58A3	2024-06-12	2024-06	CUST1002	Arjun Sharma	USA	East	Kolkata	Furniture
ORD-FB0CD2D9	2024-12-18	2024-12	CUST1003	Ananya Das	India	North	Kolkata	Office Supp
ORD-EF35596B	2024-10-27	2024-10	CUST1004	Ishaan Bhat	UK	Central	Chennai	Furniture
ORD-60D1DA88	2024-08-26	2024-08	CUST1005	Neha Iyer	UAE	West	Chennai	Furniture
ORD-A5081404	2025-09-15	2025-09	CUST1006	Arjun Iyer	India	Central	Jaipur	Office Supp
ORD-E1C9BE42	2024-02-27	2024-02	CUST1007	Priya Singh	India	North	Lucknow	Furniture
ORD-4FCB3B05	2025-05-26	2025-05	CUST1008	Kabir Menon	India	West	Jaipur	Technology
ORD-921966C8	2025-03-14	2025-03	CUST1009	Arjun Chopra	UAE	West	Mumbai	Furniture
ORD-E4A002F0	2024-06-12	2024-06	CUST1010	Ananya Patel	UK	West	Ahmedabad	Office Supp
ORD-0944D71F	2025-07-20	2025-07	CUST1011	Sanjay Gupta	UAE	North	Pune	Office Supp
ORD-7E28FF54	2025-03-21	2025-03	CUST1012	Ananya Khan	India	North	Delhi	Office Supp
ORD-55961D4C	2025-09-15	2025-09	CUST1013	Neha Mehta	India	East	Ahmedabad	Technology
ORD-6BE57CAD	2025-01-06	2025-01	CUST1014	Aarav Reddy	UAE	East	Ahmedabad	Technology
ORD-1D9DC086	2024-05-08	2024-05	CUST1015	Ishaan Bhat	India	West	Jaipur	Office Supp
ORD-9B484AF9	2025-02-12	2025-02	CUST1016	Rohan Khan	Singapore	East	Delhi	Furniture
ORD-42167295	2025-08-25	2025-08	CUST1017	Kabir Sharma	India	Central	Mumbai	Technology
ORD-A91119D6	2025-06-10	2025-06	CUST1018	Kabir Iyer	India	West	Ahmedabad	Technology
ORD-951CD78B	2024-04-06	2024-04	CUST1019	Sneha Menon	India	West	Mumbai	Furniture



Visual Representation:



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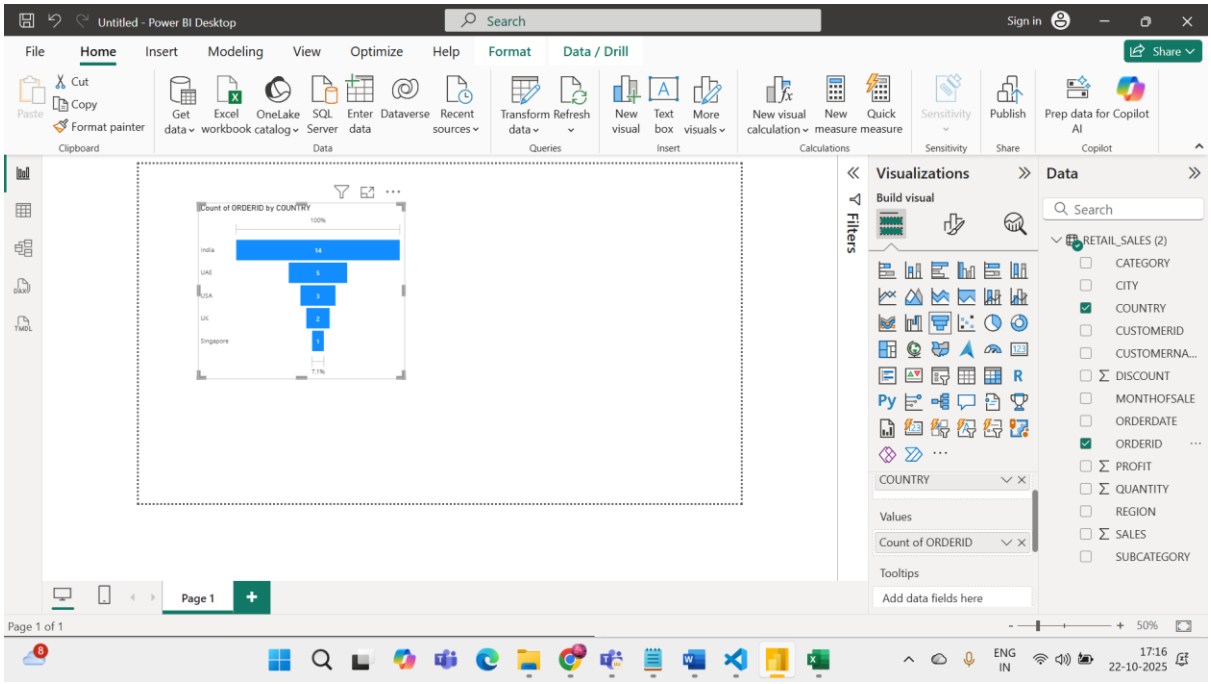
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