Experiment 2: Snowflake UI

Overview

In this experiment we will work with the Snowflake User Interface. This work will be in support of the work we'll do in the first group of experiments for our Snowflake foundation.

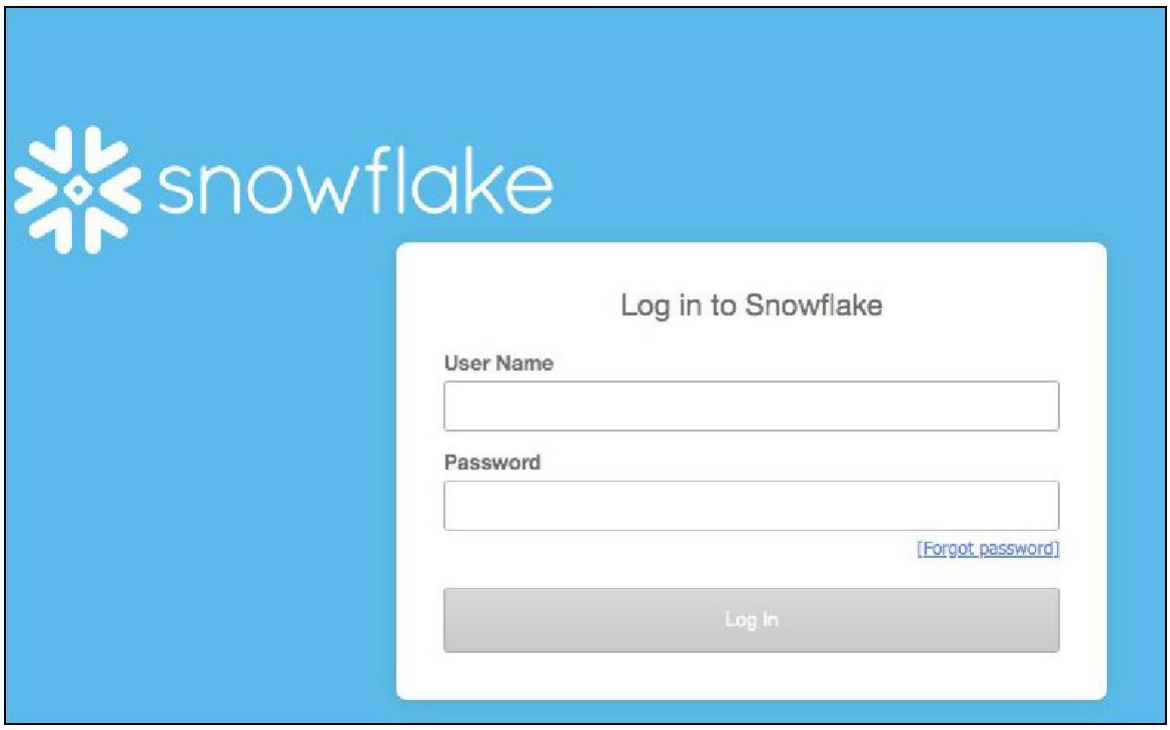
About the screen captures, sample code, and environment
Screen captures in this experiment depict examples and results that may slightly vary from what you may see when you complete the experiments for the Foundation portion of our session and beyond.

2.1 Logging Into the Snowflake User Interface (UI)

2.1.1 Open a browser window and enter the URL of your Snowflake 30-day trial environment.

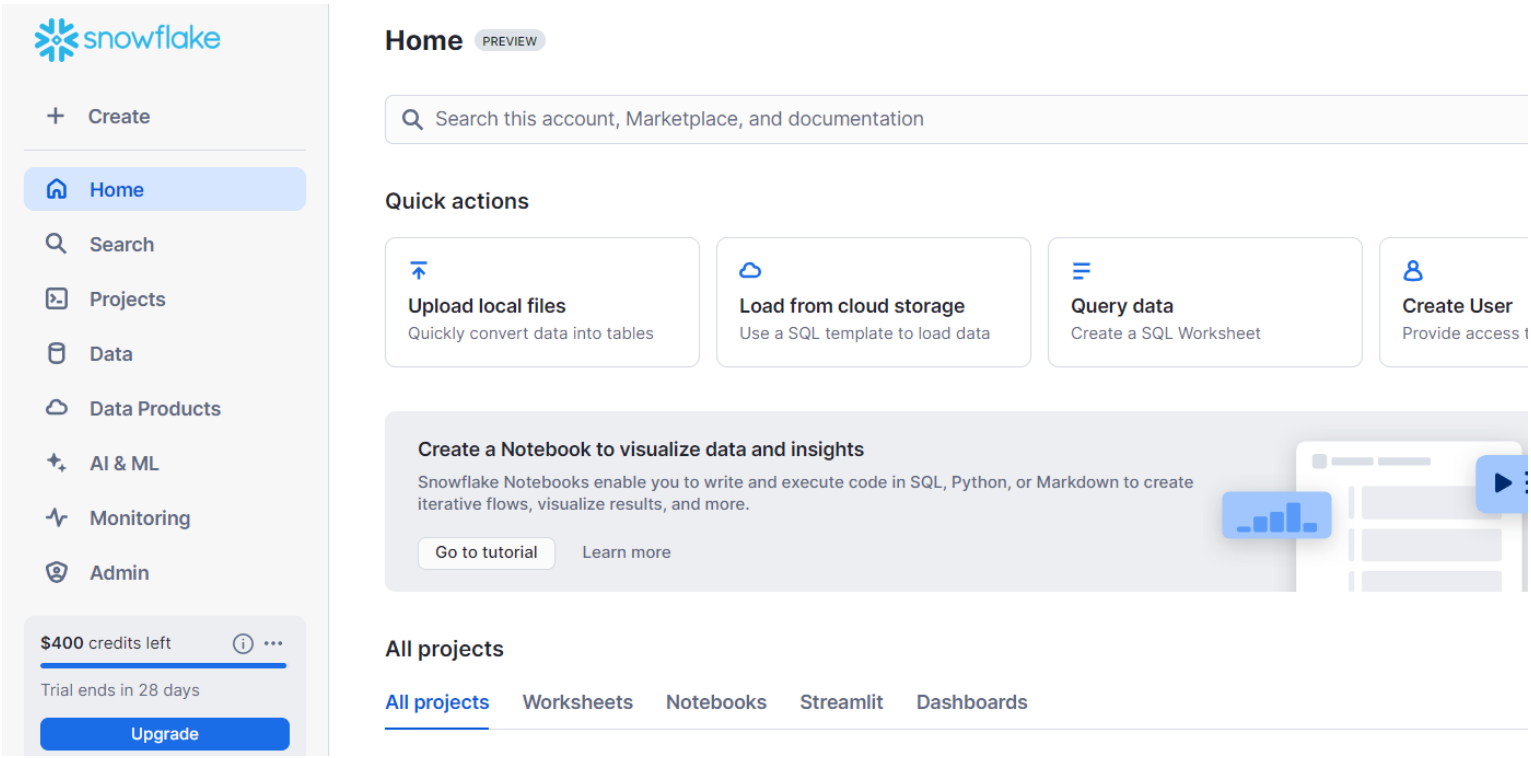
The individualized URL has your account information

2.1.2 You should see the login screen below. Enter your unique credentials to log in.

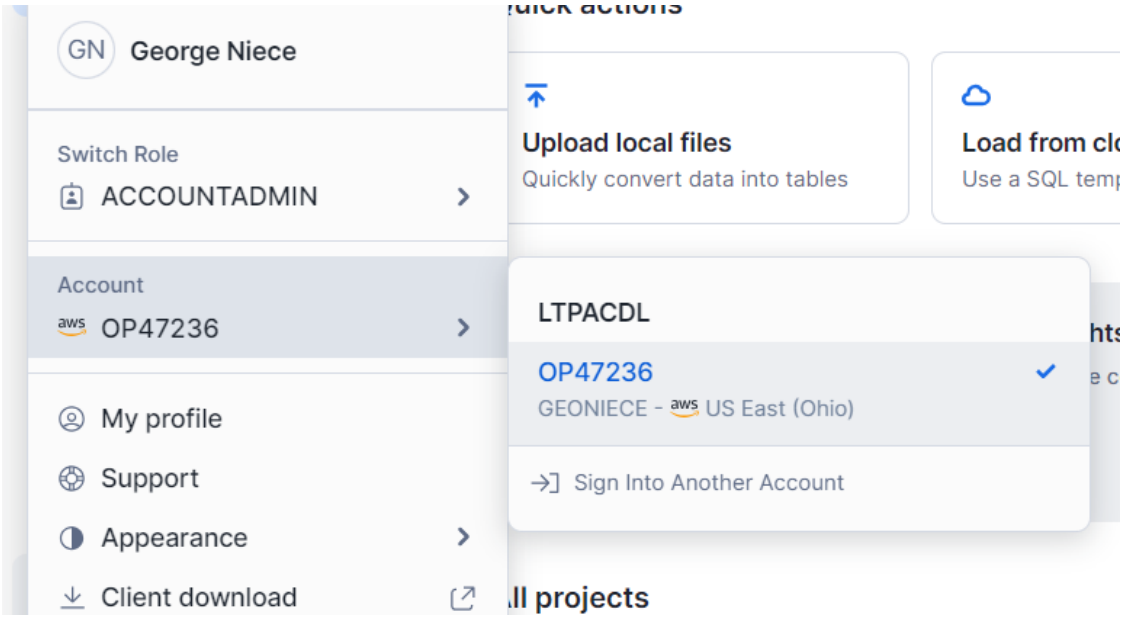


2.2 Close any Home (currently in Preview)

2.2.1 This new dashboard tries to bring everything together.



Remember that your account and the region that you're using Snowflake in (for AWS CSP) are visible under the lower left navigation where you see your account name. The account in the above URL is OP47236 and the AWS Cloud Provider region is US-EAST-2 (OHIO).

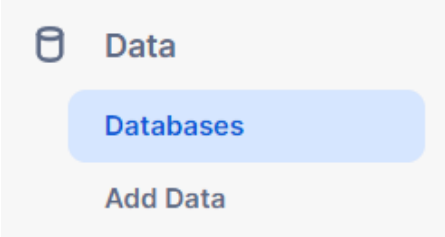


2.3 Navigating the Snowflake UI

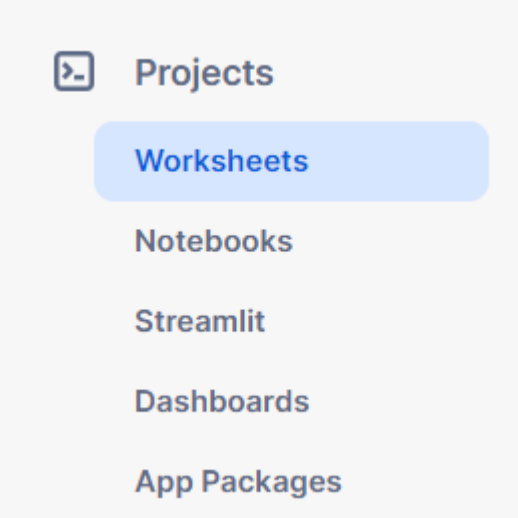
First let's get reqcquainted with the Snowflake Web User Interface! This experiment revisits the basic components of the user interface to help orient your experiments in the Foundation and beyond. We will move left to right in the top of the UI.

2.3.1 The left menu allows you to switch between the different areas of Snowflake:

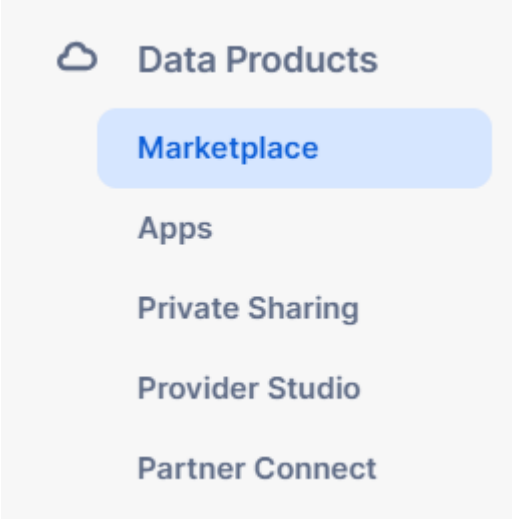
2.3.2 The **Data** navigation included **Databases** and **Add Data** shows information about the databases you have created or have privileges to access. You can create, clone, drop, or transfer ownership of databases as well as load data (limited) in the UI. Notice several databases already exist in your environment. However, we will not be using these in this experiment.



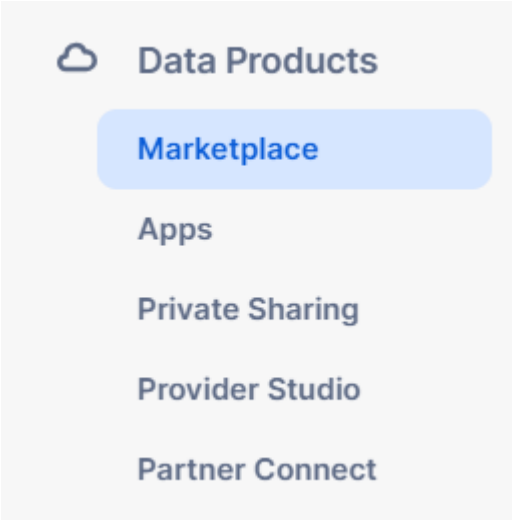
2.3.3 The **Projects** navigation is where we find the linkage to worksheets, notebooks, packages and any dashboards, along with the Streamlit component.



2.3.4 The **Data Products** navigation is where you link out to marketplace, sharing and partner connections.

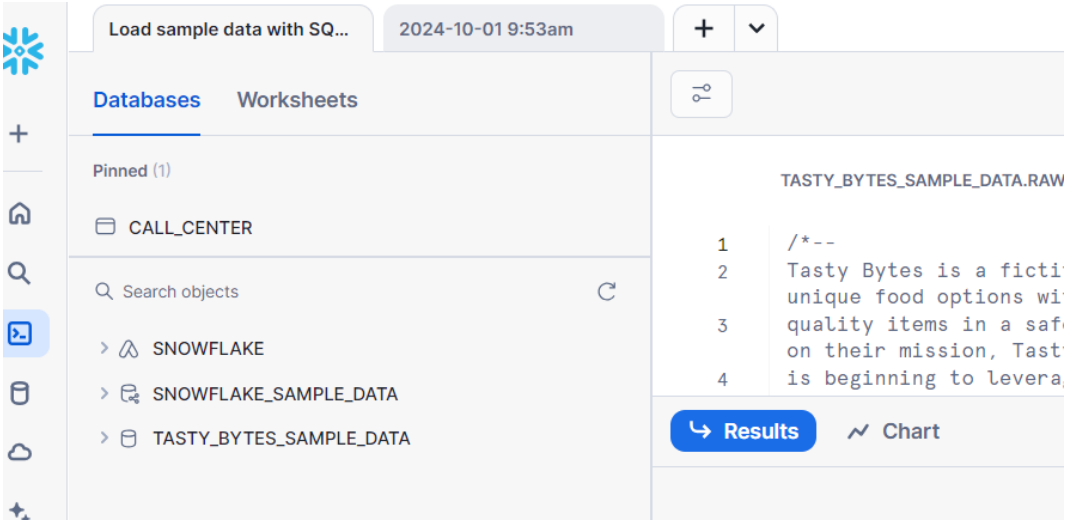


2.3.5 The **Data Products** navigation is where you link out to marketplace, sharing and partner connections.



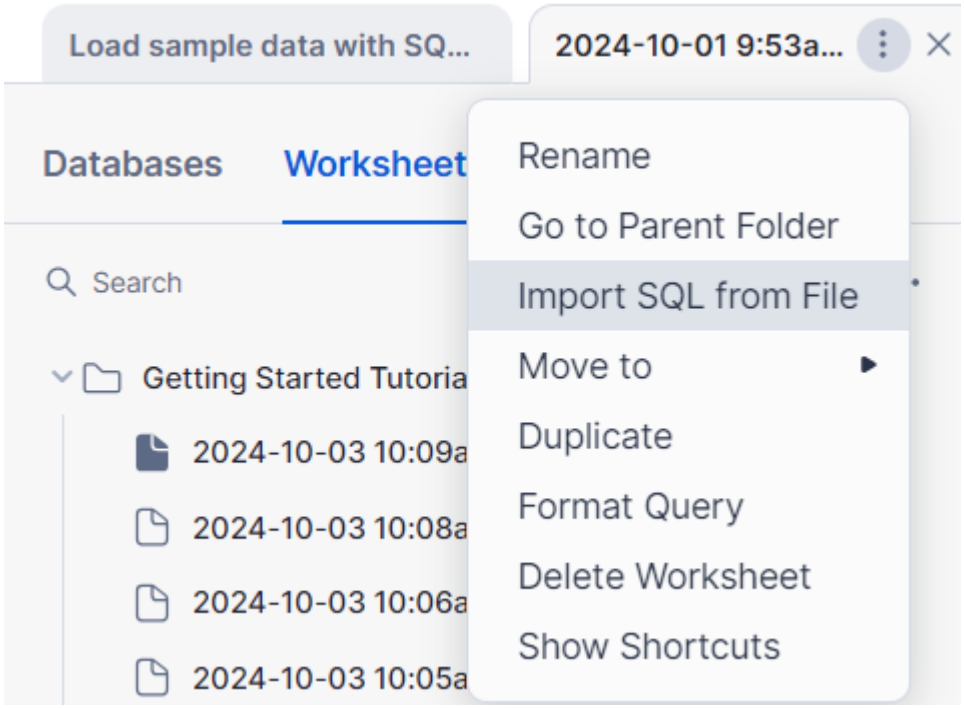
2.3.6 The **Projects** -> **Worksheets** navigation provides an interface for submitting SQL queries, performing DDL and DML operations and viewing results as your queries/operations complete. The default list of worksheets appears. Select any worksheet and you'll see the expansion to have the multi-pane view of that worksheet and details

In the left pane is the database objects browser which enables users to explore all databases, schemas, tables, and views accessible by the role selected for a worksheet. The bottom pane shows results of queries and operations.



The various windows on this page can be resized by moving the small sliders on them. And if during the experiment you need more room to work in the worksheet, collapse the database objects browser in the left pane. Many of the screenshots in this guide will have this database objects browser closed.

2.3.7 The default naming of new worksheets is date formatted but we can rename them or load SQL files into them. The worksheet tab has an ellipses menu to the right of the name (which for new worksheets is the date). Click the ellipses menu and select **Import SQL from File**



Browse to the "**foundation_experiment_scripts.sql**" file you downloaded in the prior experiment and select "Open". All of the SQL commands you need to run for the remainder of this experiment will now appear on the new worksheet. Do not run any of

the SQL commands yet. We will come back to them later in the experiment and execute them one at a time.

Warning - Do Not Copy/Paste SQL From This PDF to a Worksheet

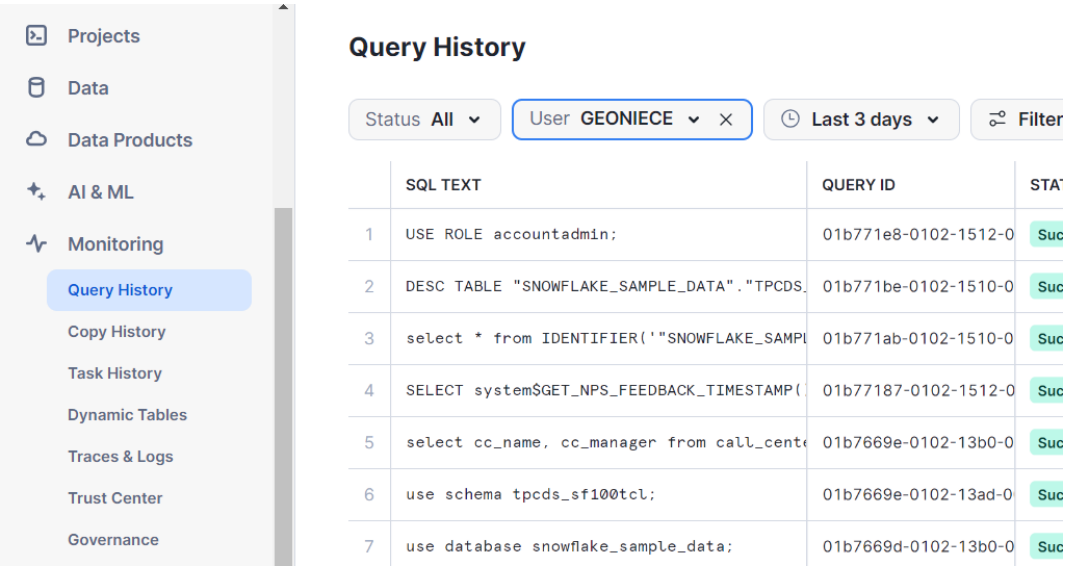
Copy-pasting the SQL code from this PDF into a Snowflake worksheet will result in formatting errors and the SQL will not run correctly. Make sure to use the “Load Script” method just covered.

On older or locked-down browsers, this “load script” step may not work as the browser will prevent you from opening the .sql file. If this is the case, open the .sql file with a text editor and then copy/paste all the text from the .sql file to the “Worksheet 1”

Worksheets vs the UI

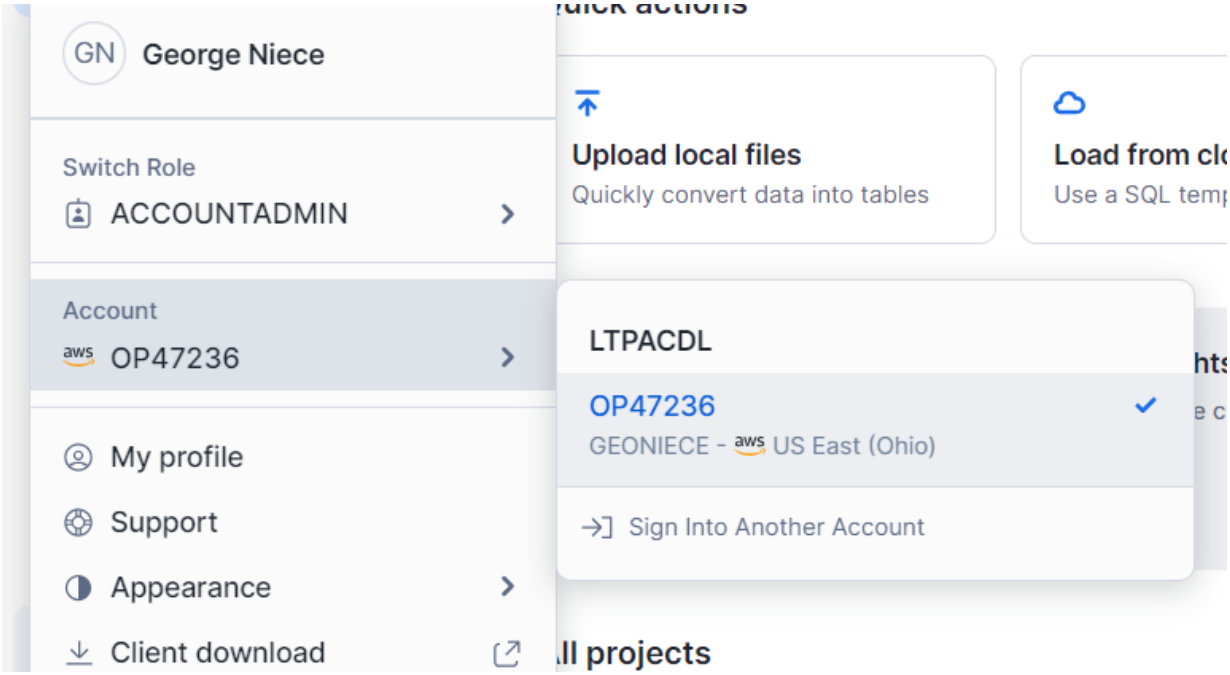
Much of the configurations in this experiment will be executed via this prewritten SQL in the Worksheet in order to save time. These configurations could also be done via the UI in a less technical manner but may take more time to complete the experiments.

2.3.8 The **Monitoring -> Query History** navigation allows you to view the details of all queries executed in the last 14 days in the Snowflake account (click on a Query ID to drill into the query for more detail). You’ll also see the the other history, trust and observability options.



2.3.9 If you lower left of the navigation where your name appears, you will see that here you can do things like change your password, roles, or preferences. Snowflake has several

system defined roles. You are currently in the default role of ACCOUNTADMIN and we will stay in this role for many of our experiments.



ACCOUNTADMIN

For most this set of experiments you will remain in the SYSADMIN (aka super user) role which has privileges to do anything including Data Sharing. The preexisting roles and the hierachry of inheritance are covered in our learning modules.

In a real-world environment, you would use different roles for the tasks in this experiment, and assign the roles to your users. More on access control in Snowflake detailed in this experiment and also at https://docs.snowflake.net/manuals/user-guide/security-access-control.html

2.4 The Experiment story

2.4.1 This Snowflake experiment will be done as part of a theoretical real-world “story” to help better you better understand why we are performing the steps in this experiment and in the order they appear. Do not run them all, or out of order, and follow along with the experiments that we’ll release for execution in our building of data engineering scenarios and pipelines.

The “story” of this experiment is based on the analytics team at Citi Bike, a real, citywide bike share system in New York City, USA. This team wants to be able to run analytics on data to better understand their riders and how to serve them best.

In our next experiment we load structured .csv data from rider transactions into Snowflake. This comes from Citi Bike internal transactional systems. Then later we will load open-source, semi-structured JSON weather data into Snowflake to see if there is any correlation between the number of bike rides and weather.

Using your own data or story for the experiments
You are free to substitute your own data, but that reduces the value of the group engagement from our shared session. **Do not use** company or customer data in a trial account