SNOWFLAKE INITIAL STEPS

Below 10 topics will give the basic overview on how to use snowflake.

1. Logging to snowflake

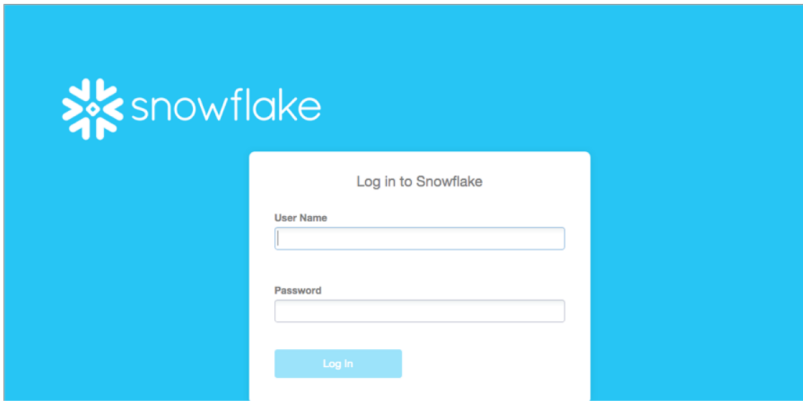
- Log into the Snowflake web interface using username and password given see below image

Logging in Using the Web Interface

To log into the Snowflake web interface:

1. Point your browser at the URL containing your account identifier. Note that the URL must start with `https://`.

If your web browser is able to communicate with the Snowflake service, the following login screen is displayed:



2. Authenticate MFA

- Snowflake supports multi-factor authentication (i.e. MFA) to provide increased login security for users connecting to Snowflake. MFA support is provided as an integrated Snowflake feature, powered by the Duo Securityservice, which is managed completely by Snowflake.
- Check the Duo User Guide(userguide) for more information about supported platforms/devices and how Duo multi-factor authentication works.
- Any Snowflake user can self-enroll in MFA through the web interface. For more information, see Managing Your User Preferences.

  See the below link to get detailed information

  MFA autentication.

Note: If you want to get familiar with snowflake check this 20 mins tutorial tutorial

3. Data Life Cycle

Snowflake provides support for all standard SELECT, DDL, and DML operations across the lifecycle of data in the system, from organizing and storing data to querying and working with data, as well as removing data from the system.

Below link provides more details about data life cycle datalifecycle

4. Virtual Warehouses

A virtual warehouse, often referred to simply as a "warehouse", is a cluster of compute resources in Snowflake. A warehouse provides the required resources, such as CPU, memory, and temporary storage.

Snowflake cloud architecture separates data warehousing into three distinct functions: compute resources (implemented as *virtual warehouses*), data storage, and cloud services. The costs associated with using Snowflake are based on your usage of each of these functions.

For more details open the link(virtual warehouse)

5. Database & Schemas

Databases and schemas are used to organize data stored in Snowflake:

- A database is a logical grouping of schemas. Each database belongs to a single Snowflake account.
- A schema is a logical grouping of database objects (tables, views, etc.). Each schema belongs to a single database.
- Snowflake provides a full set of DDL commands for creating and managing databases and schemas.
- Shared Database : In addition, Snowflake provides DDL for creating and managing shares. A share specifies a set of database objects (schemas, tables, and secure views) containing data you wish to share with other Snowflake accounts. For example :Sharing data in azure account with aws account.

Below provides the details about databases ,schemas DATABASE DETAILS

6. Tables & Views

Tables and views are the primary objects created and maintained in database schemas:

- All data in Snowflake is stored in tables.
- Views can be used to display selected rows and columns in one or more tables.
- Open the link (tables&views)and go through the topics as mentioned below to get more details about tables and views
    - Table Management
    - External Table Management
    - Standard View Management
    - Materialized View Management
    - Sequence Management
    - Column-level Security Management
    - Row Access Policy Management

7. User Defined Functions, Stored Procedures

UDFs (user-defined functions) and stored procedures are two programming constructs that allow you to extend Snowflake SQL

- UDFs: UDFs can contain SQL scripts or JavaScript; however, DDL and DML operations are not supported in UDFs.
- Procedures: Snowflake provides a JavaScript API. The API enables stored procedures to execute database operations such as SELECT, UPDATE, and CREATE.Get more details with the link(Procedures)

Calling Methods:

	Stored Procedure	UDFs
Calling Methods	A stored procedure is called as an independent statement, rather than as part of a statement	User defined function in Snowflake is called as a part of the SQL statement.
	Only one stored procedure per CALL statement	Can call multiple UDFs in a SQL statement
	Cannot call a user stored procedure as a part of an expression.	can call a user defined functions as a part of an expression
Example	**CALL TempProcedure(argument1);**	**SELECT MyFunction(argument1) FROM temp_table;**

Return Type:

	Stored Procedure	UDFs
Return Type	A stored procedure is allowed to return a value, but is not required to return a value. Stored procedure in Snowflake may or may not return results.	A function, on the other hand, is required to return a value.
	The value returned by a stored procedure, unlike the value returned by a function, cannot be used directly in SQL.	You can directly use the udfs return value inside your SQL statements.
Example	**Following CALL statement is not allowed in Snowflake. x = CALL TempProcedure(argument1);**	**SELECT MyFunction(col1),col2 FROM temp_table;**

8. Data Loading

   Concepts and tasks for loading (i.e. importing) data into Snowflake database tables is in the given link (Data loading)

   - Key concepts related to data loading, as well as best practices.
     - Overview of Data Loading
     - Summary of Data Loading Features
     - Data Loading Considerations

9. All commands

   This topic provides a list of all DDL and DML commands, as well as the SELECT command and other related commands, in alphabetical order. Clink the provided link to check all the commands All Commands

10. Summary

    All the topics covered earlier will give the basic idea of snowflake .However there are few courses which are added will help you understand more

    Below course will provide the overview of snowflake interface and training

1. snowflake basic course
2. Essential Training