

# Airflow DAG for Full refresh on stock price using Alpha Vantage API

- Set up required variables:

Import Variables

<input type="checkbox"/>	Key	Value
<input type="checkbox"/>	snowflake_userid	POODLE
<input type="checkbox"/>	snowflake_password	***
<input type="checkbox"/>	snowflake_account	SFEDU
<input type="checkbox"/>	alpha_vantage_api	7JUC

- Set up Snowflake connection:

Add Connection

Connection ID \*

snowflake\_conn

Connection Type \*

Snowflake

Connection type missing? Make sure you have installed the corresponding Airflow Providers Package.

Standard Fields

Description

login

POODLE

password

.....

schema

snowflake schema

Extra Fields

Extra Fields JSON

Save

Extra Fields JSON

```
1 {
2   "account": "SFEDU02-LVB17920",
3   "warehouse": "POODLE_QUERY_WH",
4   "database": "USER_DB_POODLE",
5   "region": null,
6   "role": null,
7   "private_key_file": null,
8   "private_key_content": null,
9   "insecure_mode": false
10 }
```

Standard Fields

Extra Fields

Account

SFEDU02-LVB17920

Warehouse

POODLE\_QUERY\_WH

Database

USER\_DB\_POODLE

Region

Role

Private key (Path)

Private key (Text)

Insecure mode

☐ Turns off OCSP certificate checks

- Airflow Homepage showing my DAG “stock\_price\_full\_refresh\_v2”:

Sample DAG with Display Name example

ScheduleLatest RunNext Run

stock\_price\_full\_refresh\_v2 snowflake, alphavantage, full-refresh, ETL

ScheduleLatest RunNext Run

30 2 \*\*\*2025-10-04, 19:30:00

tutorial example

ScheduleLatest RunNext Run

1 day, 0:00:002025-10-04, 13:18:40

tutorial\_dag example

ScheduleLatest RunNext Run

- Log screen of my DAG (Load Operation):

Dag stock\_price\_full\_refresh\_v2 Dag Run 2025-10-04, 13:14:29 Task load

Options

extracttransformload

load 2025-10-04, 13:14:38 success

Add a noteClear Task InstanceMark Task Instance as...

OperatorPythonDecoratedOperatorStart2025-10-04, 13:14:38End2025-10-04, 13:14:44Duration6.05sDAG Versionv1

LogsRendered TemplatesXComAudit LogsCodeDetailsAsset Events

All Log LevelsAll SourcesWrap

Log message source details: sources=[/opt/airflow/logs/dag\_id=stock\_price\_full\_refresh\_v2/run\_id=manual\_2025-10-04T20:14:32.326892+00:00/task\_id=load]

2 [2025-10-04, 13:14:38] INFO - DAG bundles loaded: dags-folder, example\_dags: source="airflow.dag\_processing.bundles.manager.DagBundlesManager"

3 [2025-10-04, 13:14:38] INFO - Filling up the DagBag from /opt/airflow/dags/stock\_price\_dag.py: source="airflow.models.dagbag.DagBag"

4 [2025-10-04, 13:14:38] INFO - Task instance is in running state: chan="stdout": source="task"

5 [2025-10-04, 13:14:38] INFO - Previous state of the Task Instance: TaskInstanceState.QUEUED: chan="stdout": source="task"

6 [2025-10-04, 13:14:38] INFO - Current task name:load: chan="stdout": source="task"

7 [2025-10-04, 13:14:38] INFO - Dag name:stock\_price\_full\_refresh\_v2: chan="stdout": source="task"

8 [2025-10-04, 13:14:38] WARNING - /home/airflow/.local/lib/python3.12/site-packages/airflow/models/connection.py:471: DeprecationWarning: Using warnings.warn() source="py.warnings"

9 [2025-10-04, 13:14:38] INFO - Connection Retrieved 'snowflake\_conn': source="airflow.hooks.base"

10 [2025-10-04, 13:14:38] INFO - Snowflake Connector for Python Version: 3.17.2, Python Version: 3.12.11, Platform: Linux-6.10.14-linuxkit-aarch64: source="snowflake.connector.connection"

11 [2025-10-04, 13:14:38] INFO - Connecting to GLOBAL Snowflake domain: source="snowflake.connector.connection"

12 [2025-10-04, 13:14:44] INFO - Full refresh committed. Row count in target: 90: chan="stdout": source="task"

13 [2025-10-04, 13:14:44] INFO - Done. Returned value was: None: source="airflow.task.decorators.python\_callable\_decorator"

14 [2025-10-04, 13:14:44] INFO - Task instance in success state: chan="stdout": source="task"

15 [2025-10-04, 13:14:44] INFO - Previous state of the Task Instance: TaskInstanceState.RUNNING: chan="stdout": source="task"

16 [2025-10-04, 13:14:44] INFO - Task operator:Task(PythonDecoratedOperator): load: chan="stdout": source="task"

- **Extra Screenshots:**

The screenshot shows the Snowflake Database Explorer interface. On the left, the 'Horizon Catalog' sidebar is visible with various navigation options. The main panel displays the 'Database Explorer' for 'USER\_DB\_POODLE / RAW / STOCK\_PRICE\_DAG'. The 'Data Preview' tab is active, showing a table with 180 rows and 7 columns: OPEN, HIGH, LOW, CLOSE, TRADE\_VOLUME, TRADE\_DATE, and SYMBOL. The table contains stock price data for AAPL from 2025-09-09 to 2025-10-03.

	OPEN	HIGH	LOW	CLOSE	TRADE_VOLUME	TRADE_DATE	SYMBOL
1	255	259	254	258	49155614	2025-10-03	AAPL
2	257	258	254	257	42630239	2025-10-02	AAPL
3	255	259	255	255	48713940	2025-10-01	AAPL
4	255	256	253	255	37704259	2025-09-30	AAPL
5	255	255	253	254	40127687	2025-09-29	AAPL
6	254	258	254	255	46076258	2025-09-26	AAPL
7	253	257	252	257	55202075	2025-09-25	AAPL
8	255	256	251	252	42303710	2025-09-24	AAPL
9	256	257	254	254	60275187	2025-09-23	AAPL
10	248	257	248	256	105517416	2025-09-22	AAPL
11	241	246	240	246	163741314	2025-09-19	AAPL
12	240	241	237	238	44249576	2025-09-18	AAPL
13	239	240	238	239	46508017	2025-09-17	AAPL
14	237	241	236	238	63421099	2025-09-16	AAPL
15	237	238	235	237	42699524	2025-09-15	AAPL
16	229	235	229	234	55824216	2025-09-12	AAPL
17	227	230	227	230	50208578	2025-09-11	AAPL
18	232	232	226	227	83440810	2025-09-10	AAPL
19	237	239	233	234	66313918	2025-09-09	AAPL

**Snowflake UI showing the output table “STOCK\_PRICE\_DAG” after successful execution of airflow DAG**

The screenshot shows the Airflow DAG Run interface for 'stock\_price\_full\_refresh\_v2'. The DAG run is successful, with a logical date of 2025-10-04, 13:14:29. The task instances table shows three tasks: 'extract', 'transform', and 'load', all of which completed successfully.

Task ID	Map Index	State	Start Date	End Date	Try Number	Operator
load		success	2025-10-04, 13:14:38	2025-10-04, 13:14:44	1	._PythonDecoratedOperatc
transform		success	2025-10-04, 13:14:36	2025-10-04, 13:14:37	1	._PythonDecoratedOperatc
extract		success	2025-10-04, 13:14:34	2025-10-04, 13:14:36	1	._PythonDecoratedOperatc

**Airflow UI showing successful execution of my ”stock\_price\_full\_refresh\_v2” DAG**

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