

DATA SOURCE
yfinance API
(AAPL, NVDA, TSLA, MSFT Stock Market Data)

Daily @ Midnight UTC
Python Script (fetch_and_upsert)

APACHE AIRFLOW (Orchestration)

DAG: stock_etl_dbt

Task 1: fetch_and_upsert

ETL task

Task 2: dbt_debug

Task 3: dbt_deps

Task 4: dbt_snapshot

Task 5: dbt_run_all_models

Task 6: dbt_test

ELT tasks
(dbt)

Load Raw Data

SNOWFLAKE DATA WAREHOUSE

ASH_DB STOCK_SCHEMA

RAW LAYER

- fact_stock_price_daily

(SYMBOL, DATE, OPEN, CLOSE, MIN, MAX, VOLUME)

dbt Run (ELT transformations)

STAGING LAYER (dbt models)

- stg_stock_daily

(Cleaned and validated)

Calculate Indicators

INTERMEDIATE LAYER (dbt models)

- int_daily_returns
- int_moving_averages
- int_rsi
- int_macd
- int_bollinger

Consolidate Metrics

MARTS LAYER (dbt models)

- mart_stock_daily_metrics

(All indicators combined – ready for BI)

SQL Queries Read Only

PRESET (BI Tool)
Interactive Dashboards

Business Users / Analysts