⚠ Details   🔲 Graph   📊 Gantt   <> Code   📋 Event Log   ☰ Logs   ⇄ XCom   ⏳ Task Duration

Layout:
Left -> Right

Duration
00:04:37
00:02:18
00:00:00

extract_and_load
debug_env
dbt_run_transformations
dbt_test
dbt_snapshot

extract_and_load	debug_env	dbt_run_transformations	dbt_test	dbt_snapshot
■ success	■ success	■ success	■ success	■ success
@task	BashOperator	BashOperator	BashOperator	BashOperator

React Flow

⚠ Details   🔲 Graph   📊 Gantt   <> Code   📋 Event Log   ☰ Logs   ⇄ XCom   ⏳ Task Duration

Parsed at: 2025-04-23, 03:47:08 UTC

Duration
00:04:37
00:02:18
00:00:00

extract_and_load
debug_env
dbt_run_transformations
dbt_test
dbt_snapshot

Toggle Wrap

```
90
91      load_task = extract_and_load()
92
93      print_env = BashOperator(
94          task_id="debug_env",
95          bash_command='echo $DBT_USER $DBT_ACCOUNT $DBT_ROLE $DBT_DATABASE $DBT_WAREHOUSE $DBT_SCHEMA',)
96
97      dbt_run = BashOperator(
98          task_id="dbt_run_transformations",
99          bash_command=f"/home/airflow/.local/bin/dbt run --select models/intermediate/moving_averages models/intermedia
100         )
101
102     dbt_test = BashOperator(
103          task_id="dbt_test",
104          bash_command=f"/home/airflow/.local/bin/dbt test --profiles-dir {DBT_PROJECT_DIR} --project-dir {DBT_PROJI
105         )
106
107     dbt_snapshot = BashOperator(
108          task_id="dbt_snapshot",
109          bash_command=f"/home/airflow/.local/bin/dbt snapshot --profiles-dir {DBT_PROJECT_DIR} --project-dir {DBT_
110         )
111
112     load_task >> print_env >> dbt_run >> dbt_test >> dbt_snapshot
113
```

EXPLORER   ☰ stg_stock_data.sql 6 ✕

OPEN EDITORS
    ✕ ☰ stg_stock_data.sql d...   6
AIRFLOW
    ∨ dbt
        ∨ models
            ∨ intermediate
                ☰ moving_averages.sql
                ☰ rsi.sql
            ∨ mart / analytics
                ☰ stock_analysis.sql
            ∨ staging
                ☰ stg_stock_data.sql   6
        ☰ sources.yml

dbt > models > staging > ☰ stg_stock_data.sql

```
        Add documentation or tests | Datapilot Notebooks
1       {{ config(materialized='view') }}
2
3       ∨ SELECT
4             *
5       FROM {{ source('raw', 'stock_data') }}
6 +
```

STOCK_DATA

USER_DB_SWAN / RAW / STOCK_DATA

Table | TRAINING_ROLE | 1 day ago | 360 | 14.0KB

Table Details | Columns | **Data Preview** | Copy History | Lineage

SWAN_QUERY_WH   100 of 360 Rows • Updated just now

	SYMBOL	DATE	...	OPEN	HIGH	LOW	CLOSE	VOLUME
1	NVDA	2024-08-02		103.734431295	108.693208026	101.345020902	107.243560791	482027500
2	NVDA	2024-08-05		92.037315005	103.384524594	90.667657439	100.425247192	552842400
3	NVDA	2024-08-06		103.814401596	107.683450454	100.525219235	104.224304199	409012100
4	NVDA	2024-08-07		107.783436596	108.773198184	98.665688357	98.885635376	411440400
5	NVDA	2024-08-08		101.974868134	105.474005766	97.495968609	104.944137573	391910000
6	NVDA	2024-08-09		105.613969853	106.573732396	103.404515309	104.724189758	290844200
7	NVDA	2024-08-12		106.29380189	111.042631465	106.233819115	108.993133545	325559900
8	NVDA	2024-08-13		112.412296292	116.20136332	111.552507593	116.111381531	312646700
9	NVDA	2024-08-14		118.500797034	118.570779483	114.041896741	118.05091095	339246400
10	NVDA	2024-08-15		118.730738963	123.209630793	117.441055911	122.829727173	318086700
11	NVDA	2024-08-16		121.909952342	124.969195815	121.150137496	124.549301147	302589900
12	NVDA	2024-08-19		124.249379822	129.967971802	123.389591091	129.967971802	318333600
13	NVDA	2024-08-20		128.368361403	129.848007775	125.858985256	127.218650818	300087400
14	NVDA	2024-08-21		127.288643574	129.318150037	126.628810084	128.468353271	257883600
15	NVDA	2024-08-22		129.987969944	130.717785815	123.069669097	123.709510803	376189100

MOVING AVERAGE

EXPLORER

OPEN EDITORS
- moving_averages.sql... 8

AIRFLOW
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- dags
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      - stock_analysis.sql
    - staging
      - stg_stock_data.sql 6
    - sources.yml

dbt > models > intermediate > moving_averages.sql

Add documentation or tests | Datapilot Notebooks

```sql
1   with base as (
2       select
3           symbol,
4           date,
5           close,
6           avg(close) over (partition by symbol order by date rows between 4 preceding and current row) as ma_5,
7           avg(close) over (partition by symbol order by date rows between 9 preceding and current row) as ma_10,
8           avg(close) over (partition by symbol order by date rows between 19 preceding and current row) as ma_20
9       from {{ ref('stg_stock_data') }}
10  )
11
12  select
13      symbol,
14      date,
15      close,
16      ma_5,
17      ma_10,
18      ma_20
19  from base
20
```

View TRAINING_ROLE 1 day ago

View Details   Columns   **Data Preview**   Lineage

• SWAN_QUERY_WH   Updated just now

	SYMBOL	DATE	CLOSE	MA_5	MA_10	MA_20
1	AAPL	2024-08-02	219.123550415	219.123550415	219.123550415	219.123550415
2	AAPL	2024-08-05	208.569015503	213.846282959	213.846282959	213.846282959
3	AAPL	2024-08-06	206.535842896	211.409469604	211.409469604	211.409469604
4	AAPL	2024-08-07	209.117172241	210.836395264	210.836395264	210.836395264
5	AAPL	2024-08-08	212.595474243	211.18821106	211.18821106	211.18821106
6	AAPL	2024-08-09	215.515686035	210.466638184	211.909456889	211.909456889
7	AAPL	2024-08-12	217.05229187	212.163293457	212.6441476	212.6441476
8	AAPL	2024-08-13	220.784088135	215.012942505	213.661640167	213.661640167
9	AAPL	2024-08-14	221.233093262	217.436126709	214.502912733	214.502912733
10	AAPL	2024-08-15	224.226501465	219.762332153	215.475271606	215.475271606
11	AAPL	2024-08-16	225.553588867	221.76991272	216.118275452	216.391482267
12	AAPL	2024-08-19	225.393920898	223.438238525	217.800765991	217.141685486
13	AAPL	2024-08-20	226.012573242	224.483935547	219.748439026	217.824061467
14	AAPL	2024-08-21	225.902816772	225.417880249	221.427003479	218.401115417
15	AAPL	2024-08-22	224.036911011	225.379962158	222.571147156	218.776835124

RSI

moving_averages.sql 8   rsi.sql 7 ×

dbt > models > intermediate > rsi.sql

Add documentation or tests | Datapilot Notebooks

```sql
with price_changes as (
    select
        symbol,
        date,
        close,
        close - lag(close) over (partition by symbol order by date) as price_diff
    from {{ ref('stg_stock_data') }}
),

gains_losses as (
    select
        symbol,
        date,
        case when price_diff > 0 then price_diff else 0 end as gain,
        case when price_diff < 0 then abs(price_diff) else 0 end as loss
    from price_changes
),

avg_gains_losses as (
    select
        symbol,
        date,
        avg(gain) over (partition by symbol order by date rows between 13 preceding and current row) as avg_gain_14,
        avg(loss) over (partition by symbol order by date rows between 13 preceding and current row) as avg_loss_14
    from gains_losses
),

rsi_calc as (
    select
        symbol,
        date,
        avg_gain_14,
        avg_loss_14,
        case
            when avg_loss_14 = 0 then 100
            else 100 - (100 / (1 + (avg_gain_14 / avg_loss_14)))
        end as rsi_14
    from avg_gains_losses
)

select
    symbol,
    date,
    rsi_14
from rsi_calc
```

Last search: stock_data_snapshot

USER_DB_SWAN / ANALYTICS_INTERMEDIATE / RSI

View   TRAINING_ROLE   1 day ago

View Details   Columns   Data Preview   Lineage

SWAN_QUERY_WH   Updated just now

	SYMBOL	DATE	RSI_14
1	NVDA	2024-08-02	100
2	NVDA	2024-08-05	0
3	NVDA	2024-08-06	35.781523957
4	NVDA	2024-08-07	23.80952381
5	NVDA	2024-08-08	44.777490132
6	NVDA	2024-08-09	44.33454265
7	NVDA	2024-08-12	53.300653049
8	NVDA	2024-08-13	63.187652163
9	NVDA	2024-08-14	65.195419344
10	NVDA	2024-08-15	69.31848786
11	NVDA	2024-08-16	70.572877553
12	NVDA	2024-08-19	73.931379872
13	NVDA	2024-08-20	69.884578421
14	NVDA	2024-08-21	70.615683587
15	NVDA	2024-08-22	64.640007988

STOCK ANALYSIS

moving_averages.sql 8   stock_analysis.sql 6 ×

AIRFLOW
> __pycache__
∨ Config
  ⚙ airflow.cfg
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∨ dbt   ●
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  ∨ models   ●
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      ≣ moving_averages.sql 8
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    ∨ mart / analytics   ●
      ≣ stock_analysis.sql 6
    ∨ staging
      ≣ stg_stock_data.sql

OUTLINE

No symbols found in document
'stock_analysis.sql'

dbt > models > mart > analytics > ≣ stock_analysis.sql

Add documentation or tests | Datapilot Notebooks

```sql
1   with moving_avg as (
2       select * from {{ ref('moving_averages') }}
3   ),
4
5   rsi as (
6       select * from {{ ref('rsi') }}
7   )
8
9   select
10      ma.symbol,
11      ma.date,
12      ma.close,
13      ma.ma_5,
14      ma.ma_10,
15      ma.ma_20,
16      rsi.rsi_14
17  from moving_avg ma
18  left join rsi on ma.symbol = rsi.symbol and ma.date = rsi.date
19
```

View   TRAINING_ROLE   1 day ago

View Details   Columns   **Data Preview**   Lineage

• SWAN_QUERY_WH   Updated just now

	SYMBOL	DATE	CLOSE	MA_5	MA_10	MA_20	RSI_14
1	AAPL	2024-08-02	219.123550415	219.123550415	219.123550415	219.123550415	100
2	AAPL	2024-08-05	208.569015503	213.846282959	213.846282959	213.846282959	0
3	AAPL	2024-08-06	206.535842896	211.409469604	211.409469604	211.409469604	0
4	AAPL	2024-08-07	209.117172241	210.836395264	210.836395264	210.836395264	17.01709455
5	AAPL	2024-08-08	212.595474243	211.18821106	211.18821106	211.18821106	32.495957685
6	AAPL	2024-08-09	215.515686035	210.466638184	211.909456889	211.909456889	41.635896823
7	AAPL	2024-08-12	217.05229187	212.163293457	212.6441476	212.6441476	45.517562943
8	AAPL	2024-08-13	220.784088135	215.012942505	213.661640167	213.661640167	53.093867646
9	AAPL	2024-08-14	221.233093262	217.436126709	214.502912733	214.502912733	53.865761596
10	AAPL	2024-08-15	224.226501465	219.762332153	215.475271606	215.475271606	58.426727907
11	AAPL	2024-08-16	225.553588867	221.76991272	216.118275452	216.391482267	60.172355942
12	AAPL	2024-08-19	225.393920898	223.438238525	217.800765991	217.141685486	59.869898485
13	AAPL	2024-08-20	226.012573242	224.483935547	219.748439026	217.824061467	60.636534934
14	AAPL	2024-08-21	225.902816772	225.417880249	221.427003479	218.401115417	60.431717176
15	AAPL	2024-08-22	224.036911011	225.379962158	222.571147156	218.776835124	57.1499436

SNAPSHOTS

moving_averages.sql 8   stock_data_snapshot.sql 5 ✕

AIRFLOW
∨ dbt   ●
  > macros
  ∨ models   ●
    ∨ intermediate   ●
      moving_averages.sql   8
      rsi.sql
    ∨ mart / analytics   ●
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    ∨ staging
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    ! sources.yml
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    ◇ .gitkeep
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  > stock_data_transform_dbt
  > target
∨ OUTLINE

No symbols found in document
'stock_data_snapshot.sql'

dbt > snapshots > stock_data_snapshot.sql

Add documentation or tests | Datapilot Notebooks

```
 1  {% snapshot stock_data_snapshot %}
 2
 3  {{
 4      config(
 5          target_database='USER_DB_SWAN',
 6          target_schema='snapshots',
 7          unique_key='symbol || date',
 8          strategy='timestamp',
 9          updated_at='date'
10      )
11  }}
12
13  select * from {{ source('raw', 'stock_data') }}
14
15  {% endsnapshot %}
16
```

Chat (⌘+I) / Share (⌘+L)

USER_DB_SWAN / SNAPSHOTS / STOCK_DATA_SNAPSHOT   ··· Load Data

⊟ Table   TRAINING_ROLE   ⏱ 3 hours ago   ⊞ 360   ⊟ 270KB

Table Details   Columns   Data Preview   Copy History   Lineage

SWAN_QUERY_WH 100 of 360 Rows • Updated just now

	SYMBOL	DATE	OPEN	HIGH	LOW	CLOSE	VOLUME	DBT_SCD_ID	DBT_UPDATED_AT	DBT_VALID_FROM	DBT_VALID_TO
1	NVDA	2024-08-02	103.734438675	108.693215759	101.345028112	107.24356842	482027500	0bbc92b3aeff7f32f71818be339b7f7a	2024-08-02	2024-08-02	null
2	NVDA	2024-08-05	92.037315005	103.384524594	90.667657439	100.425247192	552842400	234a2e243d5c848057737c907c1a94b2	2024-08-05	2024-08-05	null
3	NVDA	2024-08-06	103.814409195	107.683458337	100.525226594	104.224311829	409012100	9a0ffb5540c1ad6f8f8192df4402f23f	2024-08-06	2024-08-06	null
4	NVDA	2024-08-07	107.783436596	108.773198184	98.665668357	98.885635376	411440400	c769b01ded9fd6ffe86c3e8c79791107	2024-08-07	2024-08-07	null
5	NVDA	2024-08-08	101.974869134	105.474005766	97.495968809	104.944137573	391910000	5bf6ed2628f27c194b04229a62b4b869	2024-08-08	2024-08-08	null
6	NVDA	2024-08-09	105.613969853	106.573732396	103.404515309	104.724189758	290844200	c32d93b0ff4c554745348ab3b781eac6	2024-08-09	2024-08-09	null
7	NVDA	2024-08-12	106.293809331	111.042639238	106.233826551	108.993141174	325559900	c34fab0d43de653819dd4ba4189f1da5	2024-08-12	2024-08-12	null
8	NVDA	2024-08-13	112.412296292	116.20136332	111.552507593	116.111381531	312646700	f9404f71e6b646985342 20bbf73c4caf	2024-08-13	2024-08-13	null
9	NVDA	2024-08-14	118.500797034	118.570779483	114.041896741	118.05091095	339246400	f636a97fde6c4bbc035807dd7f85027f	2024-08-14	2024-08-14	null
10	NVDA	2024-08-15	118.730746338	123.209638446	117.441063206	122.829734802	318086700	856409e3ace1e06e55b0644393fa7d60	2024-08-15	2024-08-15	null
11	NVDA	2024-08-16	121.80995981	124.96920347	121.150144917	124.549308777	302589900	cb86b433bafe38c5302dd1ad76456721	2024-08-16	2024-08-16	null
12	NVDA	2024-08-19	124.249365235	129.967958543	123.389576604	129.967956543	318333600	2d89d68cbf342b6281cb00dfac0f4dd7	2024-08-19	2024-08-19	null
13	NVDA	2024-08-20	128.368361403	129.848007775	125.858985256	127.218650818	300087400	8d0b141d0ec3e9a935b5ca71444be00a	2024-08-20	2024-08-20	null
14	NVDA	2024-08-21	127.288628456	129.318134677	126.628795044	128.468338013	257883600	ee3a6ca0a2bd842e2530daf904bc7c67	2024-08-21	2024-08-21	null
15	NVDA	2024-08-22	129.987969944	130.717785815	123.069669097	123.709510803	376189100	4719bdf1f8185ae5532eae42e18e26c9	2024-08-22	2024-08-22	null
16	NVDA	2024-08-23	125.828989631	129.568073821	125.189148132	129.338119507	323230300	43ffbedeaaf83591c45129bedda37503	2024-08-23	2024-08-23	null
17	NVDA	2024-08-26	129.538082603	131.22765339	124.339359253	126.428640837	331964700	a6ce17301796bdb510975dc914cf3474	2024-08-26	2024-08-26	null