

















Nama : Kharisma Novi Chandramukti

Kelas/Batch : Data Engineering 4

Hand on recording DBT Day 2

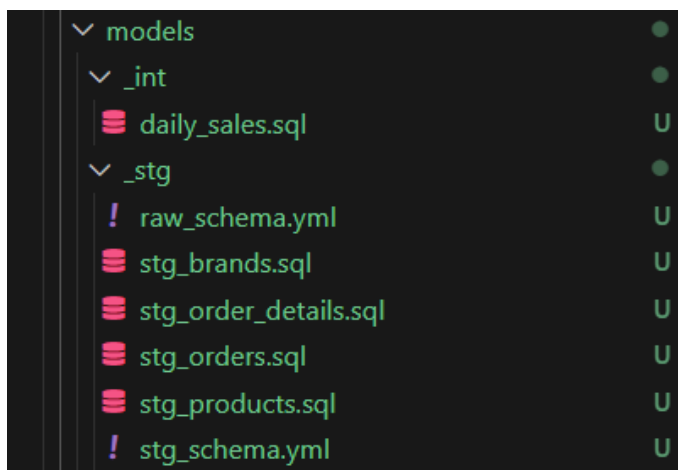
- Menjalankan docker compose

```
(.venv) rismanovic@LAPTOP-U6LIFQGI:~/unit2/dbt-demo$ docker compose up -d
WARN[0000] /home/rismanovic/unit2/dbt-demo/docker-compose.yml: 'version' is obsolete
[+] Running 5/5
 ✓ Network dbt-demo_postgres-network Created 0.1s
 ✓ Network dbt-demo_default Created 0.1s
 ✓ Container dbt-demo_master Started 1.0s
 ✓ Container dbt-demo_manager Started 1.3s
 ✓ Container dbt-demo-worker-1 Started 1.5s
```

<input type="checkbox"/>	▼		dbt-demo	Running (3/3)	8.38%	5 minutes ago			
<input type="checkbox"/>			worker-1	Running	0.22%	5 minutes ago			
<input type="checkbox"/>			dbt-demo_manager	Running	0.9%	5 minutes ago			
<input type="checkbox"/>			dbt-demo_master	Running	7.26%	5 minutes ago			

- Membuat setup configuration model pada my_project dengan model _stg dan _int

```
! dbt_project.yml M x  daily_sales.sql U  stg_brands.sql U  stg_products.sql U  stg_orders.sql U  stg_order_details.sql U
dbt-demo > my_project > ! dbt_project.yml
30 # in this example config, we tell dbt to build all models in the example/
31 # directory as views. These settings can be overridden in the individual model
32 # files using the `{{ config(...) }}` macro.
33 models:
34   my_project:
35     # Config indicated by + and applies to all files under models/example/
36     _stg:
37       +materialized: view
38       +schema: _stg      You, 43 minutes ago • Uncommitted changes
39       +database: store
40     _int:
41       +materialized: table
42       +schema: _int
43       +database: store
44
```



Masing – masing stg memiliki definisi yang sesuai dengan tabel public pada postgresql, sebagai berikut :

- stg_brands.sql

```
dbt-demo > my_project > models > _stg > stg_brands.sql
1  SELECT
2    brand_id::int as brand_id
3    , name as brand_name
4  from {{ source('store', 'brands')}}
```

- stg_order_details.sql

```
dbt-demo > my_project > models > _stg > stg_order_details.sql
1  SELECT
2    order_detail_id:: int as order_detail_id
3    , order_id::int as order_id
4    , product_id:: int as product_id
5    , quantity as order_qty
6    , price as unit_sales
7  from {{ source('store', 'order_details')}}
```

- stg_orders.sql

```
dbt-demo > my_project > models > _stg > stg_orders.sql
1  SELECT
2    order_id:: int as order_id
3    , order_date:: timestamp as order_date
4    , customer_phone
5  from {{source ('store', 'orders')}}
```

- stg_products.sql

```
dbt-demo > my_project > models > _stg > stg_products.sql
1  SELECT
2    product_id:: int as product_id
3    , brand_id:: int as brand_id
4    , name as product_name
5    , price as product_price
6  from {{ source ('store', 'products')}}
```

Setelah itu membuat staging pada model yang sudah dibuat :

```
dbt-demo > my_project > models > _stg > ! stg_schema.yml
1  version: 2
2
3  models:
4    - name: stg_brands
5      description: "brands staging"
6      columns:
7        - name: brand_id
8          tests:
9            - not_null
10           - unique
11
12    - name: stg_products
13      description: "products staging"
14      columns:
15        - name: product_id
16          tests:
17            - not_null
18            - unique
19        - name: brand_id
20          tests:
21            - not_null
22
23    - name: stg_orders
24      description: "orders staging"
25      columns:
26        - name: order_id
27          tests:
28            - not_null
29            - unique
30
31    - name: stg_order_details
32      description: "order details staging"
33      columns:
34        - name: order_detail_id
35          tests:
36            - not_null
37            - unique
```

Melakukan dbt run untuk proses dari citus dbt untuk menjalankan model – model yang sudah dibuat serta melakukan dbt test untuk cek apakah ada error atau tidak :

```

● (.venv) rismanovic@LAPTOP-U6LIFQGI:~/unit2/dbt-demo/my_project$ dbt run
02:54:46 Running with dbt=1.7.0
02:54:46 Registered adapter: postgres=1.7.0
02:54:46 Found 5 models, 26 tests, 4 sources, 0 exposures, 0 metrics, 414 macros, 0 groups, 0 semantic models
02:54:46 Concurrency: 1 threads (target='dev')
02:54:46
02:54:46 1 of 5 START sql citus_materialization model public_int.daily_sales ..... [RUN]
02:54:47 1 of 5 OK created sql citus_materialization model public_int.daily_sales ..... [SELECT 1 in 0.31s]
02:54:47 2 of 5 START sql view model public_stg.stg_brands ..... [RUN]
02:54:47 2 of 5 OK created sql view model public_stg.stg_brands ..... [CREATE VIEW in 0.09s]
02:54:47 3 of 5 START sql view model public_stg.stg_order_details ..... [RUN]
02:54:47 3 of 5 OK created sql view model public_stg.stg_order_details ..... [CREATE VIEW in 0.06s]
02:54:47 4 of 5 START sql view model public_stg.stg_orders ..... [RUN]
02:54:47 4 of 5 OK created sql view model public_stg.stg_orders ..... [CREATE VIEW in 0.05s]
02:54:47 5 of 5 START sql view model public_stg.stg_products ..... [RUN]
02:54:47 5 of 5 OK created sql view model public_stg.stg_products ..... [CREATE VIEW in 0.05s]
02:54:47
02:54:47 Finished running 1 citus_materialization model, 4 view models in 0 hours 0 minutes and 0.74 seconds (0.74s).
02:54:47
02:54:47 Completed successfully
02:54:47
02:54:47 Done. PASS=5 WARN=0 ERROR=0 SKIP=0 TOTAL=5
○ (.venv) rismanovic@LAPTOP-U6LIFQGI:~/unit2/dbt-demo/my_project$

```

```

● (.venv) rismanovic@LAPTOP-U6LIFQGI:~/unit2/dbt-demo/my_project$ dbt test
03:04:51 Running with dbt=1.7.0
03:04:51 Registered adapter: postgres=1.7.0
03:04:51 Found 5 models, 26 tests, 4 sources, 0 exposures, 0 metrics, 414 macros, 0 groups, 0 semantic models
03:04:51 Concurrency: 1 threads (target='dev')
03:04:51
03:04:51 1 of 26 START test not null stg_brands brand_id ..... [RUN]
03:04:51 1 of 26 PASS not null stg_brands brand_id ..... [PASS in 0.05s]
03:04:51 2 of 26 START test not null stg_order_details order_detail_id ..... [RUN]
03:04:51 2 of 26 PASS not null stg_order_details order_detail_id ..... [PASS in 0.05s]
03:04:51 3 of 26 START test not null stg_orders order_id ..... [RUN]
03:04:51 3 of 26 PASS not null stg_orders order_id ..... [PASS in 0.04s]
03:04:51 4 of 26 START test not null stg_products brand_id ..... [RUN]
03:04:51 4 of 26 PASS not null stg_products brand_id ..... [PASS in 0.03s]
03:04:51 5 of 26 START test not null stg_products product_id ..... [RUN]
03:04:51 5 of 26 PASS not null stg_products product_id ..... [PASS in 0.03s]
03:04:51 6 of 26 START test source_not_null_store_brands brand_id ..... [RUN]
03:04:51 6 of 26 PASS source_not_null_store_brands brand_id ..... [PASS in 0.03s]
03:04:51 7 of 26 START test source_not_null_store_brands name ..... [RUN]
03:04:51 7 of 26 PASS source_not_null_store_brands name ..... [PASS in 0.03s]
03:04:51 8 of 26 START test source_not_null_store_order_details order_detail_id ..... [RUN]
03:04:51 8 of 26 PASS source_not_null_store_order_details order_detail_id ..... [PASS in 0.09s]
03:04:51 9 of 26 START test source_not_null_store_order_details price ..... [RUN]
03:04:51 9 of 26 PASS source_not_null_store_order_details price ..... [PASS in 0.04s]
03:04:51 10 of 26 START test source_not_null_store_order_details quantity ..... [RUN]
03:04:51 10 of 26 PASS source_not_null_store_order_details quantity ..... [PASS in 0.03s]

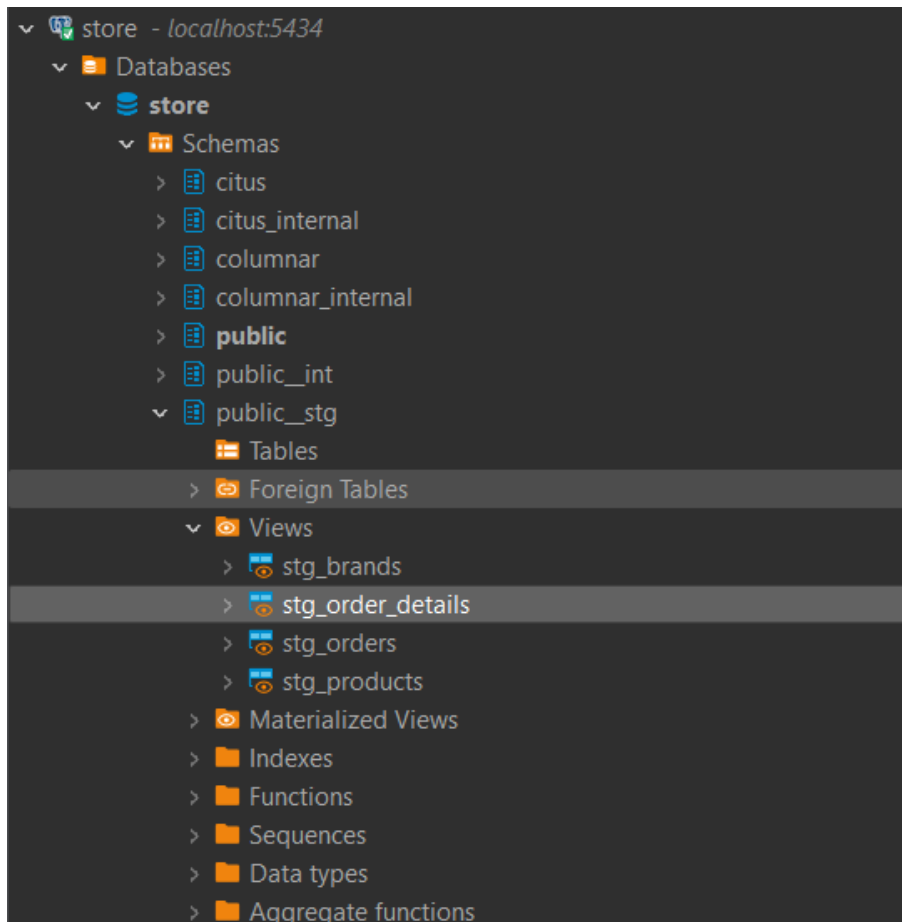
```

```

03:04:52 11 of 26 START test source_not_null_store_orders order_date ..... [RUN]
03:04:52 11 of 26 PASS source_not_null_store_orders order_date ..... [PASS in 0.03s]
03:04:52 12 of 26 START test source_not_null_store_orders order_id ..... [RUN]
03:04:52 12 of 26 PASS source_not_null_store_orders order_id ..... [PASS in 0.03s]
03:04:52 13 of 26 START test source_not_null_store_products name ..... [RUN]
03:04:52 13 of 26 PASS source_not_null_store_products name ..... [PASS in 0.03s]
03:04:52 14 of 26 START test source_not_null_store_products price ..... [RUN]
03:04:52 14 of 26 PASS source_not_null_store_products price ..... [PASS in 0.03s]
03:04:52 15 of 26 START test source_not_null_store_products product_id ..... [RUN]
03:04:52 15 of 26 PASS source_not_null_store_products product_id ..... [PASS in 0.03s]
03:04:52 16 of 26 START test source_relationships_store_order_details order_id_order_id_source_store_orders_ [RUN]
03:04:52 16 of 26 PASS source_relationships_store_order_details order_id_order_id_source_store_orders_ [PASS in 0.03s]
03:04:52 17 of 26 START test source_relationships_store_order_details product_id_product_id_source_store_products_ [RUN]
03:04:52 17 of 26 PASS source_relationships_store_order_details product_id_product_id_source_store_products_ [PASS in 0.03s]
03:04:52 18 of 26 START test source_relationships_store_products brand_id_brand_id_source_store_brands_ [RUN]
03:04:52 18 of 26 PASS source_relationships_store_products brand_id_brand_id_source_store_brands_ [PASS in 0.03s]
03:04:52 19 of 26 START test source_unique_store_brands brand_id ..... [RUN]
03:04:52 19 of 26 PASS source_unique_store_brands brand_id ..... [PASS in 0.03s]
03:04:52 20 of 26 START test source_unique_store_order_details order_detail_id ..... [RUN]
03:04:52 20 of 26 PASS source_unique_store_order_details order_detail_id ..... [PASS in 0.03s]
03:04:52 21 of 26 START test source_unique_store_orders order_id ..... [RUN]
03:04:52 21 of 26 PASS source_unique_store_orders order_id ..... [PASS in 0.03s]
03:04:52 22 of 26 START test source_unique_store_products product_id ..... [RUN]
03:04:52 22 of 26 PASS source_unique_store_products product_id ..... [PASS in 0.03s]
03:04:52 23 of 26 START test unique_stg_brands brand_id ..... [RUN]
03:04:52 23 of 26 PASS unique_stg_brands brand_id ..... [PASS in 0.03s]
03:04:52 24 of 26 START test unique_stg_order_details order_detail_id ..... [RUN]
03:04:52 24 of 26 PASS unique_stg_order_details order_detail_id ..... [PASS in 0.03s]
03:04:52 25 of 26 START test unique_stg_orders order_id ..... [RUN]
03:04:52 25 of 26 PASS unique_stg_orders order_id ..... [PASS in 0.03s]
03:04:52 26 of 26 START test unique_stg_products product_id ..... [RUN]
03:04:52 26 of 26 PASS unique_stg_products product_id ..... [PASS in 0.03s]
03:04:52
03:04:52 Finished running 26 tests in 0 hours 0 minutes and 1.06 seconds (1.06s).
03:04:52
03:04:52 Completed successfully
03:04:52
03:04:52 Done. PASS=26 WARN=0 ERROR=0 SKIP=0 TOTAL=26

```

- Pada dbeaver didapatkan hasil sebagai berikut :



Dengan data yang sama persis dengan tabel public namun berbeda nama tabelnya saja, pada tabel public_stg tabel yang dihasilkan terdapat pada views dikarenakan pada saat setup configuration materialized diatur ke view

The screenshot shows the 'stg_brands' view data table. The table has two columns: 'brand_id' and 'brand_name'. The data shows three rows: 1 Apple, 2 Samsung, and 3 Sony.

	brand_id	brand_name
1	1	Apple
2	2	Samsung
3	3	Sony

stg_order_details

Properties Data ER Diagram store Databases store

Enter a SQL expression to filter results (use Ctrl+Space)

	122 order_detail_id	128 order_id	123 product_id	123 order_qty	123 unit_sales
1	1	1	4	6	2,999.94
2	2	2	3	9	6,299.91
3	3	3	3	9	6,299.91
4	4	4	3	3	2,099.97
5	5	5	1	2	1,599.98
6	6	6	1	2	1,599.98
7	7	7	1	5	3,999.95
8	8	8	3	10	6,999.9
9	9	9	1	10	7,999.9
10	10	10	3	10	6,999.9
11	11	11	2	7	9,099.93
12	12	12	4	5	2,499.95
13	13	13	3	9	6,299.91
14	14	14	4	5	2,499.95
15	15	15	2	3	3,899.97
16	16	16	2	10	12,999.9
17	17	17	4	10	4,999.9
18	18	18	3	2	1,399.98
19	19	19	1	10	7,999.9
20	20	20	1	4	3,199.96
21	21	21	1	2	1,599.98
22	22	22	3	4	2,799.96
23	23	23	4	5	2,499.95
24	24	24	1	1	799.99
25	25	25	3	2	1,399.98
26	26	26	4	4	1,999.96
27	27	27	3	3	2,099.97
28	28	28	2	8	10,399.92
29	29	29	2	9	11,699.91
30	30	30	3	10	6,999.9
31	31	31	3	2	1,399.98

Refresh Save Cancel Export data 200 200+

stg_orders

Properties Data ER Diagram store Databases

Enter a SQL expression to filter results (use Ctrl+Space)

	122 order_id	128 order_date	123 customer_phone
1	1	2024-07-20 11:01:10.366	+915434374993
2	2	2024-07-20 17:07:59.101	+915434374993
3	3	2024-07-20 04:33:58.572	+915434374993
4	4	2024-07-20 23:42:00.042	+915434374993
5	5	2024-07-20 08:16:15.402	+915434374993
6	6	2024-07-20 20:43:09.599	+915434374993
7	7	2024-07-20 01:21:09.605	+915434374993
8	8	2024-07-20 15:11:23.502	+915434374993
9	9	2024-07-20 08:31:21.534	+915434374993
10	10	2024-07-20 18:42:17.578	+915434374993
11	11	2024-07-20 12:00:10.938	+915434374993
12	12	2024-07-20 07:39:15.059	+915434374993
13	13	2024-07-20 16:35:58.370	+915434374993
14	14	2024-07-20 20:43:18.346	+915434374993
15	15	2024-07-20 23:51:56.366	+915434374993
16	16	2024-07-20 04:46:44.853	+915434374993
17	17	2024-07-20 09:57:59.122	+915434374993
18	18	2024-07-20 14:21:59.035	+915434374993
19	19	2024-07-20 03:31:09.199	+915434374993
20	20	2024-07-20 23:00:37.212	+915434374993
21	21	2024-07-20 16:19:36.005	+915434374993
22	22	2024-07-20 20:40:52.405	+915434374993
23	23	2024-07-20 02:02:51.180	+915434374993
24	24	2024-07-20 21:10:39.126	+915434374993
25	25	2024-07-20 11:28:17.297	+915434374993
26	26	2024-07-20 04:00:46.696	+915434374993
27	27	2024-07-20 18:38:40.636	+915434374993
28	28	2024-07-20 20:44:24.467	+915434374993
29	29	2024-07-21 18:49:15.342	+919133664523
30	30	2024-07-21 15:56:20.848	+919133664523
31	31	2024-07-21 20:07:10.213	+919133664523

Refresh Save Cancel Export data 200 200+

stg_products

PropertiesDataER Diagram

stg_products Enter a SQL expression to filter results (use Ctrl+Space)

		product_id	brand_id	product_name	product_price	
Grid	1	1	1	iPhone 13	799.99	
Text	2	2	1	MacBook Pro	1,299.99	
	3	3	2	Galaxy S21	699.99	
	4	4	3	PlayStation 5	499.99	