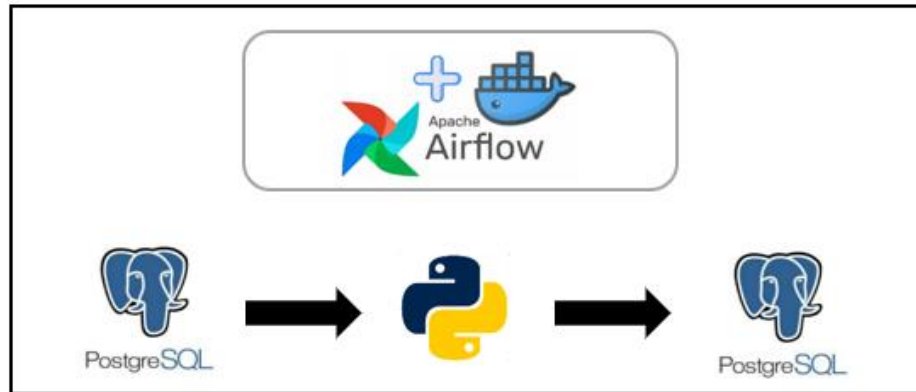


Batch Processing :

ETL from Database to other Database with Airflow

1. Architecture



2. Source Data

Sumber data berasal dari database mydatabase

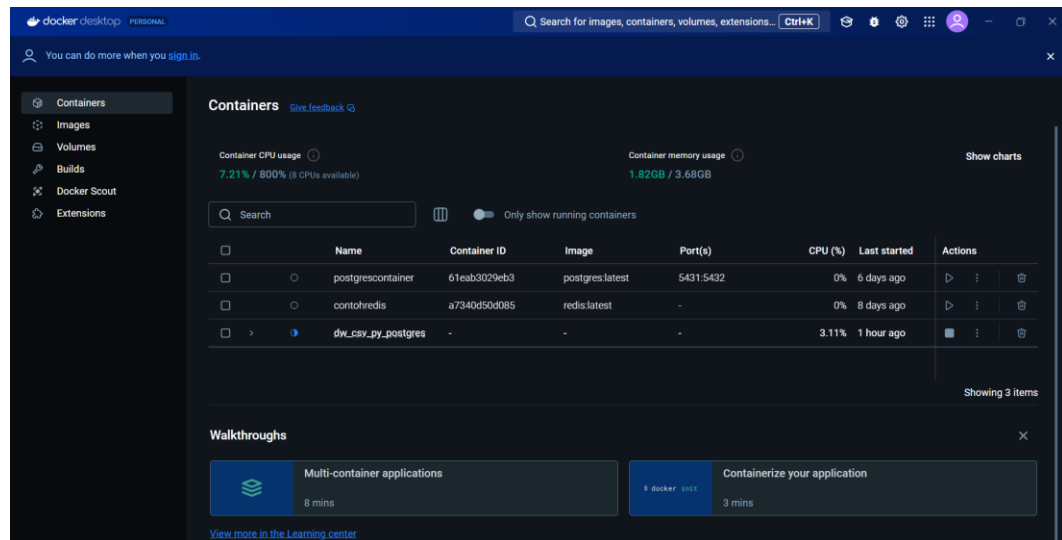
The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure, including servers, databases, and tables. The main window shows a query executed against the 'mydatabase' database. The query is 'select * from spotify_tracks'. The results are displayed in a table with columns: id, name, genre, artist, album, popularity, and duration_ms. The table contains 17 rows of data, showing various acoustic tracks and their details.

id	name	genre	artist	album	popularity	duration_ms
1	Acoustic	acoustic	Billy Raffoul	1975	58	172199
2	Acoustic	acoustic	Billy Raffoul	A Few More Hours at YYZ	57	172202
3	Here Comes the Sun - Acoustic	acoustic	Molly Hocking, Bailey Rushlow	Here Comes the Sun (Acoustic)	42	144786
4	Acoustic #3	acoustic	The Goo Goo Dolls	Dizzy up the Girl	46	116573
5	My Love Mine All Mine - Acoustic ...	acoustic	Guus Driessen, Casper Esman	My Love Mine All Mine (Acoustic L...	33	133922
6	Acoustic	acoustic	Ling tosite sigure	#4	14	238146
7	Beautiful Things - Acoustic	acoustic	Benson Boone	Daydream	0	201248
8	Landslide	acoustic	Guus Driessen, Andrew Gialanella	Landslide	29	199222
9	Acoustic	acoustic	Sonido de Agua en Bambu	Agua	15	129250
10	Acoustic Energy Vibrations	acoustic	Healing Solfeggio Frequencies, Harmony Touch	528: Mind & Body Healing	45	118331
11	Little Lies	acoustic	Roses & Frey	Little Lies	39	197851
12	Acoustic	acoustic	The Re-Stoned	Plasma	8	356870
13	Too Good At Goodbyes - Acoustic	acoustic	Sam Smith	Hear The Pride	0	220095
14	The One (Acoustic Cover)	acoustic	The Moon Loungers	The One (Acoustic Cover)	25	241115
15	Acoustic	acoustic	Lesfrn, Olexy	Acoustic	5	156654
16	Love Is Gone - Acoustic	acoustic	SLANDER, Dylan Matthew	Love Is Gone (Acoustic)	71	176971
17	What If - Acoustic Sessions	acoustic	Cody Frv	Acoustic Sessions - Live From Nas...	25	245933

Total rows: 6300 of 6300 Query complete 00:00:00.346 1 n 1. Col 78

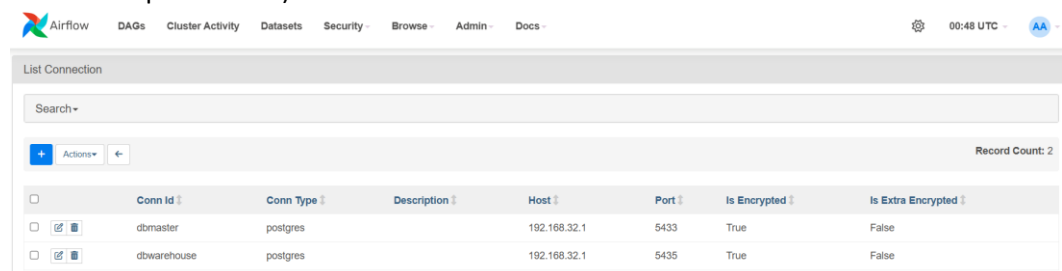
3. Process

a. Jalankan docker

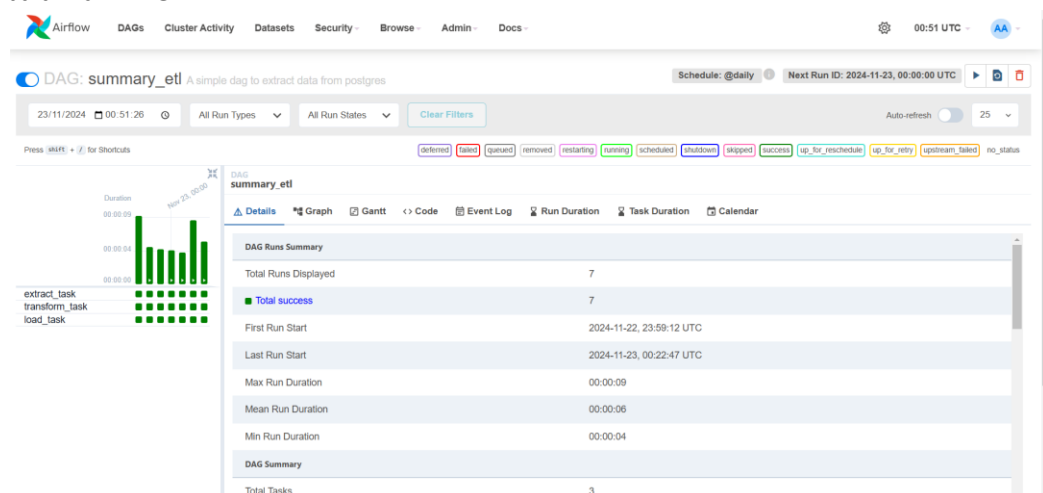


b. Buat 2 connection dari airflow ke postgresql

Connection untuk ke data master (source data) dan datawarehouse (penyimpanan akhir data untuk proses load)



c. Jalankan DAG



d. Hasil

Data berhasil melalui proses ETL dan disimpan dalam database spotify

id	name	genre	artists	album	popularity	duration_ms	popularity_level
1	Acoustic	acoustic	Billy Raffoul	1975	58	172199	medium
2	Acoustic	acoustic	Billy Raffoul	A Few More Hours at YYZ	57	172202	medium
3	Here Comes the Sun - Acoustic	acoustic	Molly Hocking, Bailey Rushlow	Here Comes the Sun (Acoustic)	42	144786	low
4	Acoustic #3	acoustic	The Goo Goo Dolls	Dizzy up the Girl	46	116573	low
5	My Love Mine All Mine - Acoustic	acoustic	Gus Dirlissen, Casper Esmann	My Love Mine All Mine (Acoustic In...	33	133922	low
6	Acoustic	acoustic	Ling tosite sigure	#4	14	238146	low
7	Beautiful Things - Acoustic	acoustic	Benson Boone	Daydream	0	201248	low
8	Landslide	acoustic	Gus Dirlissen, Andrew Gaieland...	Landslide	29	199222	low
9	Acoustic	acoustic	Sonido de Agua en Bambu	Agua	15	129250	low
10	Acoustic Energy Vibrations	acoustic	Healing Solfeggio Frequencies, ...	S2B: Mind & Body Healing	45	118331	low
11	Little Lies	acoustic	Roses & Frey	Little Lies	39	197851	low
12	Acoustic	acoustic	The Re-Stoned	Plasma	8	356870	low
13	Too Good At Goodbyes - Acoustic	acoustic	Sam Smith	Hear The Pride	0	220095	low
14	The One (Acoustic Cover)	acoustic	The Moon Loungers	The One (Acoustic Cover)	25	241115	low
15	Acoustic	acoustic	Lesfm, Olexy	Acoustic	5	156654	low
16	Love Is Gone - Acoustic	acoustic	SLANDER, Dylan Matthew	Love Is Gone (Acoustic)	71	176971	medium
17	What If - Acoustic Sessions	acoustic	Cody Fry	Acoustic Sessions - Live From Nas...	25	245933	low
18	Acoustic	acoustic	Mortal Treason	A Call To The Martyrs	3	213693	low

e. Analisis

Melakukan analisis popularitas lagu spotify berdasarkan level popularitas dan genrenya. Berdasarkan analisis, diketahui bahwa :

- Popularitas lagu tidak hanya bergantung pada artis terkenal, tetapi juga pada genre yang diminati pendengar
- 56.7% dari lagu berada pada tingkat popularitas “Low”, menunjukkan bahwa sebagian besar lagu tidak memiliki popularitas yang tinggi
- Karena level popularitas “Low” mendominasi, dapat dikatakan bahwa persaingan untuk menjadi lagu populer cukup ketat

Dashboard:

<https://lookerstudio.google.com/reporting/0a5e8567-2af1-4dd9-be15-b7210cee4f31>

