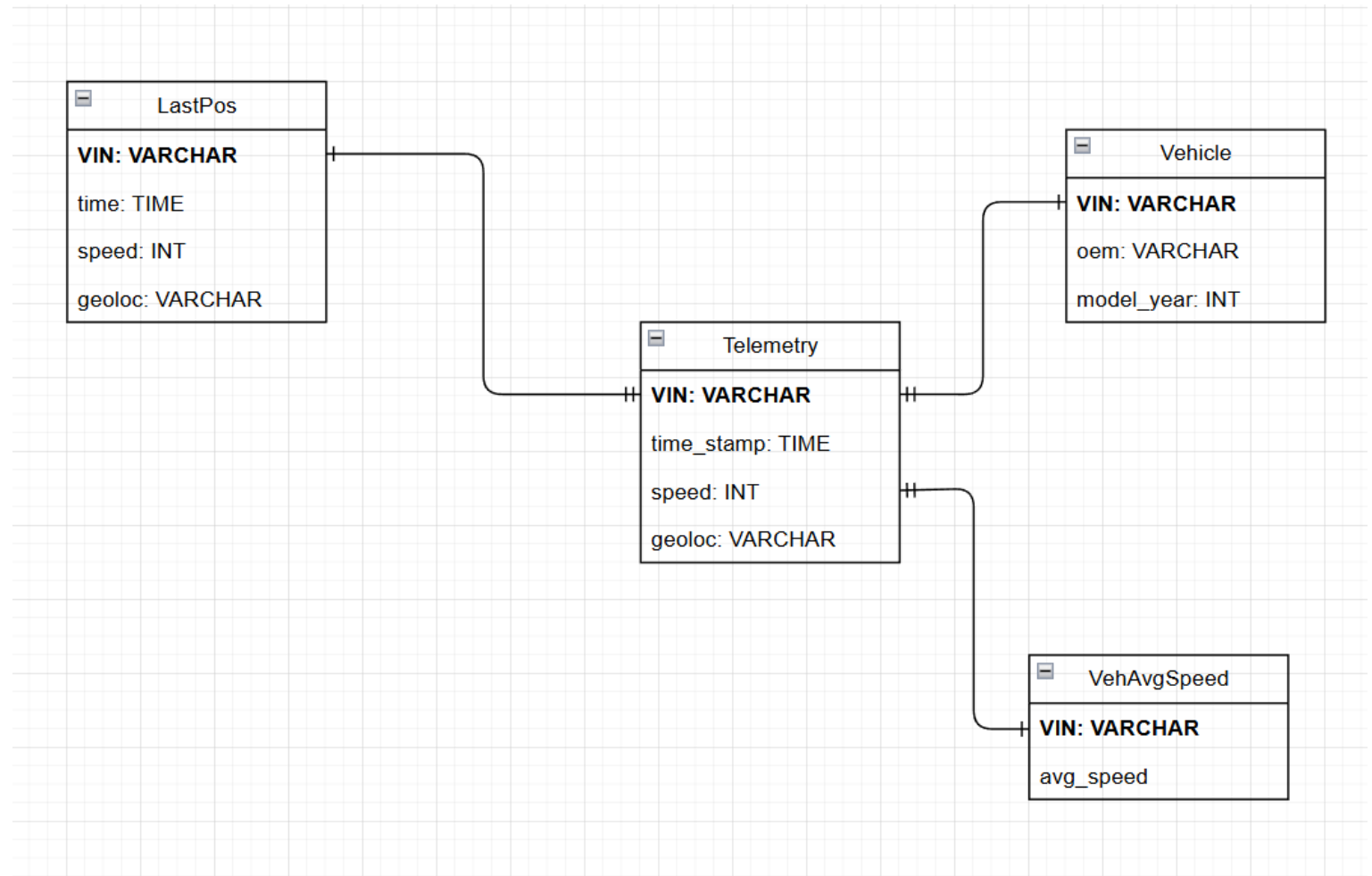


Proyecto Integrador

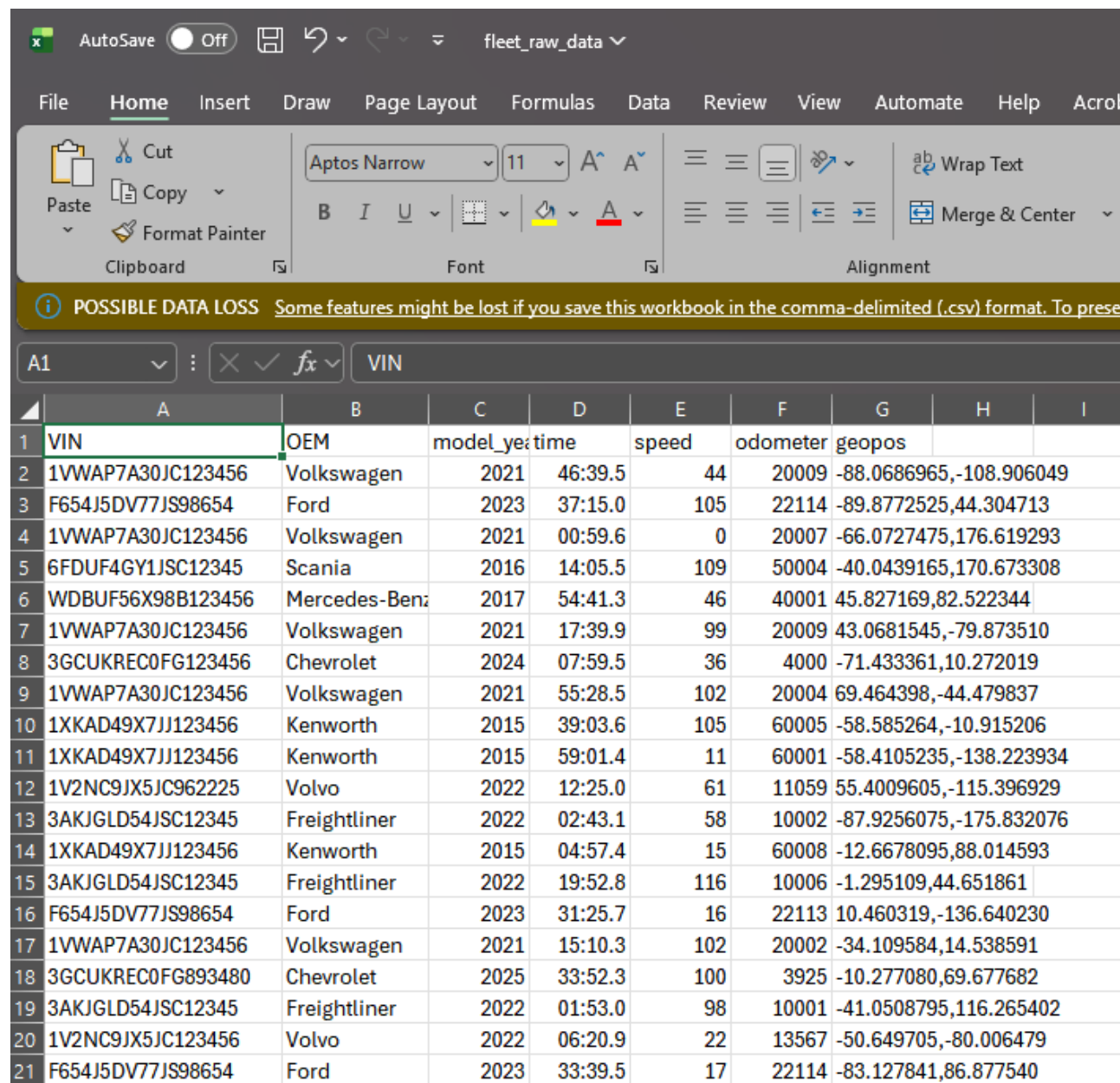
Enrique Rodríguez Toscano

Vehicle fleet Simple Workflow (12 Vehicle fleet)

DBC Design



Synthetic Raw Data generated



AutoSave Off fleet_raw_data

File Home Insert Draw Page Layout Formulas Data Review View Automate Help

Clipboard: Cut, Copy, Paste, Format Painter

Font: Aptos Narrow, 11, Bold, Italic, Underline, Text Color, Background Color, Font Color

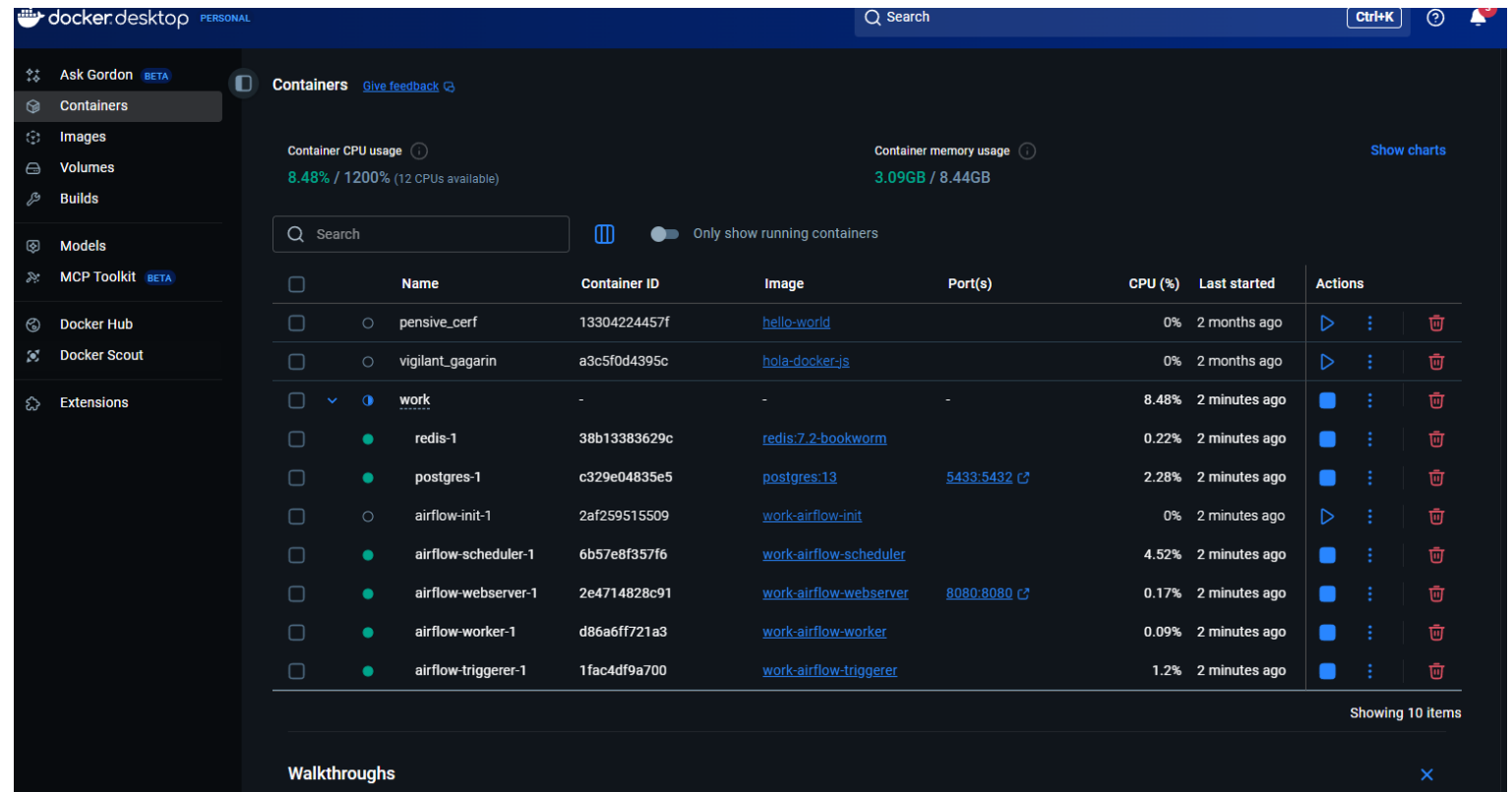
Alignment: Wrap Text, Merge & Center

POSSIBLE DATA LOSS Some features might be lost if you save this workbook in the comma-delimited (.csv) format. To preserve all data, save this workbook in the current format.

A1 VIN

	A	B	C	D	E	F	G	H	I
1	VIN	OEM	model_year	time	speed	odometer	geopos		
2	1VWAP7A30JC123456	Volkswagen	2021	46:39.5	44	20009	-88.0686965,-108.906049		
3	F654J5DV77JS98654	Ford	2023	37:15.0	105	22114	-89.8772525,44.304713		
4	1VWAP7A30JC123456	Volkswagen	2021	00:59.6	0	20007	-66.0727475,176.619293		
5	6FDUF4GY1JSC12345	Scania	2016	14:05.5	109	50004	-40.0439165,170.673308		
6	WDBUF56X98B123456	Mercedes-Benz	2017	54:41.3	46	40001	45.827169,82.522344		
7	1VWAP7A30JC123456	Volkswagen	2021	17:39.9	99	20009	43.0681545,-79.873510		
8	3GCUKREC0FG123456	Chevrolet	2024	07:59.5	36	4000	-71.433361,10.272019		
9	1VWAP7A30JC123456	Volkswagen	2021	55:28.5	102	20004	69.464398,-44.479837		
10	1XKAD49X7JJ123456	Kenworth	2015	39:03.6	105	60005	-58.585264,-10.915206		
11	1XKAD49X7JJ123456	Kenworth	2015	59:01.4	11	60001	-58.4105235,-138.223934		
12	1V2NC9JX5JC962225	Volvo	2022	12:25.0	61	11059	55.4009605,-115.396929		
13	3AKJGLD54JSC12345	Freightliner	2022	02:43.1	58	10002	-87.9256075,-175.832076		
14	1XKAD49X7JJ123456	Kenworth	2015	04:57.4	15	60008	-12.6678095,88.014593		
15	3AKJGLD54JSC12345	Freightliner	2022	19:52.8	116	10006	-1.295109,44.651861		
16	F654J5DV77JS98654	Ford	2023	31:25.7	16	22113	10.460319,-136.640230		
17	1VWAP7A30JC123456	Volkswagen	2021	15:10.3	102	20002	-34.109584,14.538591		
18	3GCUKREC0FG893480	Chevrolet	2025	33:52.3	100	3925	-10.277080,69.677682		
19	3AKJGLD54JSC12345	Freightliner	2022	01:53.0	98	10001	-41.0508795,116.265402		
20	1V2NC9JX5JC123456	Volvo	2022	06:20.9	22	13567	-50.649705,-80.006479		
21	F654J5DV77JS98654	Ford	2023	33:39.5	17	22114	-83.127841,86.877540		

Docker up and running



The screenshot shows the Docker Desktop interface. The left sidebar contains navigation options: Ask Gordon (BETA), Containers (selected), Images, Volumes, Builds, Models, MCP Toolkit (BETA), Docker Hub, Docker Scout, and Extensions. The main panel displays the 'Containers' view. At the top, it shows 'Container CPU usage' as 8.48% / 1200% (12 CPUs available) and 'Container memory usage' as 3.09GB / 8.44GB. Below this is a search bar and a toggle for 'Only show running containers'. A table lists the containers with columns for Name, Container ID, Image, Port(s), CPU (%), Last started, and Actions. The 'work' container is highlighted with a blue checkmark. At the bottom, there is a 'Walkthroughs' section.

	Name	Container ID	Image	Port(s)	CPU (%)	Last started	Actions
<input type="checkbox"/>	pensive_cerf	13304224457f	hello-world		0%	2 months ago	
<input type="checkbox"/>	vigilant_gagarin	a3c5f0d4395c	hola-docker-js		0%	2 months ago	
<input checked="" type="checkbox"/>	work	-	-	-	8.48%	2 minutes ago	
<input type="checkbox"/>	redis-1	38b13383629c	redis:7.2-bookworm		0.22%	2 minutes ago	
<input type="checkbox"/>	postgres-1	c329e04835e5	postgres:13	5433:5432	2.28%	2 minutes ago	
<input type="checkbox"/>	airflow-init-1	2af259515509	work-airflow-init		0%	2 minutes ago	
<input type="checkbox"/>	airflow-scheduler-1	6b57e8f357f6	work-airflow-scheduler		4.52%	2 minutes ago	
<input type="checkbox"/>	airflow-webserver-1	2e4714828c91	work-airflow-webserver	8080:8080	0.17%	2 minutes ago	
<input type="checkbox"/>	airflow-worker-1	d86a6ff721a3	work-airflow-worker		0.09%	2 minutes ago	
<input type="checkbox"/>	airflow-triggerer-1	1fac4df9a700	work-airflow-triggerer		1.2%	2 minutes ago	

Showing 10 items

Walkthroughs

Docker up and running

[illegible]

Raw Schema creation and raw data import

```
airflow=# dt\  
invalid command \  
Try \? for help.  
airflow=# \dt  
airflow=# \dn
```

```
List of schemas  
Name | Owner  
-----+-----  
driven_raw | airflow  
driven_staging | airflow  
driven_trusted | airflow  
public | airflow  
(4 rows)
```

```
airflow=# DROP TABLE driven_raw.raw_batch_data ;  
DROP TABLE  
airflow=# \dt driven_raw.*
```

```
List of relations  
Schema | Name | Type | Owner  
-----+-----+-----+-----  
driven_raw | raw_batch_data | table | airflow  
(1 row)
```

```
airflow=# SELECT * FROM driven_raw.raw_batch_data limit 20;
```

vin	oem	model_year	time	speed	odometer	geopos
1VWAP7A30JC123456	Volkswagen	2021	2025-11-28 17:46:39.508461	44	20009	-88.0686965,-108.906049
F654J5DV77JS98654	Ford	2023	2025-11-28 20:37:15.007511	105	22114	-89.8772525,44.304713
1VWAP7A30JC123456	Volkswagen	2021	2025-11-28 21:00:59.620985	0	20007	-66.0727475,176.619293
6FDUF4GY1JSC12345	Scania	2016	2025-11-29 03:14:05.500707	109	50004	-40.0439165,170.673308
WDBUF56X98B123456	Mercedes-Benz	2017	2025-11-28 22:54:41.271485	46	40001	45.827169,82.522344
1VWAP7A30JC123456	Volkswagen	2021	2025-11-28 14:17:39.858323	99	20009	43.0681545,-79.873510
3GCUKREC0FG123456	Chevrolet	2024	2025-11-28 12:07:59.541961	36	4000	-71.433361,10.272019
1VWAP7A30JC123456	Volkswagen	2021	2025-11-28 18:55:28.499485	102	20004	69.464398,-44.479837
1XKAD49X7JJ123456	Kenworth	2015	2025-11-28 11:39:03.588197	105	60005	-58.585264,-10.915206
1XKAD49X7JJ123456	Kenworth	2015	2025-11-28 07:59:01.391861	11	60001	-58.4105235,-138.223934
1V2NC9JX5JC962225	Volvo	2022	2025-11-28 13:12:24.993437	61	11059	55.4009605,-115.396929
3AKJGLD54JSC12345	Freightliner	2022	2025-11-28 19:02:43.074903	58	10002	-87.9256075,-175.832076
1XKAD49X7JJ123456	Kenworth	2015	2025-11-28 08:04:57.37322	15	60008	-12.6678095,88.014593
3AKJGLD54JSC12345	Freightliner	2022	2025-11-28 22:19:52.821633	116	10006	-1.295109,44.651861
F654J5DV77JS98654	Ford	2023	2025-11-28 22:31:25.735616	16	22113	10.460319,-136.640230
1VWAP7A30JC123456	Volkswagen	2021	2025-11-28 08:15:10.300023	102	20002	-34.109584,14.538591
3GCUKREC0FG893480	Chevrolet	2025	2025-11-28 21:33:52.336908	100	3925	-10.277080,69.677682
3AKJGLD54JSC12345	Freightliner	2022	2025-11-29 01:01:53.048155	98	10001	-41.0508795,116.265402
1V2NC9JX5JC123456	Volvo	2022	2025-11-28 06:06:20.928829	22	13567	-50.649705,-80.006479
F654J5DV77JS98654	Ford	2023	2025-11-28 09:33:39.464821	17	22114	-83.127841,86.877540

(20 rows)

Staging Schema creation and table creation

```
airflow=# \dt driven_staging.*
          List of relations
Schema | Name | Type | Owner
-----+-----+-----+-----
driven_staging | dim_address | table | airflow
driven_staging | dim_date | table | airflow
driven_staging | dim_finance | table | airflow
driven_staging | dim_last_pos | table | airflow
driven_staging | dim_person | table | airflow
driven_staging | dim_telemetry | table | airflow
driven_staging | dim_veh_avg_speed | table | airflow
driven_staging | dim_vehicles | table | airflow
driven_staging | fact_network_usage | table | airflow
(9 rows)

airflow=#
```

RAM 8.09 GB CPU 10.82% Disk: 7.55 GB used (limit 1006.85 GB)

```
airflow=# SELECT * FROM driven_staging.dim_veh_avg_speed limit 20 ;
vin | avg_speed
-----+-----
1V2NC9JX5JC123456 | 59.6040515653775322
1V2NC9JX5JC962225 | 62.8724832214765101
3AKJGLD54JSC12345 | 59.0708294501397950
3GCUKREC0FG893480 | 60.44800874316939891
1XKAD49X7JJ123456 | 59.6009433962264151
F654J5DV77JS98654 | 58.9186256781193490
WDBUF56X98B123456 | 59.7022308438409311
6FDUF4GY1JSC12345 | 60.1632286995515695
3GCUKREC0FG123456 | 59.1545538178472861
LZB12345678901234 | 59.6837865055387714
1VWAP7A30JC123456 | 61.4031551270815074
F654J5DV77JS46566 | 61.8665464382326420
(12 rows)
```

```
airflow=# SELECT * FROM driven_staging.dim_last_pos LIMIT 20;
vin | oem | time | geopos
-----+-----+-----+-----
1V2NC9JX5JC123456 | Volvo | 2025-12-03 03:52:55.282961 | 47.850364,47.445878
1V2NC9JX5JC962225 | Volvo | 2025-12-03 04:21:12.847493 | 38.8466925,-53.461134
1VWAP7A30JC123456 | Volkswagen | 2025-12-03 04:27:42.483603 | -3.9792025,131.287153
1XKAD49X7JJ123456 | Kenworth | 2025-12-03 04:22:18.382928 | -35.650918,-58.772821
3AKJGLD54JSC12345 | Freightliner | 2025-12-03 04:13:42.907018 | 56.4041145,-61.153963
3GCUKREC0FG123456 | Chevrolet | 2025-12-03 04:09:41.051617 | 87.0324565,118.591120
3GCUKREC0FG893480 | Chevrolet | 2025-12-03 04:20:08.740631 | 34.471792,-165.425157
6FDUF4GY1JSC12345 | Scania | 2025-12-03 04:24:43.276448 | -1.864793,59.415064
F654J5DV77JS46566 | Ford | 2025-12-03 03:14:08.523712 | 8.677037,119.675660
F654J5DV77JS98654 | Ford | 2025-12-03 04:28:21.59087 | 47.4118195,-61.047921
LZB12345678901234 | FAW | 2025-12-03 04:23:26.574768 | -87.3454665,23.925814
WDBUF56X98B123456 | Mercedes-Benz | 2025-12-03 04:11:25.587765 | 3.266145,55.275334
(12 rows)
```

Driven Trusted

```
airflow=# SELECT * FROM driven_trusted.veh_telemetry limit 10;
```

vin	oem	model_year	speed	odometer	time
1VWAP7A30JC123456	Volkswagen	2021	44	20009	2025-11-28 17:46:39.508461
F654J5DV77JS98654	Ford	2023	105	22114	2025-11-28 20:37:15.007511
1VWAP7A30JC123456	Volkswagen	2021	0	20007	2025-11-28 21:00:59.620985
6FDUF4GY1JSC12345	Scania	2016	109	50004	2025-11-29 03:14:05.500707
WDBUF56X98B123456	Mercedes-Benz	2017	46	40001	2025-11-28 22:54:41.271485
1VWAP7A30JC123456	Volkswagen	2021	99	20009	2025-11-28 14:17:39.858323
3GCUKREC0FG123456	Chevrolet	2024	36	4000	2025-11-28 12:07:59.541961
1VWAP7A30JC123456	Volkswagen	2021	102	20004	2025-11-28 18:55:28.499485
1XKAD49X7JJ123456	Kenworth	2015	105	60005	2025-11-28 11:39:03.588197
1XKAD49X7JJ123456	Kenworth	2015	11	60001	2025-11-28 07:59:01.391861

(10 rows)


```
airflow=# \dt driven_trusted.*
```

List of relations

Schema	Name	Type	Owner
driven_trusted	non_pii_data	table	airflow
driven_trusted	payment_data	table	airflow
driven_trusted	pii_data	table	airflow
driven_trusted	technical_data	table	airflow
driven_trusted	veh_telemetry	table	airflow

(5 rows)

Airflow DAG execution

 **Airflow** DAGs Cluster Activity Datasets Security Browse Admin Docs

22:37 -06 (-06:00) AA

Triggered Vehicle_Fleet_raw_data_pipeline with new Run ID manual__2025-12-02T04:29:32.138231+00:00, it should start any moment now.

DAG: Vehicle_Fleet_raw_data_pipeline DataDriven Main Pipeline. Schedule: * 7 * * * Next Run ID: 2025-12-01, 01:59:00 -06

12/01/2025 10:29:32 PM All Run Types All Run States Clear Filters Auto-refresh 25

Press **shift** + **/** for Shortcuts

Duration

00:00:42

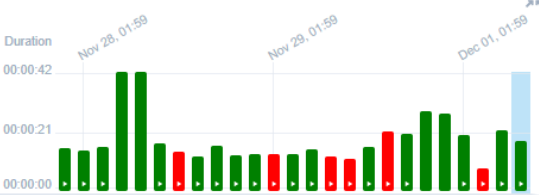
00:00:21

00:00:00

Nov 28, 01:59

Nov 29, 01:59

Dec 01, 01:59



extract_raw_data

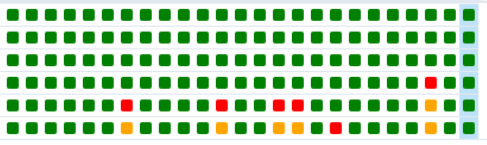
create_raw_schema

create_raw_table

load_raw_data

run_dbt_staging

run_dbt_trusted



DAG

Run

Vehicle_Fleet_raw_data_pipeline / ▶ 2025-12-01, 01:58:00 -06

Clear

Mark state as...

Details

Graph

Gantt

Code

Event Log

DAG Run Notes

Add Note

Dag Run Details

Status	success
Run ID	manual__2025-12-02T04:29:32.138231+00:00
Run type	manual
Run duration	00:00:17
Last scheduling decision	2025-12-01, 22:29:50 -06
Queued at	2025-12-01, 22:29:32 -06
Started	2025-12-01, 22:29:32 -06
Ended	2025-12-01, 22:29:50 -06
Data interval start	2025-12-01, 01:58:00 -06
Data interval end	2025-12-01, 01:59:00 -06