

De dbt data terminal van Schiphol: een veilig vertrekpunt voor analyses





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Schiphol



 **DIGITAL
POWER**

Vluchtschema



Context

Oplossing

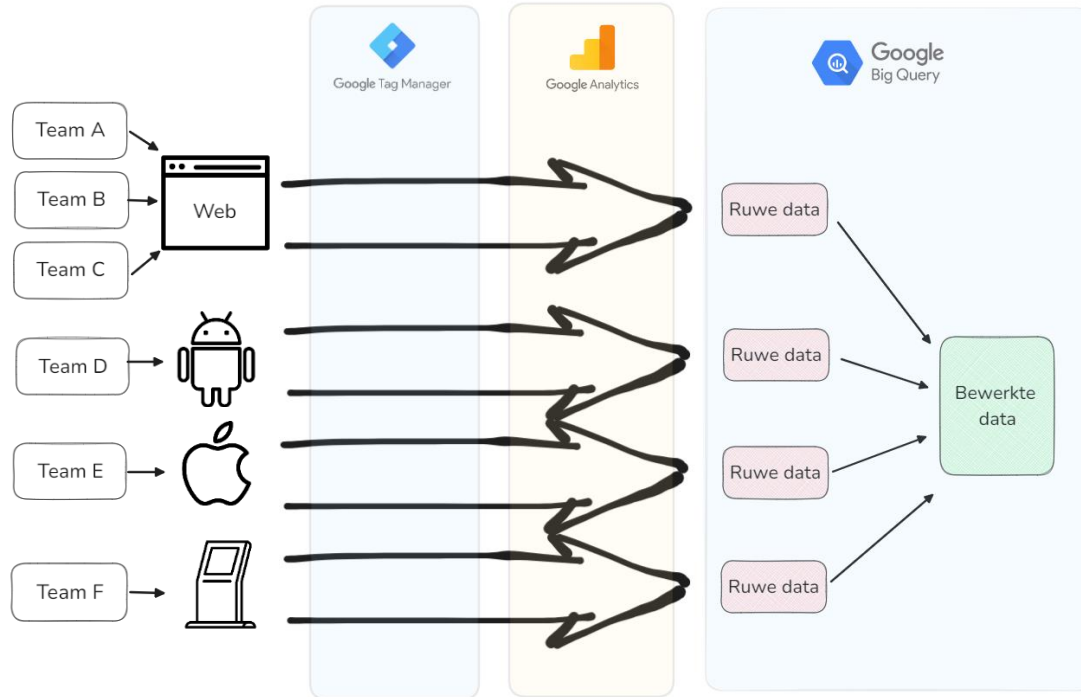
Opbouw

Impact

Learnings



Context – Waar komt de data vandaan?



Context – de data

Row	event_name	event_params.key	event_params.value	user_id
1	click	flight_date	09/11/2024	JyfoKcoFzB0ZFMx1qz36Gw==
		flight_number	KL1029	
		destination	MAN	
2	screen_view	flight_date	09/11/2024	q10iisLuVQ+XVuy8FGZXSA==
		flight_number	EK146	
		destination	DXB	
3	screen_view	flight_date	09/11/2024	waFKv931r0zcbFo8BLmBSQ==
		flight_number	KL1031	
		destination	MAN	
4	screen_view	flight_date	09-11-2024	u5g29eLOdW0Fm5pFVig7wA==
		flight_number	KL 1031	
		destination	Manchester	



Context – de data

```
1 SELECT
2   event_name,
3   (select value from unnest(event_params) where key = 'flight_date') as flight_date,
4   (select value from unnest(event_params) where key = 'flight_number') as flight_number,
5   (select value from unnest(event_params) where key = 'destination') as destination,
6   user_id
7 FROM `example_dataset`
```

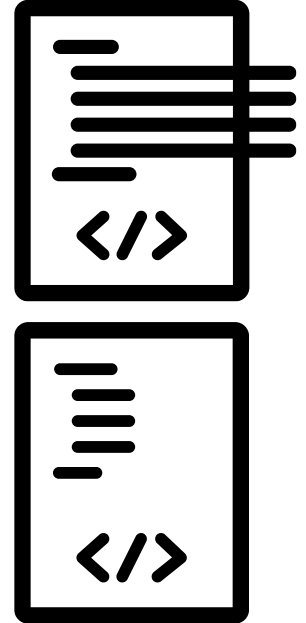
Query results

JOB INFORMATION		RESULTS	CHART	JSON	EXECUTION DETAILS	EXECUTION GRAPH
Row	event_name	flight_date	flight_number	destination	user_id	
1	click	09/11/2024	KL1029	MAN	JyfoKcoFzB0ZFMx1qz36Gw==	
2	screen_view	09/11/2024	EK146	DXB	q10iisLuVQ+XVuy8FGZXA==	
3	screen_view	09/11/2024	KL1031	MAN	waFKv931r0zcbFo8BLmBSQ==	
4	screen_view	09-11-2024	KL 1031	Manchester	u5g29eLOdW0Fm5pFVig7wA==	

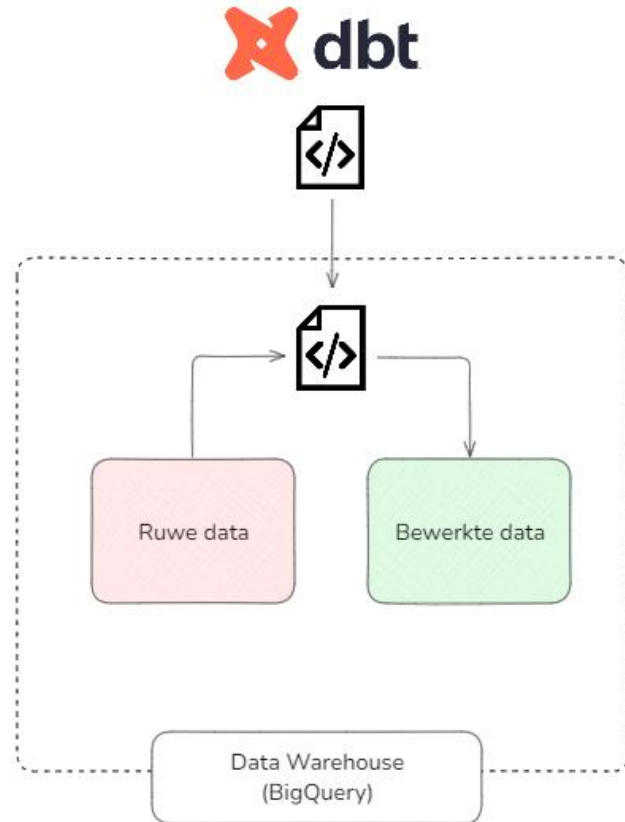
Context – de data

```
1 SELECT
2   event_name,
3   (select value from unnest(event_params) where key = 'flight_date') as flight_date,
4   (select value from unnest(event_params) where key = 'flight_number') as flight_number,
5   (select value from unnest(event_params) where key = 'destination') as destination,
6   user_id
7 FROM `example_dataset`
```

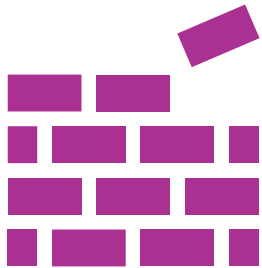
```
1 SELECT
2   event_name,
3   flight_date,
4   flight_number,
5   destination,
6   user_id
7 FROM `example_dataset`
```



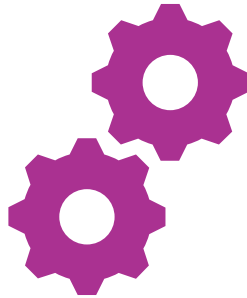
De oplossing: dbt (data build tool)



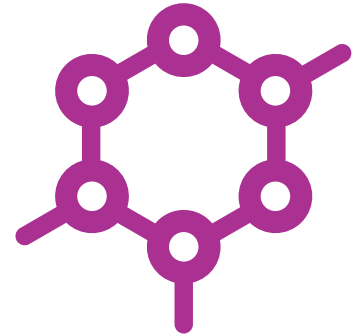
3 voordelen van dbt



Bouwstenen
model

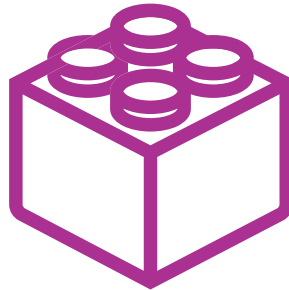
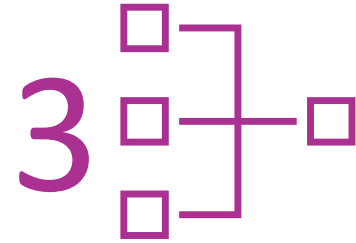
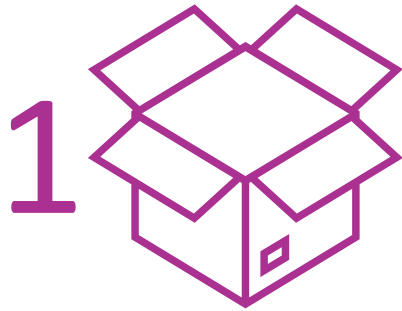


Automatisch
proces



Consistentie

Wat gebeurt er technisch?



Recap: de data

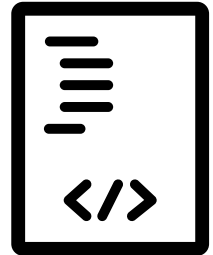
Row	event_name	event_params.key	event_params.value	user_id
1	screen_view	flight_date	09-11-2024	u5g29eLOdW0Fm5pFVig7wA==
		flight_number	KL 1031	
		destination	Manchester	
2	screen_view	flight_date	09/11/2024	waFKv931r0zcbFo8BLmBSQ==
		flight_number	KL1031	
		destination	MAN	

Row	event_name	flight_date	flight_number	destination	user_id
1	screen_view	09-11-2024	KL1031	MAN	u5g29eLOdW0Fm5pFVig7wA==
2	screen_view	11-09-2024	KL1031	MAN	waFKv931r0zcbFo8BLmBSQ==

Recap: de code

```
1 SELECT
2   event_name,
3   (select value from unnest(event_params) where key = 'flight_date') as flight_date,
4   (select value from unnest(event_params) where key = 'flight_number') as flight_number,
5   (select value from unnest(event_params) where key = 'destination') as destination,
6   user_id
7 FROM `example_dataset`
```

```
1 SELECT
2   event_name,
3   flight_date,
4   flight_number,
5   destination,
6   user_id
7 FROM `example_dataset`
```



1. De data uitpakken



Row	event_name	flight_date	flight_number	destination	user_id
1	click	09/11/2024	KL1029	MAN	JyfoKcoFzB0ZFMx1qz36Gw==
2	screen_view	09/11/2024	EK146	DXB	q10iisLuVQ+XVuy8FGZXSA==
3	screen_view	09/11/2024	KL1031	MAN	waFKv931r0zcbFo8BLmBSQ==
4	screen_view	09-11-2024	KL 1031	Manchester	u5g29eLOdW0Fm5pFVig7wA==

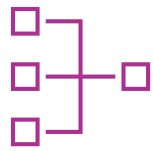
2. De data opschonen




destination_raw ▼	destination ▼
Manchester	MAN
MAN	MAN
DXB	DXB
MAN	MAN

flight_number_raw ▼	flight_number ▼
KL 1031	KL1031
KL1031	KL1031
EK146	EK146
KL1029	KL1029

3. Samenvoegen van kolommen




flight_number ▾	flight_identifier ▾
KL1031	
	KL1029
EK146	



flight_number ▾
KL1031
KL1029
EK146

flight_date ▾	flightdate ▾
11-09-2024	
12-09-2024	
	11-09-2024



flight_date ▾
11-09-2024
12-09-2024
11-09-2024

Technisch kijkje achter de schermen

```
FOR parameter_key IN (  
  -- list of keys for which we want corresponding values (PICK YOUR OWN):  
  {% for event_parameter in event_parameters -%}  
    '{{event_parameter}}'  
  {%- if not loop.last %},{% endif %}  
  {% endfor -%}
```

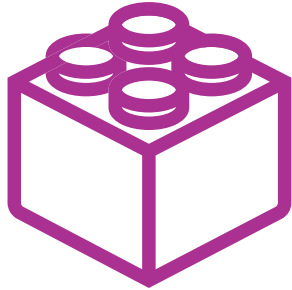
```
FOR parameter_key IN (  
  -- list of keys for which we want corresponding values (PICK YOUR OWN):  
  'elapsed_time_on_site',  
  'engaged_session_event',  
  'server_container_url',  
  'fdp_wtbas',  
  'entrances',  
  'parking_funnel_type',  
  '...
```

```
{% macro to_utc_timestamp(column, column_type = "int") %}  
  {%- if column_type == "int" %}  
    timestamp_micros({{ cast_to_int64(column) }})  
  {%- elif column_type == "string" %}  
    parse_timestamp('%Y%m%d', {{ column }})  
  {%- endif %}  
{% endmacro %}
```

```
{% set date = 1726051800 %}  
  
select [{{ to_utc_timestamp(date) }}]
```

Row	f0_ ▾
1	2024-09-11 10:50:00 UTC

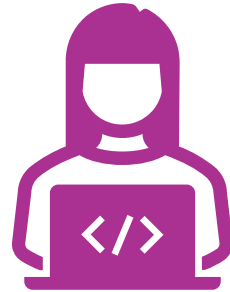
Het eindproduct: het datablokje



Elk datapakket heeft z'n eigen proces

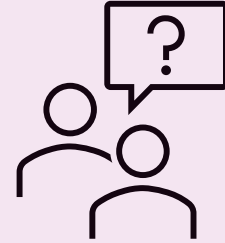
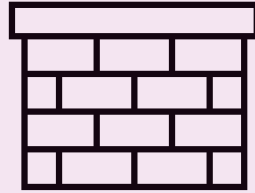
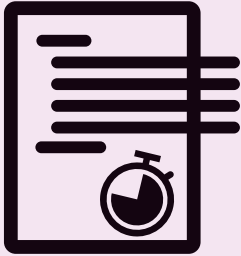


We werken met mensen

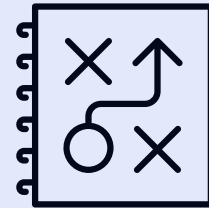
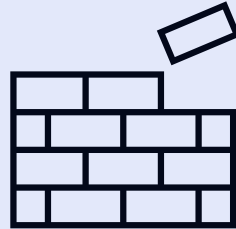
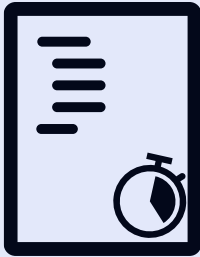


Impact

Voor



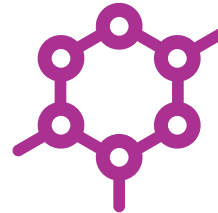
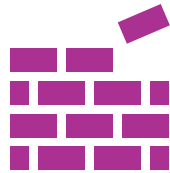
Na



What's next?



Onze reis



Verder praten?

**Kom langs bij
Digital Power
stand 10**

