



Getting Started with GA4 & BigQuery

```
SELECT room_name_full FROM tbl_room WHERE room_checked = '0';  
  
SELECT room_name_full FROM tbl_disposition WHERE disposition_user = u.user_ID
```

BigQuery for Marketers

- Understanding BigQuery: Necessity and Basics
- Warehouse Concepts and Key Applications for Marketers
- The Need for Linking GA4 with BigQuery
- Exploring GA4 Reports Unavailable in Standard Access
- Demystifying BigQuery Myths
- Introduction to Sandbox Environments
- Utilizing BigQuery Without a Credit Card
- Essential Tools Complementing BigQuery
- Free Export from UA without Third-Party Tools
- Q&A Session



by **ali izadi**

If GA4 Can't, BigQuery Can!

- Everything starts with GA4 not supporting some report... So, we'll use bigquery instead...



Are You Ready to Hire Robots?

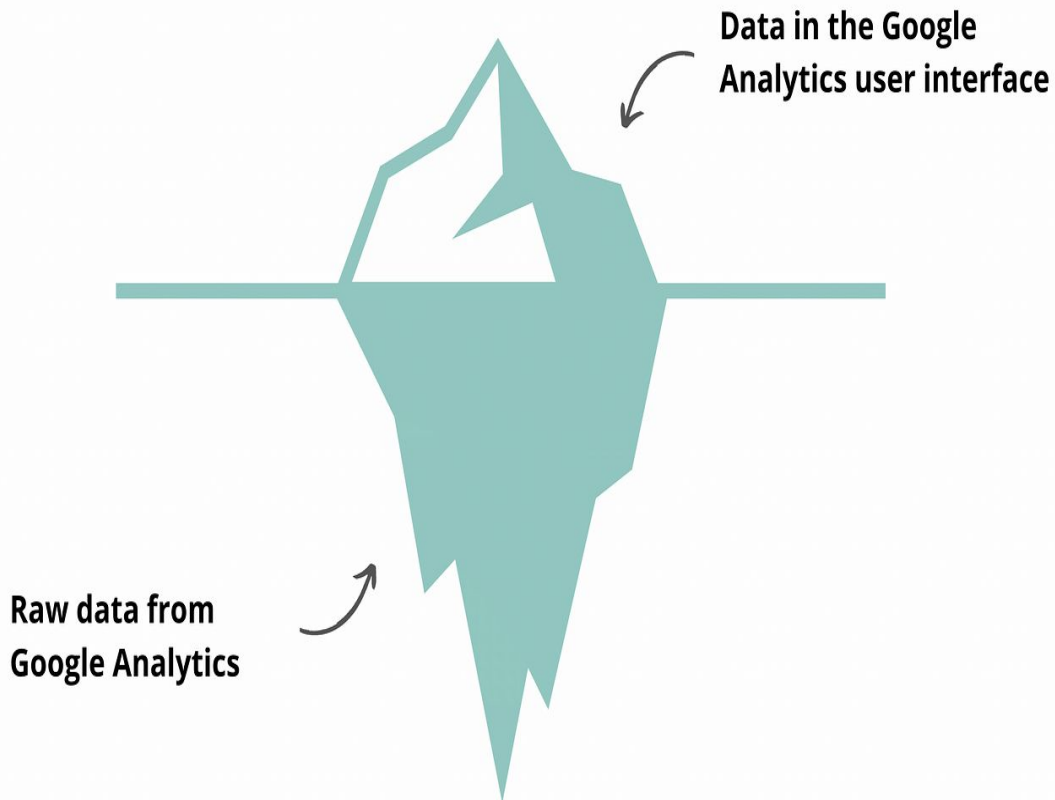
Choice 1 : Manual forms that collect some data each day

Choice 2 : A robot that collects all the data automatically



BigQuery: The Complete Data Solution

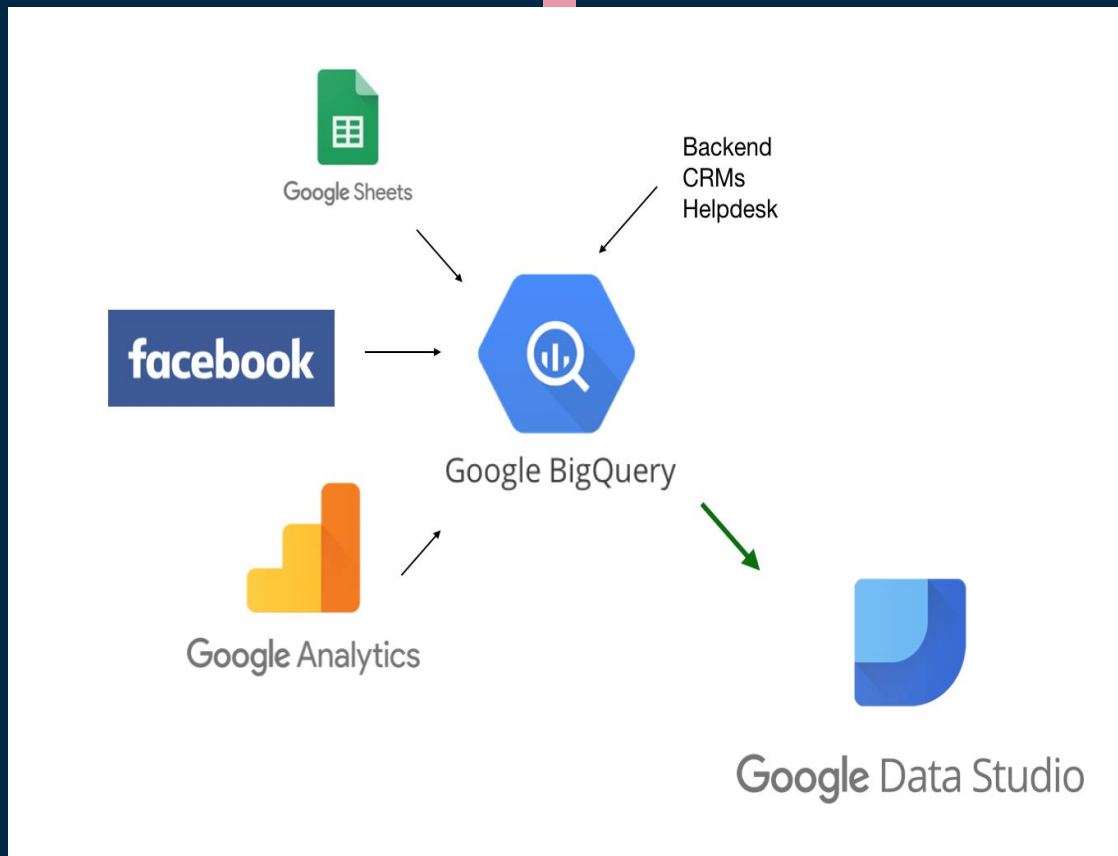
- GA4 gives you snapshots.
- BigQuery gives you the whole picture



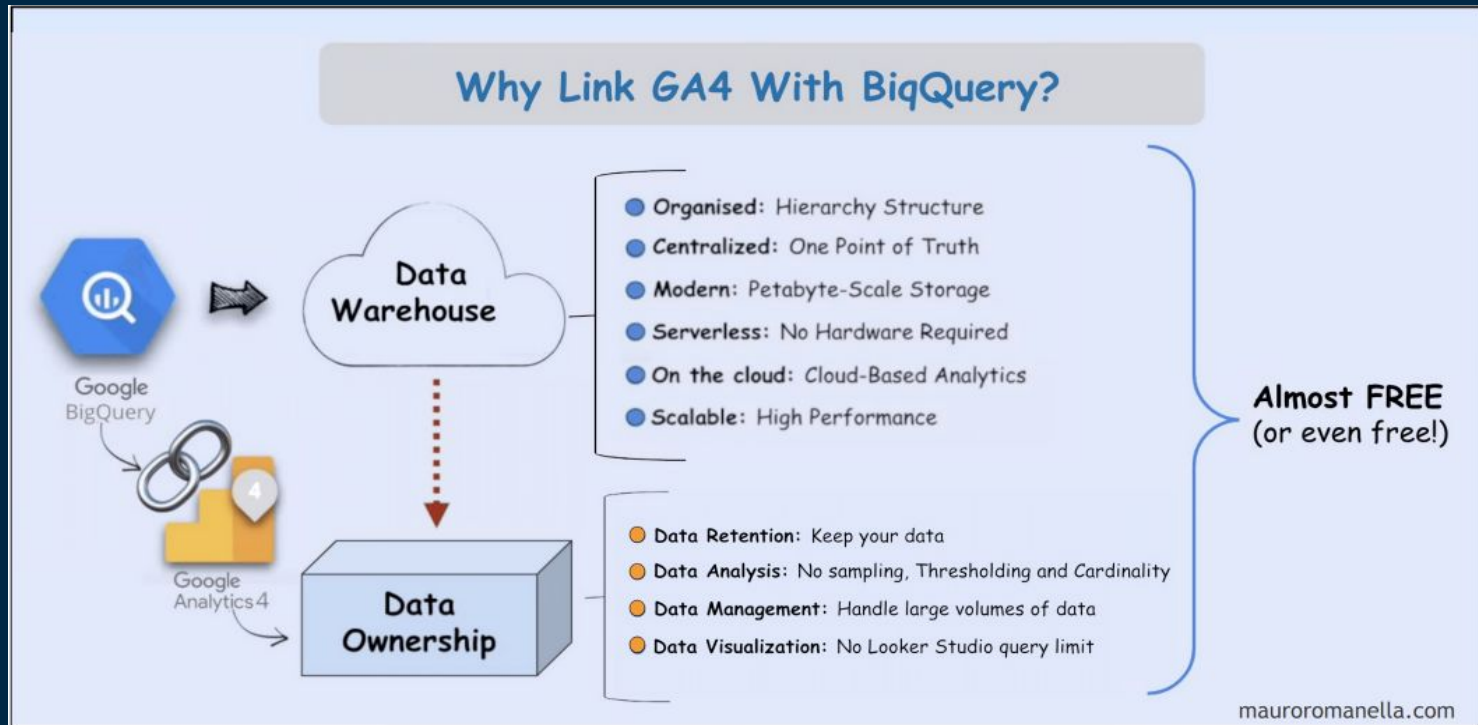
What is BigQuery ?

- If you've heard of databases, BigQuery is that—and more.
- If you've heard of a data warehouse, BigQuery is like a giant data warehouse.

In summary, BigQuery is a cloud-based data warehouse that stores and analyzes massive amounts of data from various sources, including Google Analytics 4 (GA4), G-ADS, CRM systems, and marketing automation platforms.



Integrating GA4 with BigQuery



Access all your GA4 data, forever.

- Say Goodbye to Temporary Tables

Data retention

User and event data retention

You can change the retention period for data you send that is associated with cookies, user identifiers, or advertising identifiers. These controls don't affect most standard reporting, which is based on aggregated data. Changes to these settings take effect after 24 hours. [Learn more about data retention settings](#)

Event data retention ⓘ 14 months ▾

Reset user data on new ac 2 months

14 months ✓

Save

Cancel

SCHEMA	DETAILS	PREVIEW	LINEAGE	DATA PROFILE	DATA QUALITY
Table info					
Table ID	ga4-cloudzy.analytics_310989290.events_20230424				
Created	Apr 25, 2023, 12:05:19 PM UTC+3:30				
Last modified	Nov 19, 2023, 9:53:56 PM UTC+3:30				
Table expiration	NEVER				
Data location	US				
Default collation					
Default rounding mode	ROUNDING_MODE_UNSPECIFIED				
Case insensitive	false				
Description					
Labels	dataplex-dq-published-scan : data-quality-cloudzy dataplex-dq-published-project : ga4-cloudzy dataplex-dq-published-location : us-central1				
Primary key(s)					

No Cardinality Issues

- HyperLogLog ++ and their restrictions

Search... Rows per page: 10 Go to: 1 < 1-10 of 15003 >

Page path and screen class	Views	
1 (other)	6,582,662	1,37%
2	11,593,963	1,79%
3	266,309	16%
4	177,280	7%
5	100,622	4%
6	71,929	2%
7	61,659	3%

Anomaly Detection

- Analyze your data issues on a large scale

Automatic-Update:Anomaly in GA4 Metrics ⚠️



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to me, reymax660

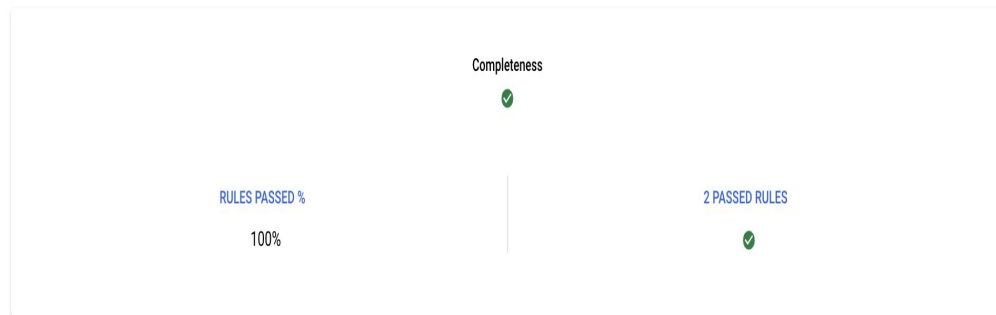
The following metrics in Daily Event Counts are detected as anomalies today:

Dimension	Q1	Q3	Observed Value
pricing_table_toggle_click	263.75	338	141
get_started_click	180.25	227.25	95
when_to_choose_section_click	64.75	78	16
hero_section_button_click	40	54.25	14
network_test_button_click	14	18.75	5
pricing_table_button_click	32.5	38	10

The following metrics in Daily Params Count are detected as anomalies today:

Parameter Name	Q1	Q3	Observed Value
link_url	1251.25	1366.75	1025
service	180.25	227.25	95
video_url	413	610.25	382

Data quality status



Current rules

+ MODIFY RULES

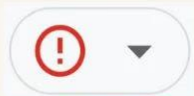
DELETE

Filter Filter items

Column name	Rule name	Rule type	Evaluation	Dimension	Parameters	Threshold	Edit
event_date	-	Null Check	Per row	Completeness		100%	
user_pseudo_id	-	Null Check	Per row	Completeness		100%	

Data Sampling

- Depending on the amount of data you collect and the amount of data you are reporting on, you may face different challenges, including threshold, and sampling.



Heavily
Sampled



Thresholding
Applied



Unsampled
Report



Try These Reports in GA4... Mission Impossible!

First Pageview of
Purchased Users?
Not in GA4!

Time from Signup to
Purchase? GA4's
stopwatch doesn't tick
that way!

Hunting for Most
Popular Exit Pages?
GA4 makes it tough!

Identify Most Popular
Pathing For Any Page?
GA4 won't show you
the way!



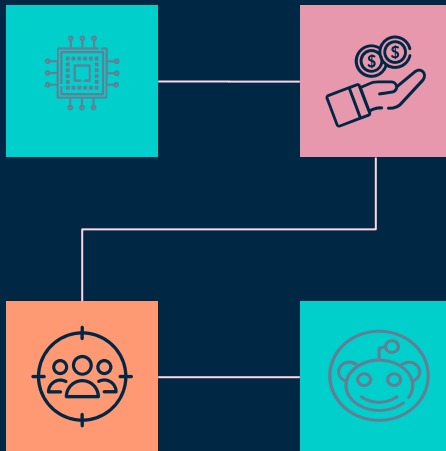
Myths About GA4 & BigQuery, Don't Believe Them !

Too Complex?

Fear not! actually simpler to use than GA4 and Google Tag Manager

Just for Big Companies?

Wrong. Small biz needs the full data picture too, without thresholds.



It's Expensive?

Actually it's as cheap as a cup of coffee or even free!

Must Know SQL?

Just a little, but AI helps you translate your questions into queries.

The possibilities are endless! 🧠

Let's Start



Linking GA4 to BigQuery PROCESS

Create a Google
Cloud Platform
account.



Step 01

Step 02



Create a new
project on Google
Cloud

Configure your
project in GA4
BigQuery links



Step 03

Step 04



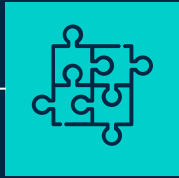
Check your Service
Account Access
and wait for first
data

Try BigQuery for Free with Sandbox

- You get 10 GB of active storage and 1TB of query capacity per month.
- Tables, views, and partitions in partitioned tables have a default 60-day retention policy.
- BigQuery features like data streaming, and data transfer service are excluded.



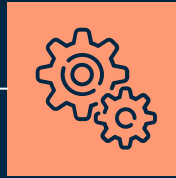
Your dear AI friends



01

ChatGPT & BARD

Simply type your request in plain English, and these LLMs will translate it into a SQL query.



02

GA4SQL

It allows users to generate GA4 BigQuery queries without requiring any SQL knowledge.



03

Duet AI

Integrated AI tool that turns your natural language into BigQuery-ready SQL

Exporting UA Data to BigQuery: Why It's Essential

- **Data Deletion:** Universal Analytics data will be entirely deleted by July 2024.
- **Time-Consuming Manual Extraction:** Manual Excel report generation is inefficient and likely to miss critical data.
- **Third-Party Limitations:** External services for data transfer are costly and come with restrictions.
- **Our Solution:** Introducing a simple, free, script-based method for permanent data storage in BigQuery.
- **Benefits:** Ensures complete data retention and facilitates effective future analysis.

It's just zero to one.

Are you ready to reach one hundred?

1. Resources and Influencers
2. SQL generator and optimizer
3. Script-Based Solution for Backfilling UA and GA4



Stay Connected in the BigQuery Galaxy

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 [Stackoverflow](https://stackoverflow.com/users/1234567/aliiz)

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