Creating Dashboard With GA4 Data

Looker Studio

June 2023

I believe many GA4 users are looking into their dashboards and ways of reporting as part of the GA4 migration. Due to the different structures and processing methods between UA and GA4 we often need to re-create or tweak the way we set up dashboards with UA data previously.

I've created this guide to share some ideas with how to create Looker Studio dashboard with GA4 data. This guide is designed for users who already have experience in using Google Analytics & Looker Studio (Google Data Studio)

Previous guides:

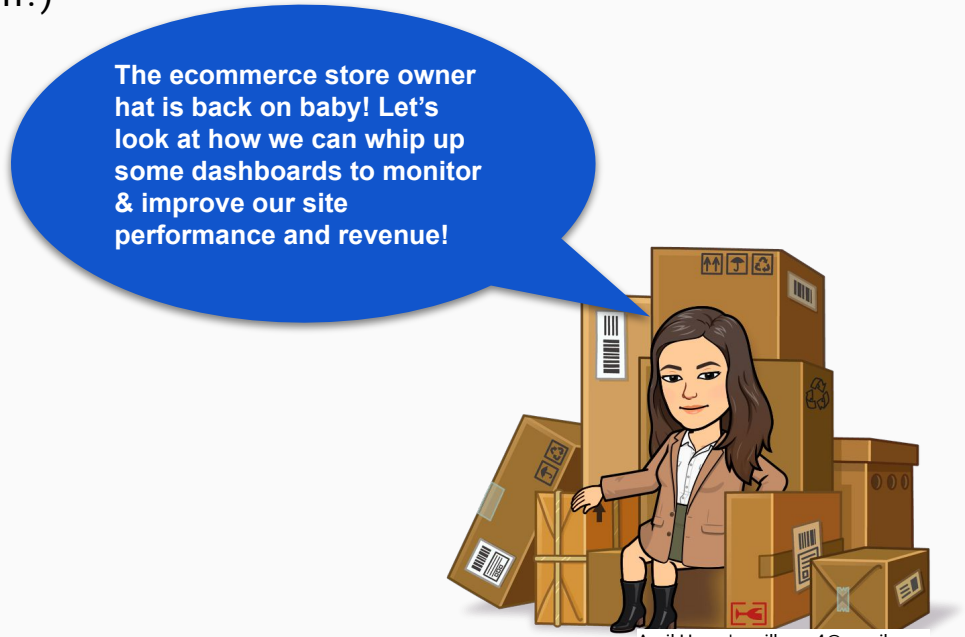
Google Analytics 4 Guide

GA4 vs. UA Metrics

Outline

The topics & type of dashboards that will be discussed in this guide:

- [Recap] Event tracking in GA4
- Parameters(what are they and how to use them?)
- Looker studio
- Traffic dashboard
  - Custom channel groupings
- Landing page dashboard
  - Blend data in Looker Studio
- Conversion Dashboard



Event Tracking (Recap)

Before we start, let's talk about why we can't just copy & paste the dashboard we use in UA for GA4 (that'd be the dream!!)

In the previous guide on Comparing UA vs. GA4 metrics, we talked about how events are configured differently.

Universal Analytics

- An event in Universal Analytics has a Category, Action and Label
- Event Category, Action and Label are used to provide more details of the events
- An event is counted/recorded when an event gets triggered

Event Category: Homepage

Event Action: Buy

Event Label: Orange

Google Analytics 4

- There is no event Category, Action and Label for GA4 events
- Parameters are used to provide more details of the events
- All actions are events, such as a click or a page view
- An event is counted/recorded when an event gets triggered

Event Name: buy

Parameter(page_location): homepage

Parameter(item_color): orange

Parameters - Google Tag Manager

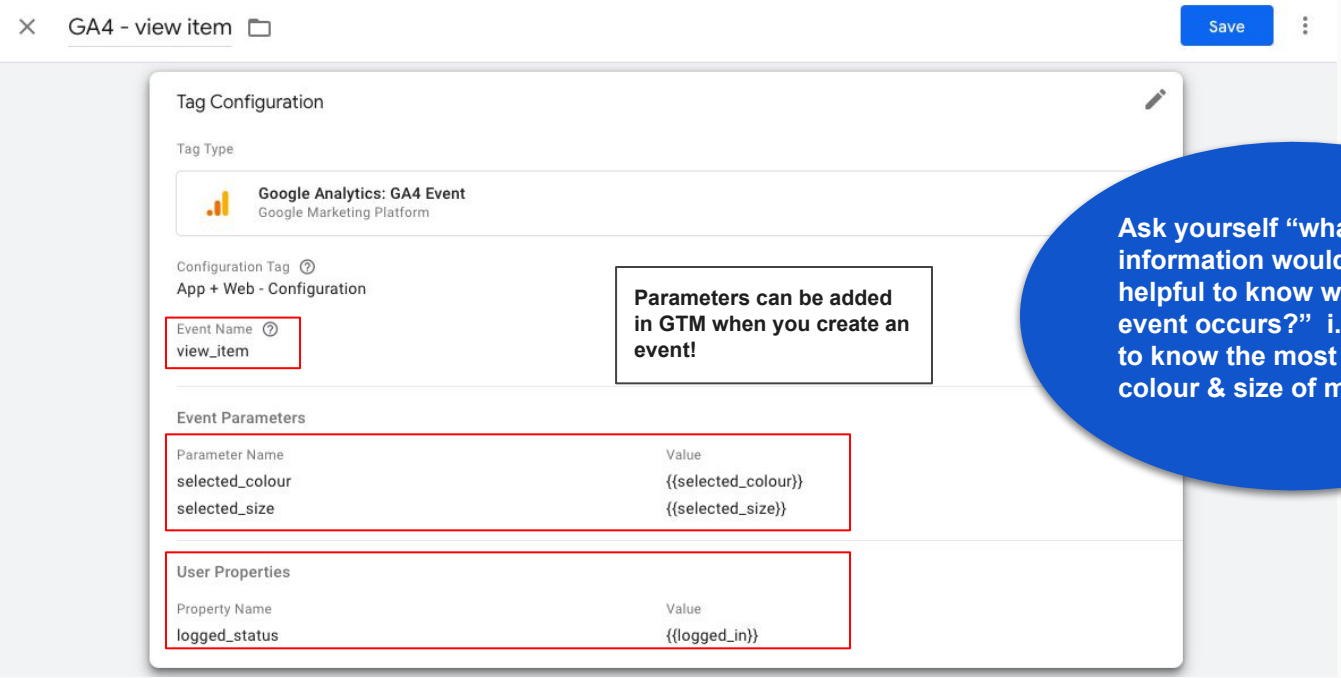
Read more on GA4 Parameters

More info for gtag users

Given that event category, action and label no longer exist, we need to become bestie with Parameters and use it to slice and dice our data!

What are GA4 parameters?

"Parameters provide additional information about the ways users interact with your website."



Parameters can be added in GTM when you create an event!

Ask yourself "what other information would be helpful to know when this event occurs?" i.e I'd like to know the most viewed colour & size of my clothes

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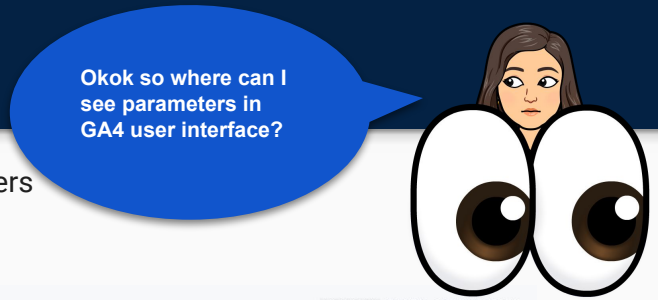
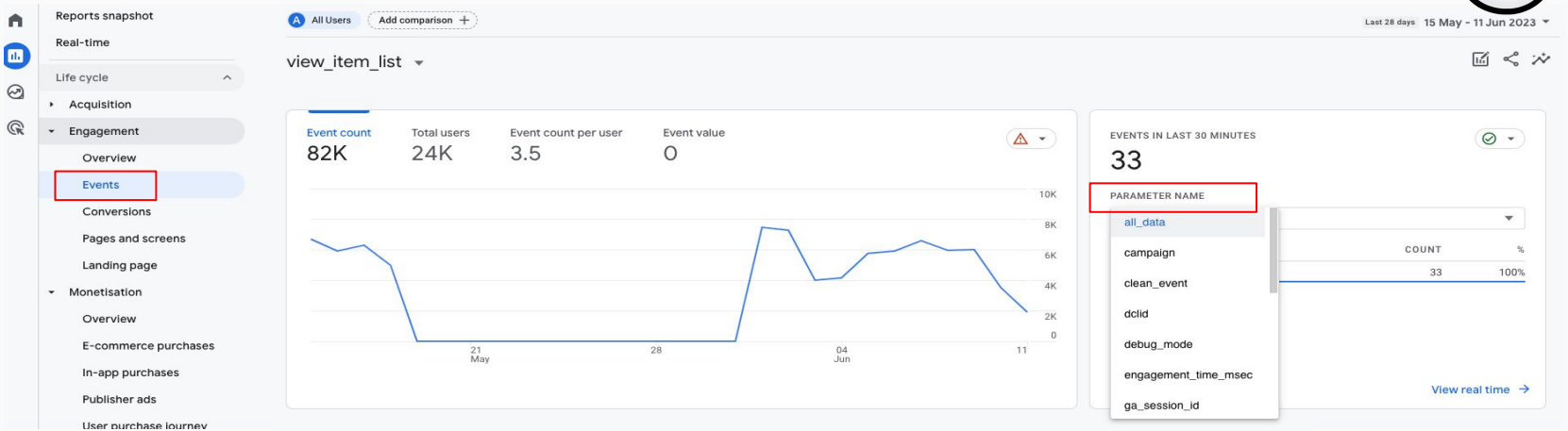
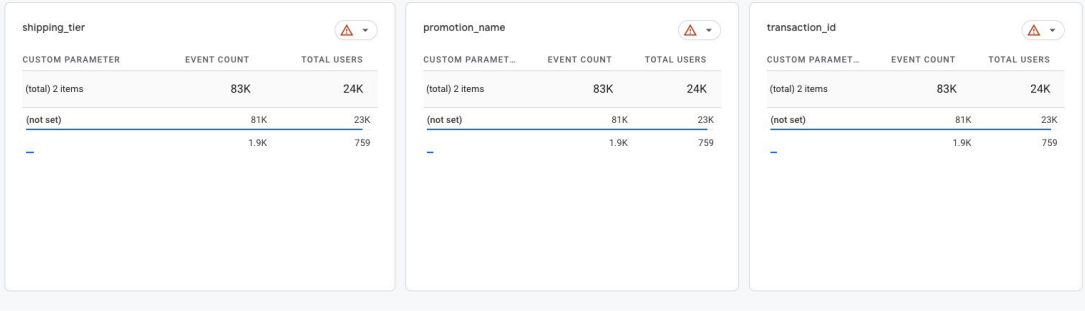
Parameters - GA4 User Interface



Parameters can be found under “events” - this is where you can quickly check if the parameters you set up in Google Tag Manager are firing through properly.





Parameters

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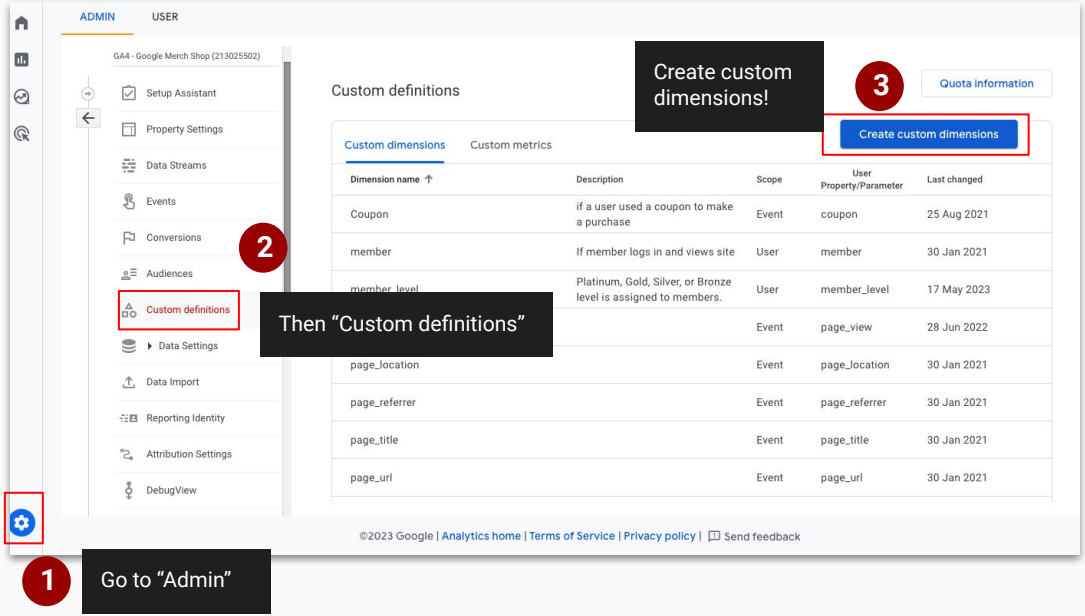
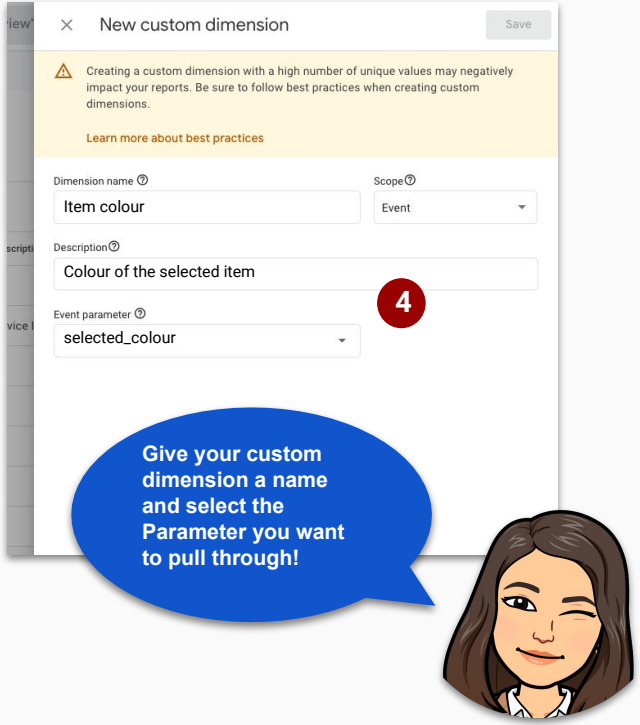
Parameters - GA4 Custom Dimensions

If you'd like to customise your own report through GA4 Exploration or in Looker Studio, we've got a few more steps to go!

To be able to report on Parameters, we need to create them as Custom Dimensions first. It's pretty easy don't worry ;)





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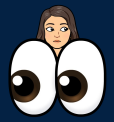
Looker Studio



More info on Looker Studio

A personal fact that no one asked for - The 👀 emoji pops into my head whenever I say or type “Looker Studio” LOL

So why use Looker Studio when you can create reports with the “Explore” section in GA4?

Here are a few Looker Studio’s benefits :

- Graph & other data visualisation → More info on Looker Studio visualization

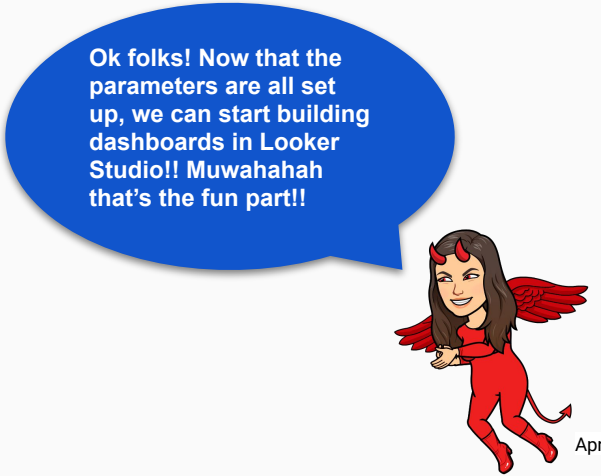
  There are many different types of visualisation that can be used to illustrate your data (pivot table, time series, bar chart.. You name it!)

- Connect to other data sources/ platforms → More info on Looker Studio data connectors

  Looker Studio provides up to 21 free/ built in connectors to different platforms such as Google Ads, BigQuery and Google Sheets. You can join/blend your GA4 data with these platforms!

- Create dimensions & metrics on the fly

  In Looker Studio, users can create new dimension and calculated metrics - without changing/setting anything in GA4 or GTM



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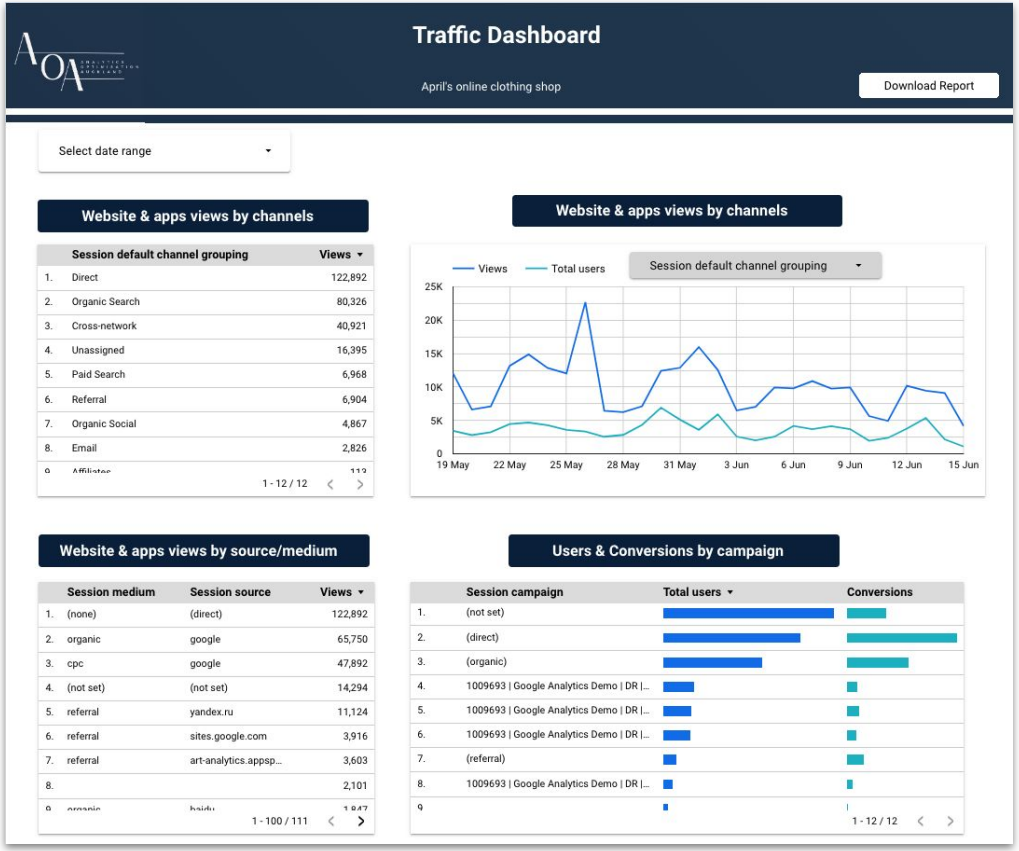
Acquisition/Traffic (whichever sounds fancier) Dashboard

An Acquisition report is probably a report that every site owner looks at. It answers questions like:

- How did my users land on my site?
- What is the channel that drives the highest conversion rate?
- What insights does the traffic data tell me?



Benefits of creating a traffic dashboard in Looker studio:

- Create different visualizations such as table, bar chart and time series
- Report on Custom channel groupings (more details on this in the following slides)

Here's just an example of an Acquisition report! You can customise it based on your own need e.g. some people might be interested in knowing the performance on mobile vs. desktop.

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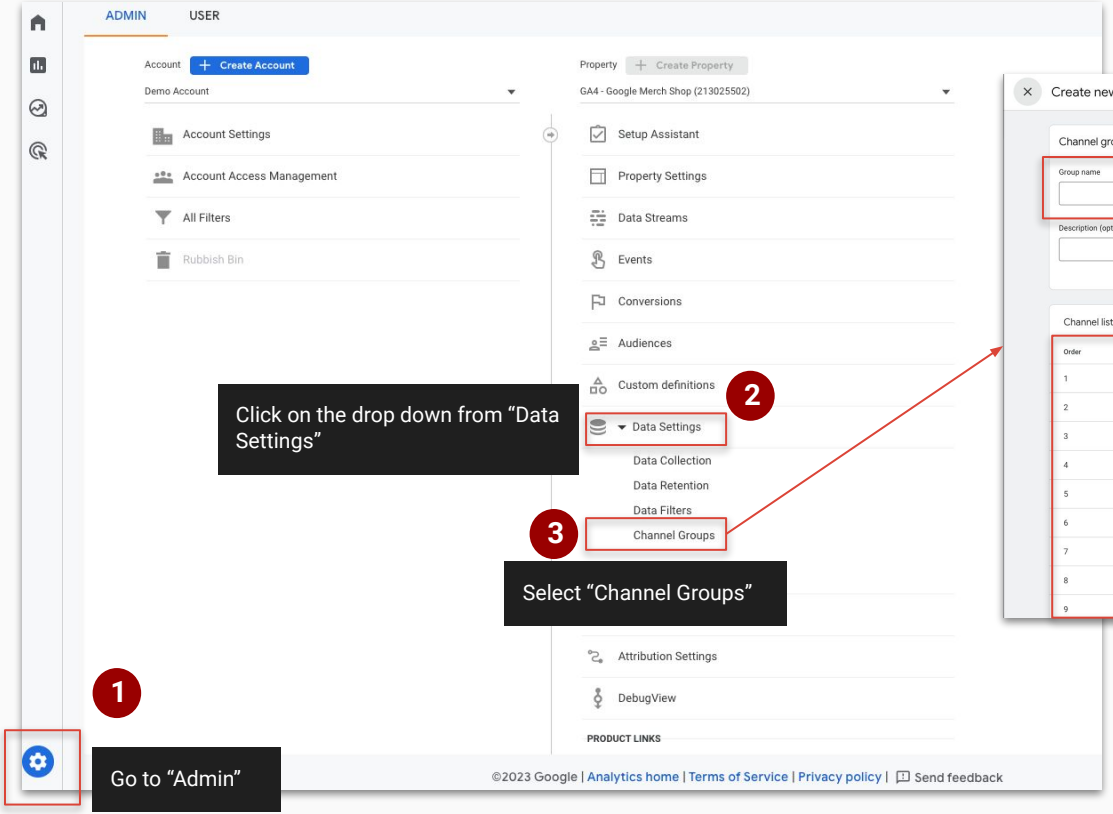
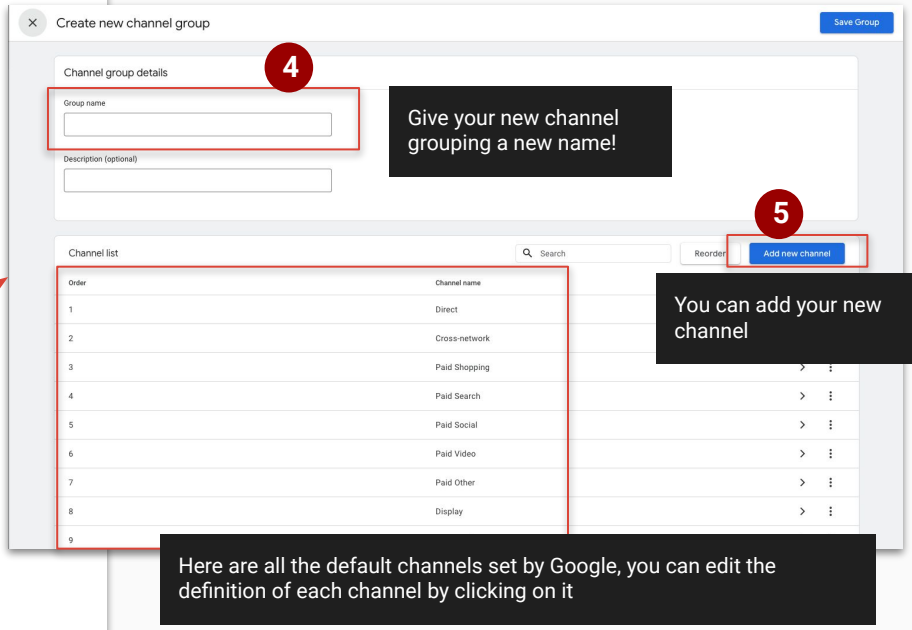
Acquisition/Traffic Dashboard - Custom Channel Grouping

One thing that I always do when creating reports is reviewing the source & medium and create my own channel groupings.





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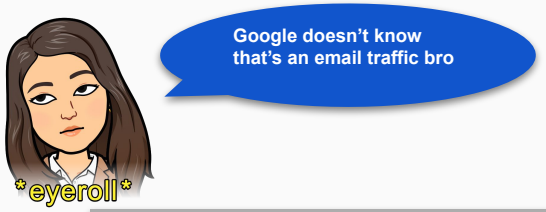
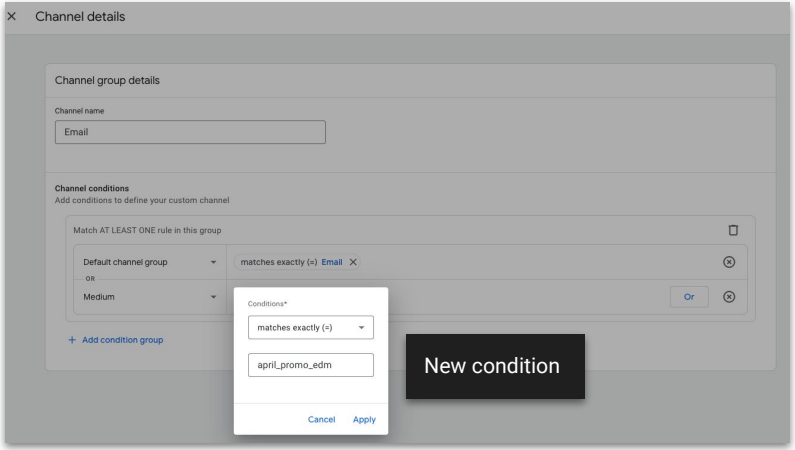
Acquisition/Traffic Dashboard - Custom Channel Grouping

Creating your own channel groupings is useful when you:

- **Have inconsistent campaign UTMs names** (it happens..)
  I.e *utm_medium=**april_promo_edm**&utm_campaign=**april_promo***

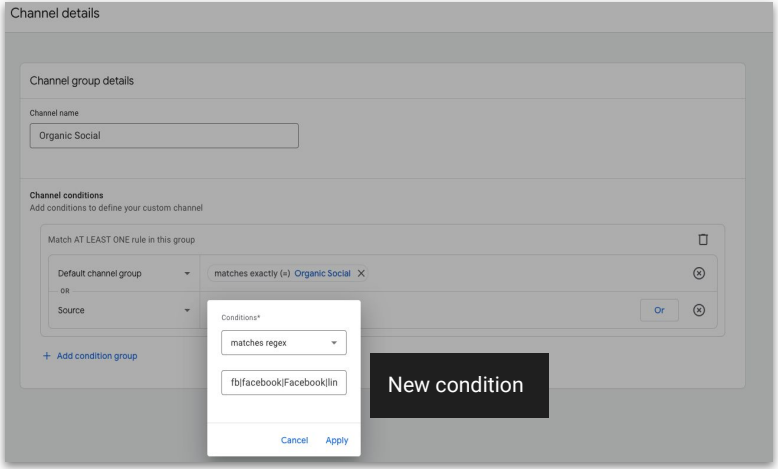




In this case, we can edit the definition of "Email" by adding in another condition - Medium = ***april_promo_edm***

- **Want your own logic for specific reportings**
  I.e session source, "**l.instagram.com**", is grouped under "referral" but I'd like it to be under "Organic Social" instead

	Session medium	Session source	Views
6...	referral	l.instagram.com	



We can do the same thing and set a condition that groups all traffic coming from social media platform as "Organic Social"

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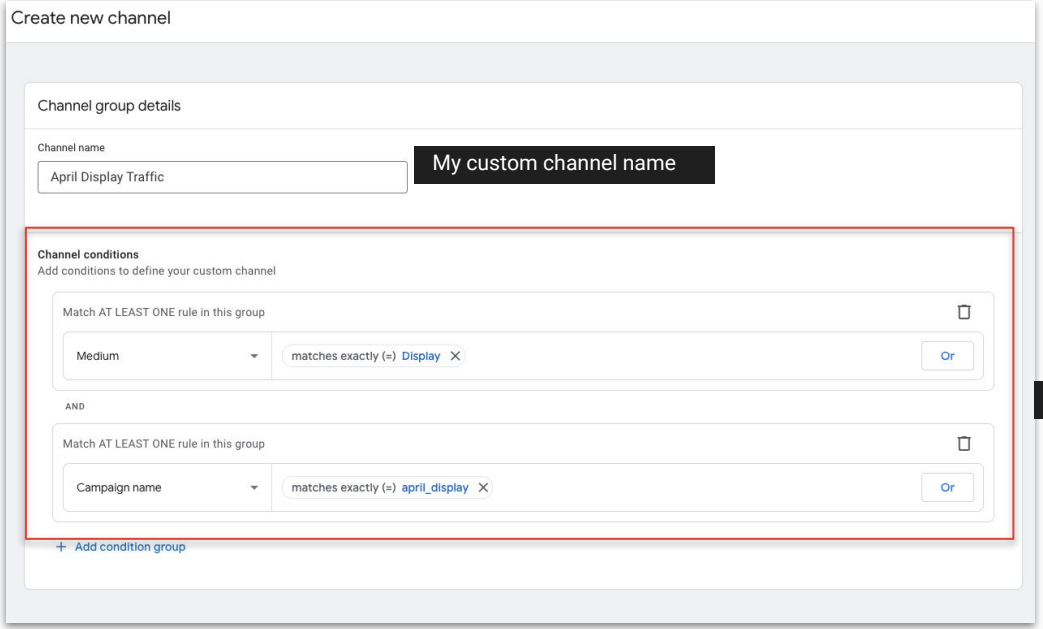
Acquisition/Traffic Dashboard - Custom Channel Grouping

- **Want to create a new channel**
  I.e I'm running some Display campaigns using a separate budget so I'd like to report it separately. The campaign URL looks like this:
  *https://www.aprilclothes.com/promo/?utm_source=**google**&utm_medium=**display**&utm_campaign=**april_display***
  This'd be grouped under "Display" by default but I can create a new channel that only includes traffic coming from campaign=april_display



Definitions of my custom channel

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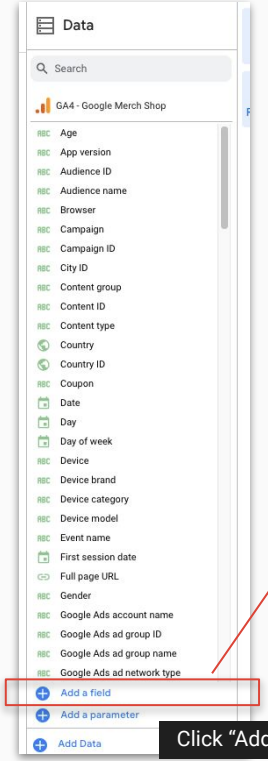
Acquisition/Traffic Dashboard - Custom Channel Grouping in Looker Studio

BUT!! Looker Studio currently doesn't feed through the Custom Channels configured in GA4 (ughhhh). In order to create custom channel groupings in Looker Studio, we need to create a new field.



Click "Add a field" on the Data panel

Field Name: Custom channel grouping

Field ID: calc_yrwo9rc36c

Formula

```
CASE
WHEN Session default channel grouping = "Organic Search" THEN "Organic Search"
WHEN Session default channel grouping = "Email" or Session medium = "april_promo_edm" THEN "Email"
WHEN ( REGEXP_CONTAINS( Session source , "(fb|facebook|Facebook|linkedin|ig|instagram)")
 OR REGEXP_CONTAINS( Session medium , "(Social| soci|social)")) THEN 'Organic Social'
WHEN (( Session medium = "Display")
    AND REGEXP_CONTAINS( Session campaign , "(april_display)")) THEN 'April_Display'

End
```

For channels that don't need any changes

Code for including a custom medium

Code for changing the default Organic Social channel

Code for creating a new channel

	Custom channel...	Session medium	Session source	Views
2...	Organic Social	referral	instagram.com	19
2...	Email	email	Newsletter_June_2022	13

Tadaa! "Instagram.com" is now categorised under "Organic Social" instead of "Referral"

Don't freak out - it's just as easy as creating them in GA4!

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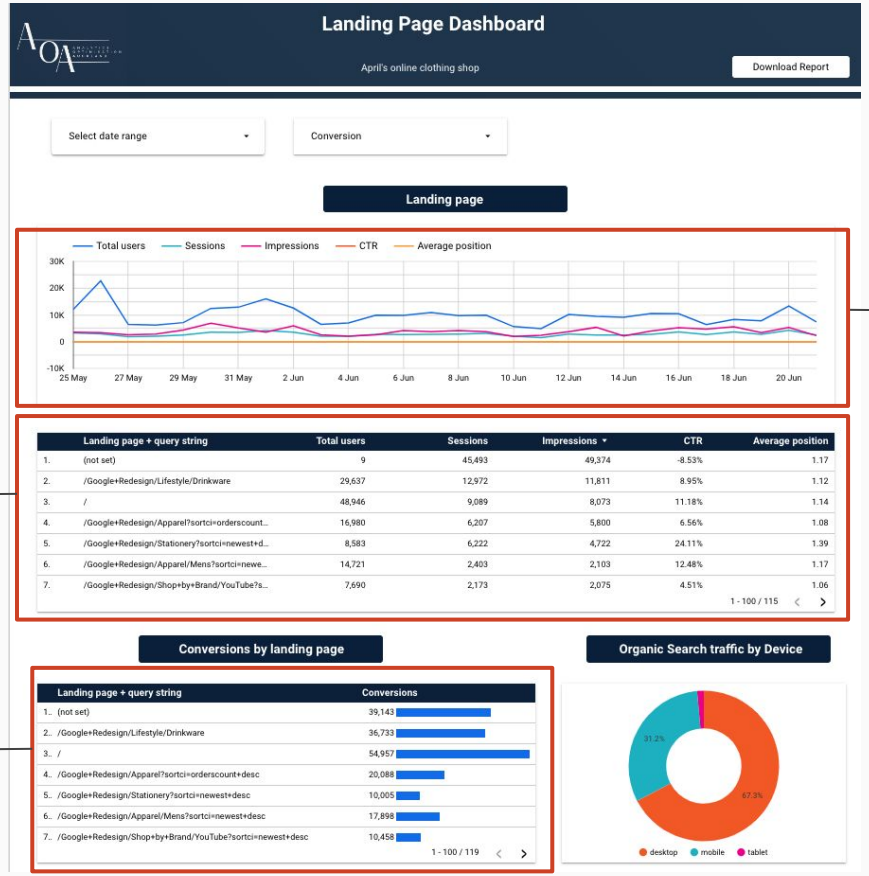
Landing Page Dashboard

Here's an example of a landing dashboard.



	Landing page + query string	Total users	Sessions	Impressions	CTR	Average position
1.	(not set)	9	45,493	49,374	-8.53%	1.17
2.	/Google+Redesign/Lifestyle/Drinkware	29,637	12,972	11,811	8.95%	1.12
3.	/	48,946	9,089	8,073	11.18%	1.14
4.	/Google+Redesign/Apparel?sortci=orderscount...	16,980	6,207	5,800	6.56%	1.08
5.	/Google+Redesign/Stationery?sortci=newest+d...	8,583	6,222	4,722	24.11%	1.39
6.	/Google+Redesign/Apparel/Mens?sortci=newe...	14,721	2,403	2,103	12.48%	1.17
7.	/Google+Redesign/Shop+by+Brand/YouTube?s...	7,690	2,173	2,075	4.51%	1.06

1 - 100 / 115

	Landing page + query string	Conversions
1..	(not set)	39,143
2..	/Google+Redesign/Lifestyle/Drinkware	36,733
3..	/	54,957
4..	/Google+Redesign/Apparel?sortci=orderscount+desc	20,088
5..	/Google+Redesign/Stationery?sortci=newest+desc	10,005
6..	/Google+Redesign/Apparel/Mens?sortci=newest+desc	17,898
7..	/Google+Redesign/Shop+by+Brand/YouTube?sortci=newest+desc	10,458

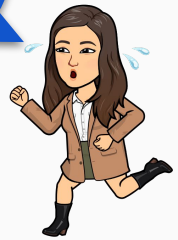
1 - 100 / 119

A time series chart that shows my landing page performance overtime. - Measured by different metrics such as sessions and SERP impressions.

A table view of my landing page with data from both GA4 and Google Search Console (Impressions, CTR and Average position)

With the bars in the table I can easily spot the landing page that drives the most conversions!

Not too sure how to blend data? I gotchu - go to the next slide!



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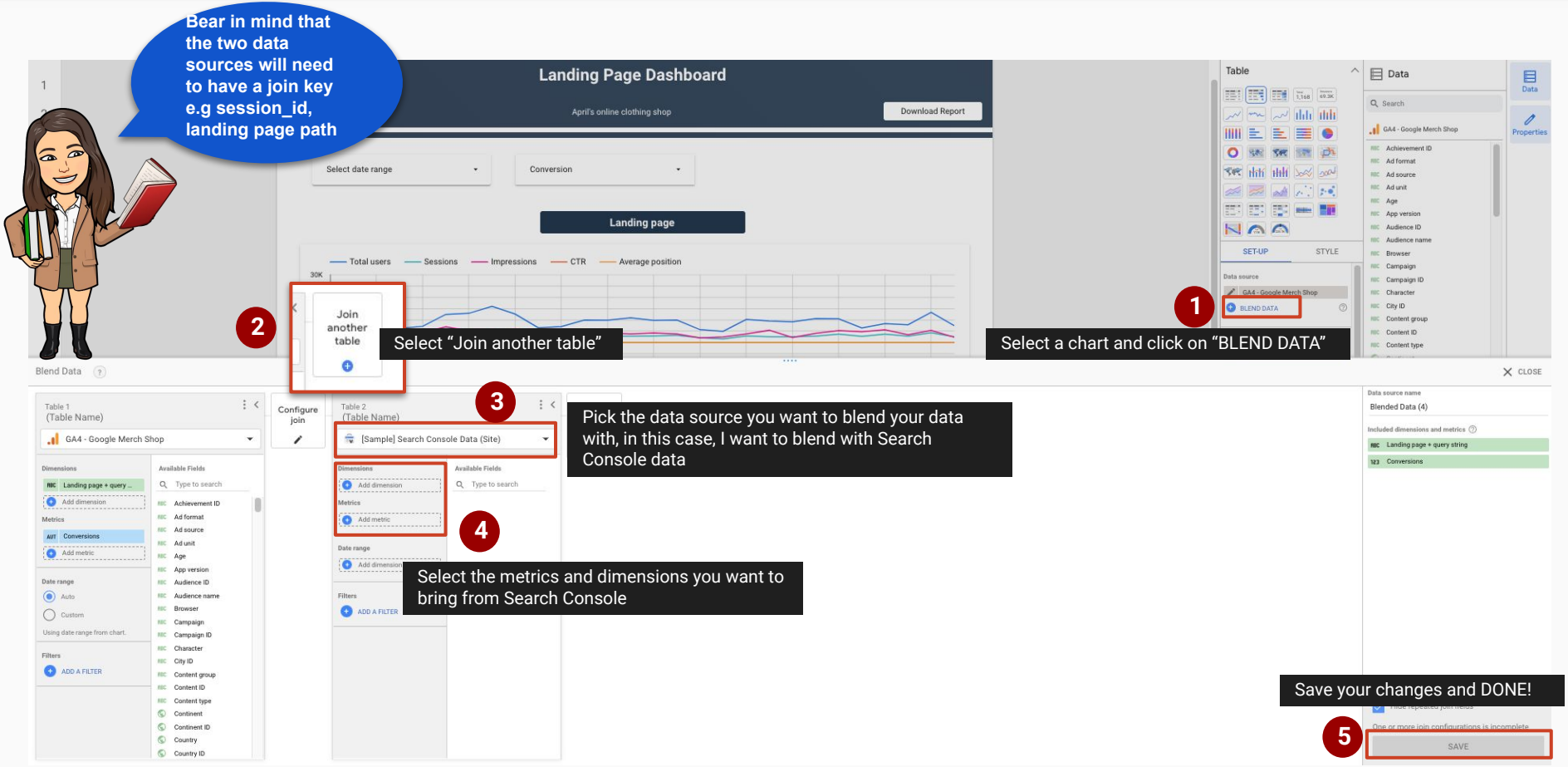
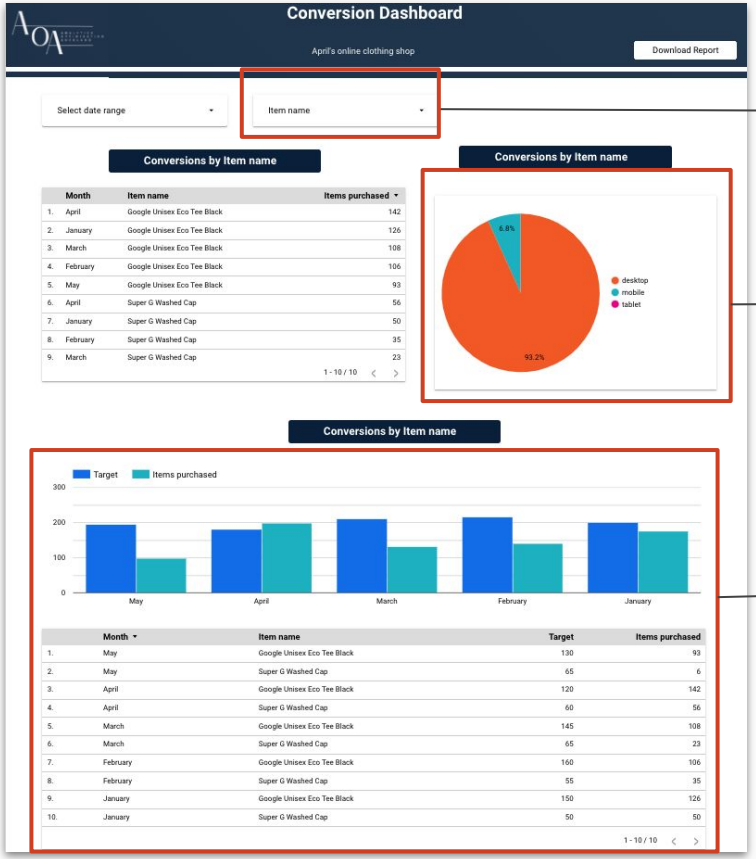
The Last Data Blender



Conversion Dashboard (How many clothes am I selling and how do I sell more…)

Here's an example of a conversion dashboard for April's online clothing store.



	Month	Item name	Items purchased
1.	April	Google Unisex Eco Tee Black	142
2.	January	Google Unisex Eco Tee Black	126
3.	March	Google Unisex Eco Tee Black	108
4.	February	Google Unisex Eco Tee Black	106
5.	May	Google Unisex Eco Tee Black	93
6.	April	Super G Washed Cap	56
7.	January	Super G Washed Cap	50
8.	February	Super G Washed Cap	35
9.	March	Super G Washed Cap	23

1 - 10 / 10

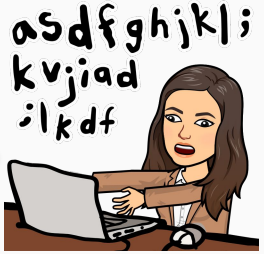
	Month	Item name	Target	Items purchased
1.	May	Google Unisex Eco Tee Black	130	93
2.	May	Super G Washed Cap	65	6
3.	April	Google Unisex Eco Tee Black	120	142
4.	April	Super G Washed Cap	60	56
5.	March	Google Unisex Eco Tee Black	145	108
6.	March	Super G Washed Cap	65	23
7.	February	Google Unisex Eco Tee Black	160	106
8.	February	Super G Washed Cap	55	35
9.	January	Google Unisex Eco Tee Black	150	126
10.	January	Super G Washed Cap	50	50

1 - 10 / 10

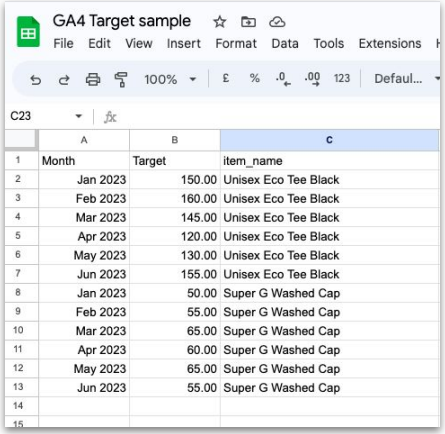
I can see how each of my product is performing by using the "item name" filter

I like slicing my data up with device category! This tells me where most of my sales are made & how I should design and optimise my website based on the device type!

I wrote a post about Device Analysis for UX - Check it out!



I blended my eCommerce data with my Target Google Sheets, which contains the sale target for each month. By blending them, I can create different graphs to help me visualize my sales performance.



	A	B	C
1	Month	Target	item_name
2	Jan 2023	150.00	Unisex Eco Tee Black
3	Feb 2023	160.00	Unisex Eco Tee Black
4	Mar 2023	145.00	Unisex Eco Tee Black
5	Apr 2023	120.00	Unisex Eco Tee Black
6	May 2023	130.00	Unisex Eco Tee Black
7	Jun 2023	155.00	Unisex Eco Tee Black
8	Jan 2023	50.00	Super G Washed Cap
9	Feb 2023	55.00	Super G Washed Cap
10	Mar 2023	65.00	Super G Washed Cap
11	Apr 2023	60.00	Super G Washed Cap
12	May 2023	65.00	Super G Washed Cap
13	Jun 2023	55.00	Super G Washed Cap
14			
15			

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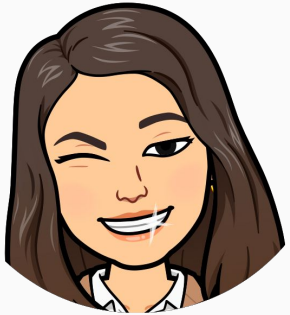
Notes

- Data will only start showing in your Custom Dimensions after your creation date (can take up to 24 hours)
- Refresh your data source in Looker Studio if new custom dimensions are created
- There other providers such as SuperMetrics who provides data connectors for platforms/data sources that are currently not supported in Looker Studio (i.e Facebook and Instagram)
- Stay up to date with the newest releases and announcement by signing up to Looker Studio's newsletter

HMU if you are looking for ways to report your GA4 data - I can give you a hand or we can just nerd out about visualisation & analytics together.



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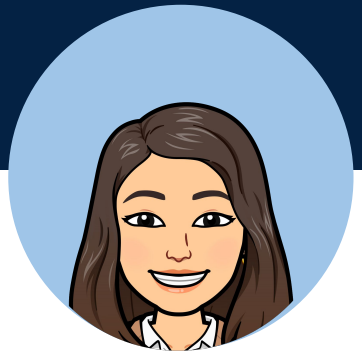
Who dat?



April Hungry

Just a foodie who's passionate about digital experience & trying to make the digital world seems less scary and more fun!

Connect with me!

Any feedback or question? aprilhung4@gmail.com

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