Analytics mania

20 Google Analytics 4 mistakes
you must avoid

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I can help you learn GA4

Hi, my name is Julius. I founded Analytics Mania in late 2016. Since then, the blog has grown to hundreds of thousands of monthly visits. Here I share my knowledge, experiments, learnings related to web analytics, mainly Google Tag Manager (GTM) & Google Analytics 4 (GA4).

I actively help others to learn Google Analytics 4 by running workshops and online courses. In my Google Analytics 4 course, you will learn:

- How to **plan** your setup
- How to define what is important to measure, KPIs
- How to properly **configure** Google Analytics 4
- How to build **reports**
- How to **get insights** from your data
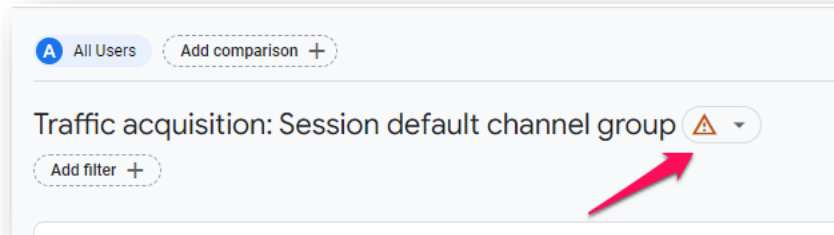- An **in-depth migration to GA4** process

You can **learn more about my Google Analytics 4 course here**.

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#1. Ignoring report status/warning

Many things can affect your reports in GA4: sampling, thresholding, etc. Therefore, you need to keep an eye on the warnings at the top of each report/widget.

If you see a green checkmark, everything is good. But if you see an orange exclamation mark or a red icon, click it to learn more.
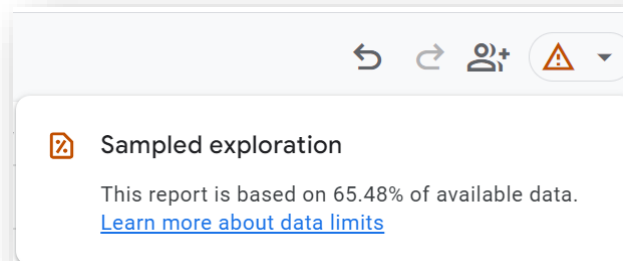
For example, sampling is a popular challenge many people are dealing with.

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#2. Not marking changing conversion counting method

By default, Google Analytics 4 counts conversions one per event. If the visitor completes a conversion 3 times per session, the conversion count will increase by 3.

For some conversions (for example, purchases), it makes total sense. You, as a marketer want to track and count all those purchases (the more purchases, the higher the revenue).

But what if you track contact form submissions as a conversion and a visitor submits the same form twice in a session?

What matters to me, is that the visitor converted and submitted the form. I don't care if that happened twice in a session. But Google Analytics 4 (by default) will count two conversions (thus the number of conversions in your reports will be bloated).

That's why I recommend changing the conversion counting methods for some conversions.

Go to *Admin > Conversions* and click three dots next to a conversion that is not related to purchase. Select *Change counting method.*
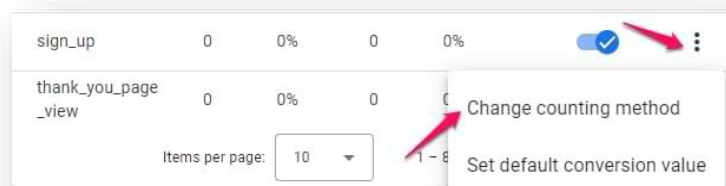
You will see two options there: *once per event* and *once per session.*

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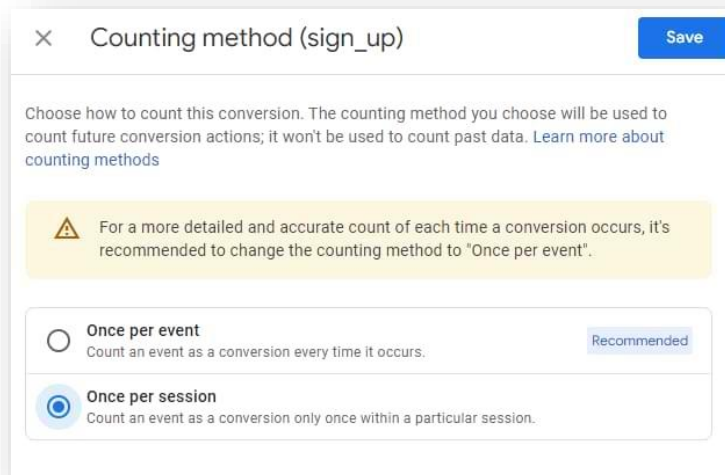
Choose *Once per session* and click *Save*.

Even though this solution will not completely solve the issue of duplicate conversions (because the same person can return tomorrow and submit the same form again), it will make your numbers (at least) slightly more accurate.

But when it comes to purchases, every transaction is important. That's why *purchase*, *in_app_purchase*, and other similar conversions should still be counted as "once per event".

The only reason (that I see) why it would make sense to track form submission conversions "once per event" is if you are using the same event (e.g., generate_lead) for multiple forms.

#3. Not reviewing data retention settings

The default data retention in Google Analytics 4 properties is 2 months. This affects Exploration reports (available in the Explore section of the left sidebar).

This means you won't be able to analyze data older than 2 months (note: standard reports are unaffected). However, you can extend the retention period to 14 months in free properties (and for many businesses, it's a mistake they don't want to make).

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Go to *Admin > Data Settings > Data Retention* and change it to 14 months. Hit save.
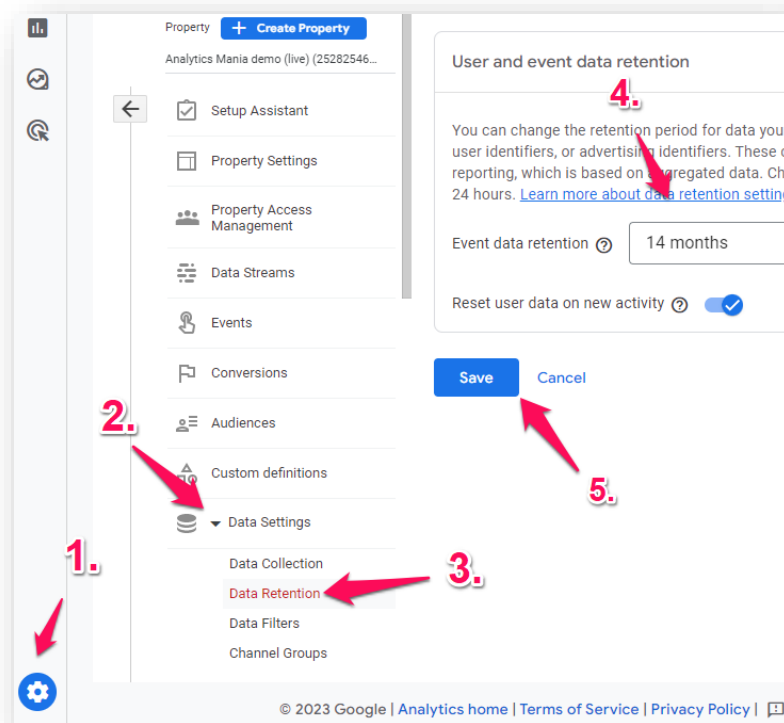

Note: this applies only to future data. If you have already lost some data in the past, it will not become available in the explorations after you extend the retention period.

#4. Using Source/Medium instead of Session Source/Medium

When you want to see where your visitors are coming from, you usually intend to do that on the session level. For example, if a visitor visited you twice, you probably want to see both sessions' traffic sources.

If yes, then you might be tempted to create a custom Exploration report with the following dimensions:

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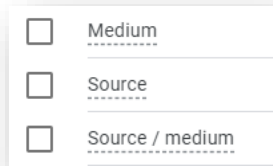
But that's incorrect. To see the last traffic source of sessions, you need to use dimensions that contain the word "Session" in it, for example, "Session source/medium", "Session campaign", etc.
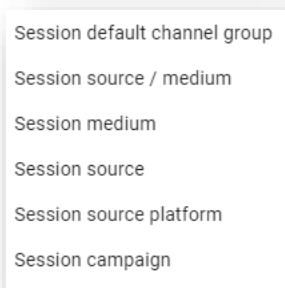
#5. Not waiting long enough

Usually, Google Analytics 4 needs 24-48 hours to display the data that has been collected.

Even if you don't get a lot of traffic and just sent several events, they will appear in your reports (at best) tomorrow.
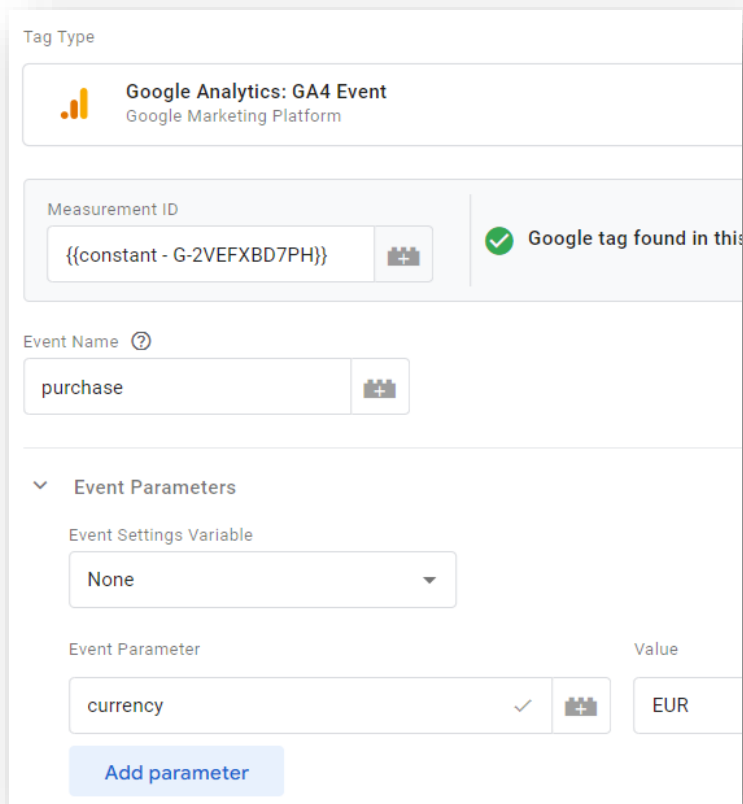
If you sometimes notice sudden dips in traffic (by checking yesterday's data), don't panic. Instead, just wait an additional 24 hours.

#6. Not sending *currency* parameter

If you send monetary values to Google Analytics 4 (e.g., a purchase), you must send value parameters and *currency*.

Otherwise, that data will not be displayed in GA4 reports.

There are different ways to send the currency, e.g., the one below:

#7. Always sending the debug_mode parameter
Debugview is a handy feature when you troubleshoot GA4 setups, and there are three ways to enable it. One of them is to send the debug_*mode* parameter with every event.

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But here's the thing. If you publish your GA4 tracking code with this parameter, all visitors' data will be visible in the debugview. This will pollute the interface and will make your work much more difficult (because you will waste a lot of time trying to find your device's data).
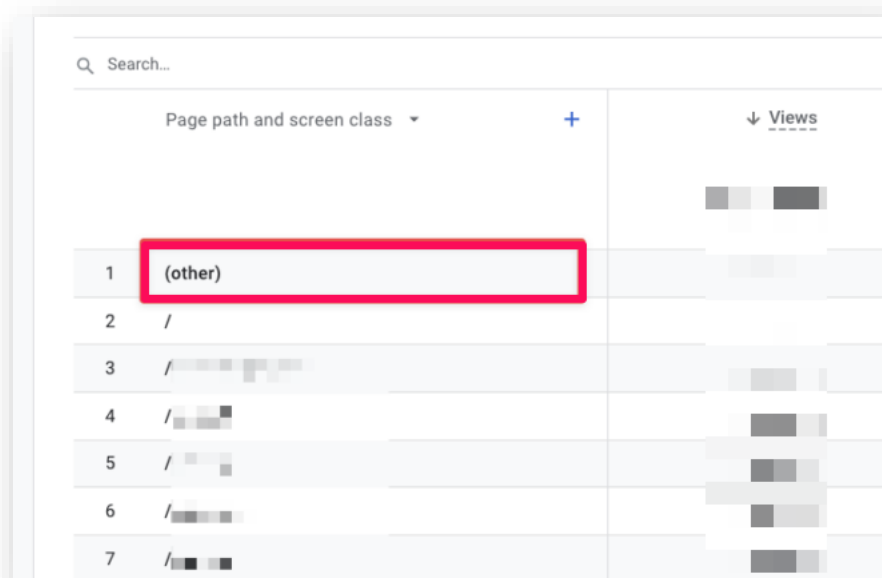
So if you decide to use this parameter, ensure it is included in the events only when you are **troubleshooting the setup**. In all other cases, don't include it.

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#8. Using custom dimensions that contain a lot of unique values

In the previous GA version, it was useful to send things such as client id or user id as custom dimensions too. But things are different with GA4.

If you are sending custom parameters with more than 500 unique values per day **and you register them as custom dimensions**, you might face high-cardinality issues.

What are the consequences? Suddenly some reports will show you the "(other)" row.

The key takeaway here is that you should avoid having custom dimensions that can contain a lot of unique values (e.g. *session_id, client_id, user_id, timestamp*, etc.).

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#9. Not defining internal traffic in GA4

To reduce data pollution in GA4, exclude your company's internal traffic. If you or your employees browse the site, those events would then be excluded.

How can you do that?

Go to *Admin > Data Streams > Web data stream > Configure Tag Settings > Show all > Define internal traffic*.
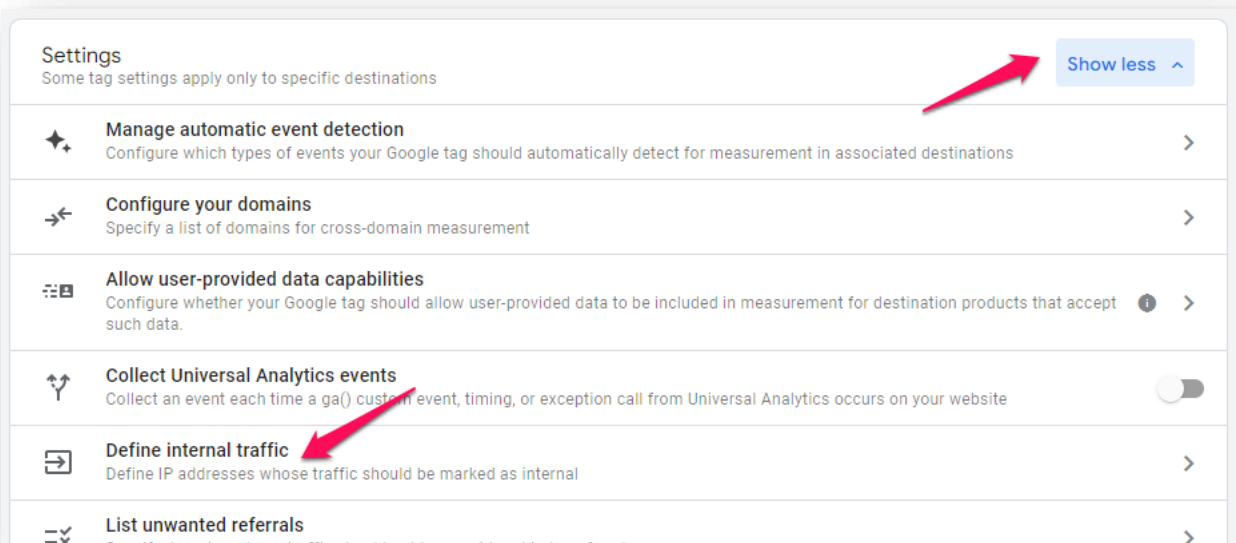
Then enter your company's/employees' IP addresses there. But that is not all. And that's where the 2nd mistake in a row can be done.

#10. Not setting the internal filter to "active"

Even If you have defined IP addresses of the internal traffic, you still need to set the filter to active. Go to *Admin > Data Settings > Data filters* and set the Internal traffic filter to *Active*.

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#11. Not defining unwanted referrals

Referrals are the segment of traffic that arrives on your website through another source, like a link on a third-party domain. However, sometimes, there might be websites that you don't want to see in acquisition reports. For example, your payment gateway (e.g., paypal.com, stripe.com, etc.)

To have cleaner reports, it is recommended to include those domains as unwanted referrals.

Go to *Admin > Data Streams > Select your website data stream*.

Then go to Configure Tag Settings > Show all > List unwanted referrals.
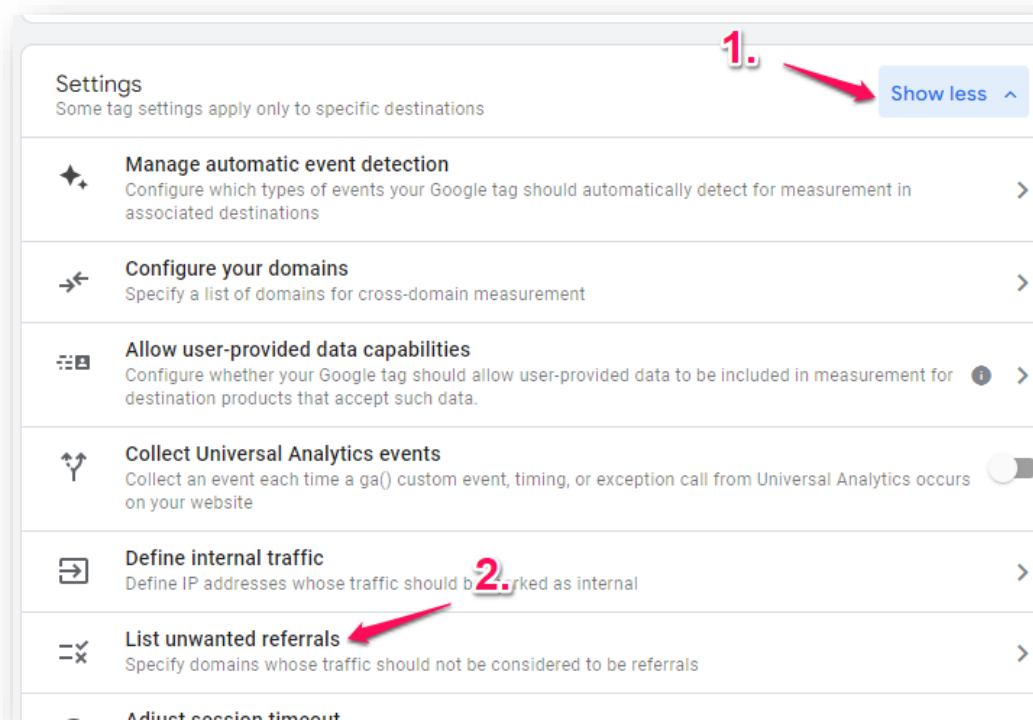
There you should enter the domains you do not want to see in traffic acquisition reports, e.g., *Referral domain contains paypal.com*.

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#12. Not defining your domains

If your Google Analytics 4 property is installed on multiple domains (I am not talking about subdomains), then you must configure cross-domain tracking.

Go to *Admin > Data Streams > Select your website data stream*. Select *Configure your domains*.
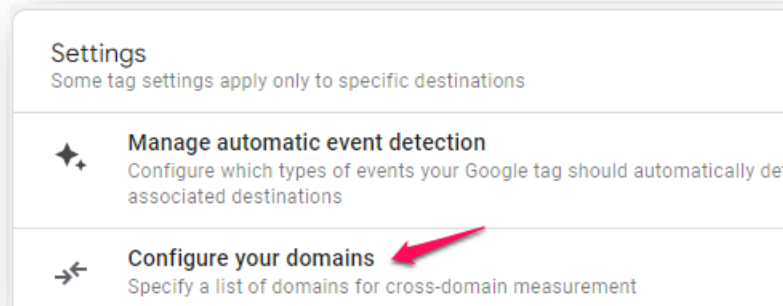
There you should enter the domains that are tracked with the same GA4 property, for example, *mydomain1.com* and *anotherdomain.com,* and save the changes.

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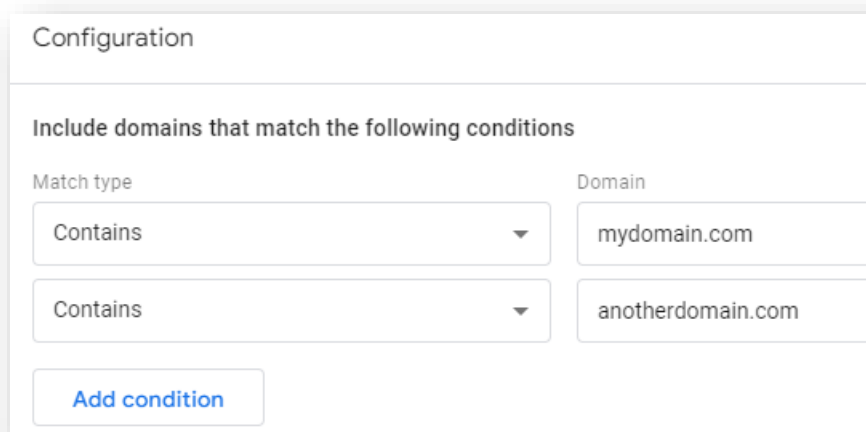
#13. Not verifying events of Enhanced Measurement

Google Analytics offers automatic event-tracking features called *Enhanced Measurement*. This is a good addition for beginners who don't plan to invest much time in customizing event tracking. However, there might be situations where some events might not work on your site.
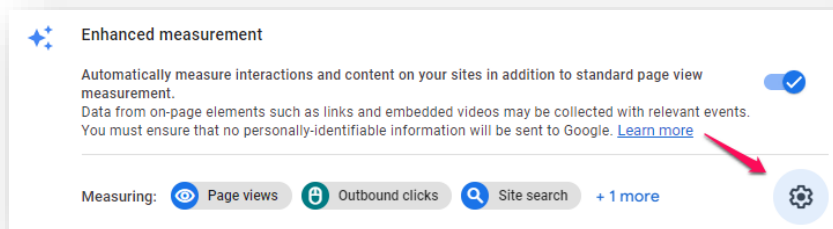
Likely, that form submission tracking will not work. So I highly recommend disabling that feature. You can do that by going to *Admin > Data Streams > Select your website data stream*. Then click the gear icon and disable form tracking.

Also, YouTube video tracking might not work out of the box. In that case, you will need to disable it in Enhanced Measurement and implement a custom solution.

#14. Not registering custom dimensions/metrics

If you are sending custom parameters to GA4 and you want to see them in Google Analytics 4 reports, you must register them as custom dimensions.

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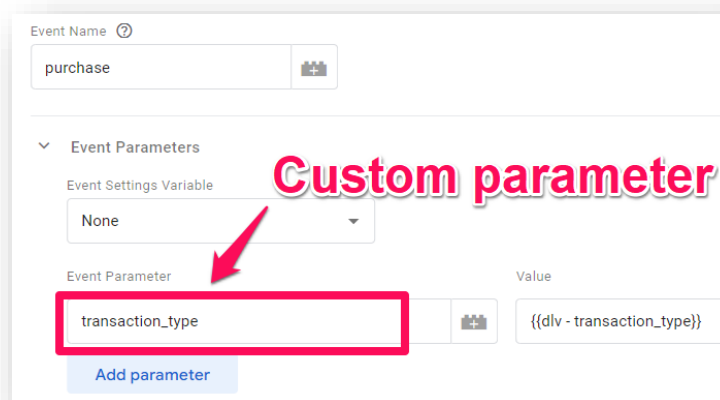
To do that, go to *Admin > Custom Definitions > Create custom dimension* and then enter the parameter name (this depends on what kind of parameter you are sending).

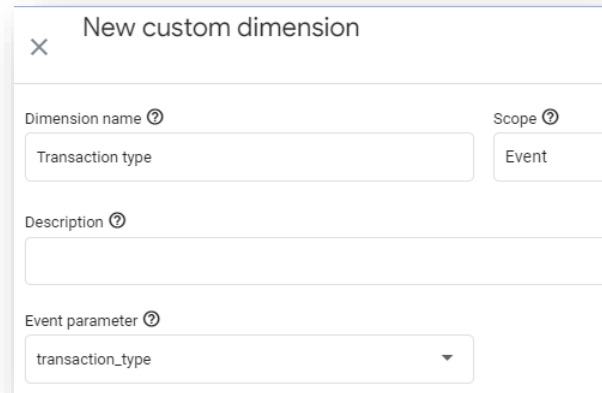From that moment (within 24 hours), you will start seeing the dimension in the interface. However, keep in mind that custom dimensions are not retroactive. They start showing data only from the moment you create them.

Also the same process applies to custom metrics too.

#15. Using custom event names for ecommerce tracking

Google Analytics offers a bunch of recommended events for e-commerce tracking, like *purchase*, *add_to_cart*, *begin_checkout*, etc.

When you (or your team) implement that tracking, ensure those event names follow GA4's documentation.

For example, if you want to track purchases, send the *purchase* event to GA4, NOT *transaction* or *purchase_complete* or anything like that.

Otherwise, certain metrics/reports in GA4 will not show the data correctly.
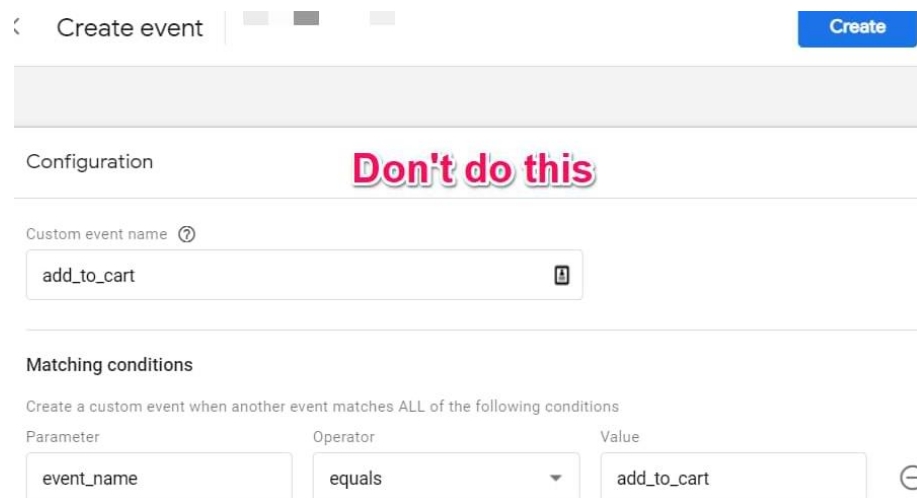
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#16. Tracking test/staging site in the same property as your live website

If you have several versions of the same website (e.g., live version and development/test/staging version), make sure that non-live websites have a different GA4 property installed.

Otherwise, your GA4 data will be polluted by your developers/testers/employees. Sure, you can later use comparisons/segments to remove that data, but this adds unnecessary complexity to your GA work process, and you will need to do this constantly. So having a separate property is always the way to go.

#17. Using the "Create event" feature incorrectly

When you send an event to GA4 (maybe it's with Google Tag Manager or via GTAG), you must NOT also create that event in the GA4 interface. I mean here that you do not need to go to *Admin > Events > Create event* and register that same event there. For example, if you are already sending an *add_to_cart* event to GA4, then don't do this:

Otherwise, you will end up with a lot of duplicates.

Event is not a custom dimension. You do not need to register/create it in the interface if you are already sending it to GA with GTM or GTAG (GA tracking code).

Just wait for the next 24-48 hours and that new event that you send to GA will start appearing in the reports.

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#18. Removing essential URL query parameters
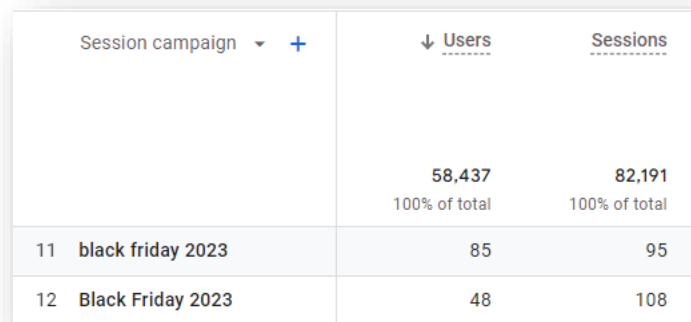
If you have been excluding (or you're planning to exclude) URL query parameters like here, then make sure you don't exclude the following parameters:

- utm_medium, utm_source, utm_campaign, and all other parameters listed here
- gclid
- dclid
- _gl
- _ga

Because if you exclude them, GA4 will not be able to attribute your conversions to correct traffic sources.

#19. Not using UTM parameters consistently

When you are working with UTM parameters, keep in mind that GA, in many cases, is case-sensitive. This means that you are tracking a marketing campaign, and some UTMs contain "black friday" while the others contain "Black Friday", GA4 will treat this as two different campaigns.

Session campaign ▼ +	↓ Users	Sessions
	58,437 100% of total	82,191 100% of total
11 black friday 2023	85	95
12 Black Friday 2023	48	108

So make sure you are using some tool (like UTM.io) or a spreadsheet where you manage UTMs and you (with your team) are following the same naming convention.

#20. Not sending session_id via GA4 measurement protocol

Measurement protocol is a way for you (or your developer) to send the data directly from your server (e.g. CRM) to Google Analytics.

But here's the catch. You can use Measurement protocol to enrich the data that is already collected on your website (by GTM or GTAG). This means that you can send events only to already tracked sessions.

That's why when you send an event, you need to include a client_id (of the visitor that was already tracked by GA4) and a *session_id*. It's not enough to send just *client_id*.

Also, if you are sending the event to the past (up to 72 hours), you also must include a *timestamp_micros* parameter.

Refer to the [documentation](#) to learn more.

How to properly learn Google Analytics 4

And that's the end of this guide. Some people try to learn Google Analytics 4 by themselves. They read the documentation (guides like this one), do a lot by trial and error. In the end, they will waste a lot of time. And time is money.

Others might try to enroll in a GA4 course and learn there. But the problem with many GA courses is that they focus just on GA features. They forget the most important things:

- How to collect **meaningful** data
- How to get **insights** from that data

That is the problem that I solve with my [Google Analytics 4 course](#):

- It will help you **save a lot of time**
- It will also teach you how to properly **plan your setup**
- You will learn how to **configure GA4** the right way
- You will know **what is important to track**
- You will learn how to **get insights** from your data

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Since 2016, I have taught many marketers and analysts to get the most out of Google Tag Manager and Google Analytics.

If you want to become a GA4 power user and benefit from it, check out my Google Analytics 4 course.

This course includes:

- 11 Modules
- Time-saving checklists, templates, etc.
- Practical tasks and a sandbox website to practice
- Lifetime 24/7 access to the course material
- Free updates
- Complete hand-holding and support
- And so much more!

Learn more about this course

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