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Analytics Reimagined:
Conquering Google Analytics 4 and Leaving Universal Analytics Behind

— Antonín Nguyen
Marketing Content Manager

eWay-Book

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Introduction

Welcome to our guide on transitioning from Universal Analytics (UA) to Google Analytics 4 (GA4). We're about to dive into the intricate world of these powerful digital tools, and our goal is simple - to equip you with the knowledge and the skills required to smoothly navigate this significant shift in the landscape of digital analytics.

We recognize that new technology can sometimes seem daunting. That's why we've curated this eBook as your reliable reference throughout this transition. Whether you're a seasoned digital marketer or a newcomer just starting to explore Google Analytics, this guide is here to provide consistent support and clear guidance every step of the way.

This eBook is derived from a series of four blog articles that we initially created to delve into different aspects of this transition.

If you prefer an online format, you can access these articles directly:

1. The Fundamentals and Differences between UA and GA4
2. Transitioning from UA to GA4 Step-by-Step (Google Tag Manager)
3. Exploring the Google Analytics 4 Interface and Reports
4. Crafting Your Google Analytics 4 Reports with Ease

Alternatively, you can continue with this eBook that consolidates all the information from the articles, conveniently packaged in one place.

In the upcoming sections, we'll discuss the key differences between UA and GA4, guide you through the migration process in a systematic manner, introduce the GA4 interface, and demonstrate how to create your own custom reports. Our approach is to provide precise, practical guidance, fortified with real-world examples.

By the conclusion of this eBook, you'll have more than just a basic understanding of GA4. You'll be fully prepared to utilize its features effectively and apply data-driven insights to your digital marketing strategies.

So, let's begin this journey. Welcome to the comprehensive guide on transitioning to Google Analytics 4.

Let's dive in.

Part 1 – The Fundamentals and Differences between Universal Analytics and Google Analytics 4

The first step in transitioning from Universal Analytics to Google Analytics 4 is understanding the core differences between these two systems. Each of them has its unique set of features and functionalities, and GA4 presents a substantial shift from the familiar terrain of UA.

In this section, we'll take a deep dive into the basics of both systems. We'll discuss the key differences and why they matter, including the shift from session-based to event-based tracking, and the new approach to user data privacy.

By the end of this section, you will have a clear understanding of the fundamental differences between UA and GA4. You'll also get to know why Google decided to revamp its analytics system.

From UA to GA4. Goodbye and Hello!

As a digital marketer, I was concerned when Google announced the **discontinuation of UA**. What impact will it have on data collection and analysis? What are the time and resources required for transitioning? Should I be concerned?

I was relieved to discover that eWay had already migrated to GA4. It lessened the stress for me a lot. It gave me more time to plan and focus on creating content instead.

For those who haven't migrated yet, **it's crucial to act quickly**. The transition process can be daunting, but it's a necessary step forward.

Event	Date
Google announces sunsetting of UA	March 2023
Standard properties stop processing new hits	July 1, 2023
Deadline for enterprise users to migrate to GA4	January 1, 2024

Google Won't Keep Your UA Data Forever

Good news is your historical data won't simply vanish on July 1, 2023. Instead, your UA properties will shift to "read-only" mode. This will enable you to access your valuable historical data for analysis even after July 1.

Beware that Google has announced they **won't keep your UA data indefinitely**. They currently plan to store the data **for at least 6 months**. This timeframe may be subject to change though. As a result, **after January 2024, data from UA will no longer be accessible**.

Make Use of Data Warehouse

As we move towards transitioning from UA to GA4, it's crucial to **export your UA data to a data warehouse**. I will name BigQuery, MySQL, or MS SQL. This will help you preserve valuable historical data and analyze it later.

You cannot directly migrate historical data when transitioning to GA4. Thus, exporting it to a data warehouse is an important step.

You can do it manually, **via Google Sheets, programmatically through API**, or with tools like Hevo or Dataddo. It's worth noting that only the data you select in UA will be copied. There's no way to combine UA data with GA4 data because the services use different data models.

Understanding the Differences: GA4 Outperforms UA

GA4 offers more **intuitive and precise control over personal data collection**. Machine learning algorithms that generate predictive metrics are a big plus as well. There are also more options for **segmentation and analyzing user engagement**.

One of the key features is the **improved control over personal data collection**. This means we can be even more precise about what data we collect and how we use it, while also respecting user privacy.

Besides, GA4 makes it easier to track data across both web and app and offers **more options for segmenting**. With **event-based tracking**, it counts every user activity as an event. This will give us even more insights into **how people are interacting with our site**.

Finally, GA4 allows us to **create custom audiences** for showing ads with Google Ads. This will help you reach the right people with the right message.

Benefits of GA4
More intuitive and precise control over personal data collection
Utilizes machine learning algorithms to generate predictive metrics
Easier tracking data across both and app
More options for segmentation and analyzing user engagement
Event-based tracking allows for counting every user activity
Audiences can be created for showing ads with Google Ads

Your UA and GA4 Numbers Won't Match

One of the main differences between UA and GA4 is the data model used by each platform. **UA collects data at the property level** with a tracking ID. GA4 collects data at the stream level via a unique data stream ID.

In practice, the difference between UA and GA4 user metrics lies in their primary focus. UA primarily uses Total users, while GA4 uses **Active users**. Active users are defined as users who have engaged with a website over a specific period. It's also used in the default reports available in the GA4 User Interface.

The rationale behind GA4's preference for active users over total users is that active users can be detected automatically. **UA total users require identification through unique identifiers** like cookies or user_ids. That's why **your numbers don't need to exactly match if you compare your UA reports with GA4**.

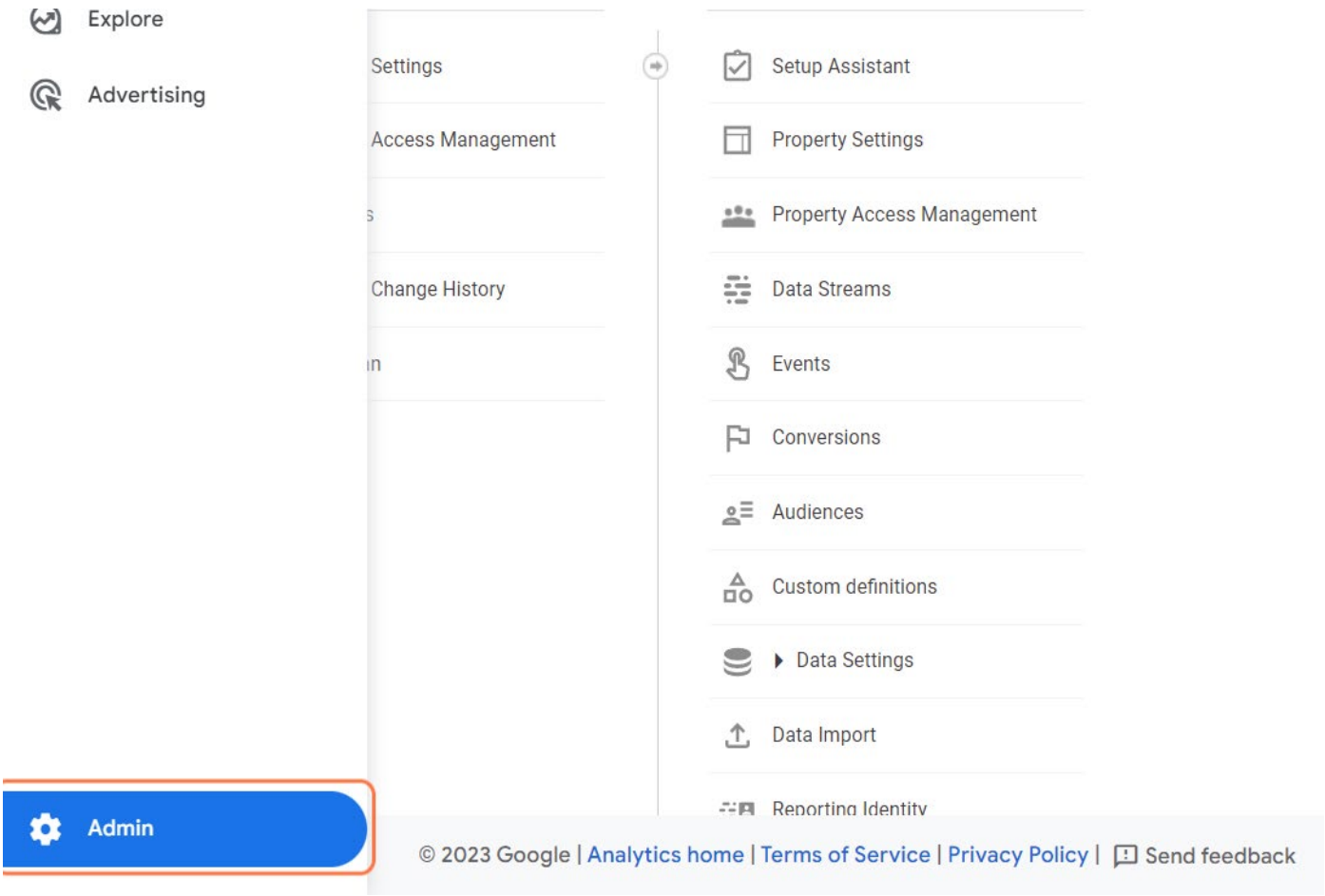
Part 2 – Transition from UA to GA step by step (Google Tag Manager)

Once you understand the differences between Universal Analytics and Google Analytics 4, it's time to make the transition. Transitioning from UA to GA4 can seem daunting, but we've broken it down into manageable steps. In this section, we'll take a hands-on approach, walking you through the migration process step by step.

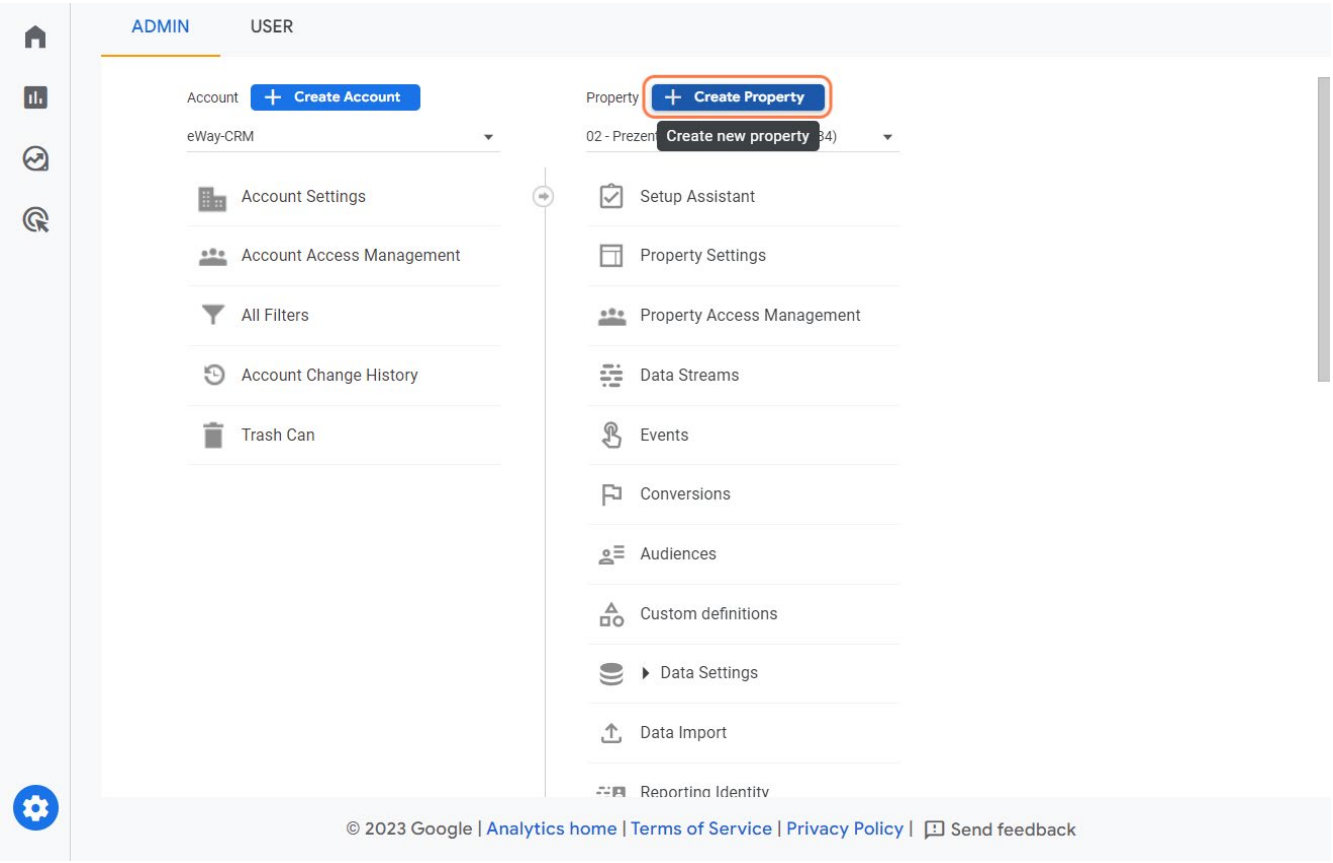
Important note: This guide is tailored specifically for those of you using Universal Analytics and Google Tag Manager.

Step 1 - Configure Google Analytics 4

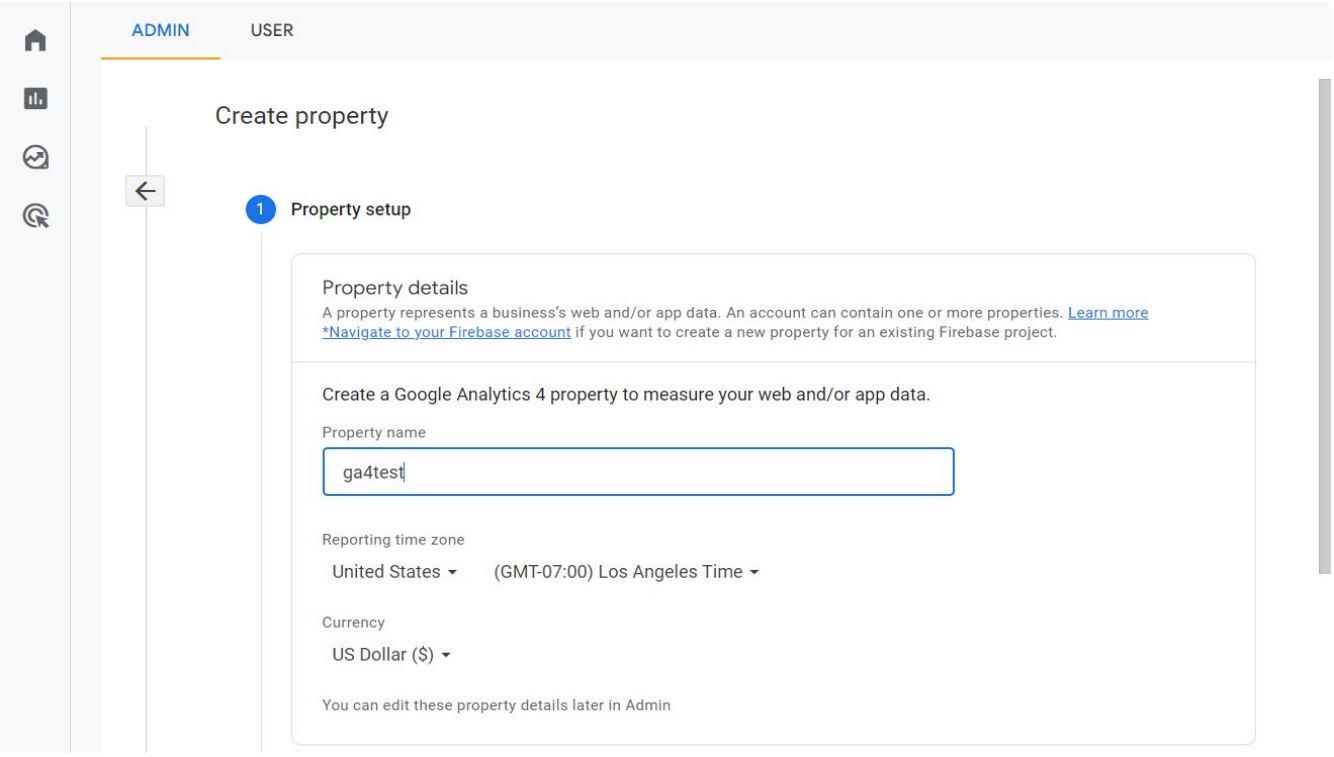
1. Click on Admin (In your Google Analytics account).



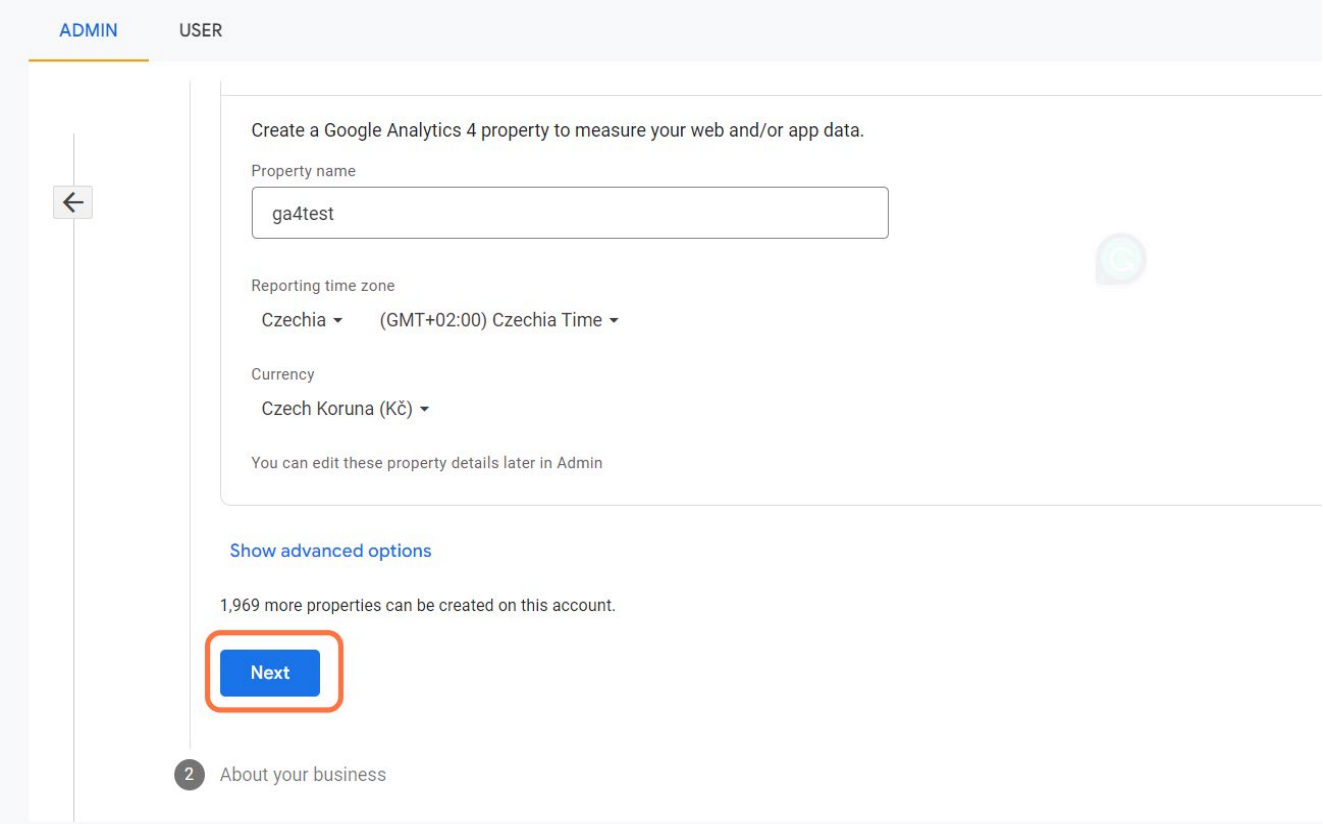
2. Create a new property.



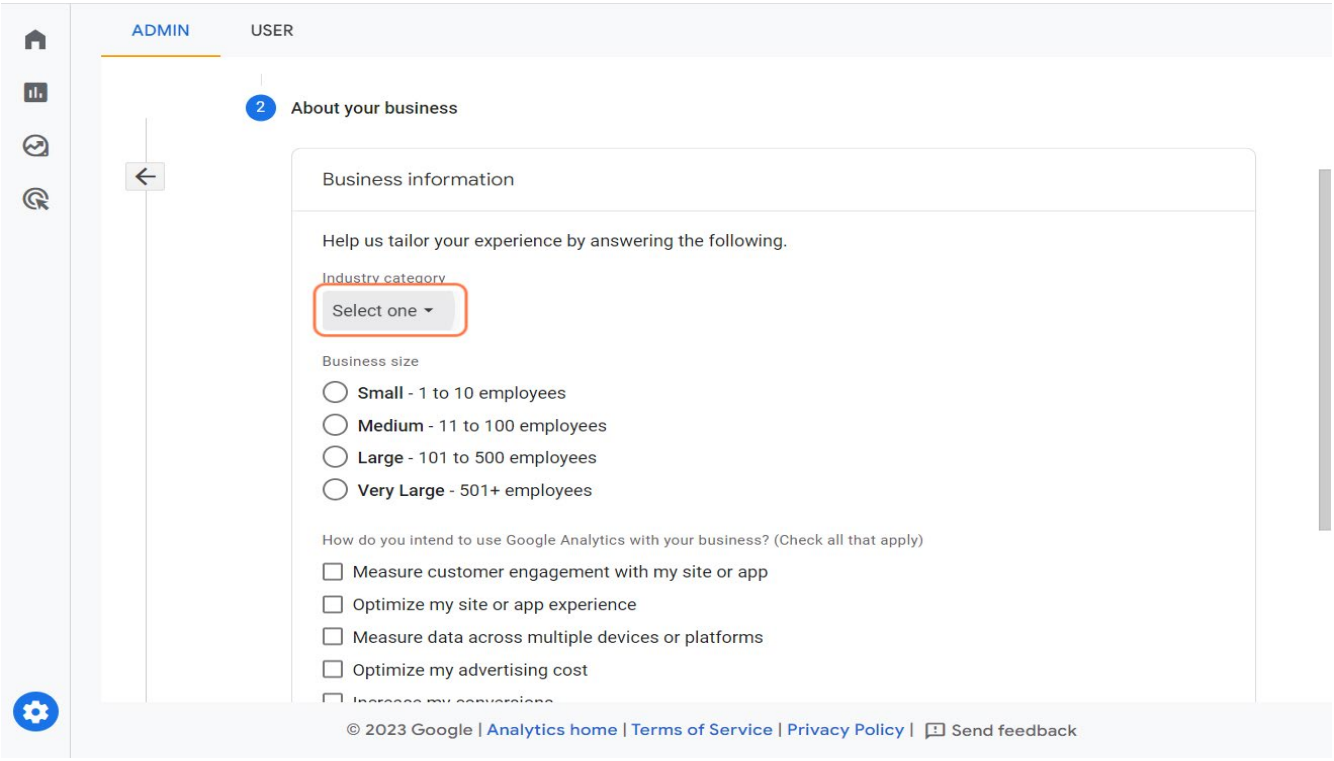
3. Go through the property setup. It's easy to navigate.



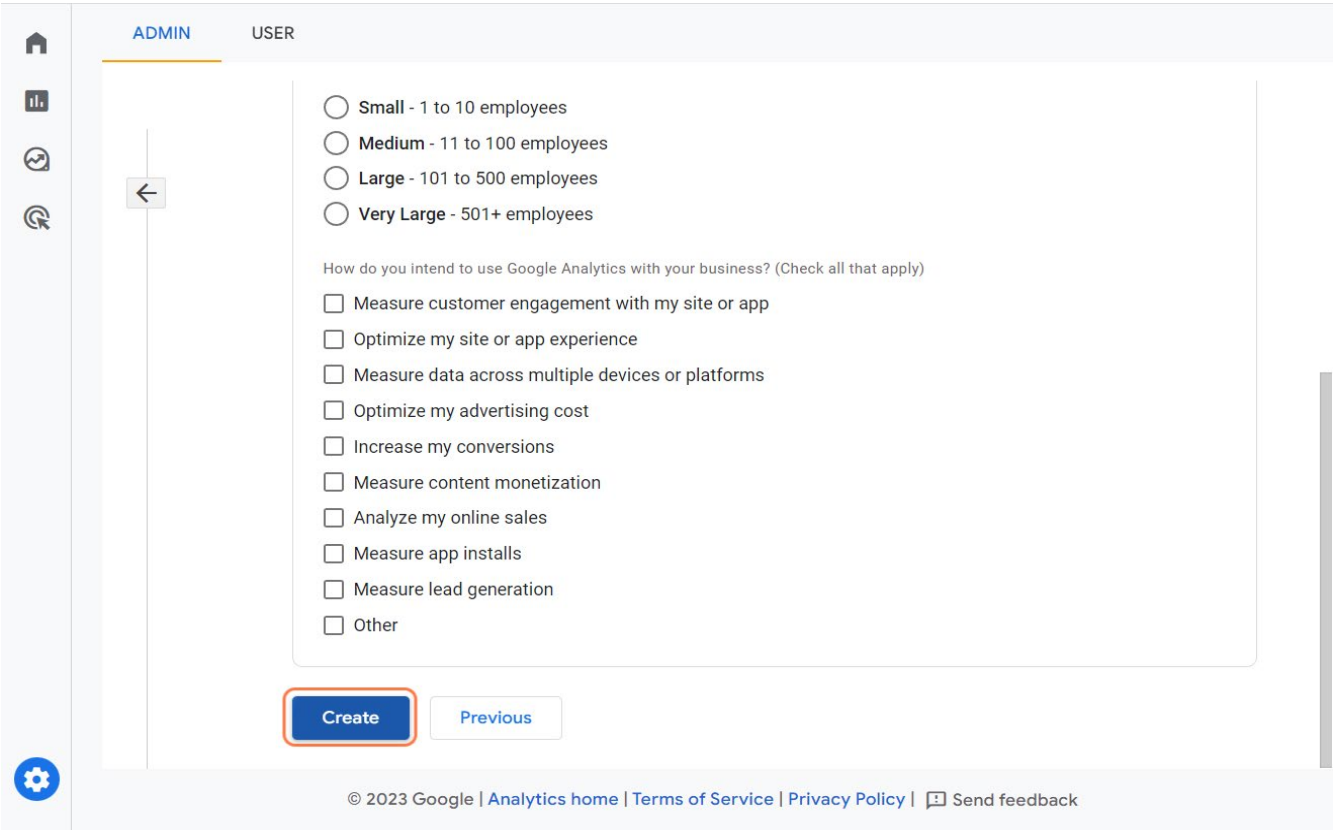
4. After filling in your property details, click on Next. Alternatively, you can edit your property details later in the admin section.



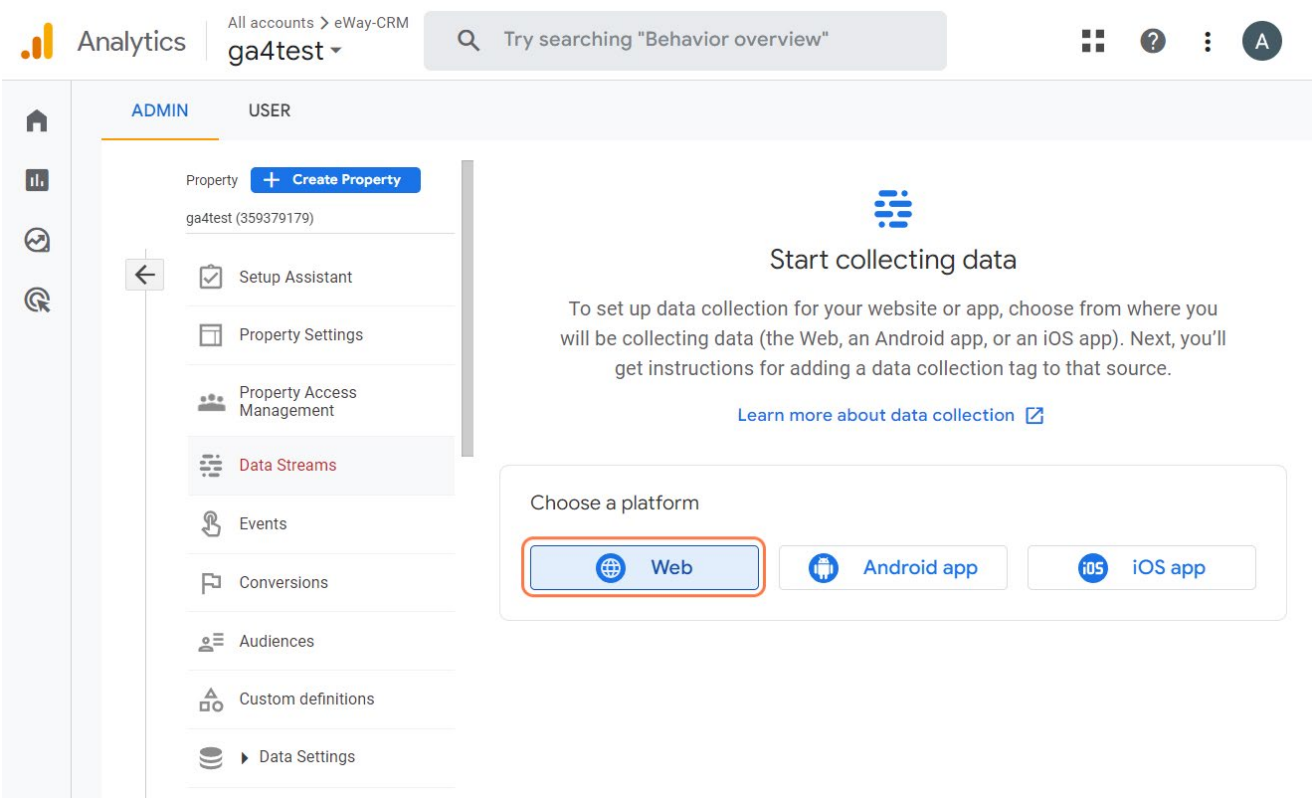
5. "Business information" window will pop up. Try answering these questions. It's easy to navigate.



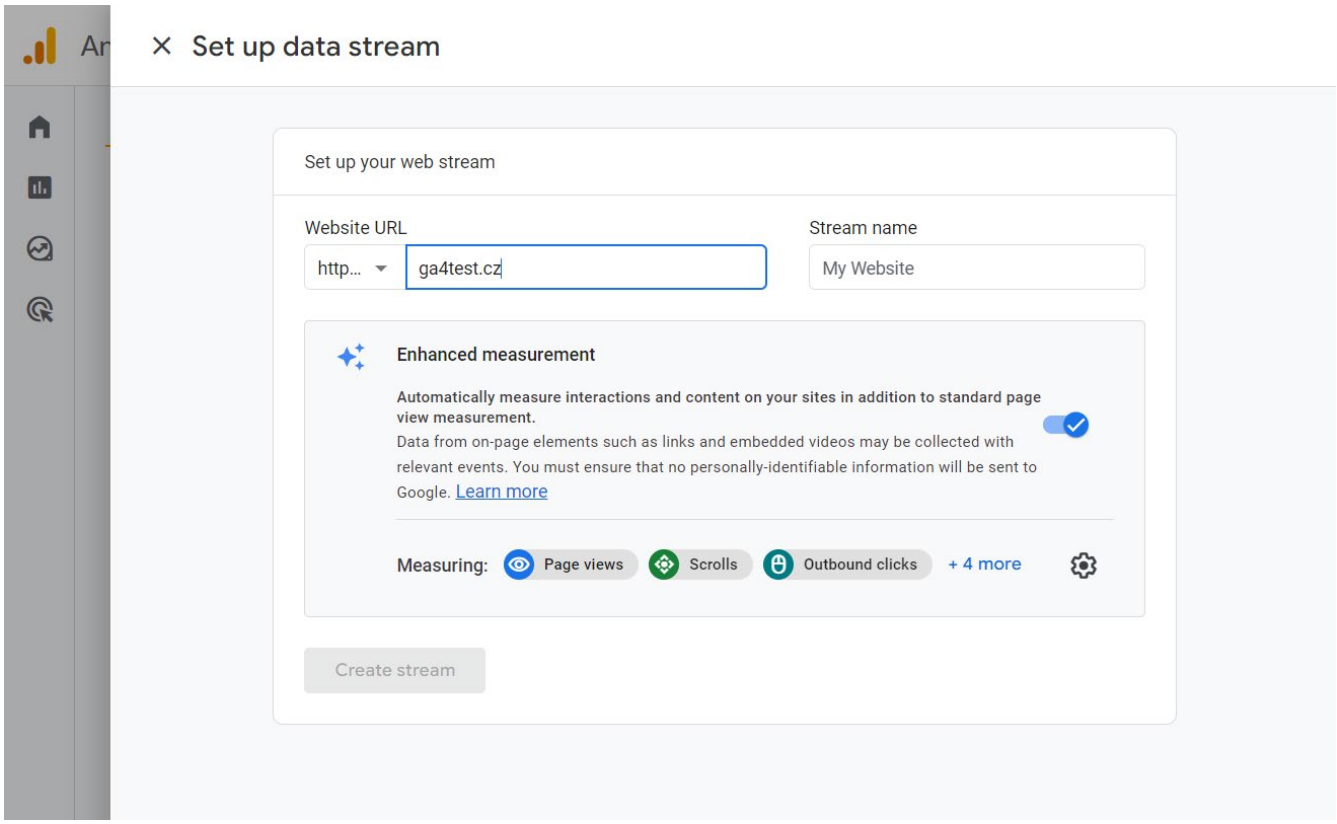
6. Mark what is relevant to your business and hit “Create”.



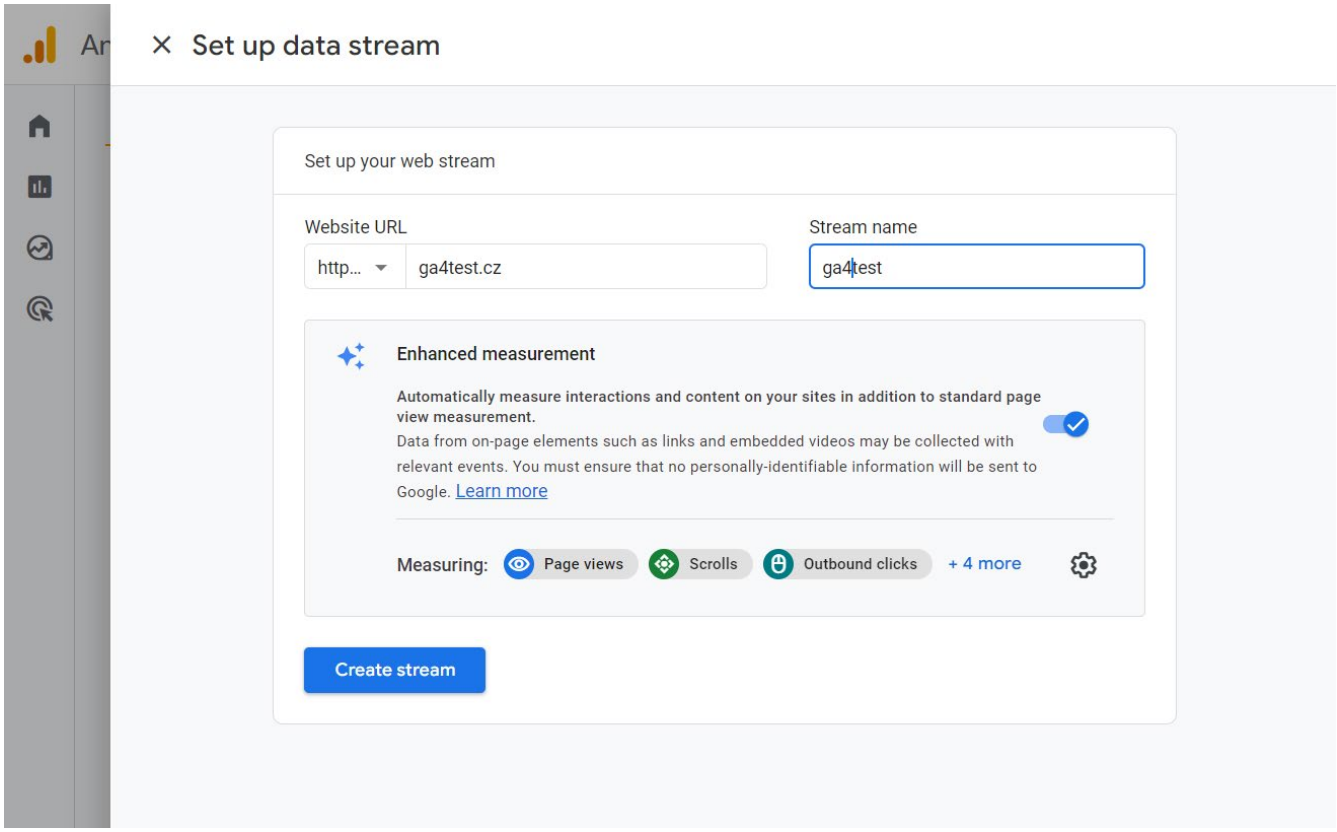
7. Choose a platform. We want to collect data from the Web.



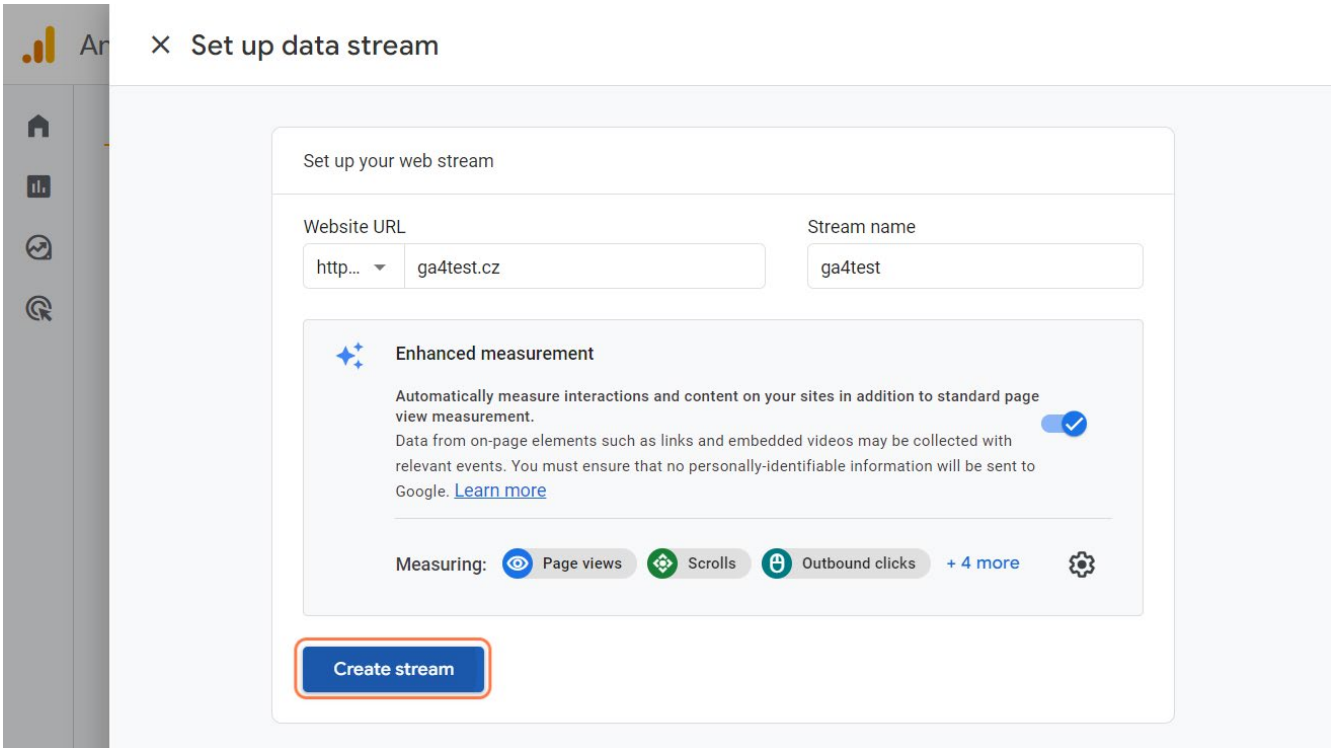
8. “Set up your web stream” window will pop up. Fill in your website’s URL.



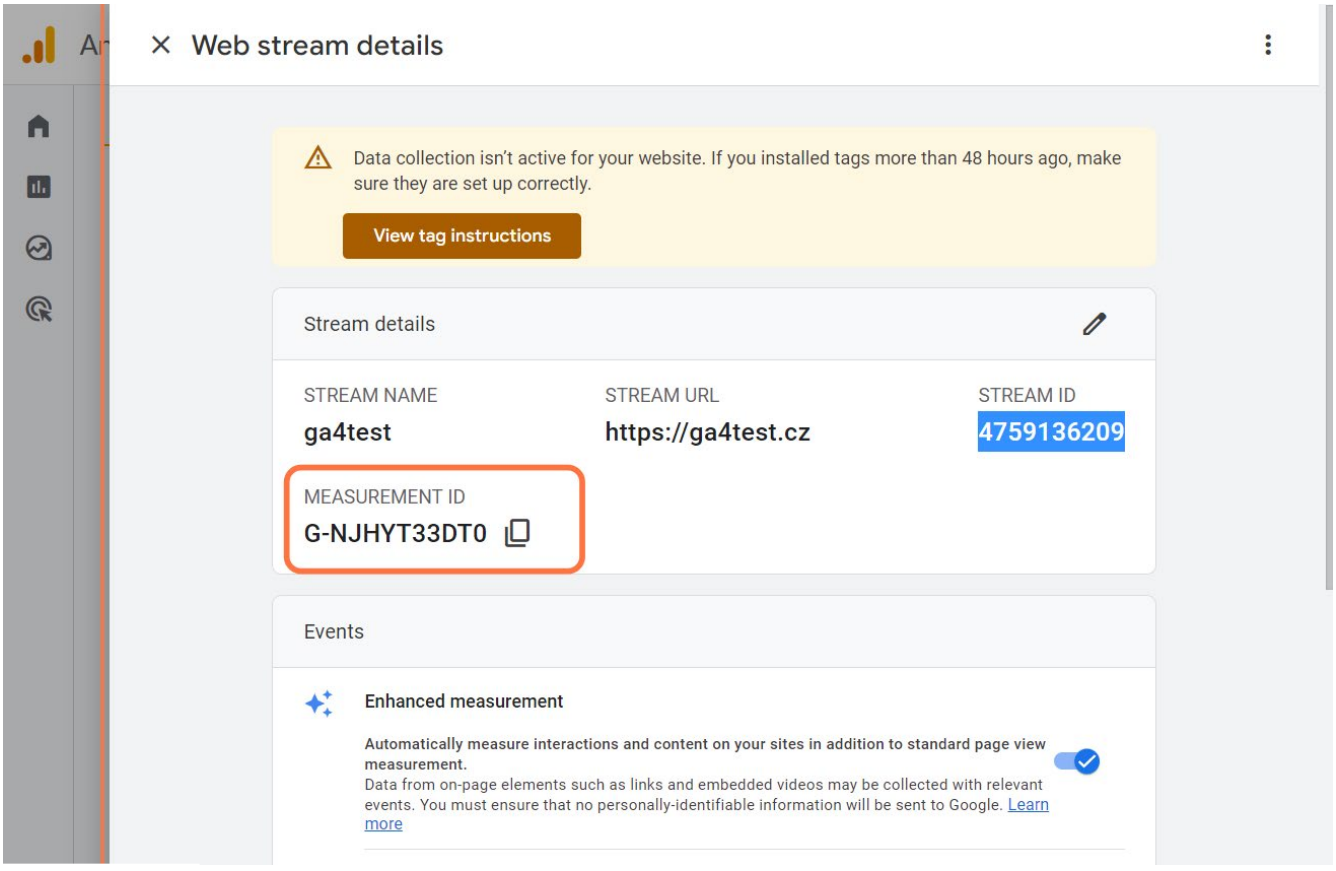
9. Choose a name for your data stream.



10. Click on “Create stream”.

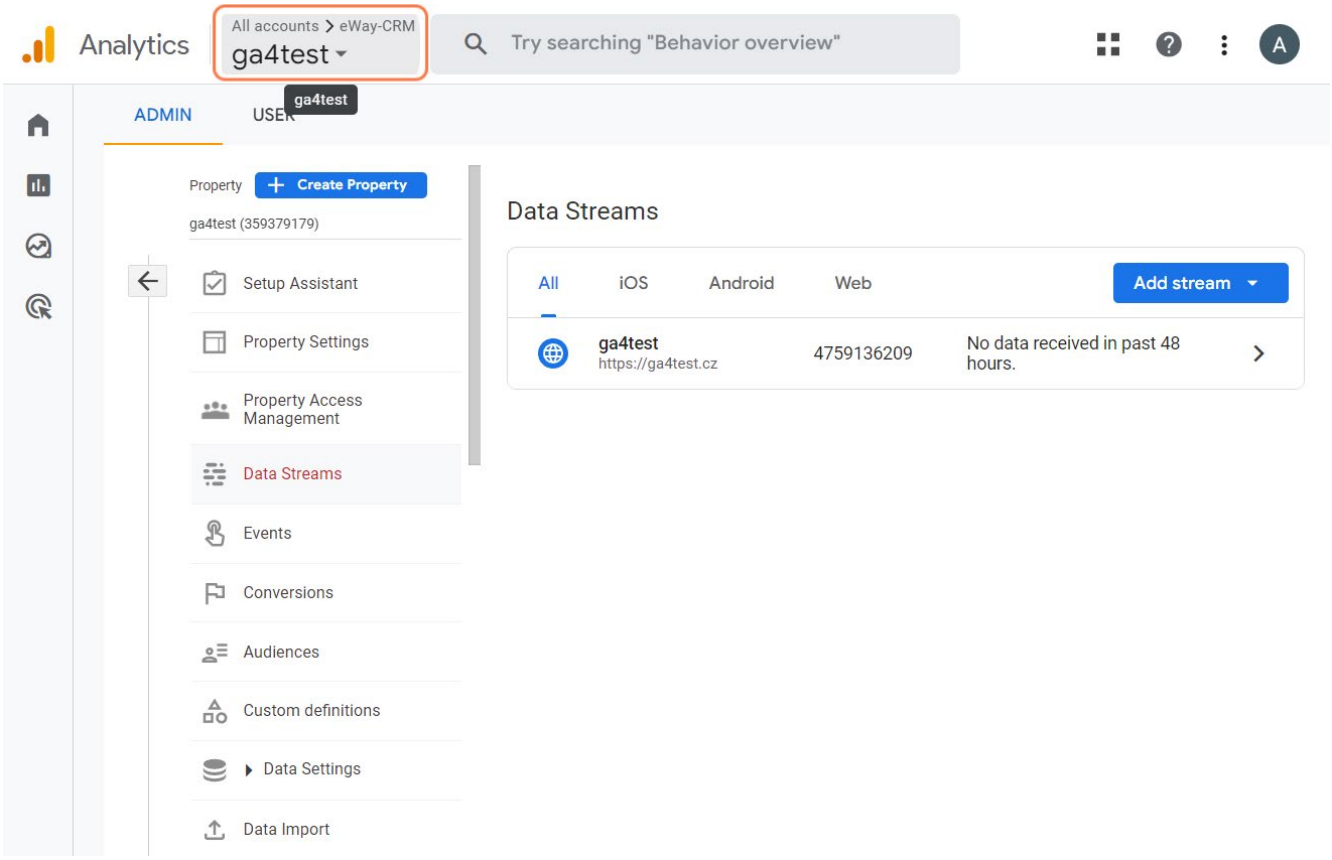


11. Voila! Copy the MEASURMENT ID. We will need it! Also “Enhanced measurement” is set by default. Leave it as it is.

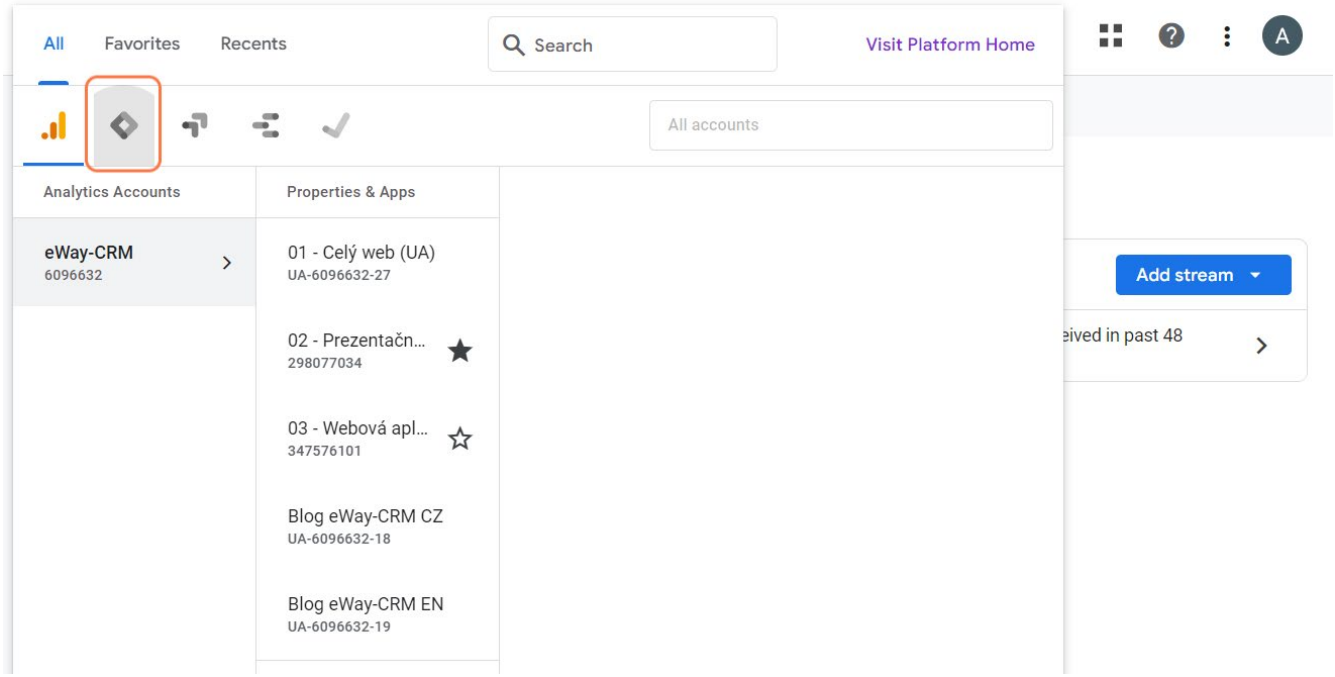


Step 2 - Set up Your Tag Manager

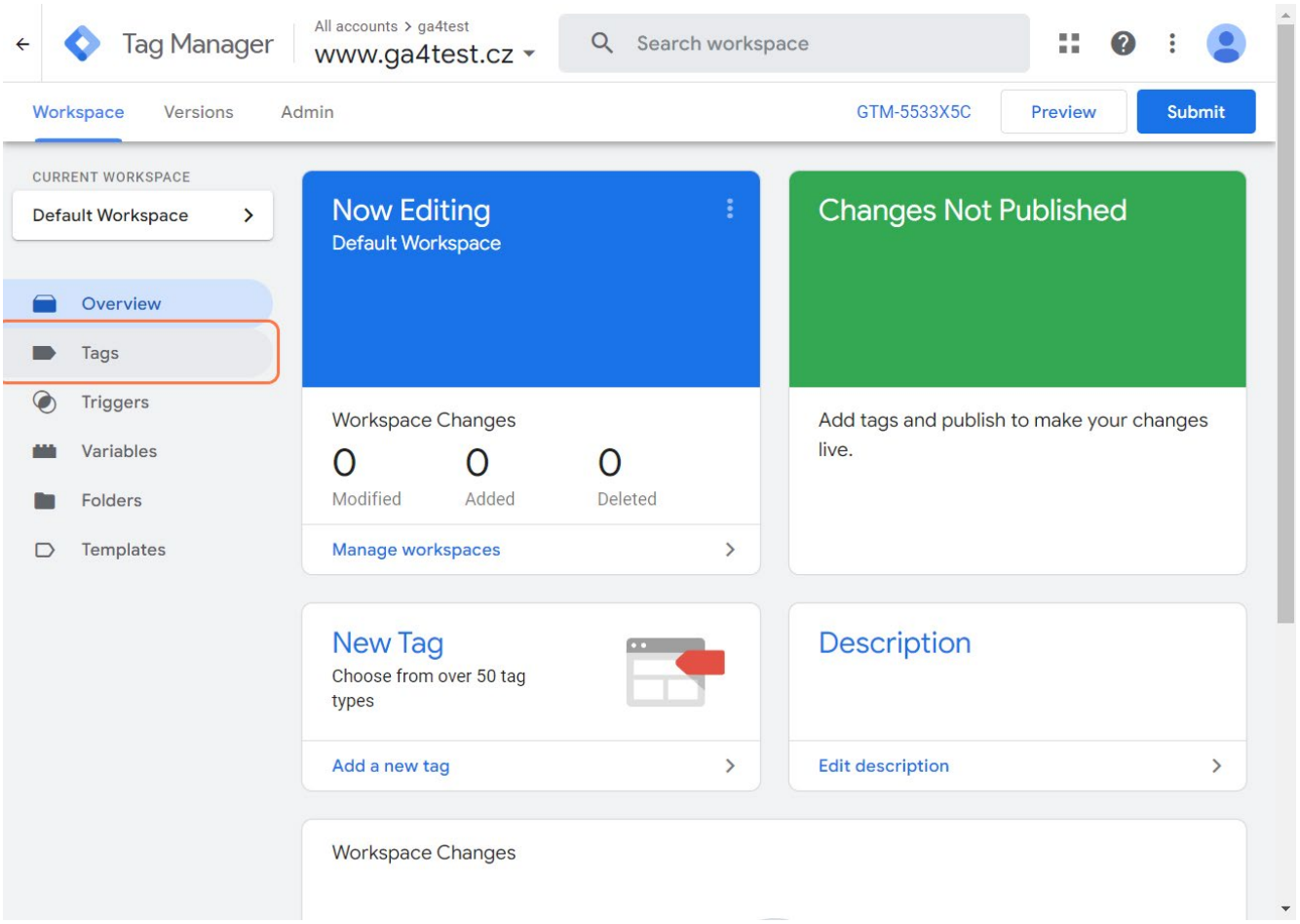
12. We need to head over to Google Tag Manager now. Click on All accounts.



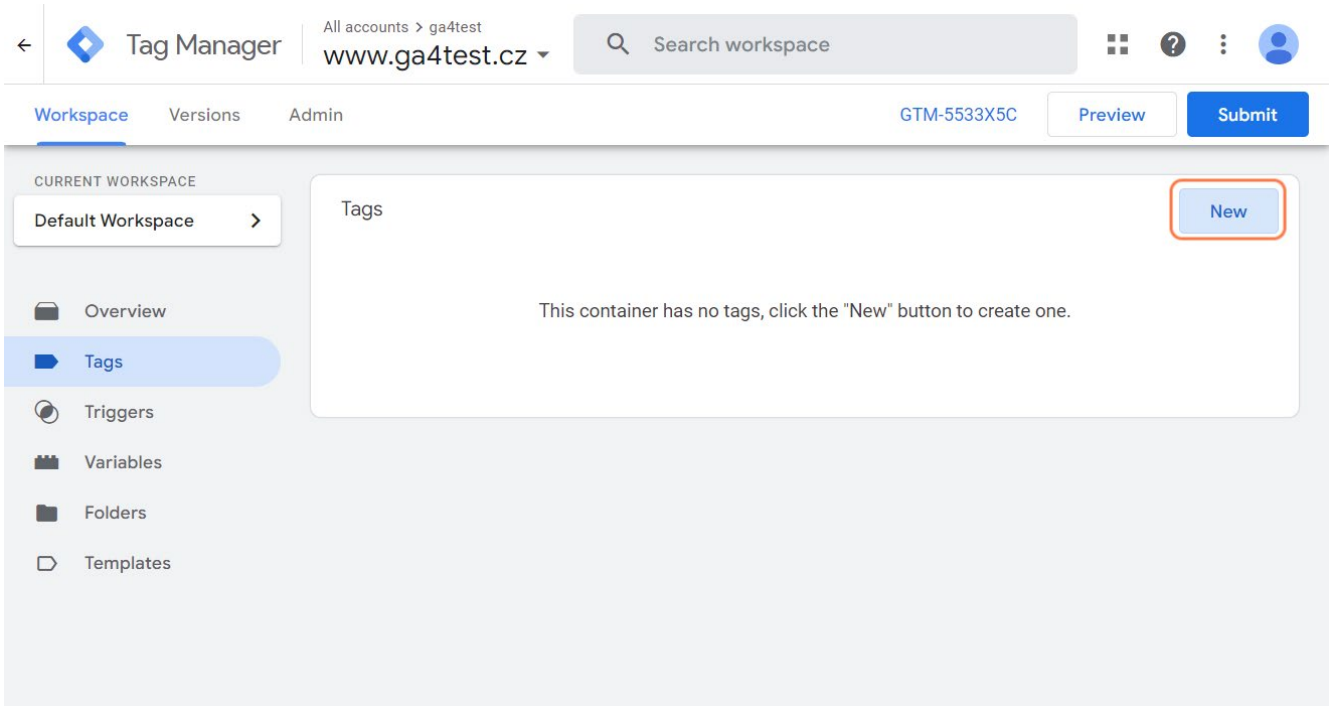
13. Click on the Google Tag Manager icon.



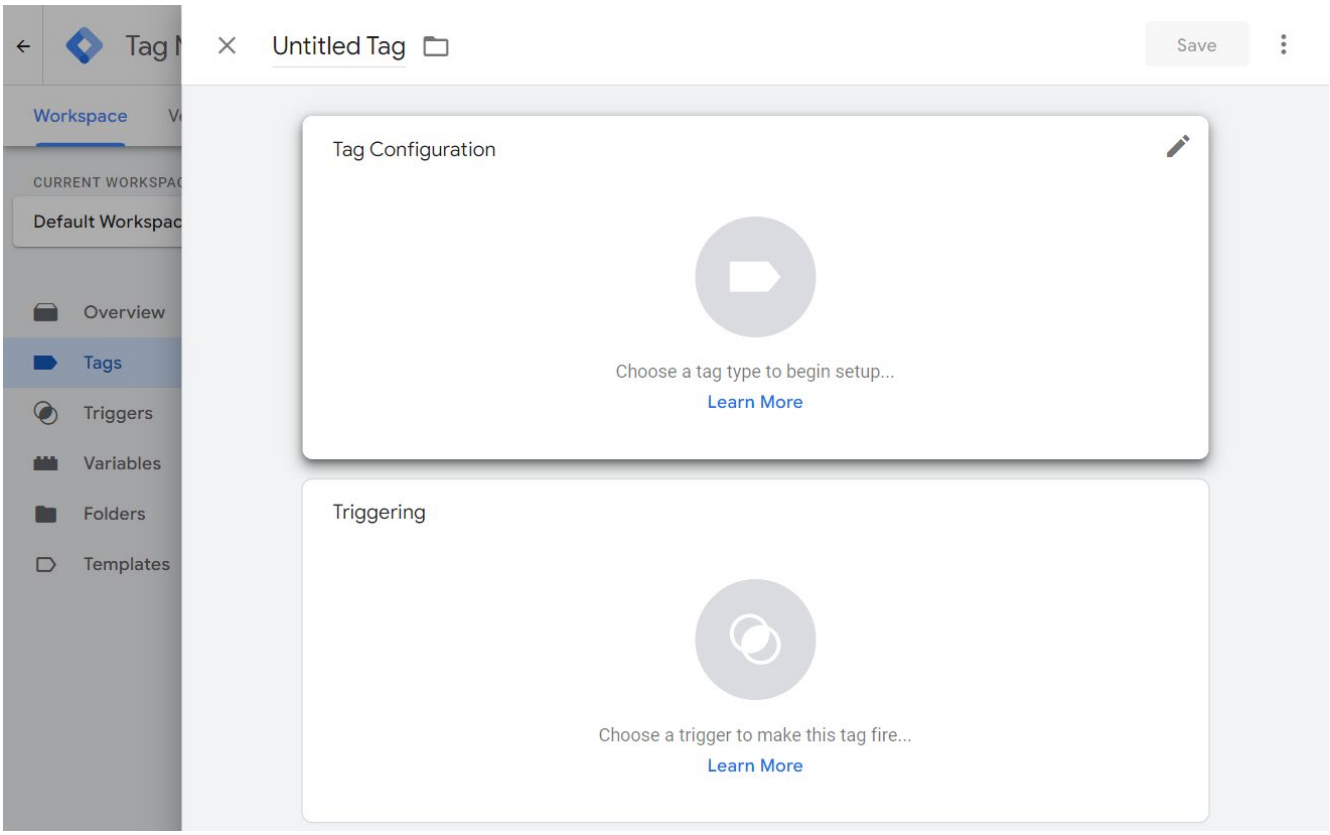
14. Head over to “Tags”.



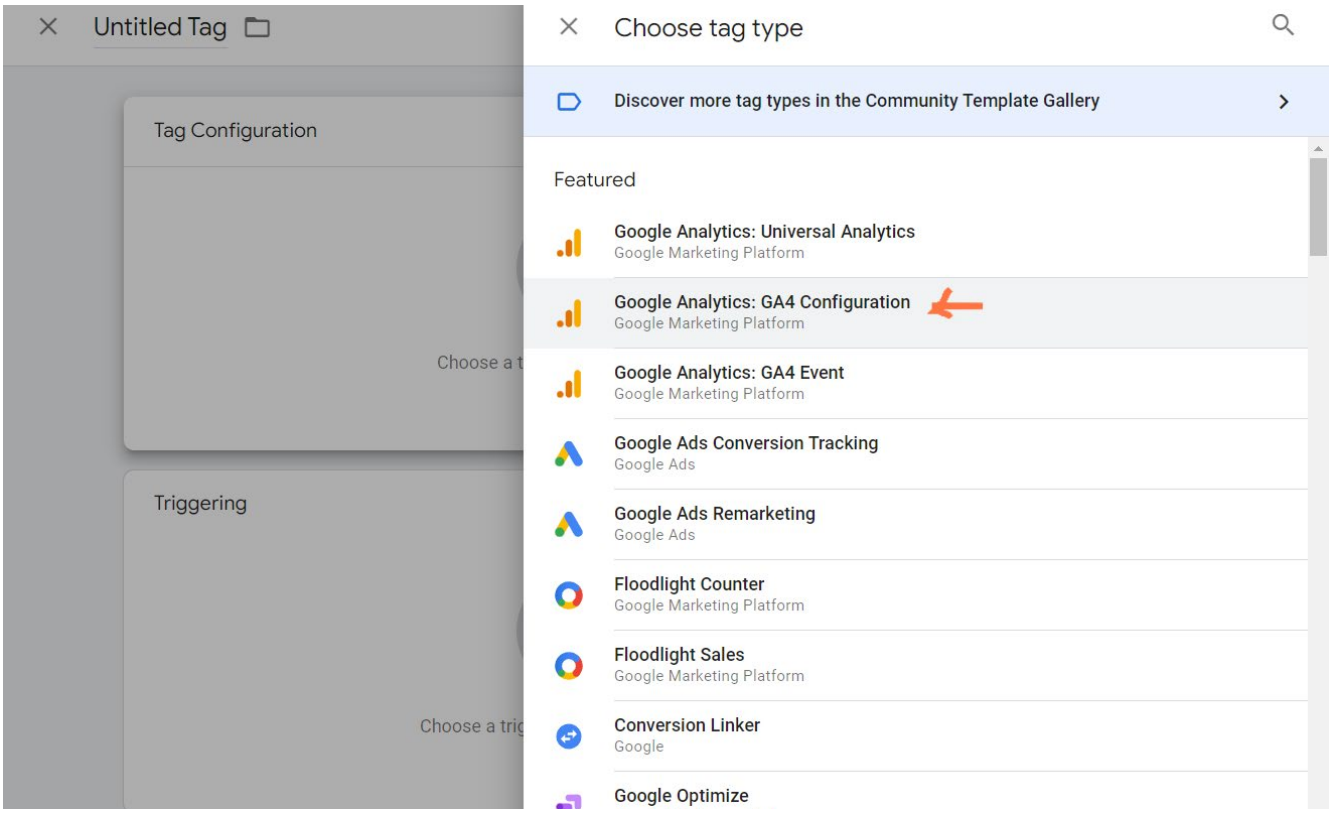
15. Click on New.



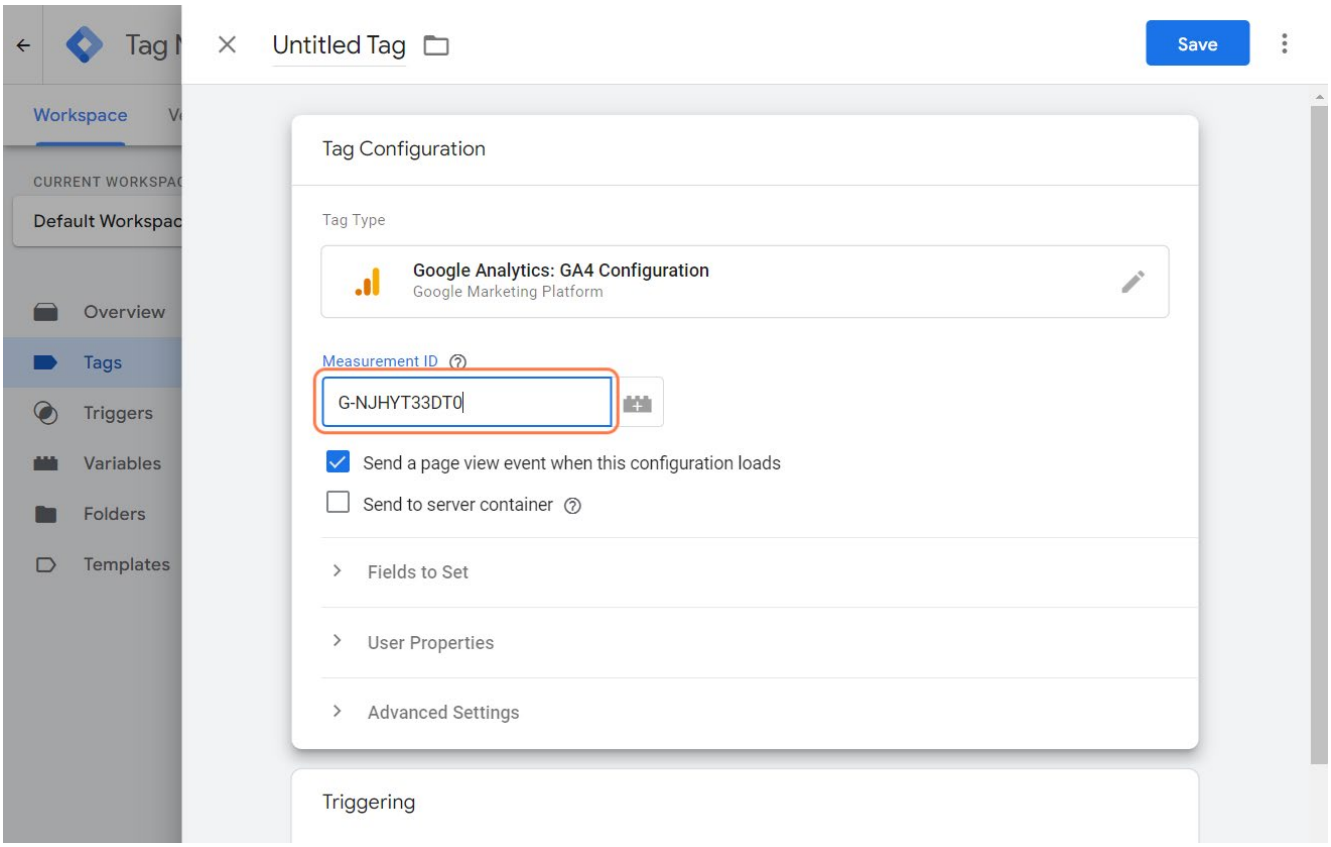
16. Click on Tag Configuration.



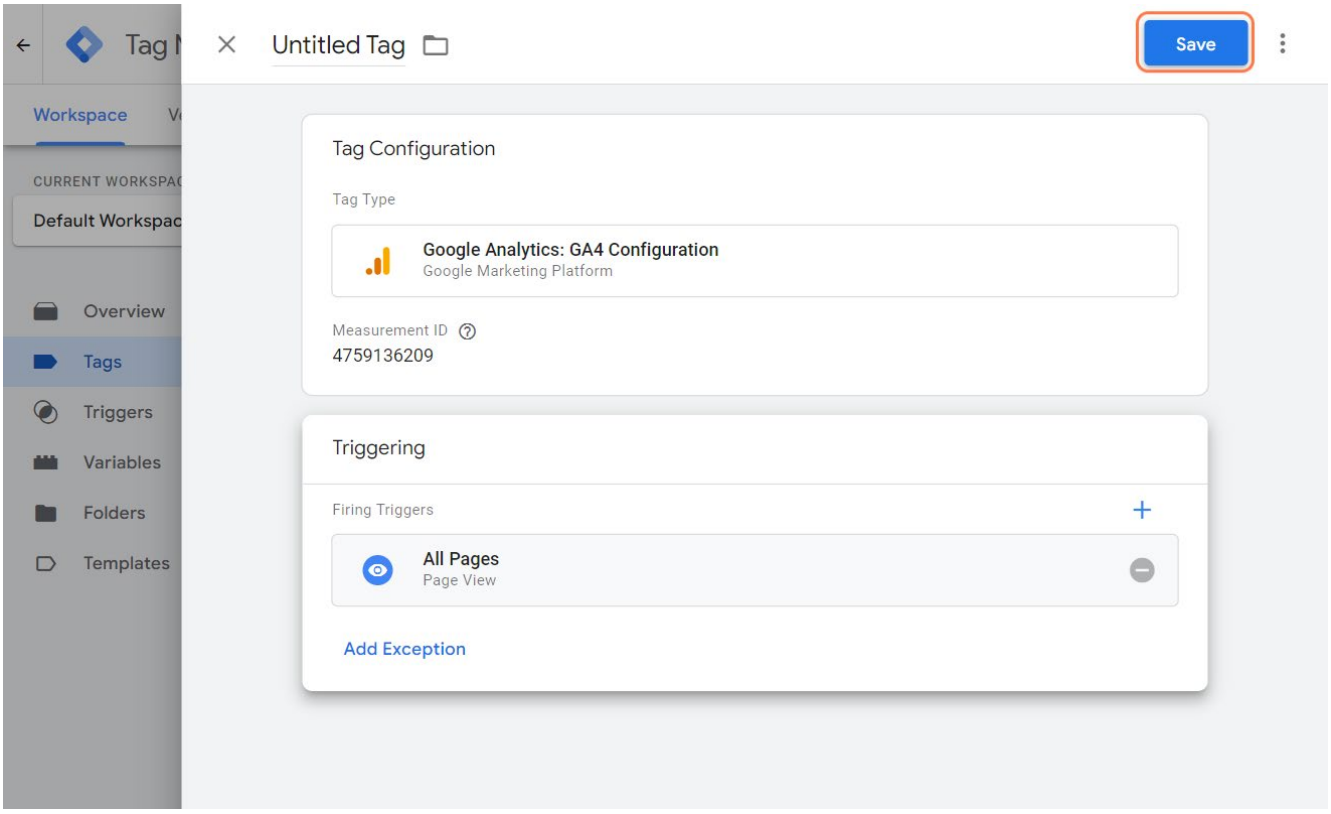
17. Click on Google Analytics: GA4 Configuration.



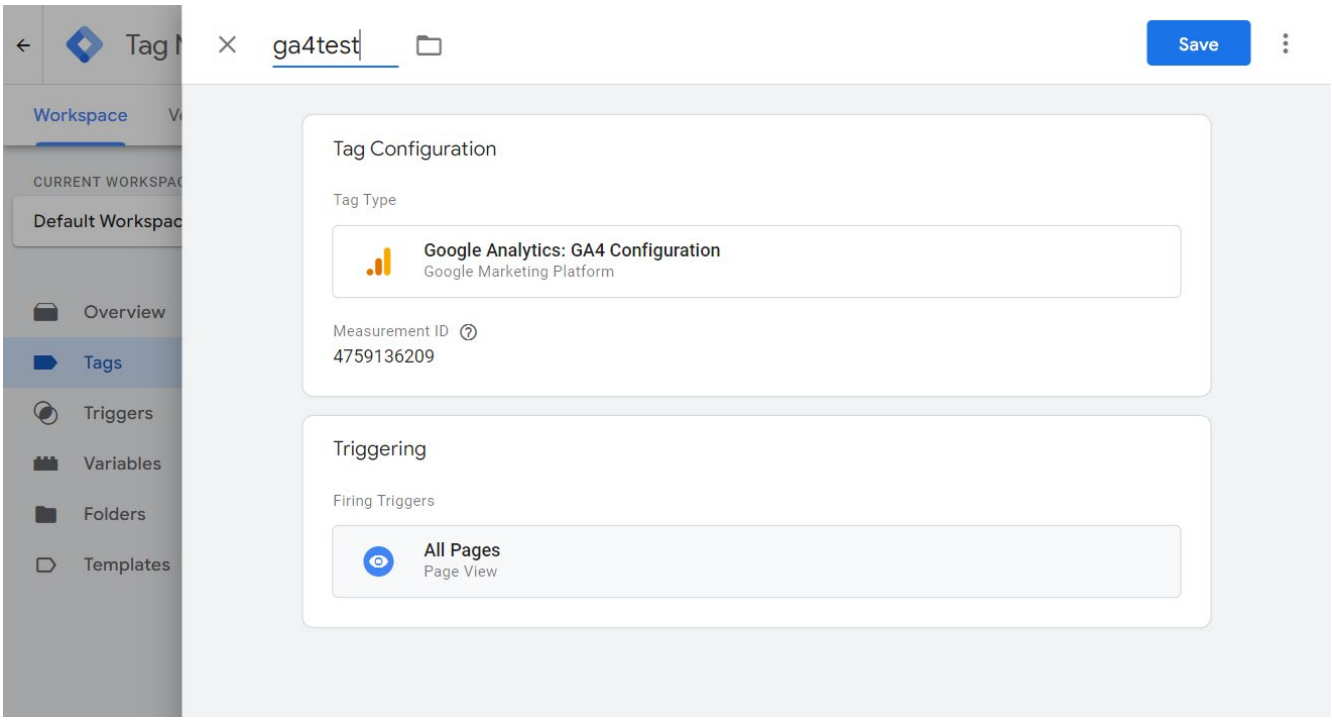
18. Paste the Measurement ID you have copied to your clipboard before.



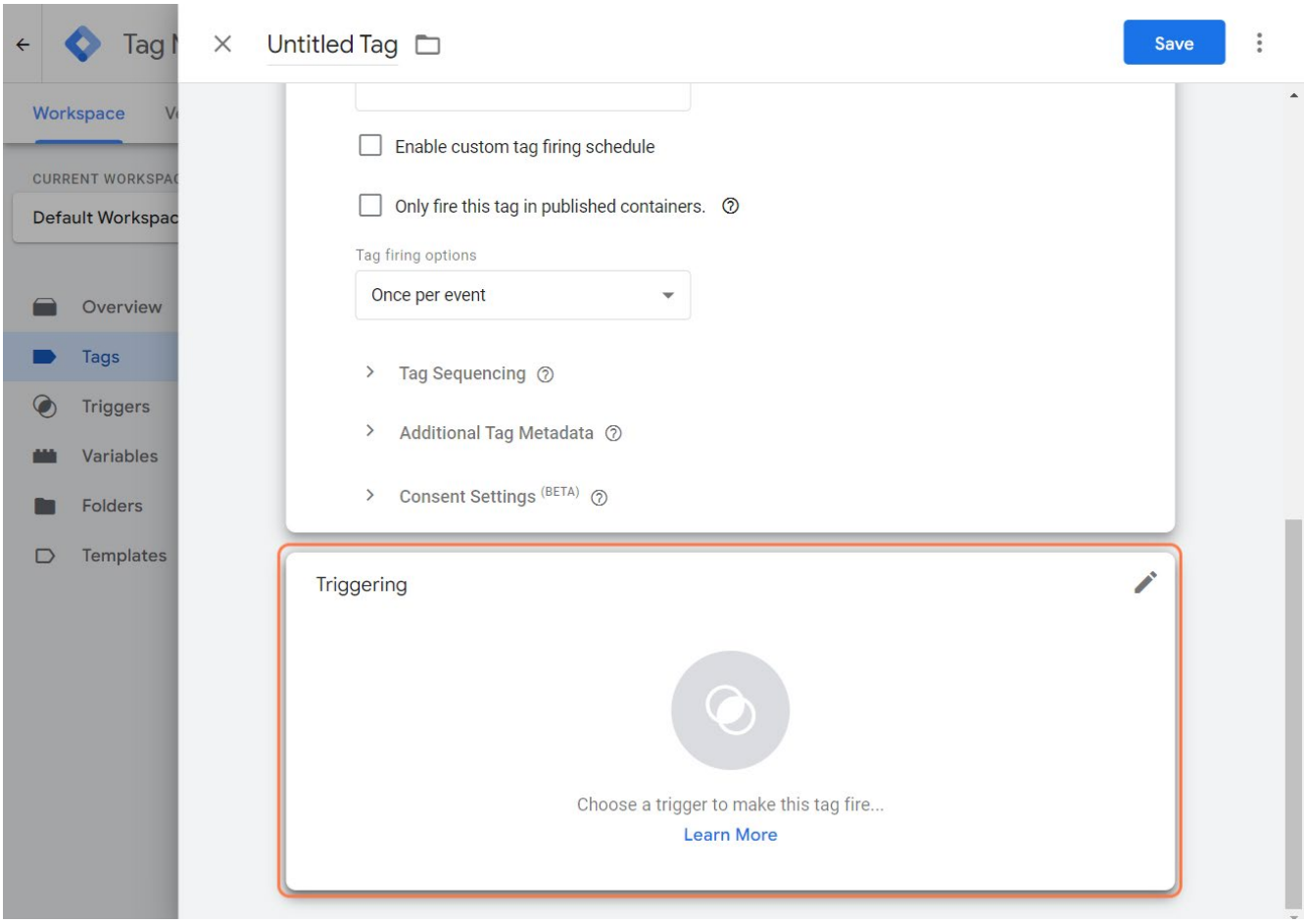
19. Click on Save.



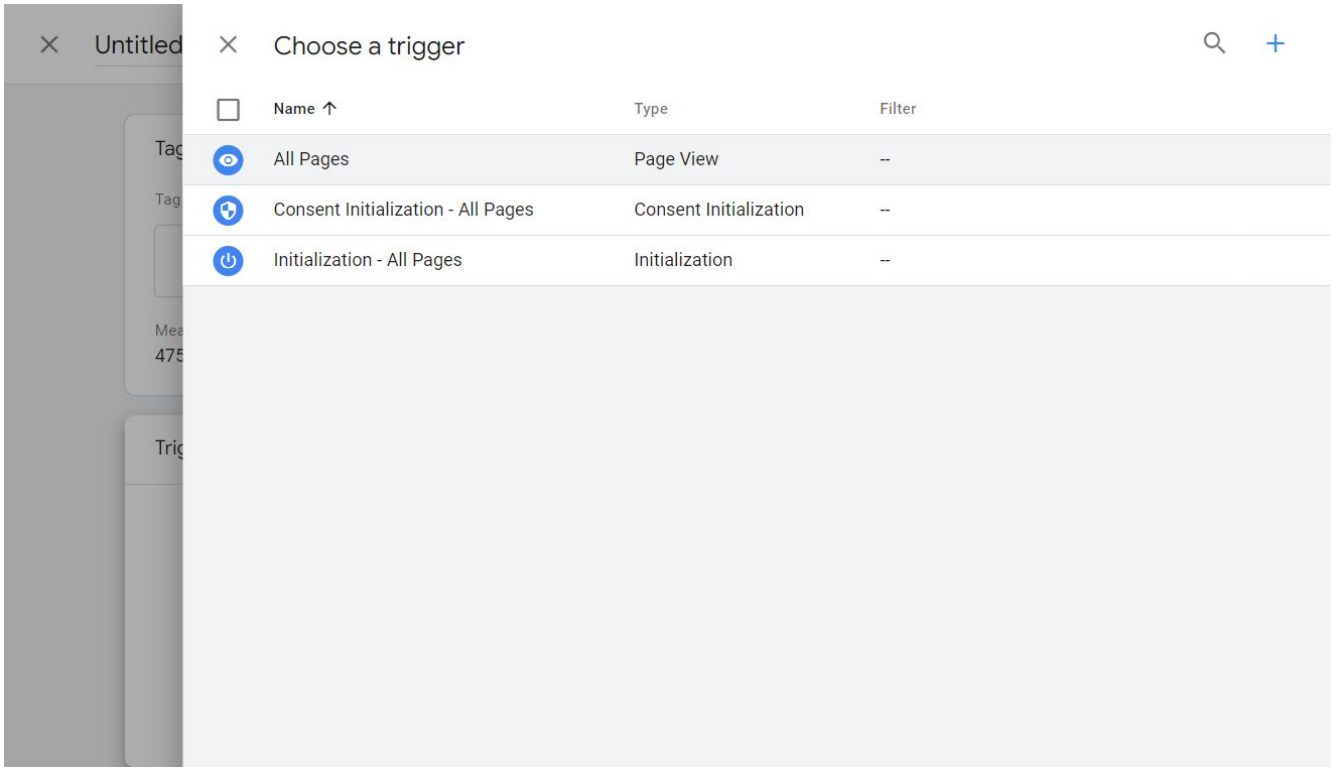
20. Don’t forget to name your tag.



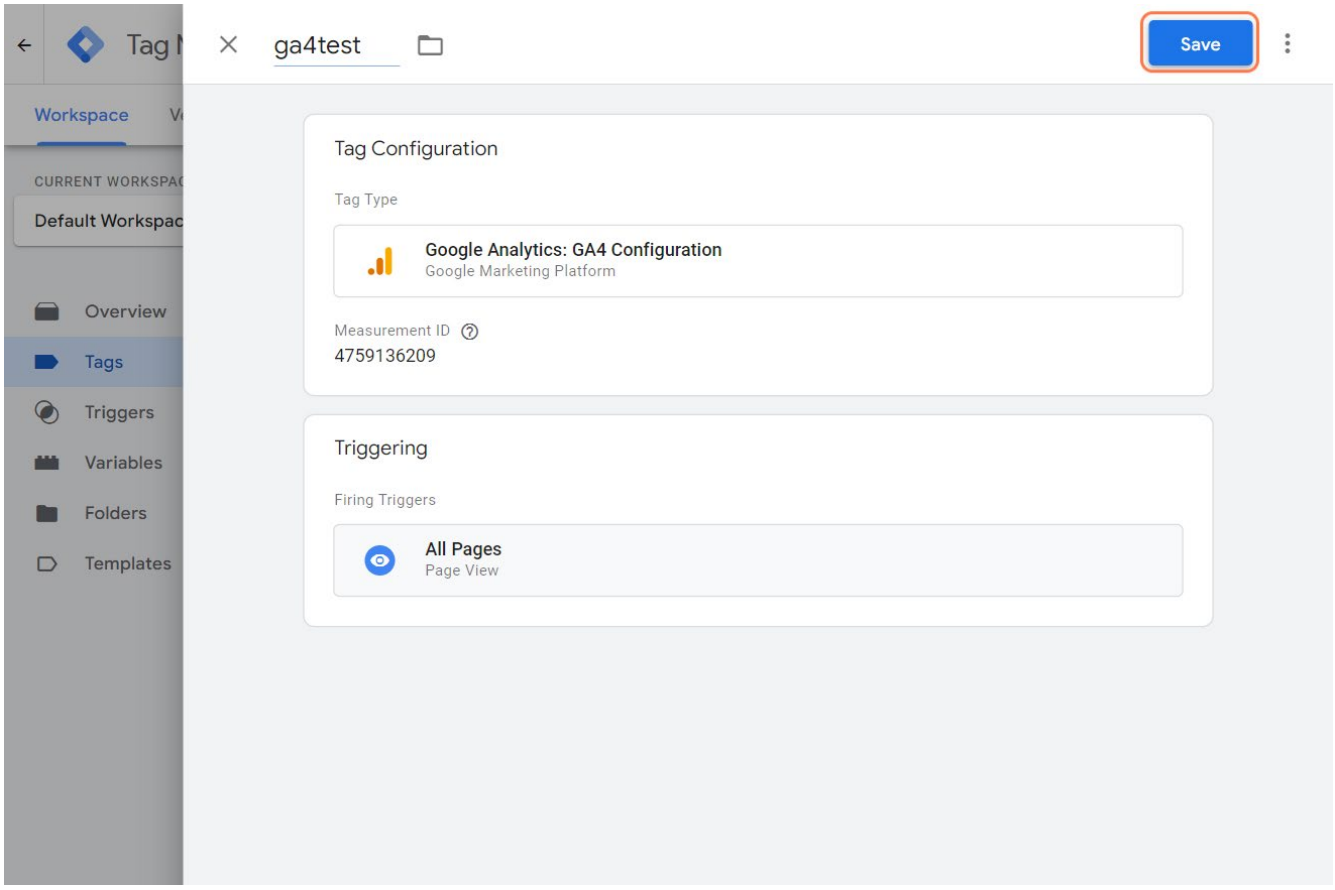
21. We need to choose a trigger to make our tag fire. Click on Triggering.



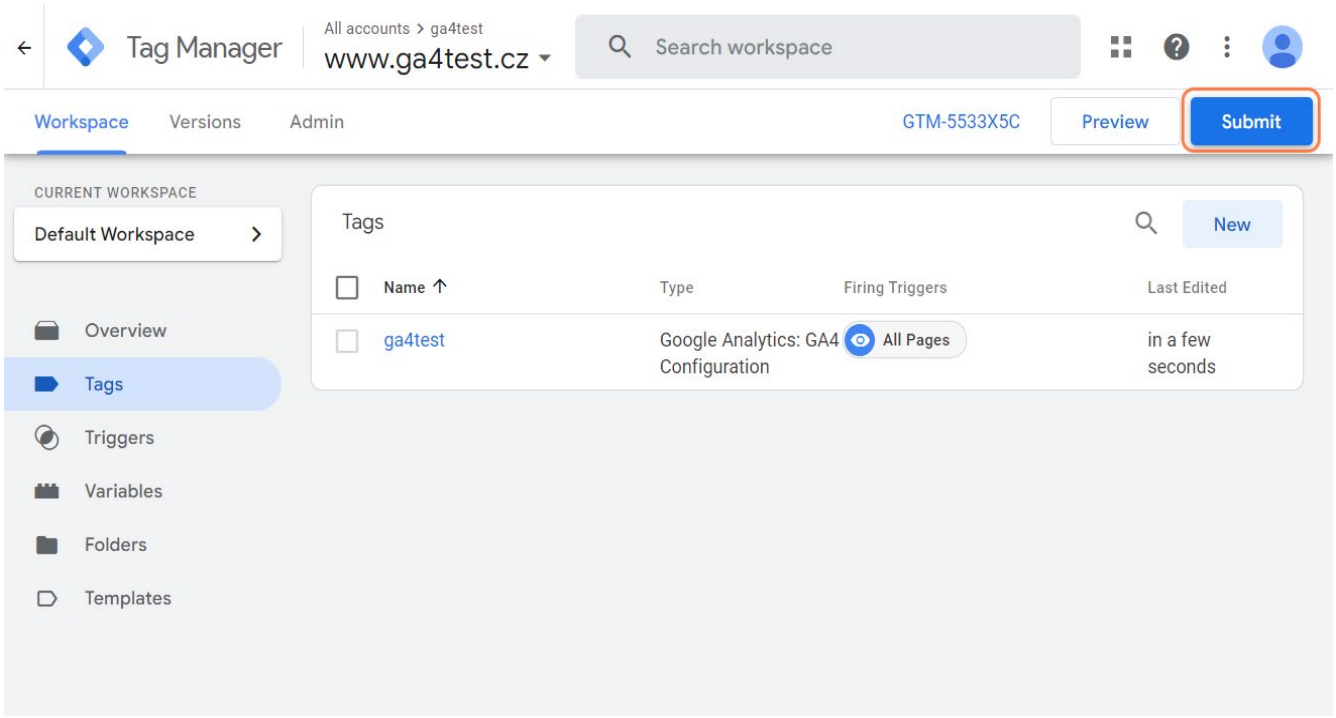
22. Click on “All Pages”.



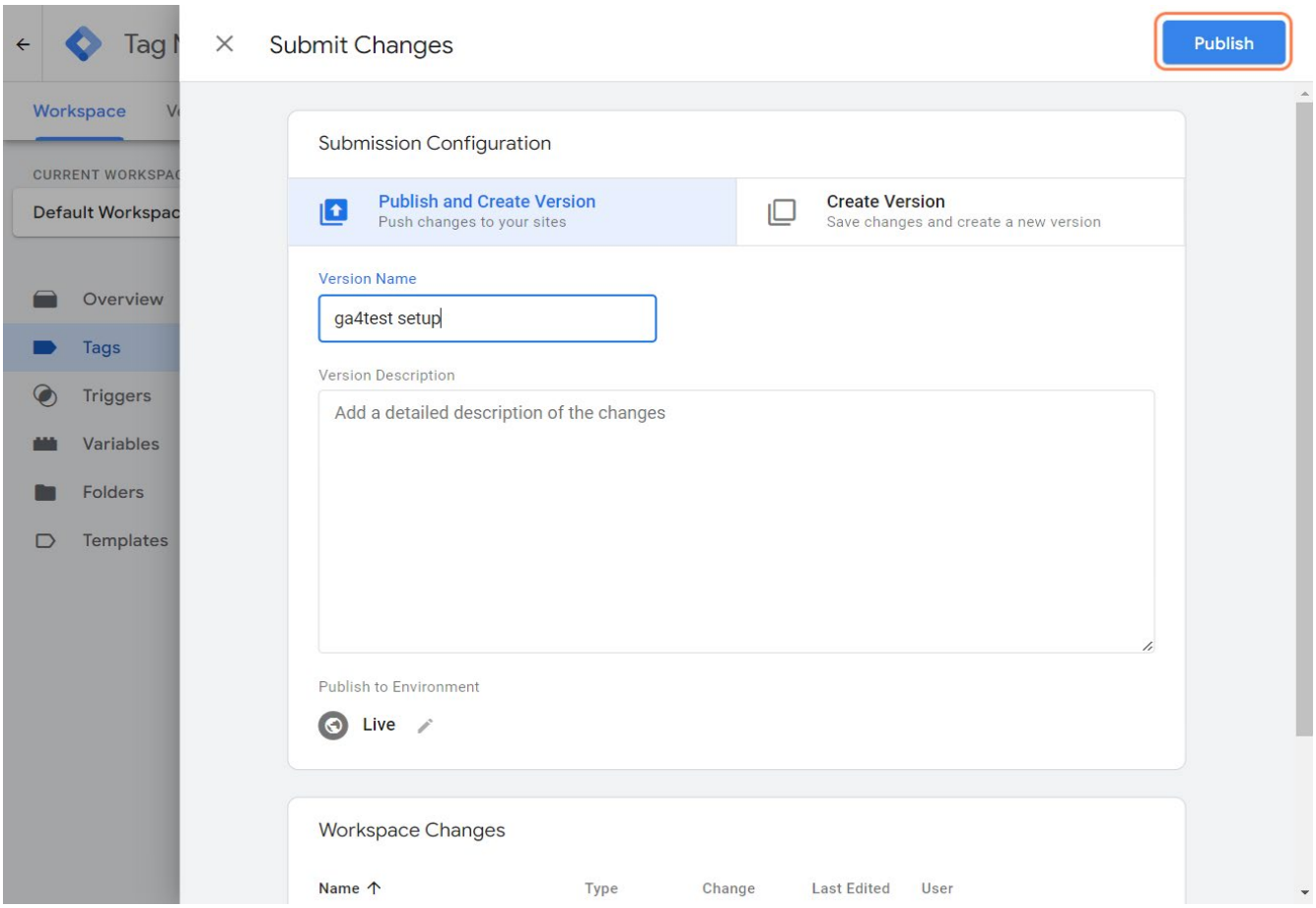
23. Click on Save.



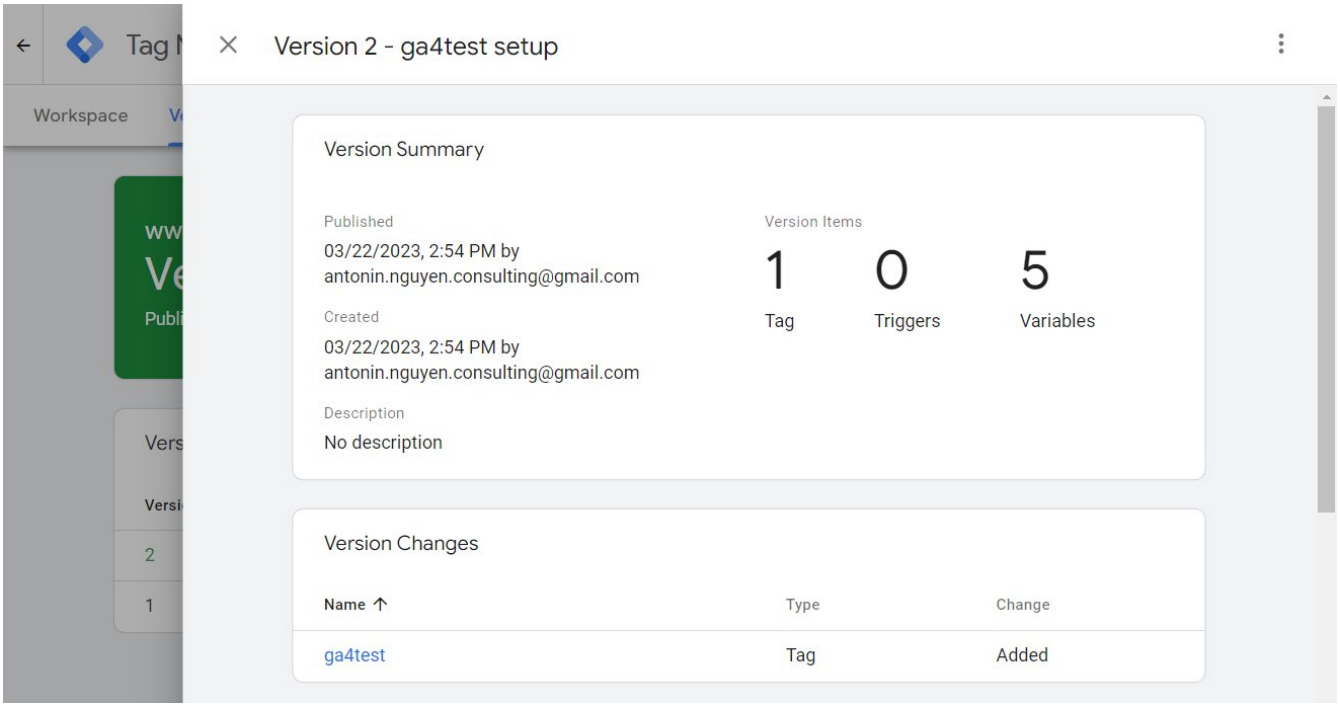
24. Our tag is set! Click on Submit.



25. The “Submission Configuration” window will pop up. Name it and hit Publish.

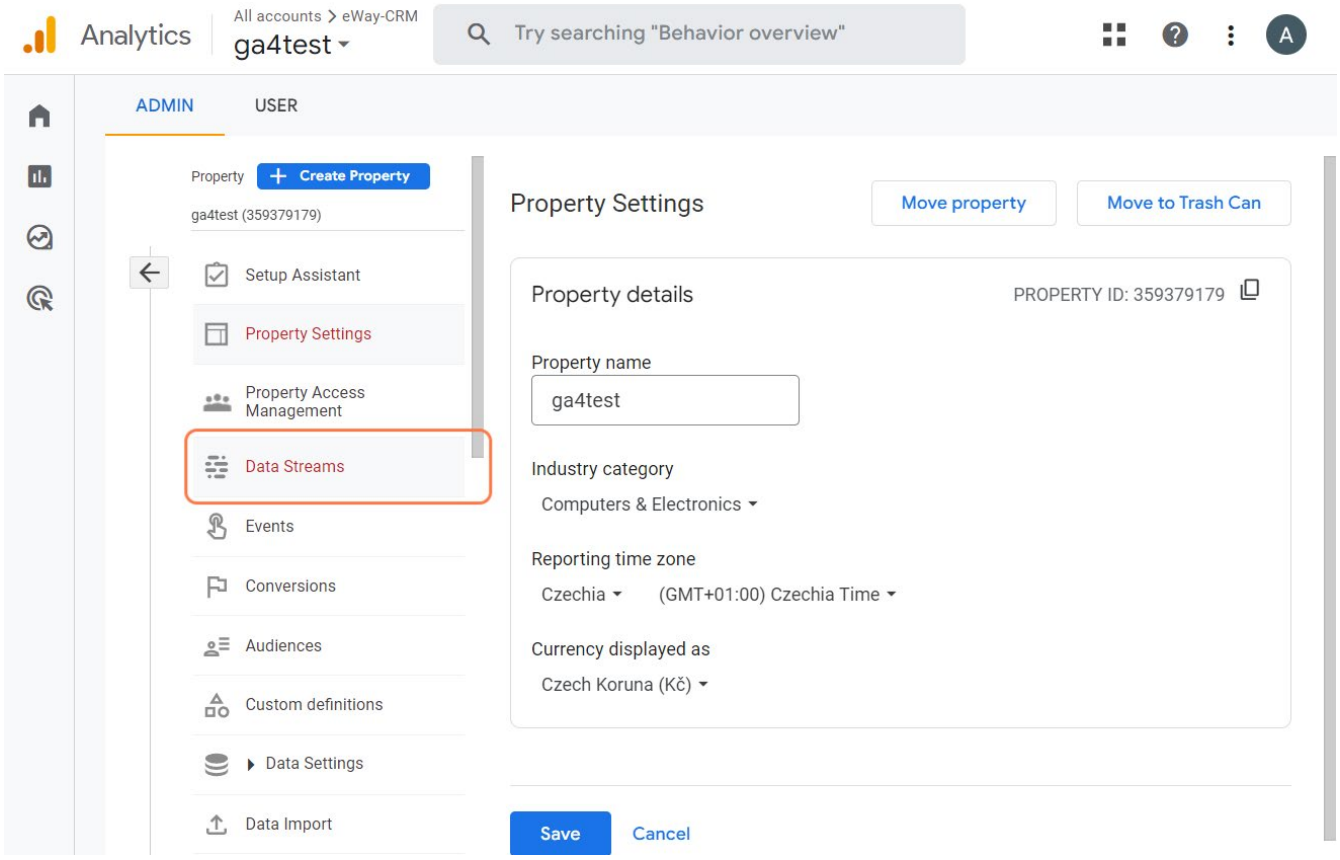


26. You've made it! Your website will now start collecting important data.

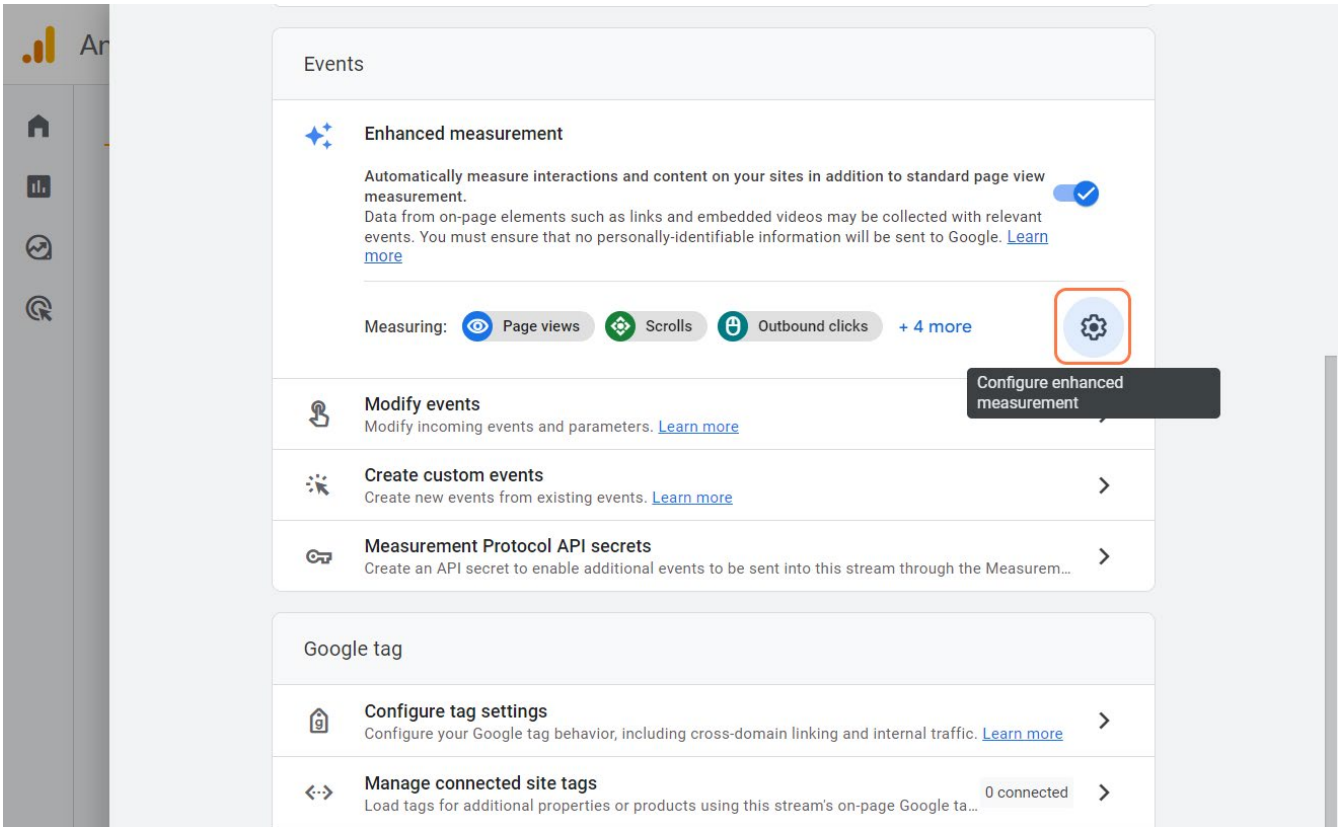


Step 3 - Verify That You Measure Data

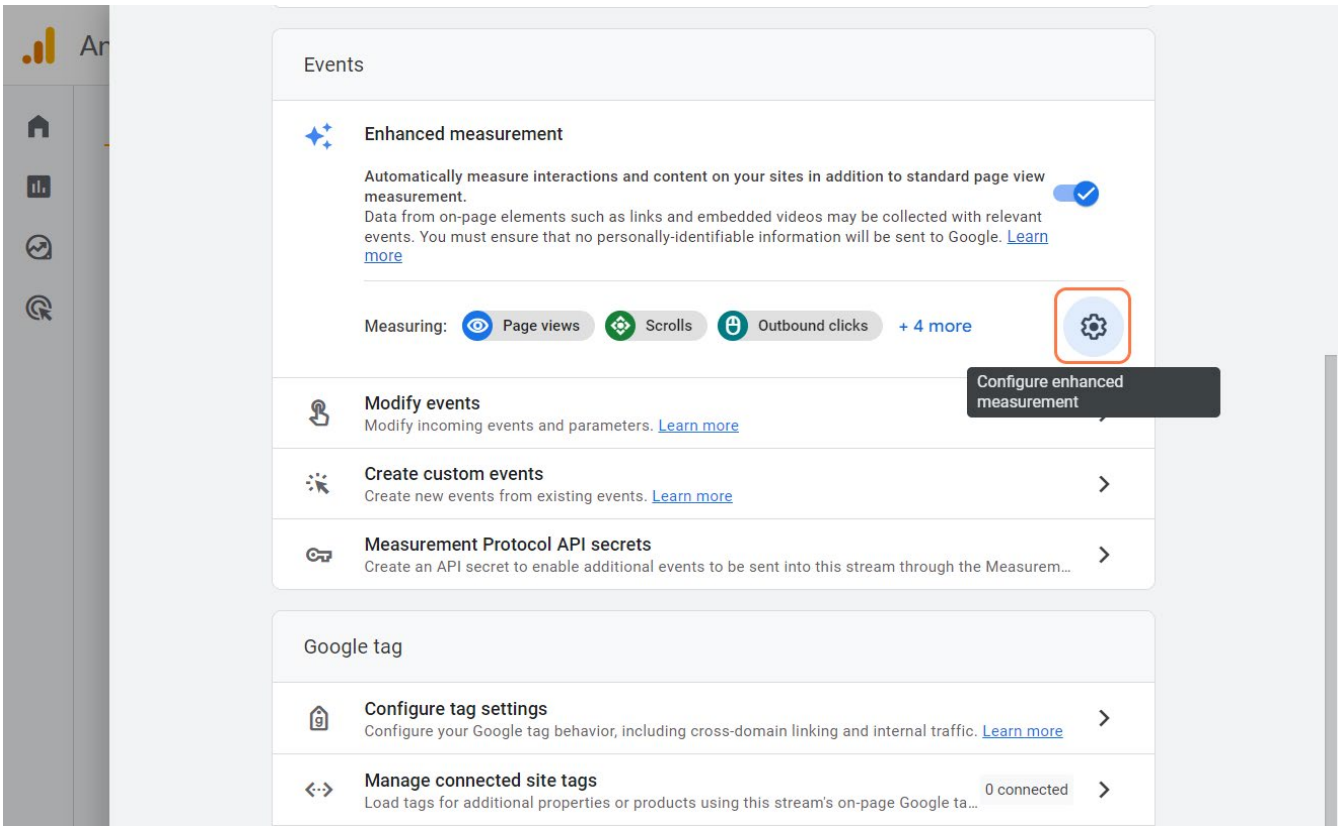
27. Go back to GA4 interface and head over to Data Streams.



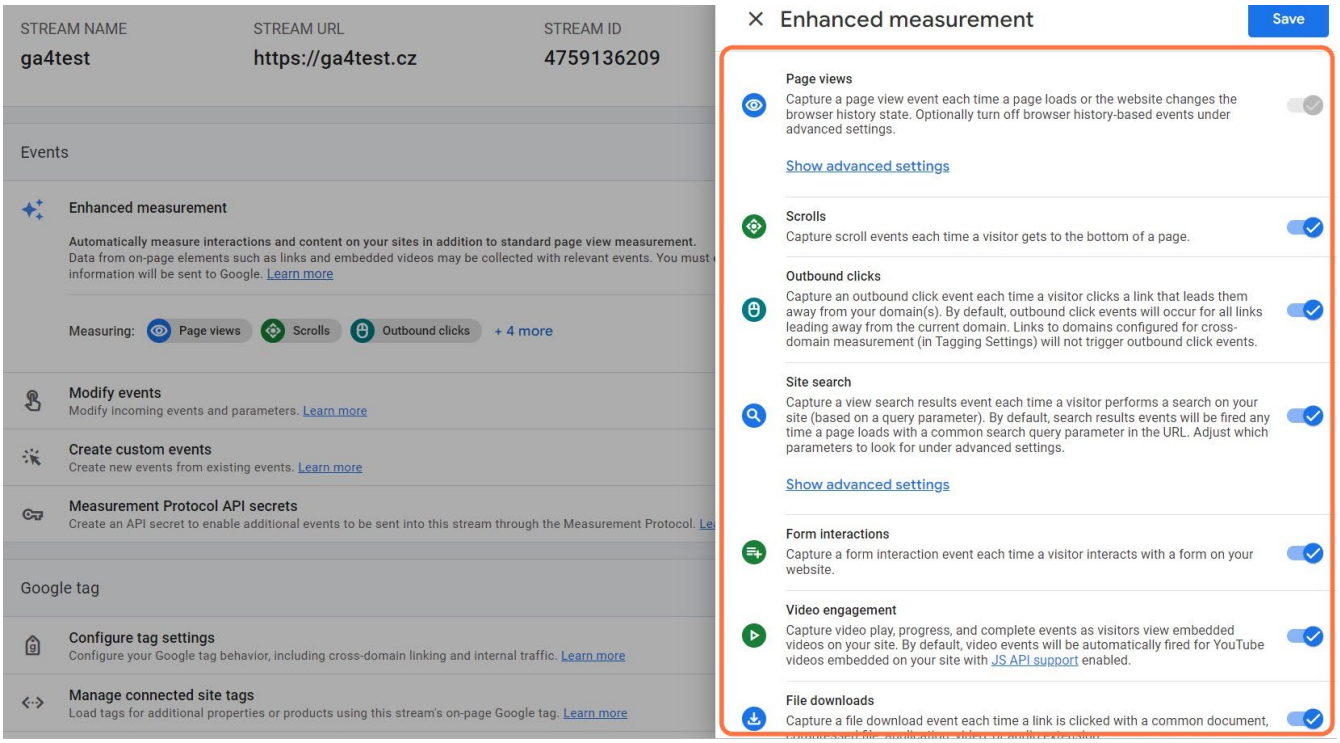
28. Select your newly created data stream.



29. Let's check what data we collect by default.

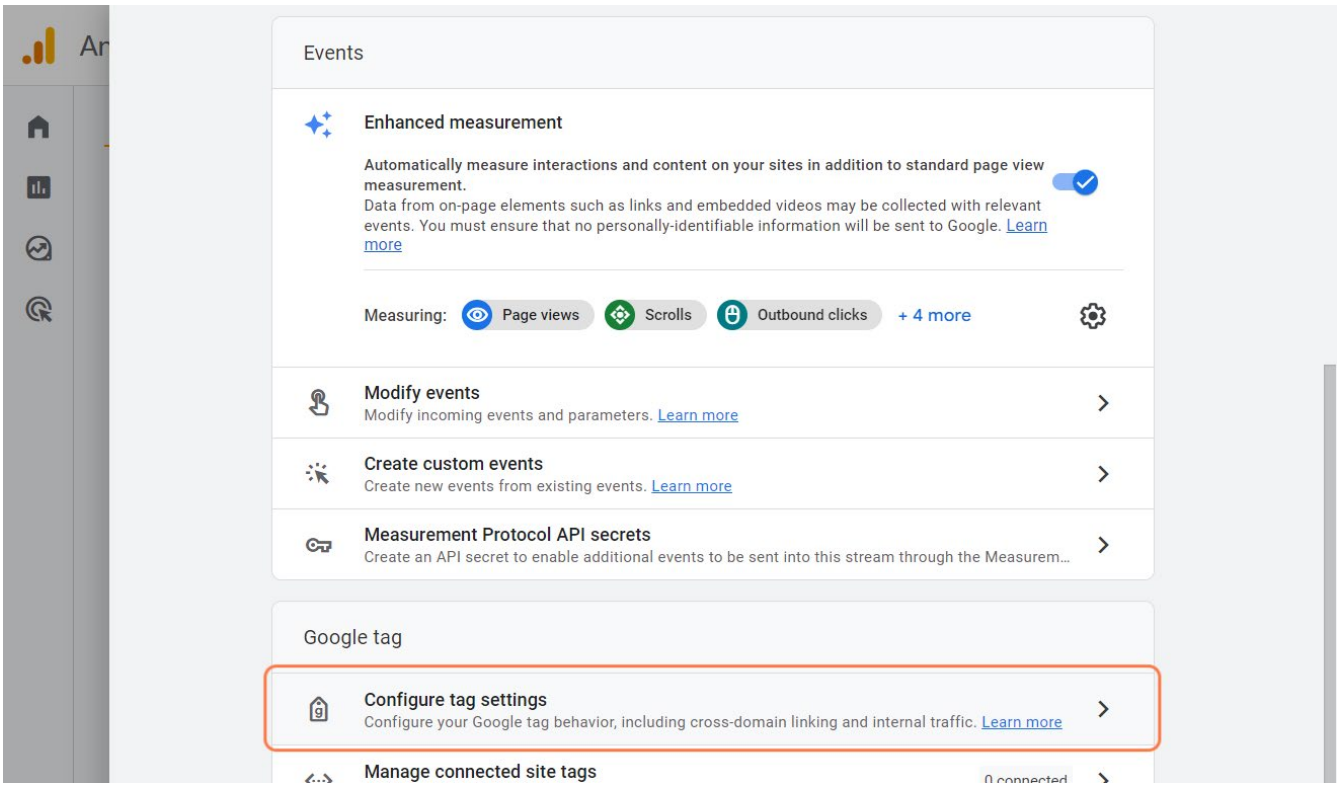


30. GA4 automatically measures all these data, unlike the old UA.

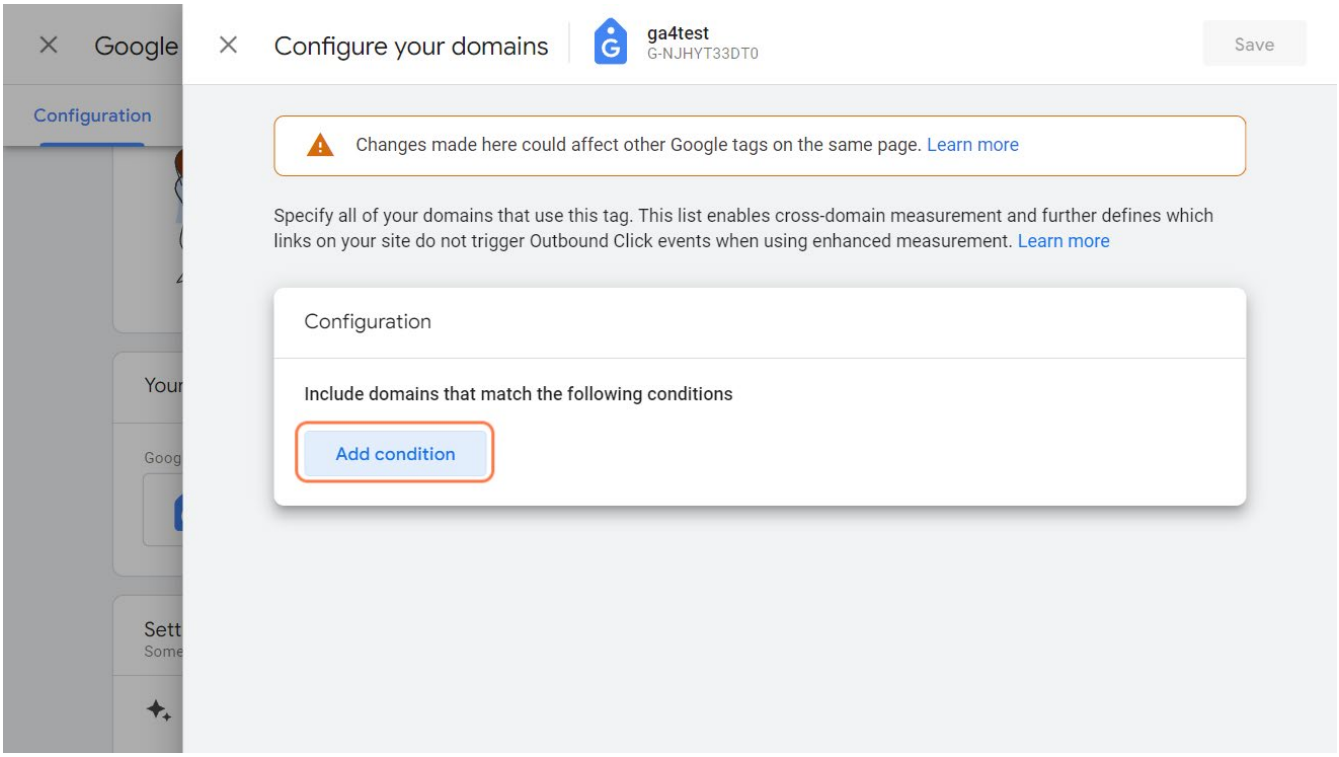


Step 4 - Additional Configuration

31. We need to configure a few more things. Click on “Configure tag settings”.

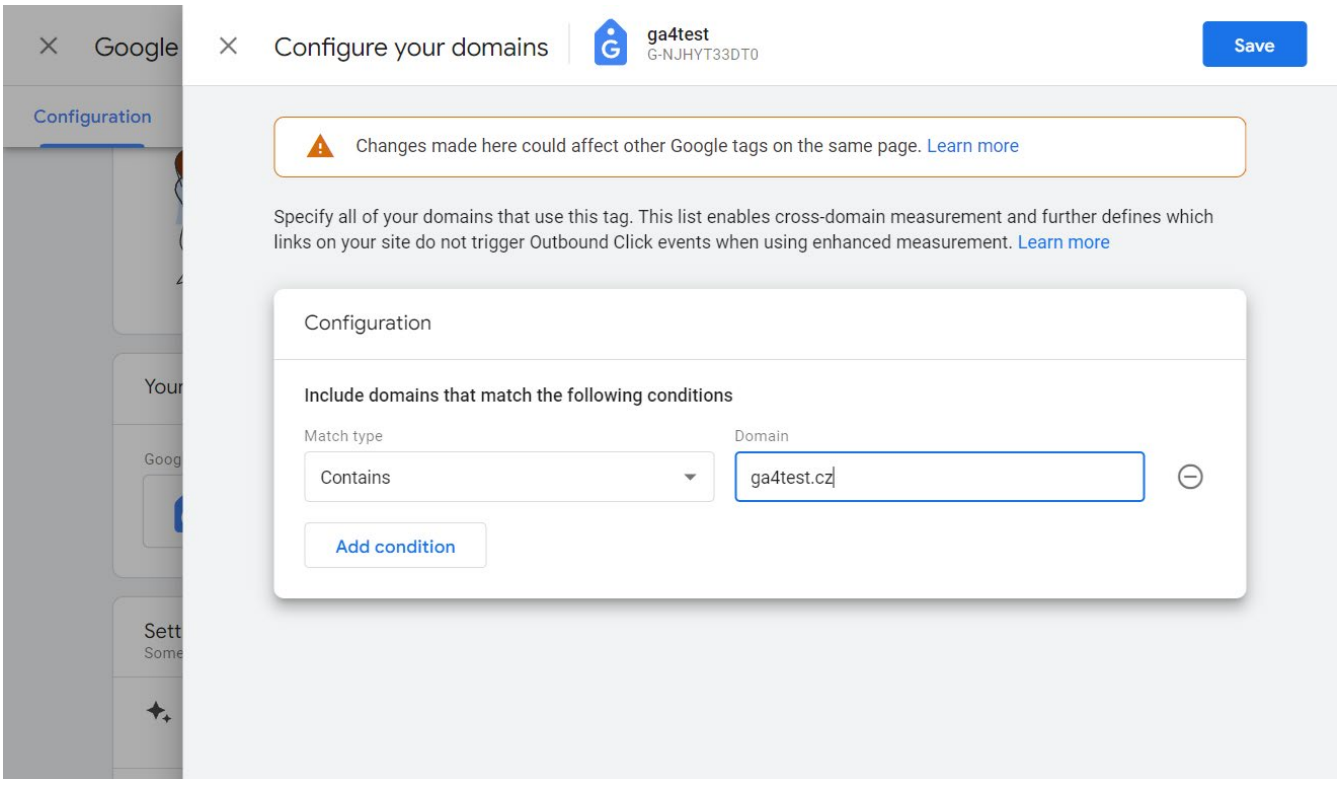


32. Click on “Domain Configuration” and Add condition.

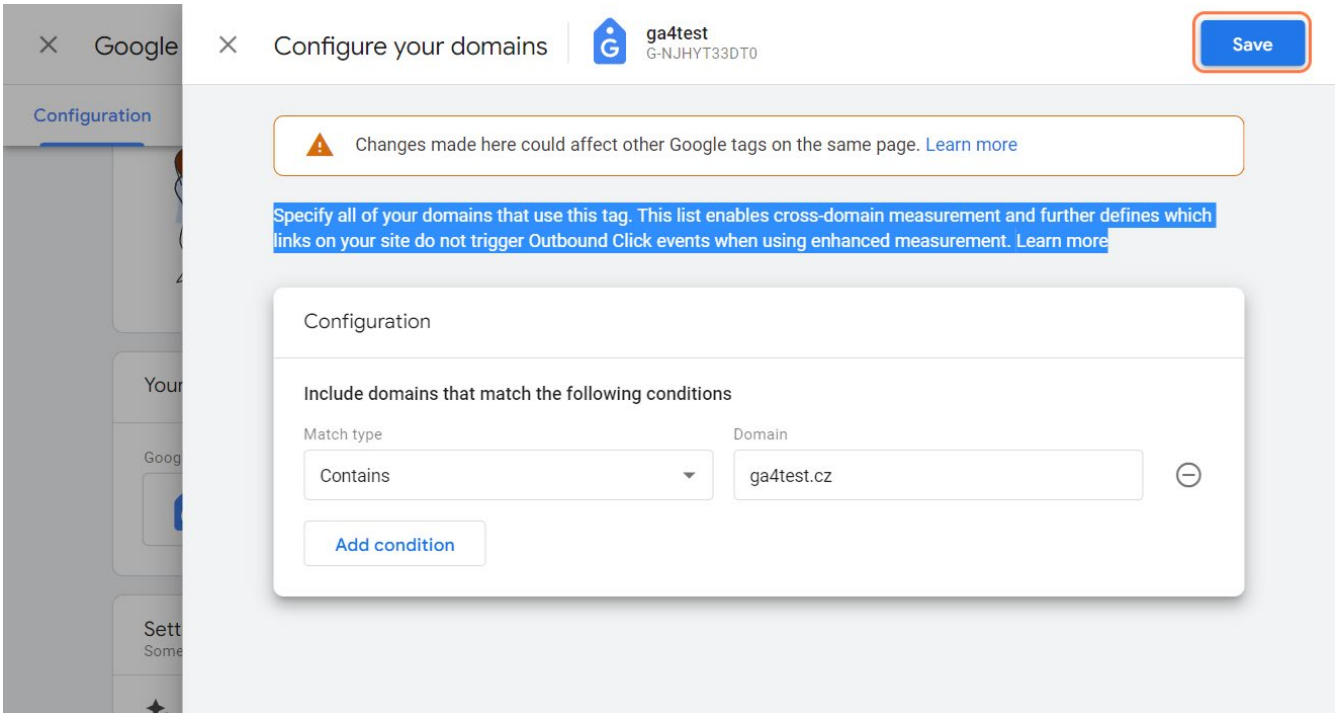


33. Specify all of your domains that will use this tag.

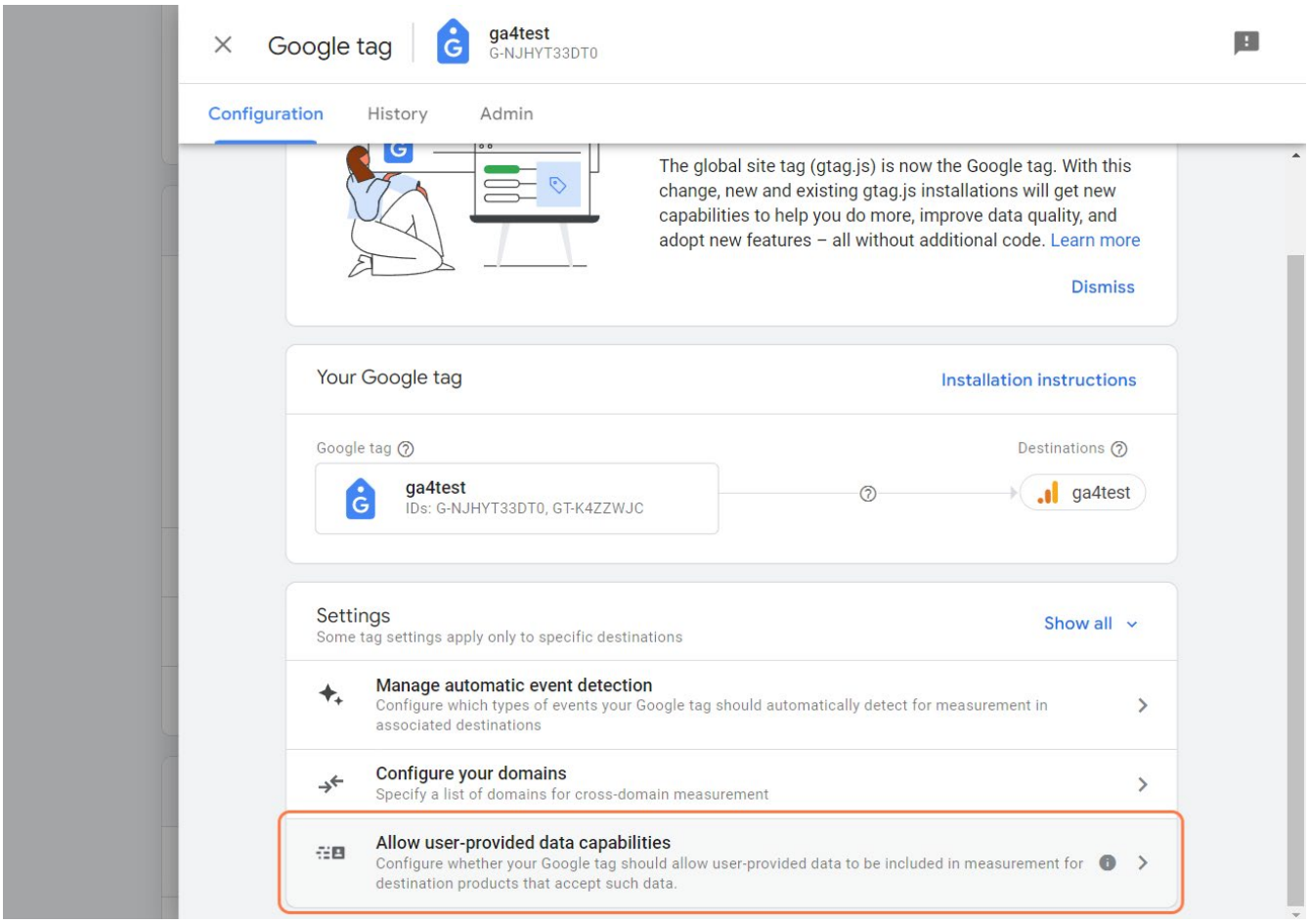
Note: This “website list” enables cross-domain measurement and further defines which links on your site do not trigger Outbound Click events when using enhanced measurement.



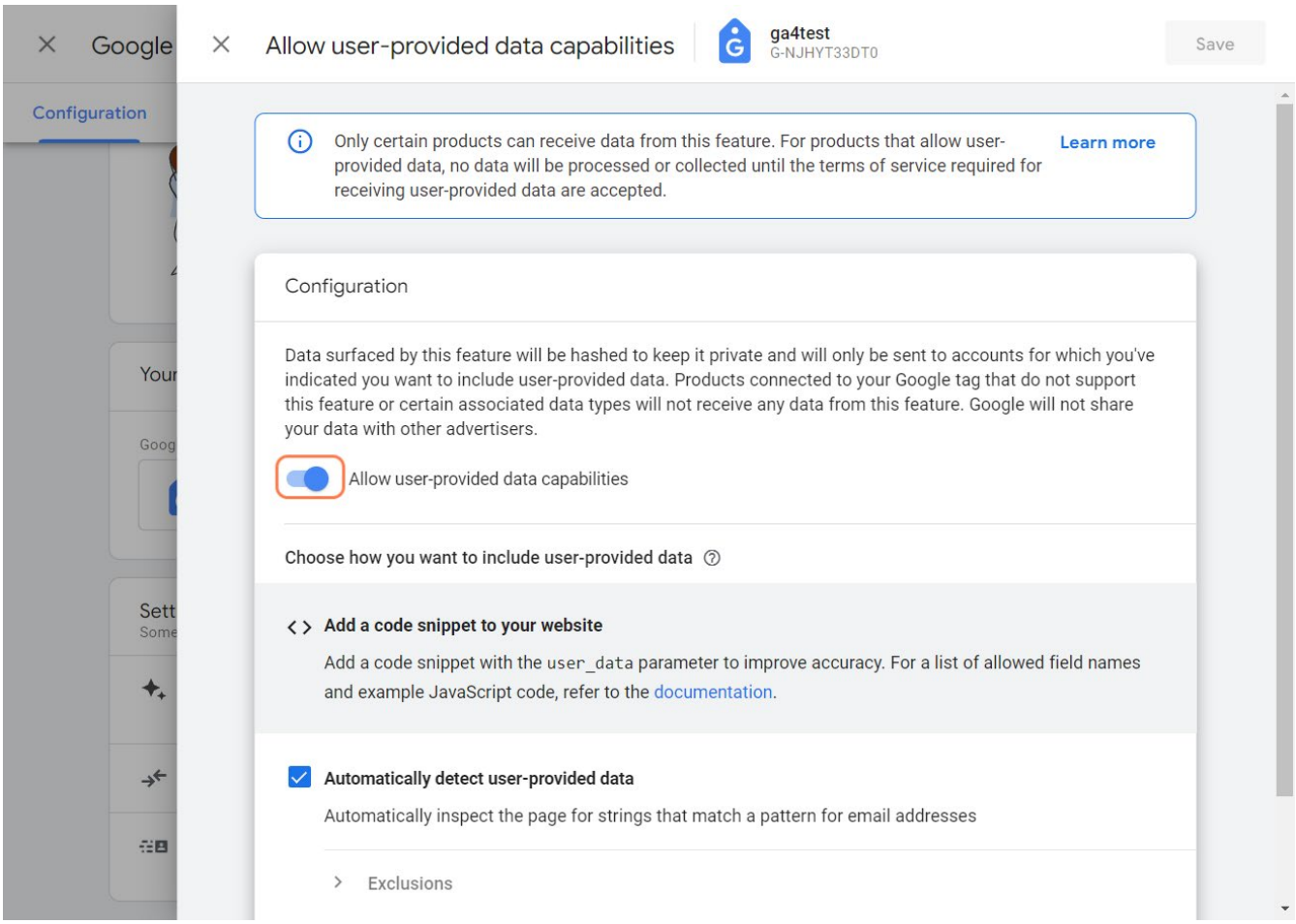
34. Click on Save.



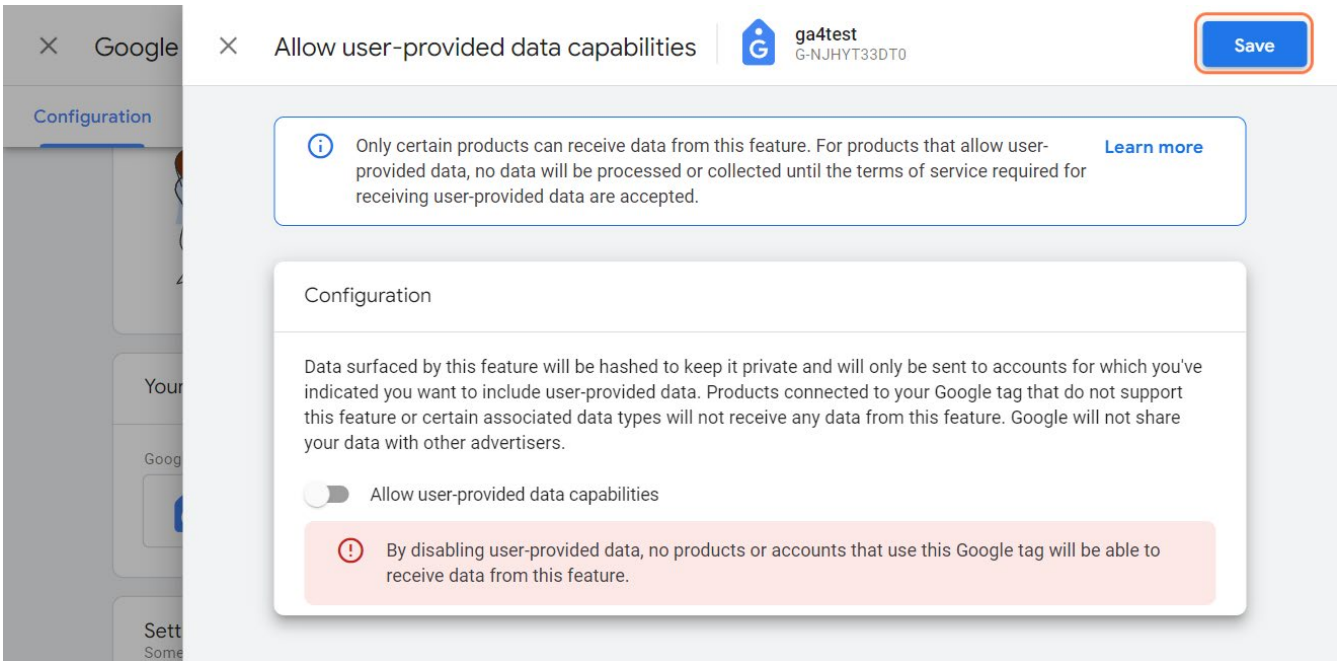
35. Now head over to user-provided data capabilities.



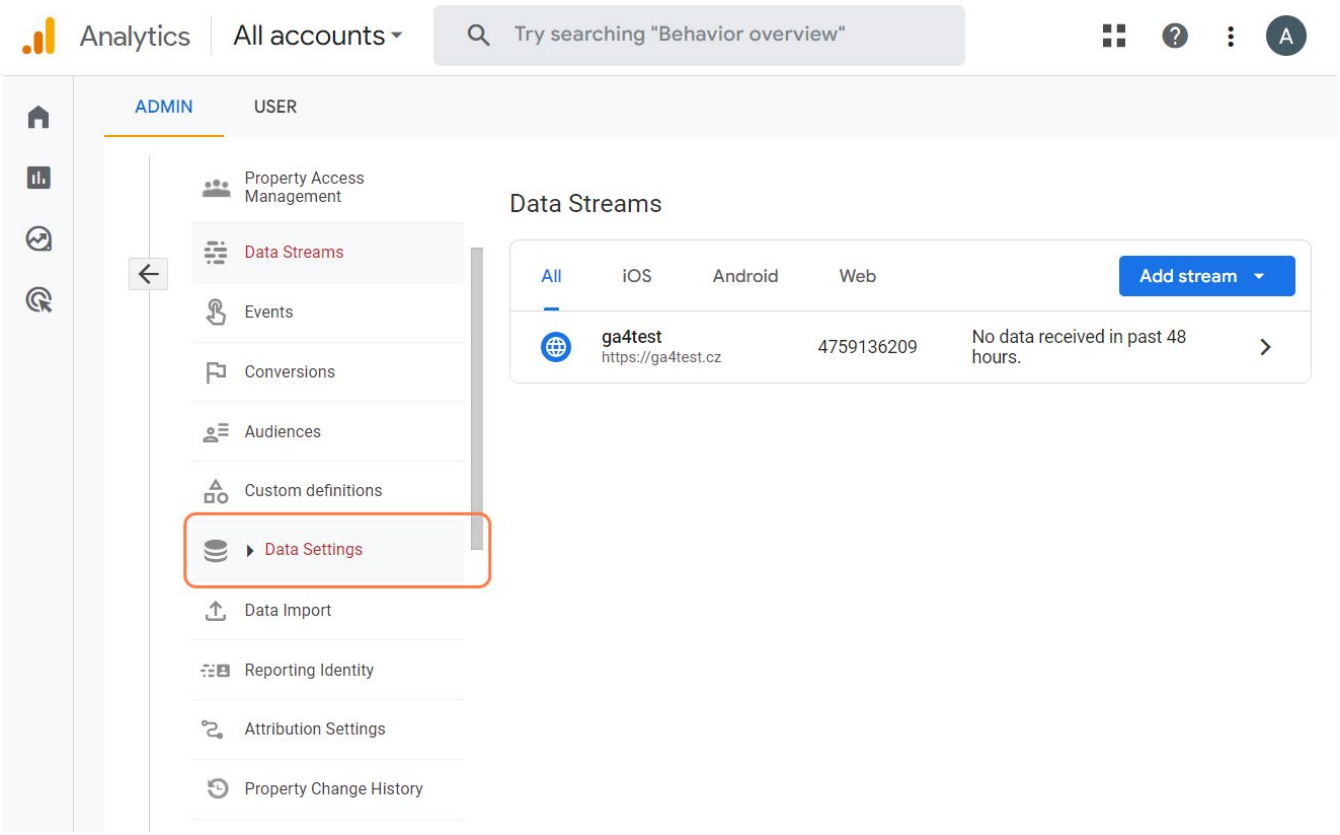
36. If you turn off this feature, none of the things you use with Google will be able to get your private information automatically. We recommend turning it off for now.



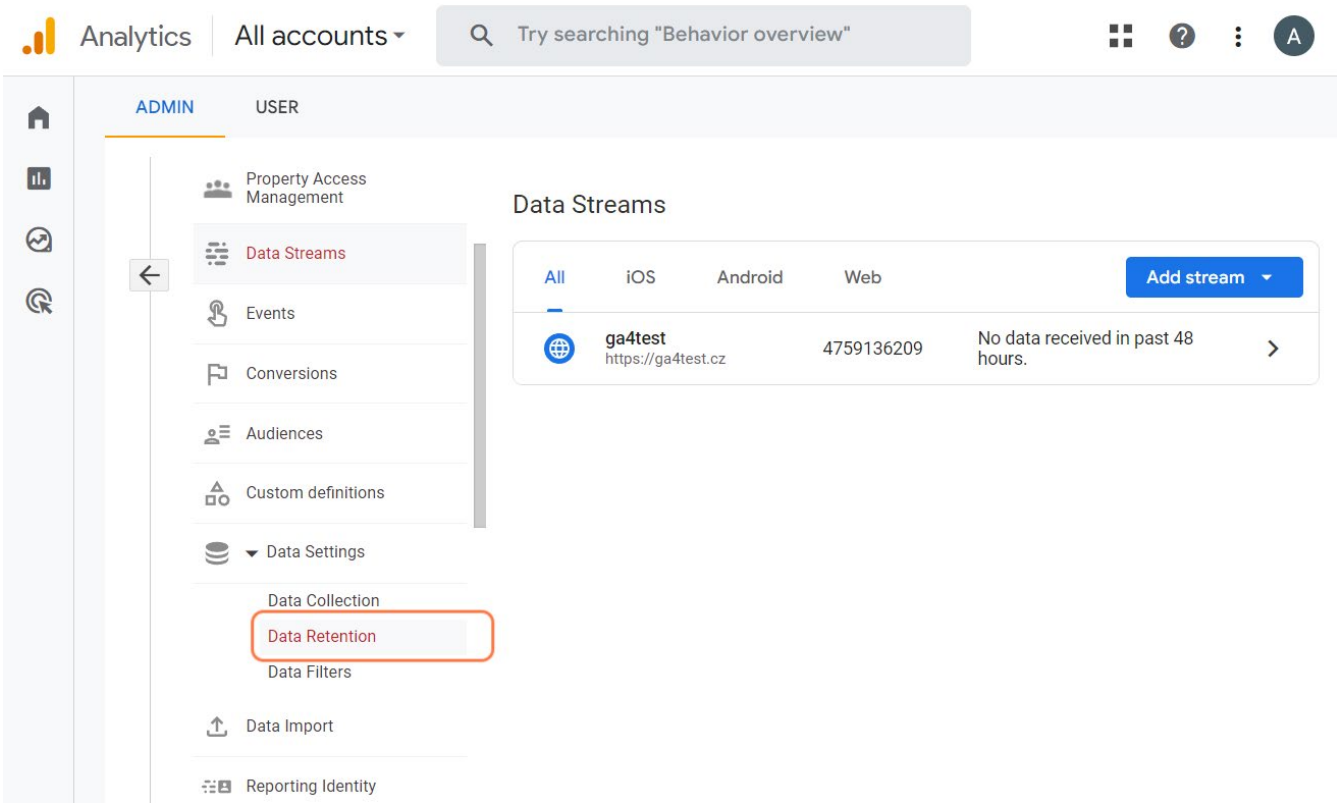
37. Click on Save.



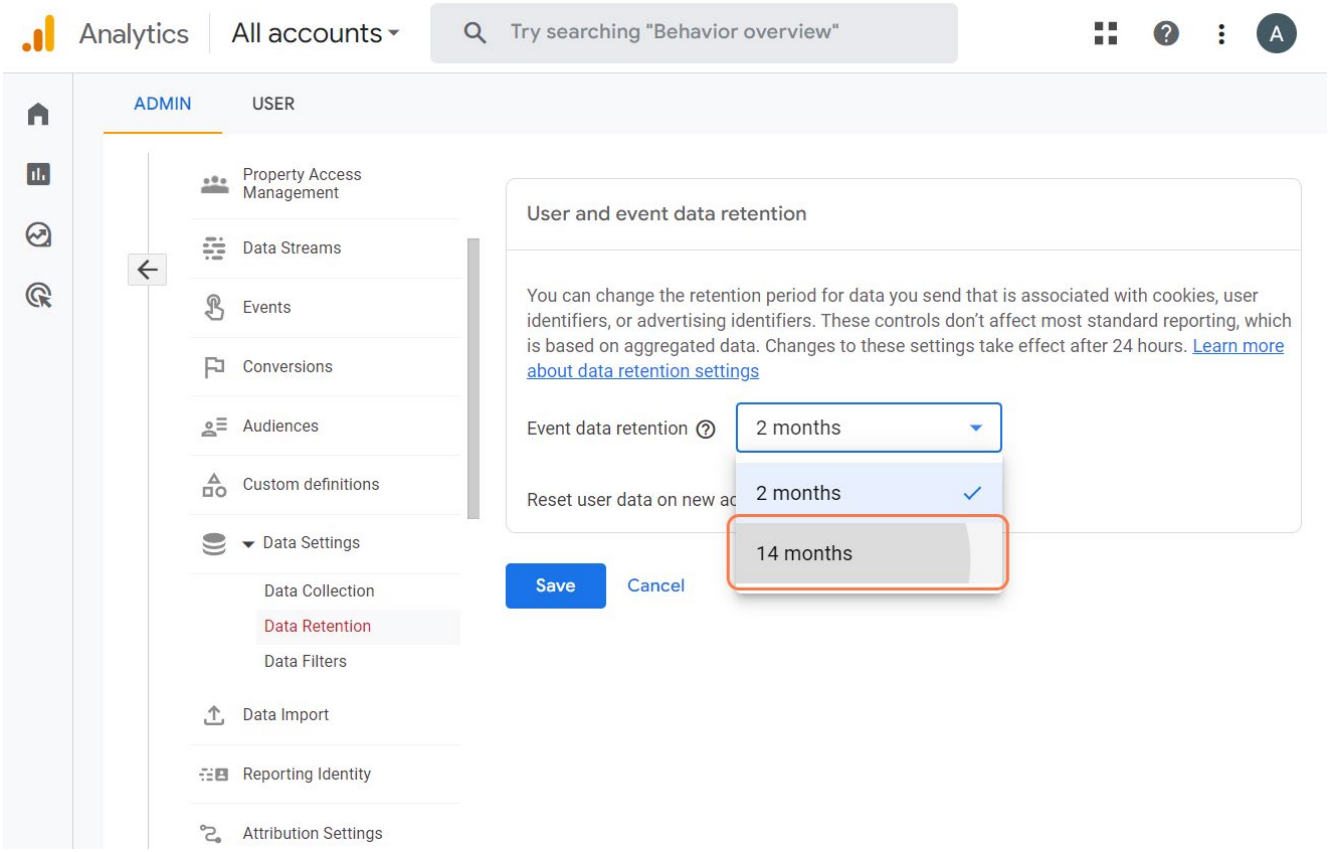
38. Head over to Data Settings.



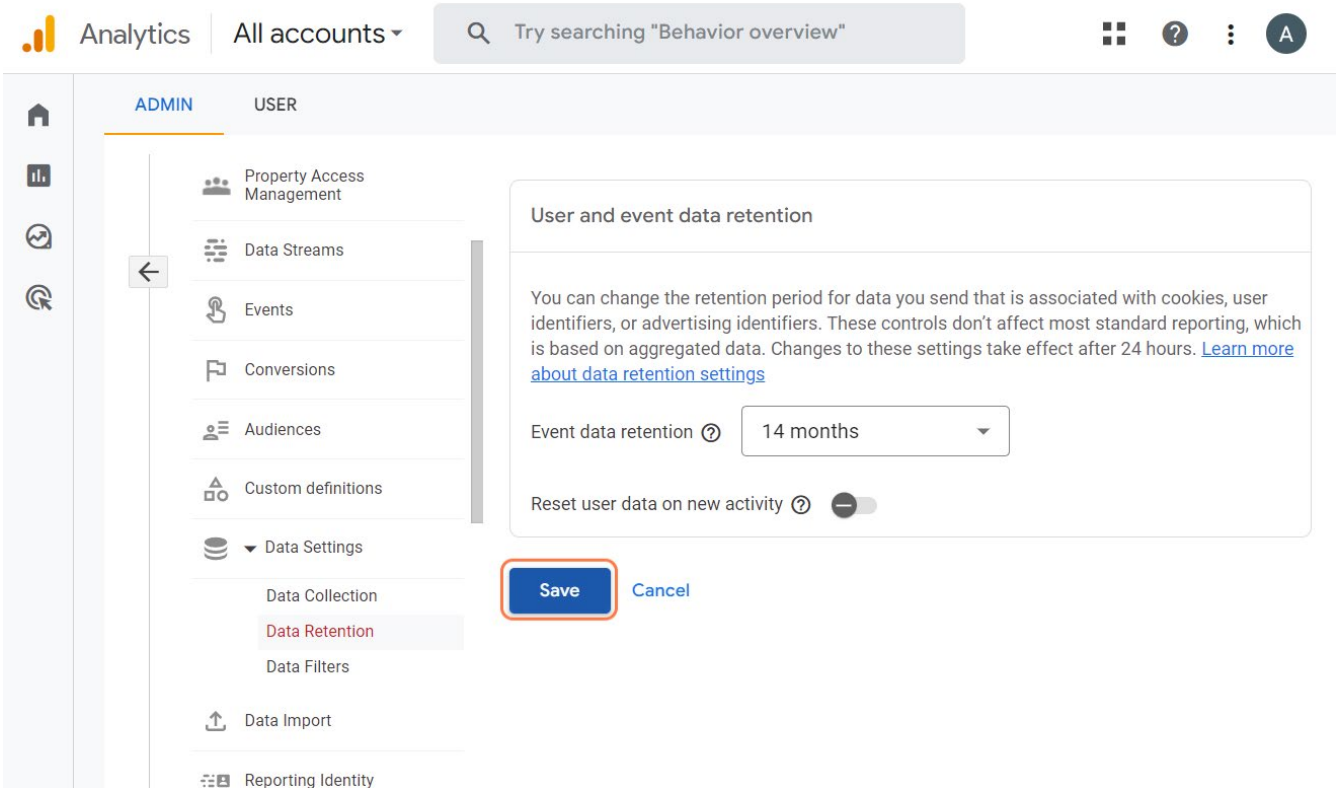
39. Click on Data Retention.



40. Change event data retention from 2 to 14 months.



41. Click on Save.



Completed. You have moved from UA to GA4!

From now on, your website will start collecting important data.

You will be able to record:

Page views	Capture a page view event each time a page loads or the website changes the browser history state. You can turn off browser history-based events under advanced settings.
Scrolls	Capture scroll events each time a visitor reaches a page's bottom.
Outbound clicks	Capture an outbound click event each time a visitor clicks a link that leads them away from your domain(s). By default, outbound click events will occur for all links leading away from the current domain.
Site search	Capture a view search results event each time a visitor performs a search on your site (based on a query parameter). By default, search results events will be fired any time a page loads with a common search query parameter in the URL. Adjust which parameters to look for under advanced settings.
Site search	Capture a form interaction event each time a visitor interacts with a form on your website.
Form interactions	Capture a form interaction event each time a visitor interacts with a form on your website.
Video engagement	Capture video play, progress, and complete events as visitors view embedded videos on your site. By default, video events will be automatically fired for YouTube videos embedded on your site with JS API support enabled.
File downloads	Capture a file download event each time a link is clicked with a common document, compressed file, application, video, or audio extension.

Part 3 – Google Analytics 4 Interface and Reports

With your GA4 property set up and your tracking configured, it's time to familiarize yourself with the Google Analytics 4 Interface and Reports.

In this section, we will take a deep dive into the GA4 interface. We'll explore the new GA4 dashboard and its features and discuss the various default reports available in GA4.

We will also guide you on how to use these reports to analyze your website or app performance, user behavior, and marketing campaign effectiveness.

Navigate Google Analytics 4 User Interface

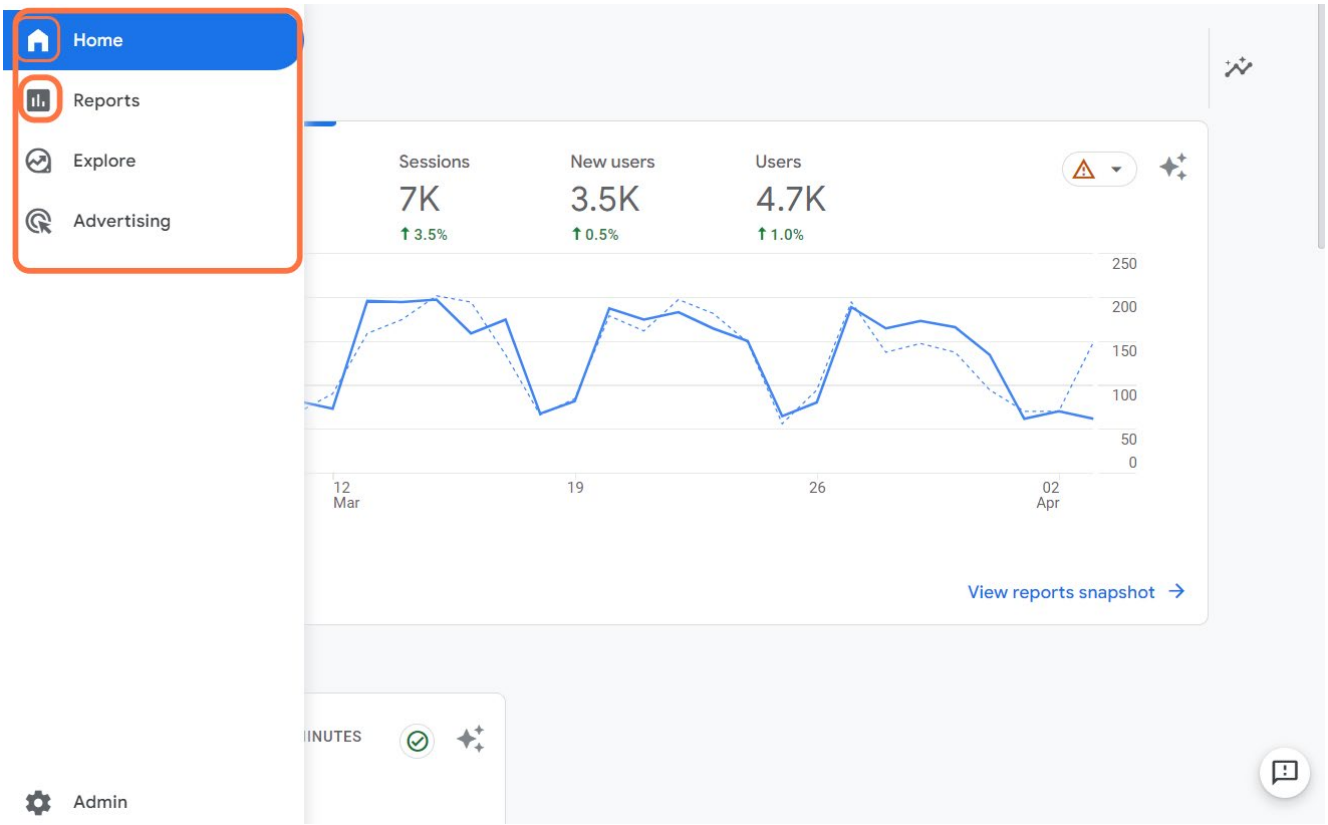
To truly benefit from GA4, we need to get to know its user interface. Once we understand how it works, we can find data fast and make important decisions.

> **Why I Love Google Analytics 4**
> GA 4 is even simpler to use than Universal Analytics – it has a neat layout and super cool tools. It even uses machine learning (ML) to fill in gaps in information. However, UA has more customization options and can be used for more complex tracking scenarios.

Main Navigation

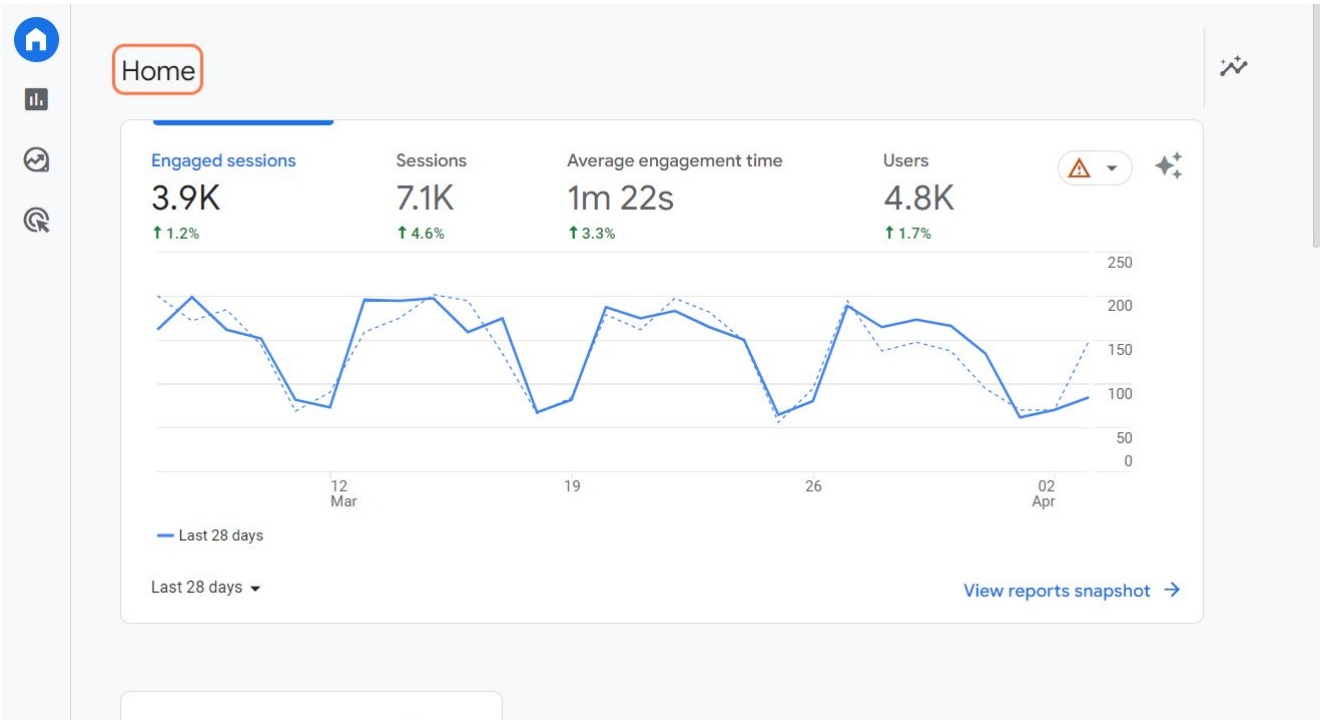
Located on the left side, the main navigation offers access to essential features. Here, you'll find **Home, Reports, Explore,** and **Advertising** tabs.

Note: In this article, we will take a closer look at the Home and Reports sections.

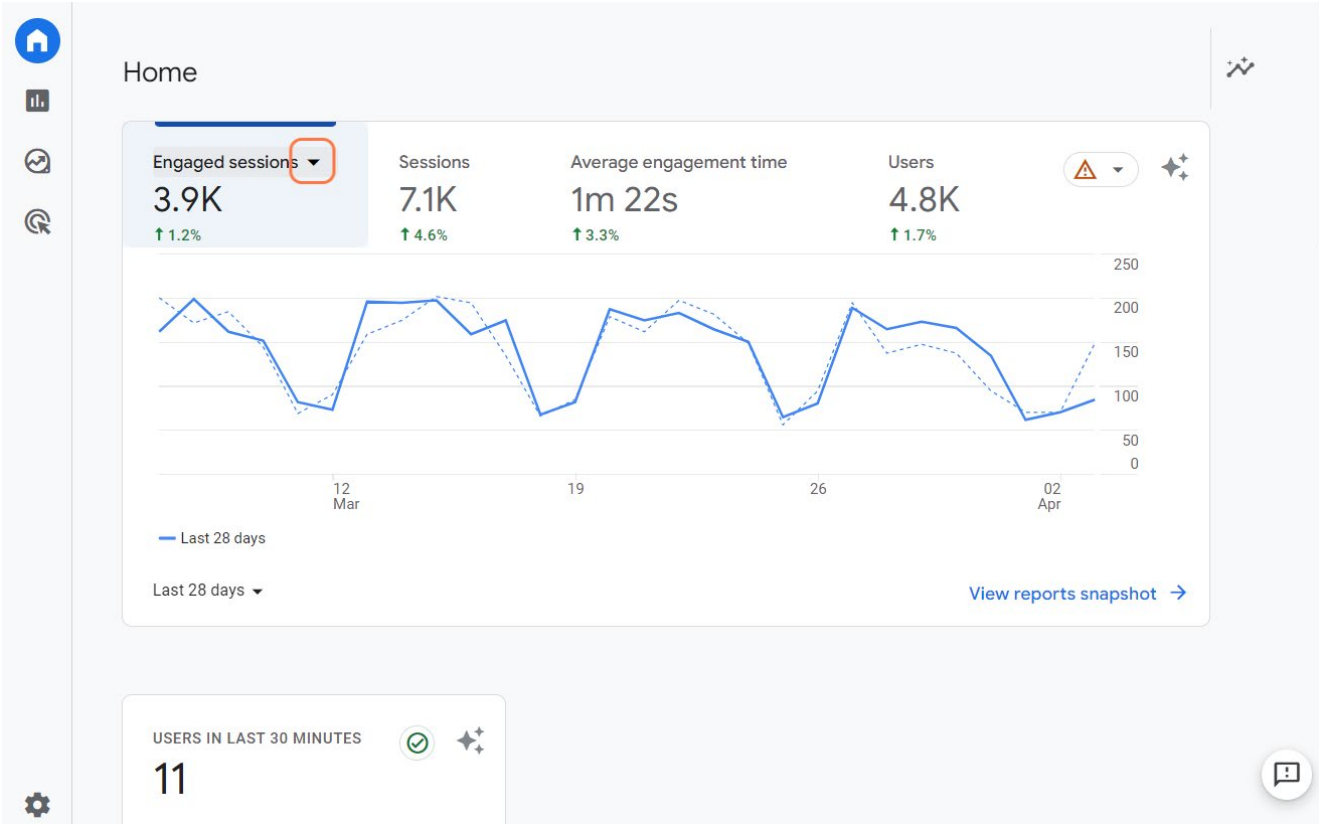


Home Tab

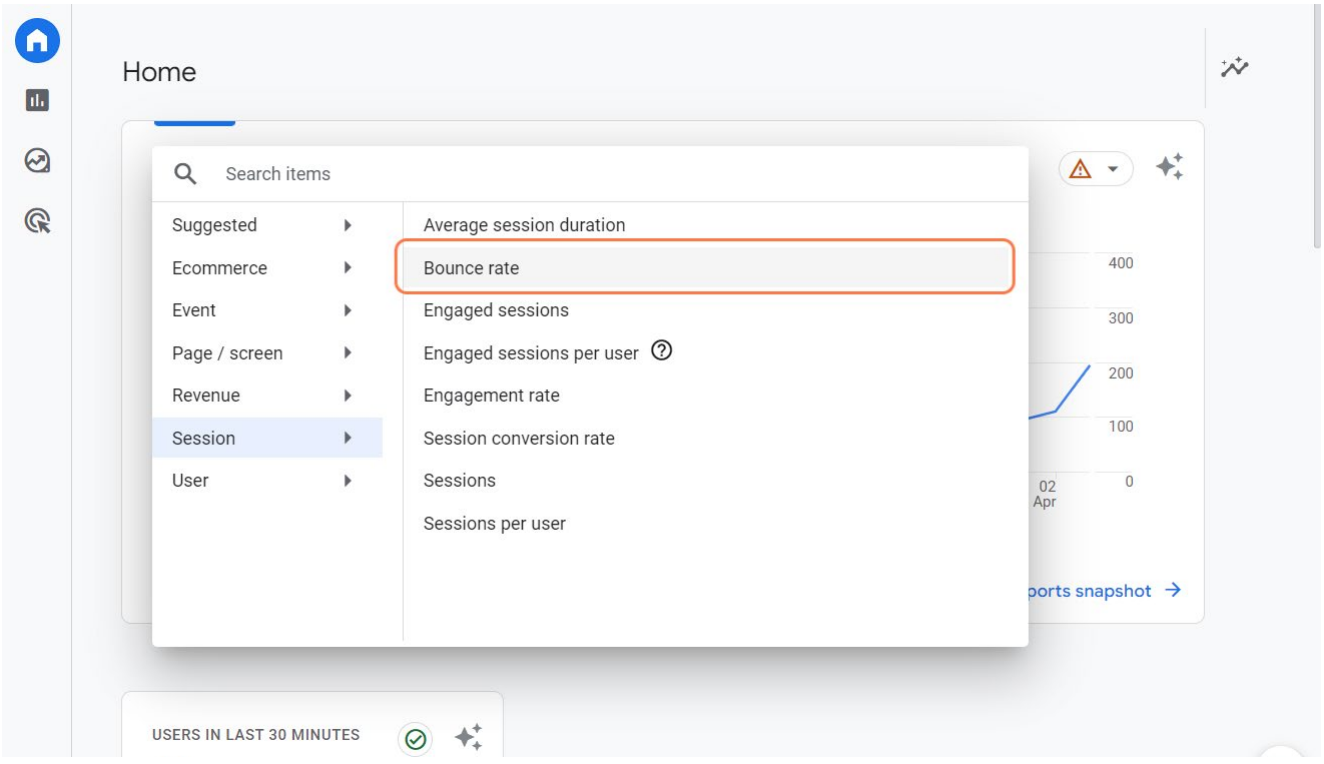
The Home tab in GA4's user interface is your **one-stop shop for a quick overview** of your website's performance. It provides a snapshot of essential metrics like the number of users, percentage change in users, sessions, and other key data points.



It also offers the handy feature of using filters. Yes, **you can customize the displayed metrics** to focus on the data most relevant to your business with a breeze.



Choose from a variety of metrics to **customize your "Home Page" easily.**

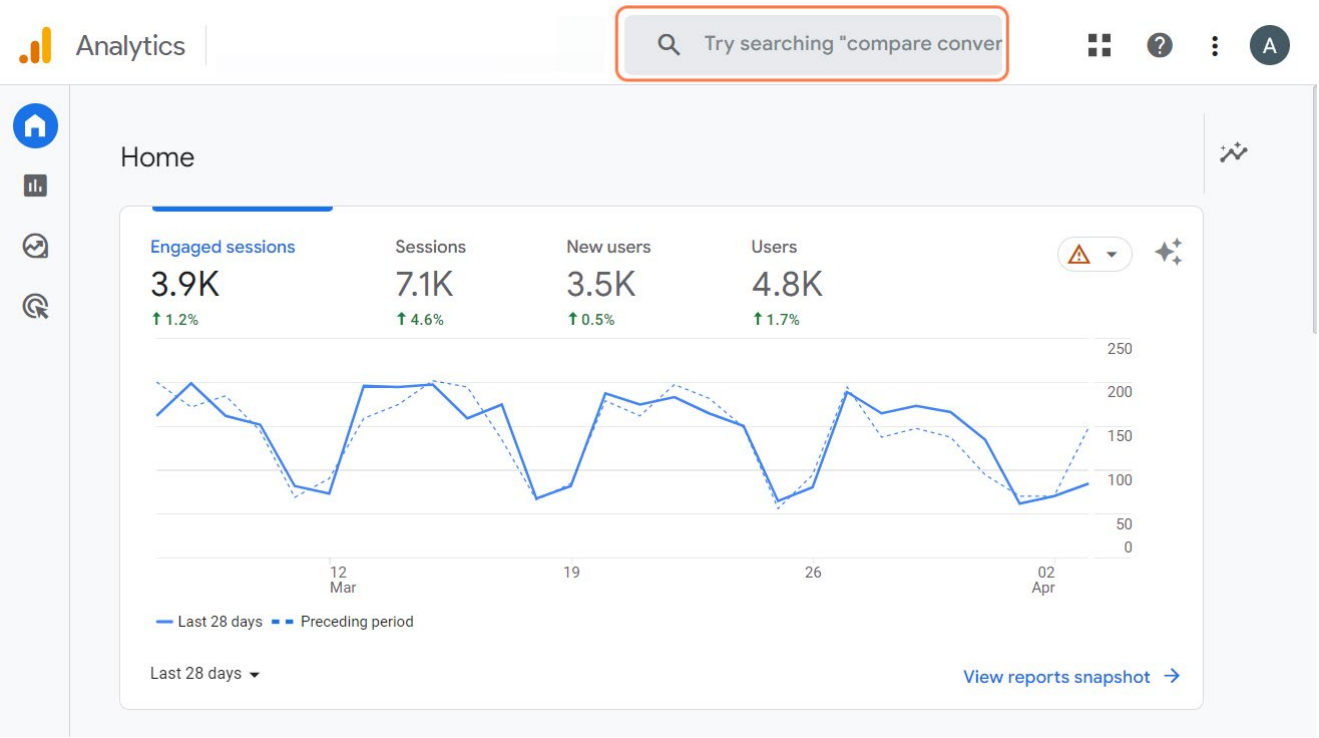


Once you've selected the metrics you want to observe, **you won't have to keep configuring them every time** you log into your GA 4 account.

Did you know?
GA4 uses events instead of hits to track user interactions with your website or app. Events are user interactions with content that can be measured independently from a web page or screen load.

Search Bar

At the top of the interface, the search bar **allows you to quickly find specific reports** or settings.



I find this feature **insanely useful.** It even whispers what reports you might be interested in! Simply type in "basic reports" **or even ask a question.**

Did you know?
One of the key features of GA 4 is the use of artificial intelligence (AI).
AI in GA 4 can help you:

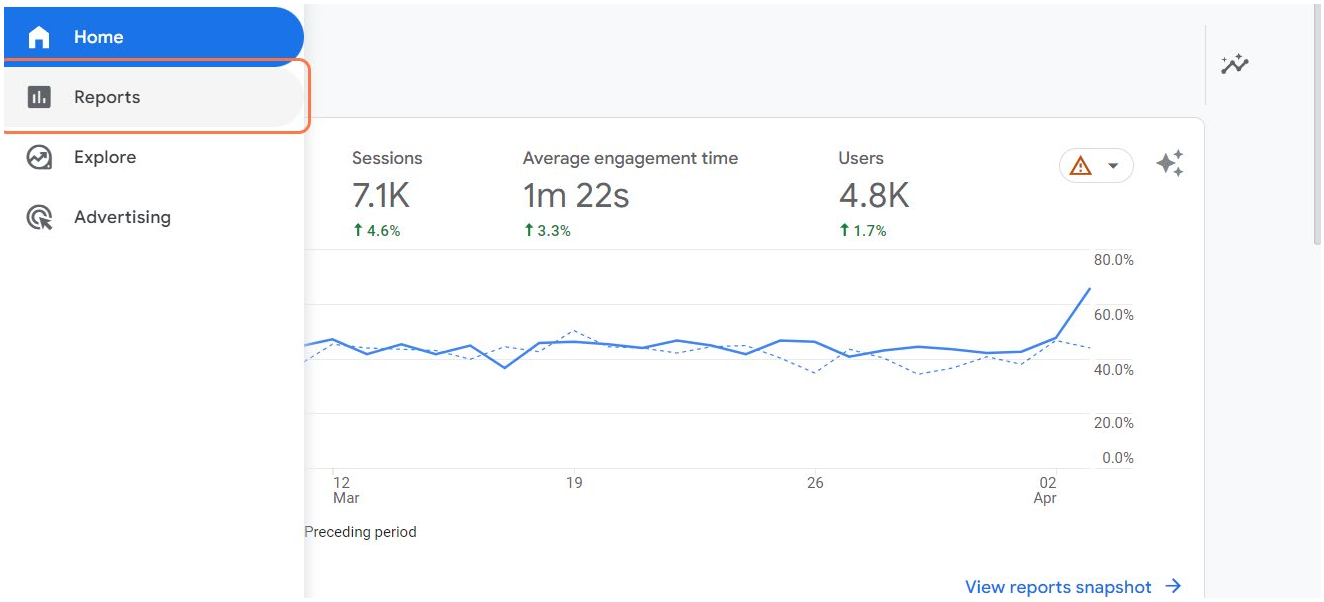
- Understand user behavior across different devices and platforms
- Identify trends and anomalies in your data
- Predict future outcomes and actions

Explore Default Reports

Now that we have a good grasp of the GA4 user interface, it's time to dive into one of its **key features: reports.**

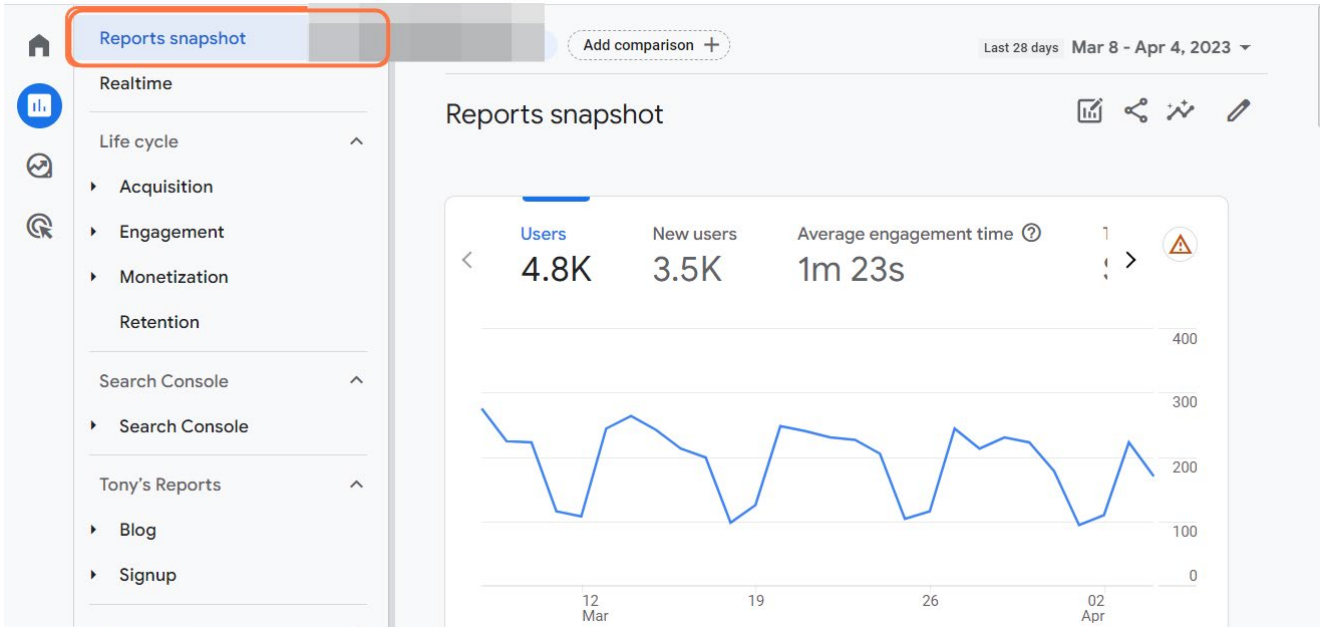
With GA4's advanced reporting capabilities, you will **gain valuable insights** into your audience and their interactions with your platform.

Head over to Reports:

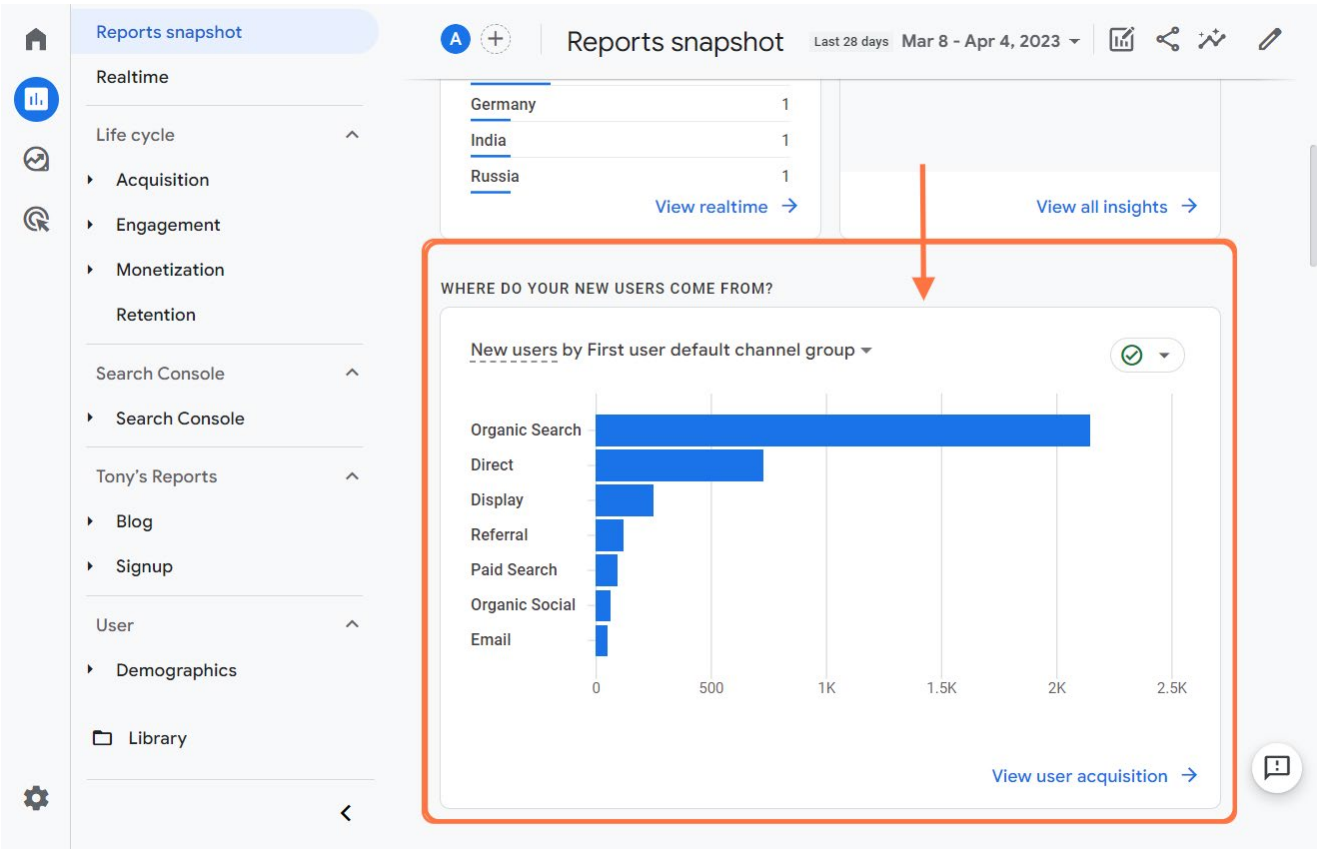


Reports Snapshot

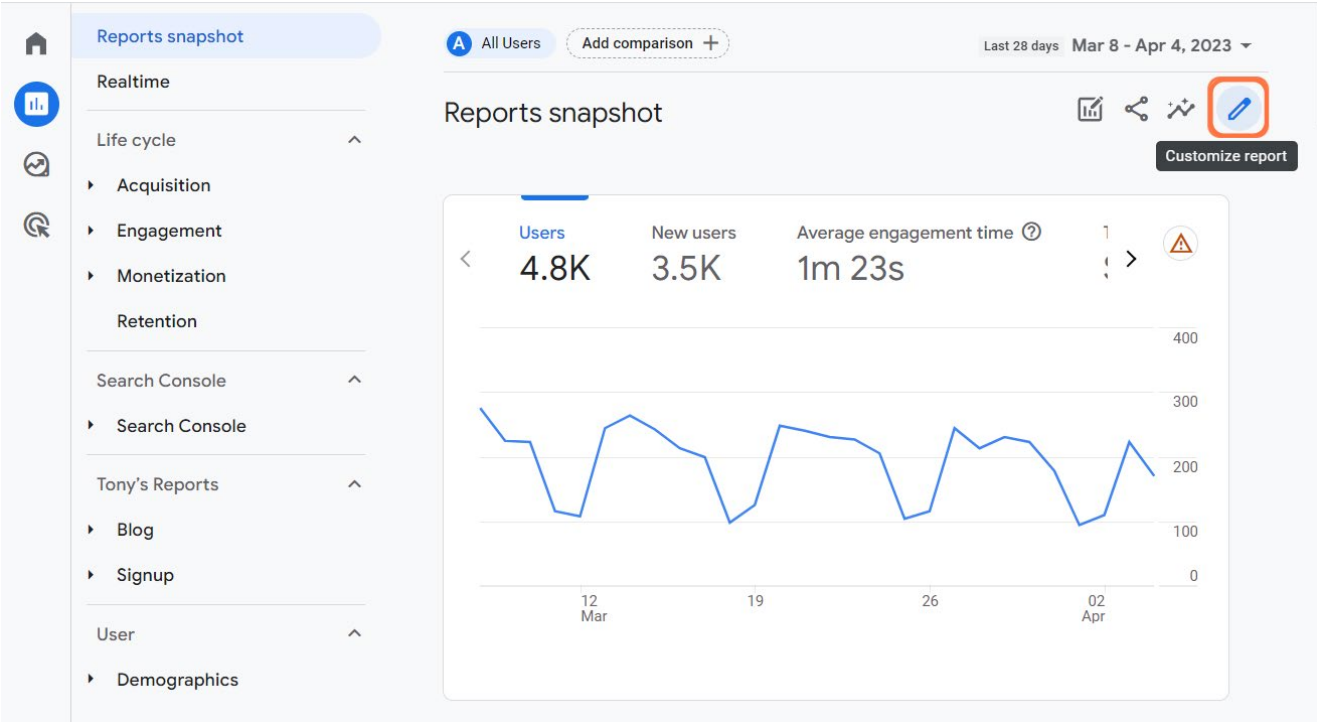
Once you click on Reports in the GA4 menu, you'll land on the Reports Snapshot section. It's a **bird's eye view** of your website's performance.



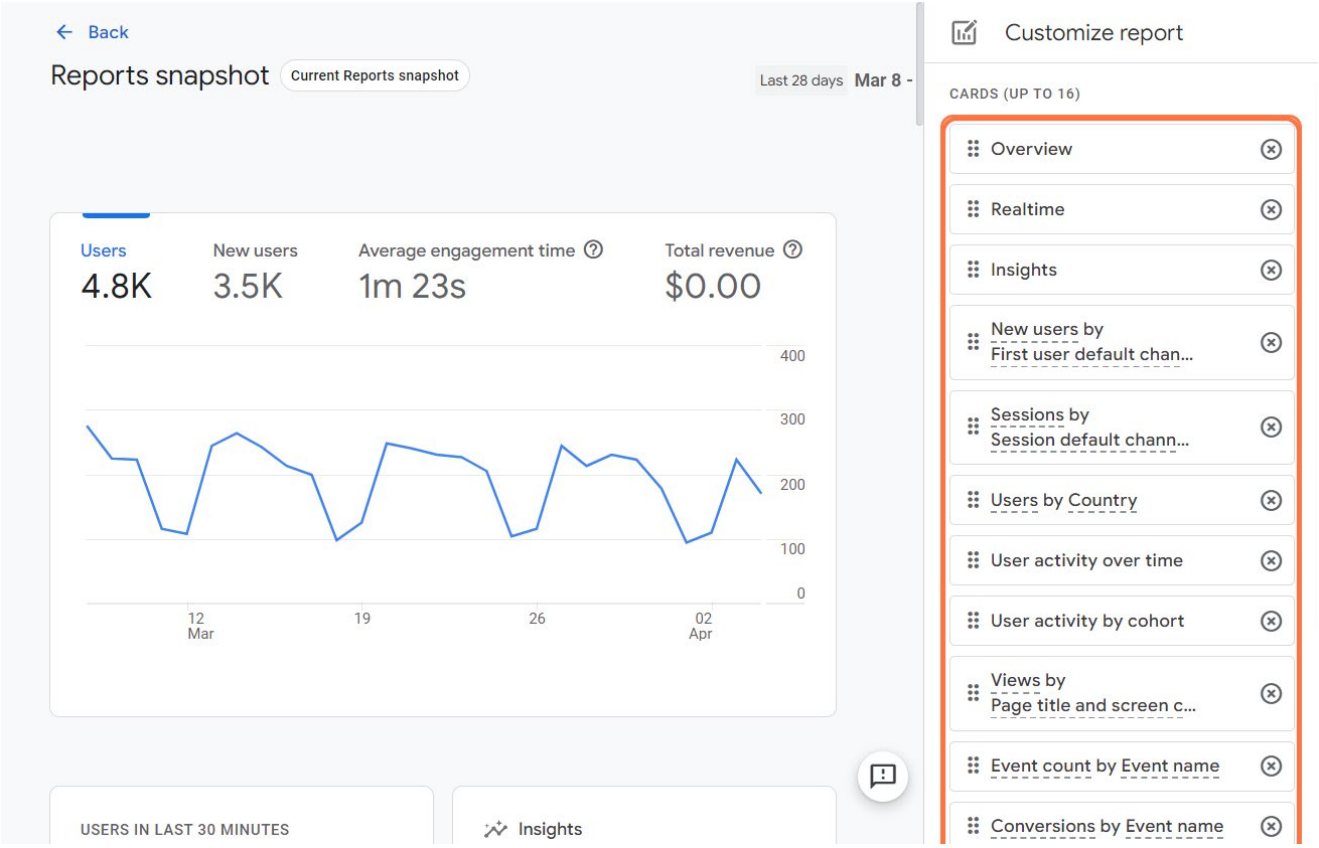
This section comes with **pre-defined metrics,** which are called “cards.”



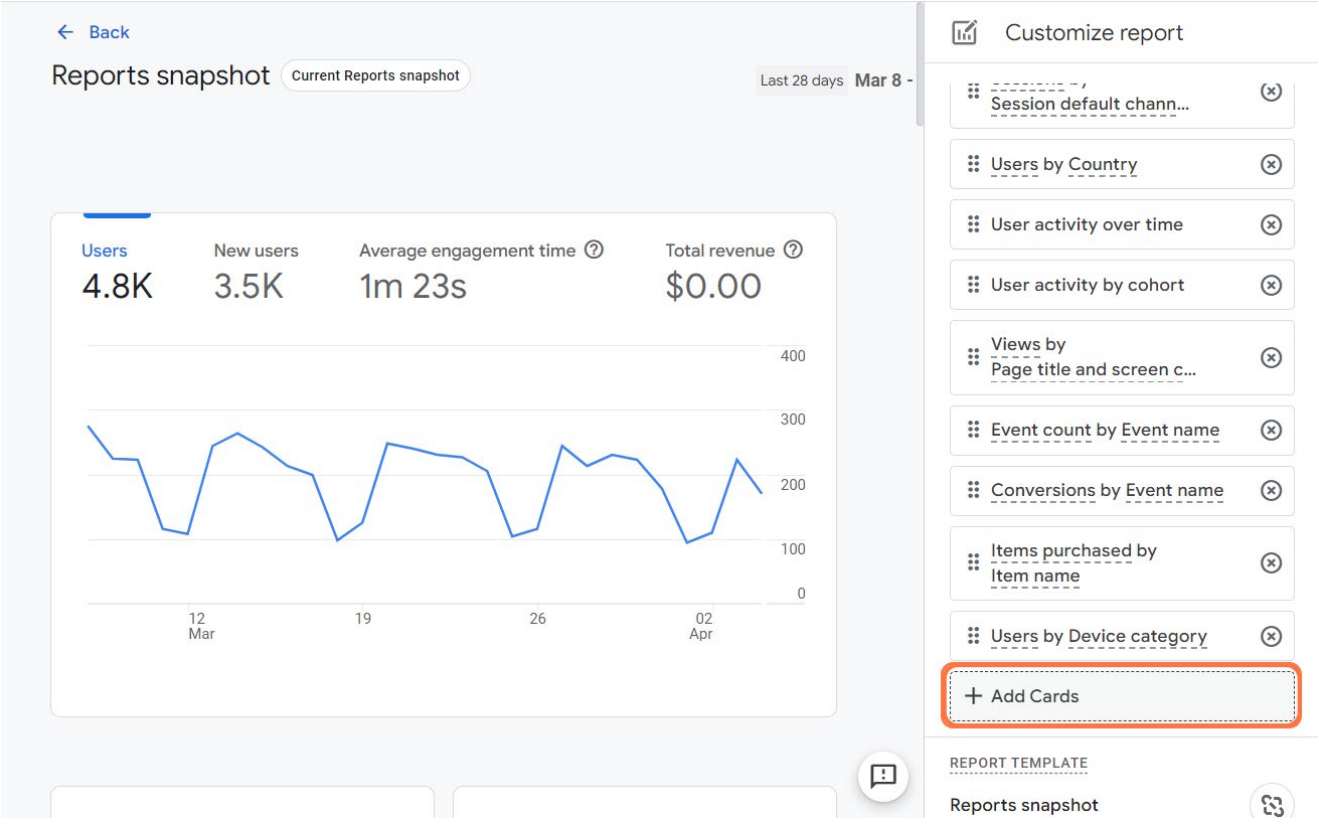
You can **customize the report by setting any overview report as your Reports Snapshot** and using the report builder. This feature is a fantastic way to get a quick glance at your website’s overall performance without going too deep into the details.



Here you can **remove...**

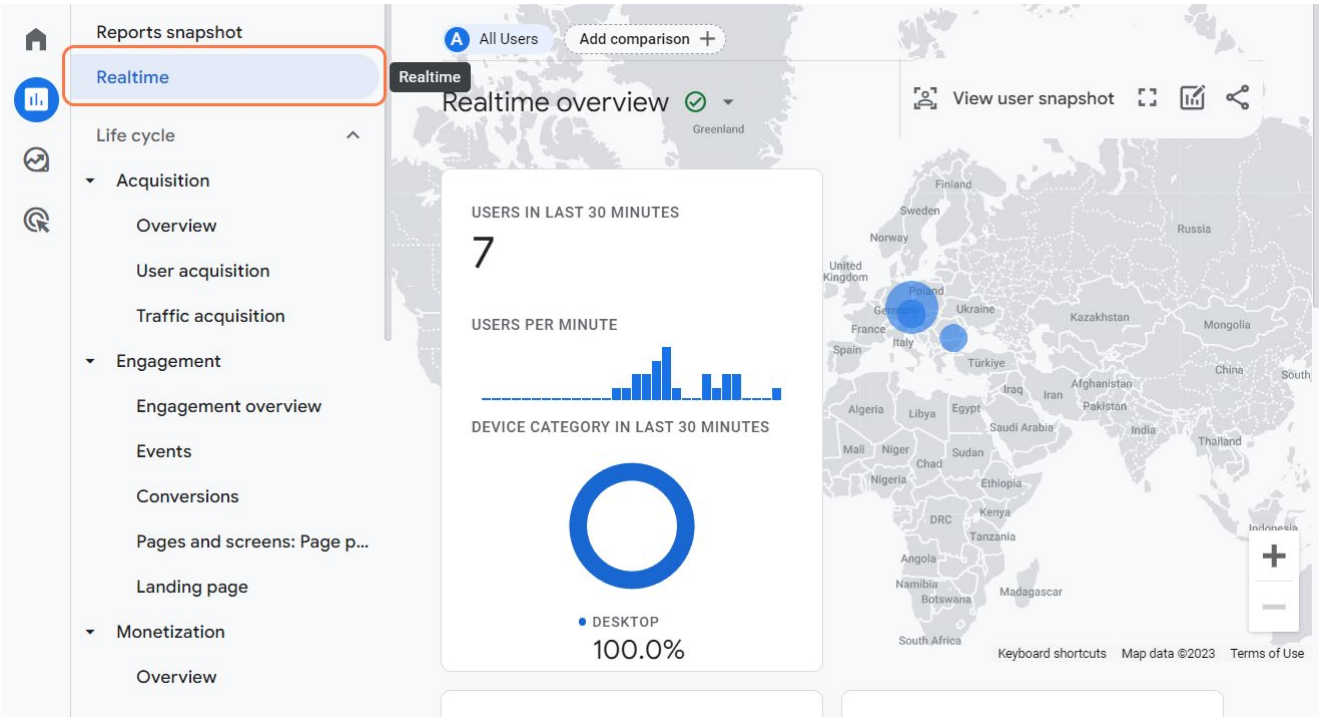


... or **add cards** you are interested in.



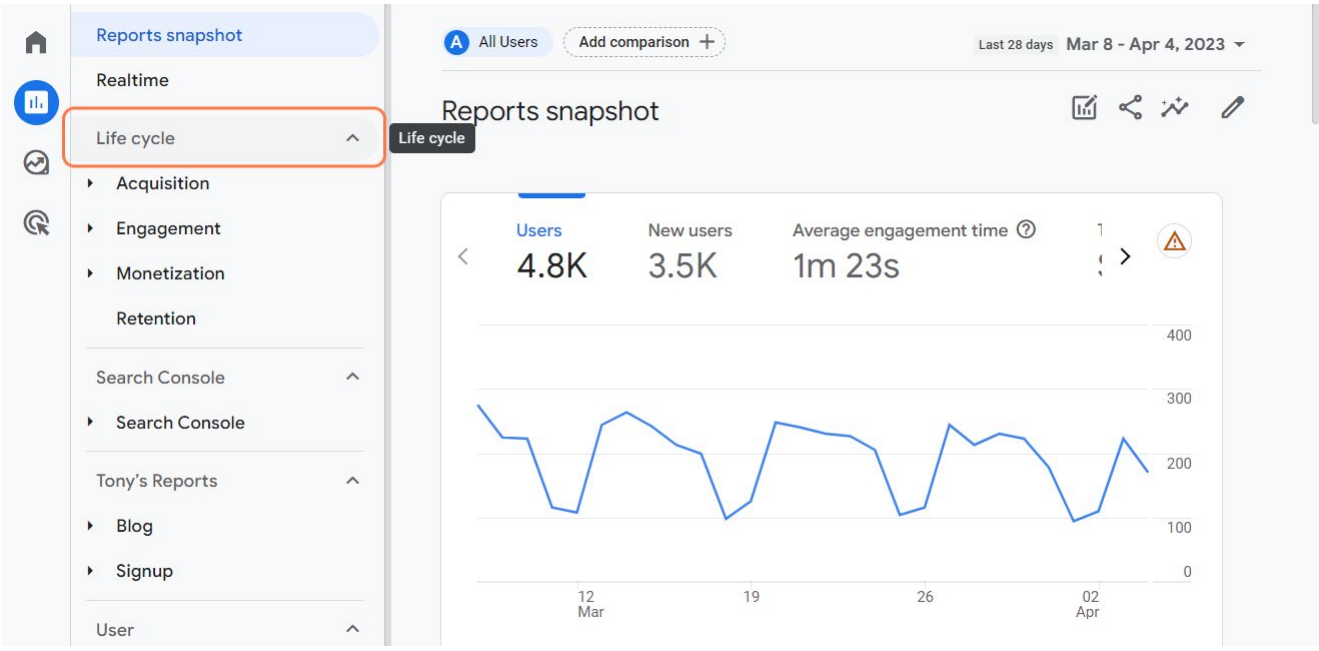
Realtime Report

If you want to see **how your website is performing right now,** you can use the Realtime report. This report shows you the number and behavior of users who visited your website in the last 30 minutes.



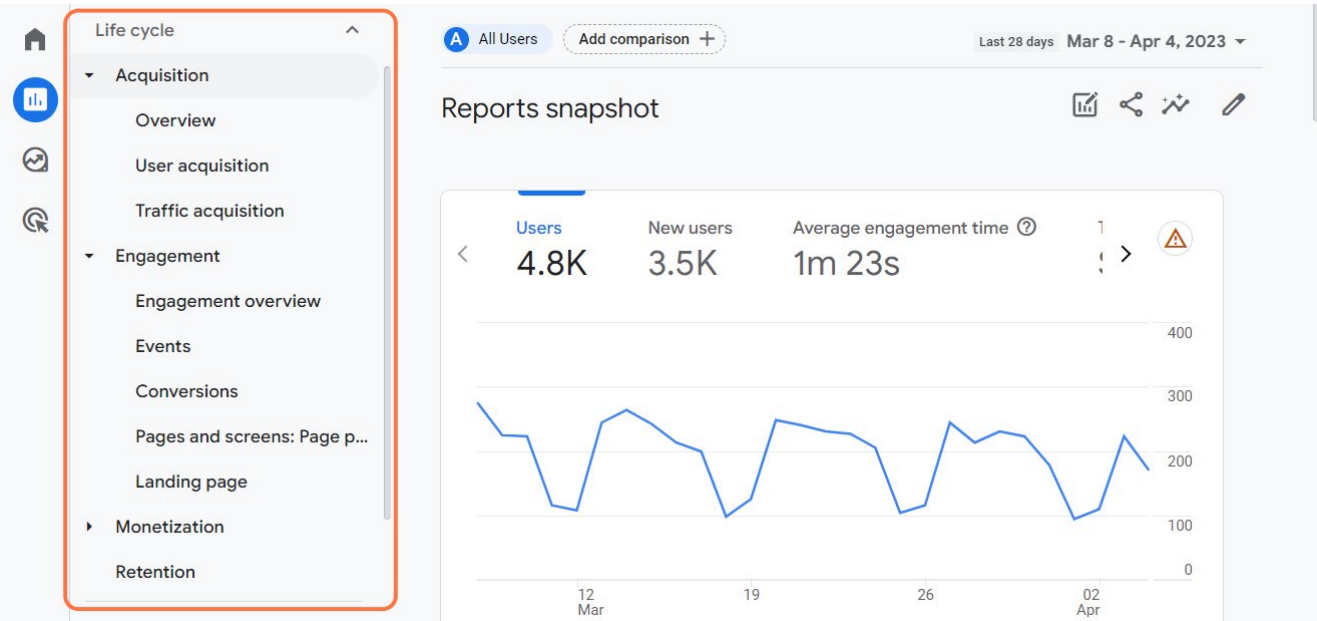
Life Cycle Reports

These reports are a powerful tool to help you measure and improve your website performance using GA4. The Life Cycle reports provide insights into **how users interact with your website across various stages of their journey.**



Each stage in GA4 has its own set of subsections that provide a **deeper level of insight** into your data.

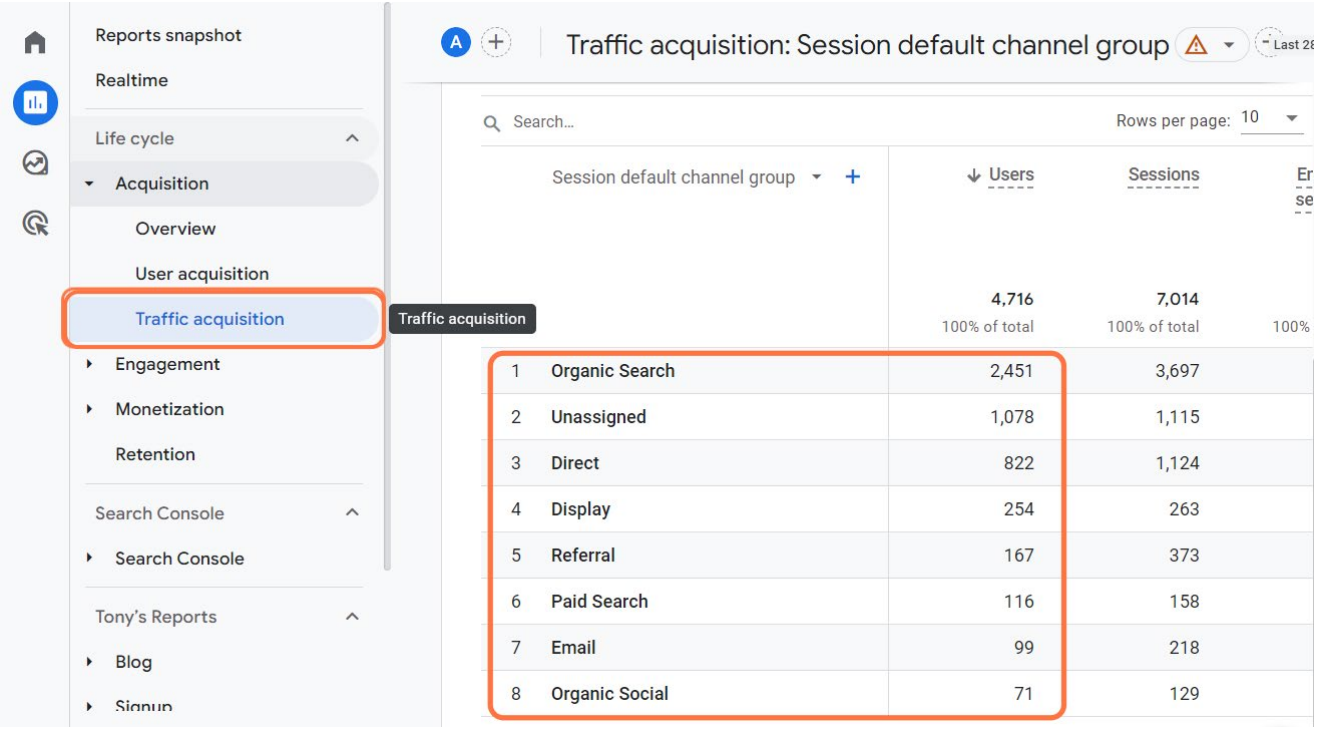
You have the **power to choose which metrics are most important** for your specific role or business goals.



The insights from the Engagement section will help you find ways to:

- improve your website,
- create better calls to action,
- and drive more traffic and conversions.

You should be interested in the **Traffic Acquisition** stage as well.



The Traffic acquisition report shows you **how people find your website and what channels they use to get there.**

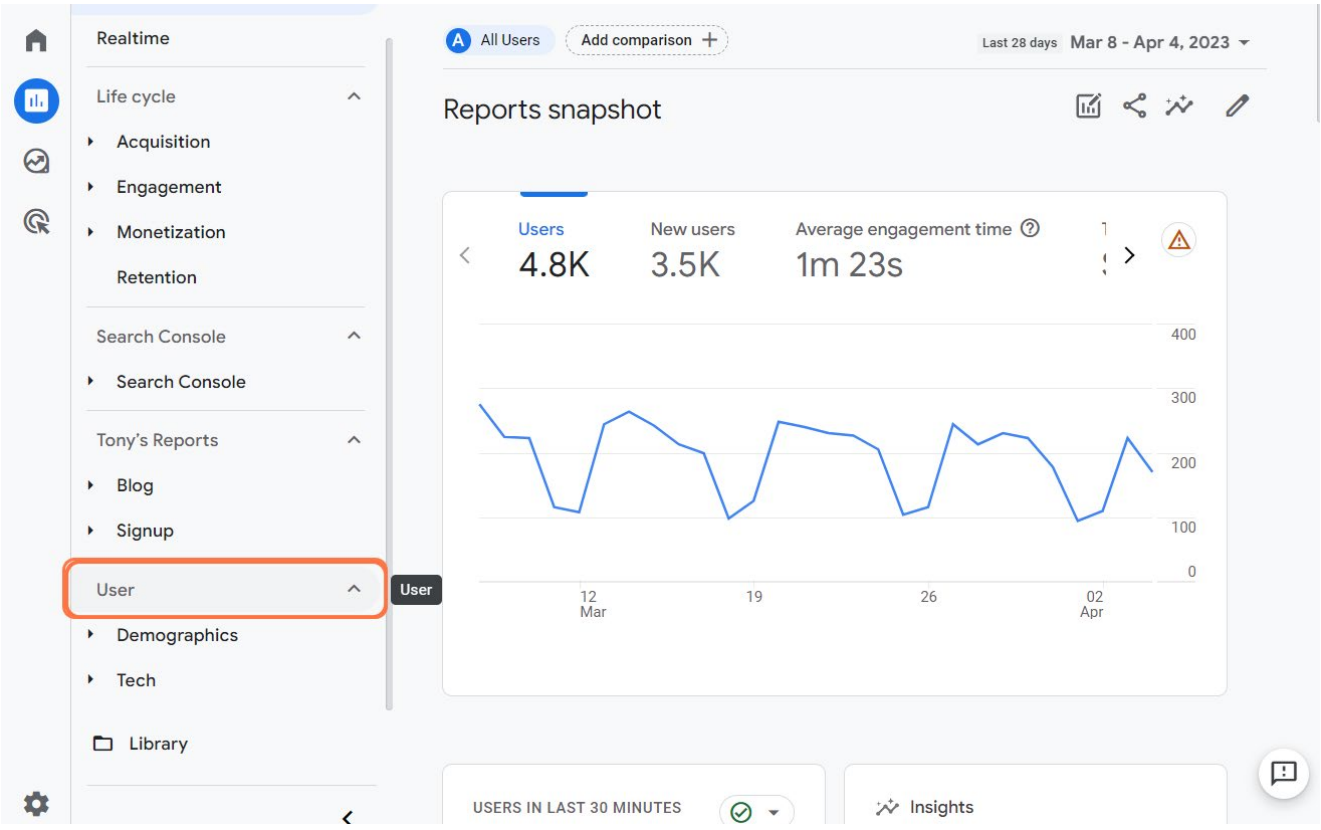
Interesting Facts

- **Organic search** is usually the largest source of traffic for most websites.
- **Referral traffic** can help you build relationships with other websites and influencers.
- **Direct traffic** indicates that your website has a loyal and returning audience.

User Reports

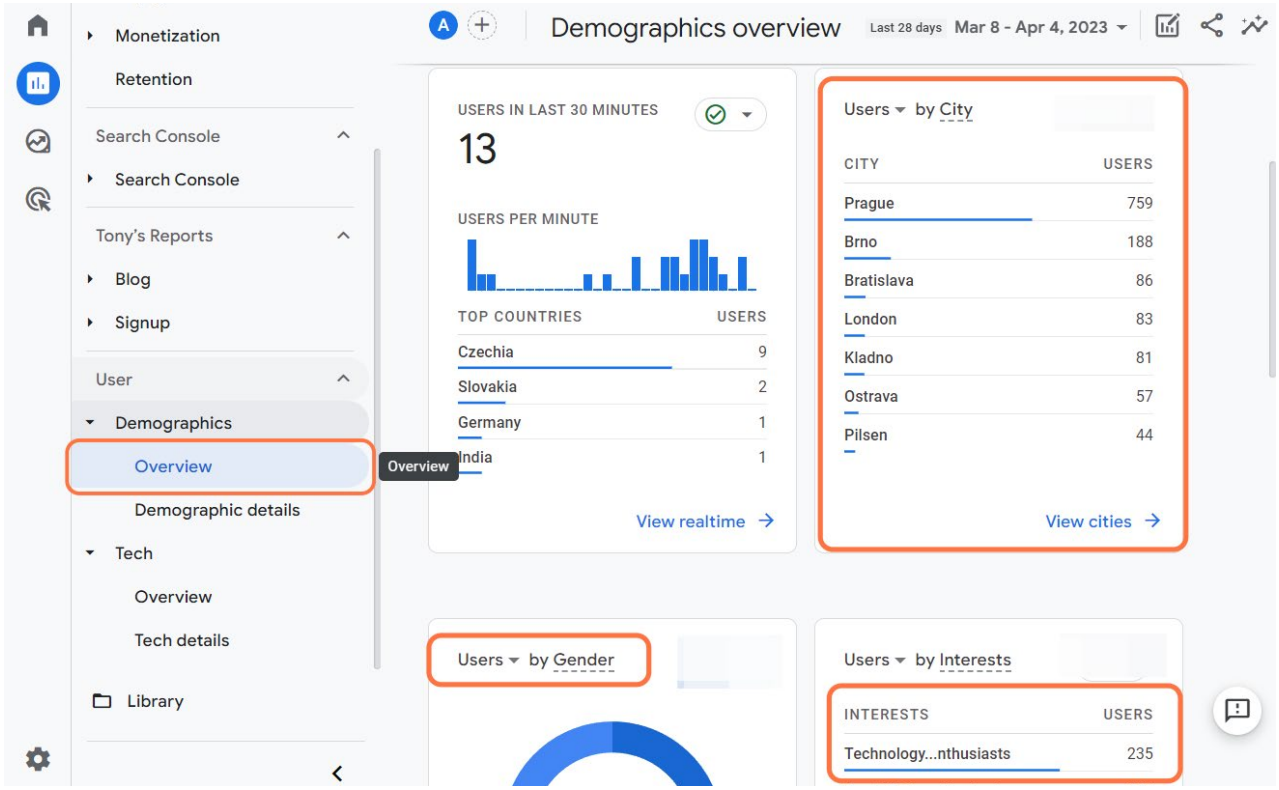
Looking to gain a more comprehensive understanding of your audience? User reports allow you to see:

- who your visitors are,
- where they come from,
- what devices they use,
- and more.



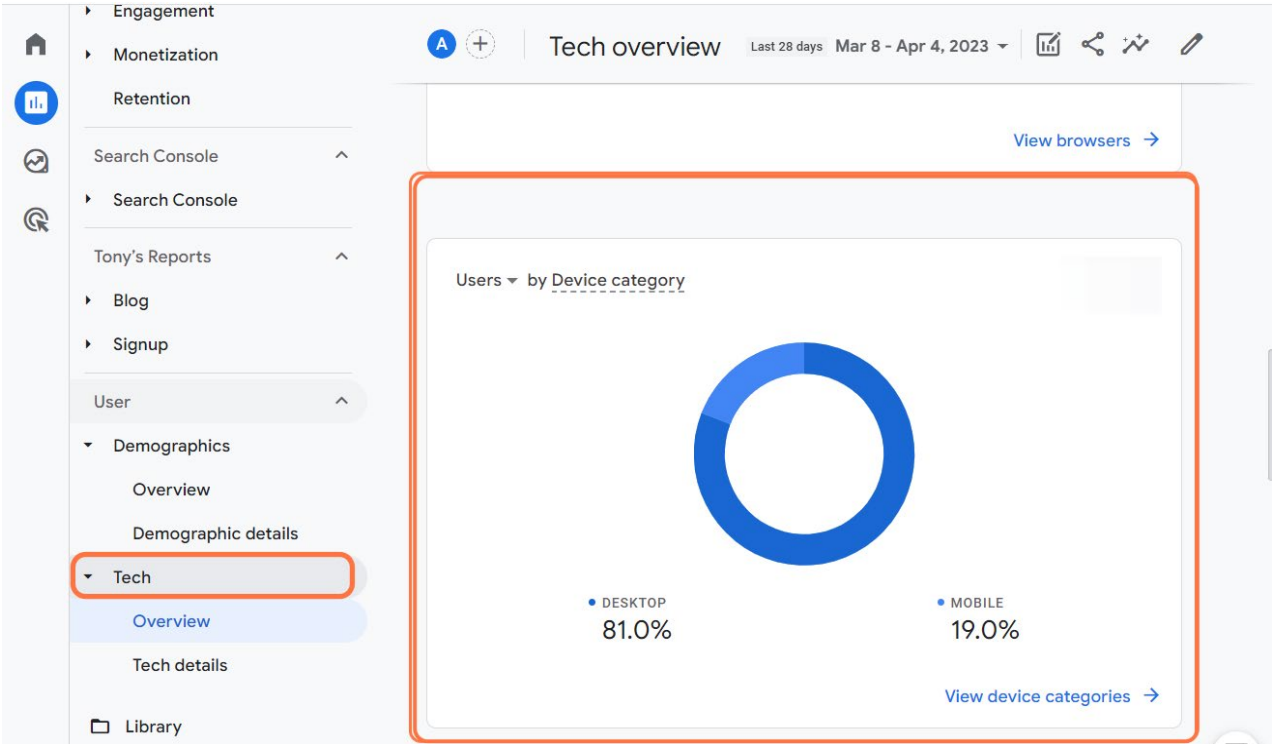
Demographics

This report shows you the age and gender distribution of your visitors.



Tech

This report shows you the browser, operating system, and device type of your visitors.



Note: User reports allow you to explore a lot of other interesting reports like 'Location,' 'Behavior,' 'Interests,' and 'Custom.' These reports provide you with more insights into your audience's preferences, actions, and goals.

Part 4 – Create Your Google Analytics 4 Reports with Ease

In this final section, we will provide you with the know-how and hands-on guidance to make the most of Google Analytics 4. We will explore the fundamentals of GA4 reports, including segments, dimensions, and metrics. Then, we will guide you step-by-step through the process of creating a custom report.
You will learn how to use Explore tool to create custom reports and visualizations using your data and dimensions. We will provide examples of two commonly used reports: Source/Medium Report and Landing Page Report.

The Building Blocks of GA4 Reports

Before we dive into creating a custom report, let's take a moment to **understand the fundamental components of GA4 reports.**

Segments

Segments are **subsets of your data that allow you to analyze specific user groups or behaviors.** In GA4, you can create segments based on various criteria such as demographics, device type, or user behavior (e.g., visitors who completed a purchase). By using segments, you can gain deeper insights into the performance of specific user groups and make more informed decisions for your marketing campaigns.

Example
Create a segment for mobile users in the USA to analyze their behavior and optimize your mobile marketing strategies.

Dimensions

Dimensions are **attributes that describe your data,** such as page title, event name, or source/medium. They provide context to your metrics and allow you to analyze your data from different perspectives. In GA4, you can use dimensions to group, filter, or break down your data in various ways to gain insights into specific aspects of your website or app performance.

Example
Use the ‘source/medium’ dimension to analyze the performance of different traffic sources and identify the most effective marketing channels.

Metrics

Metrics are **quantitative measurements** that represent the performance of your website or app, such as sessions, users, or revenue. In GA4, you can use metrics to evaluate your marketing campaigns, track your progress toward your goals, and identify areas for improvement or optimization.

Example
Monitor the ‘revenue’ metric to measure the financial success of your online store and track the ROI of your marketing efforts.

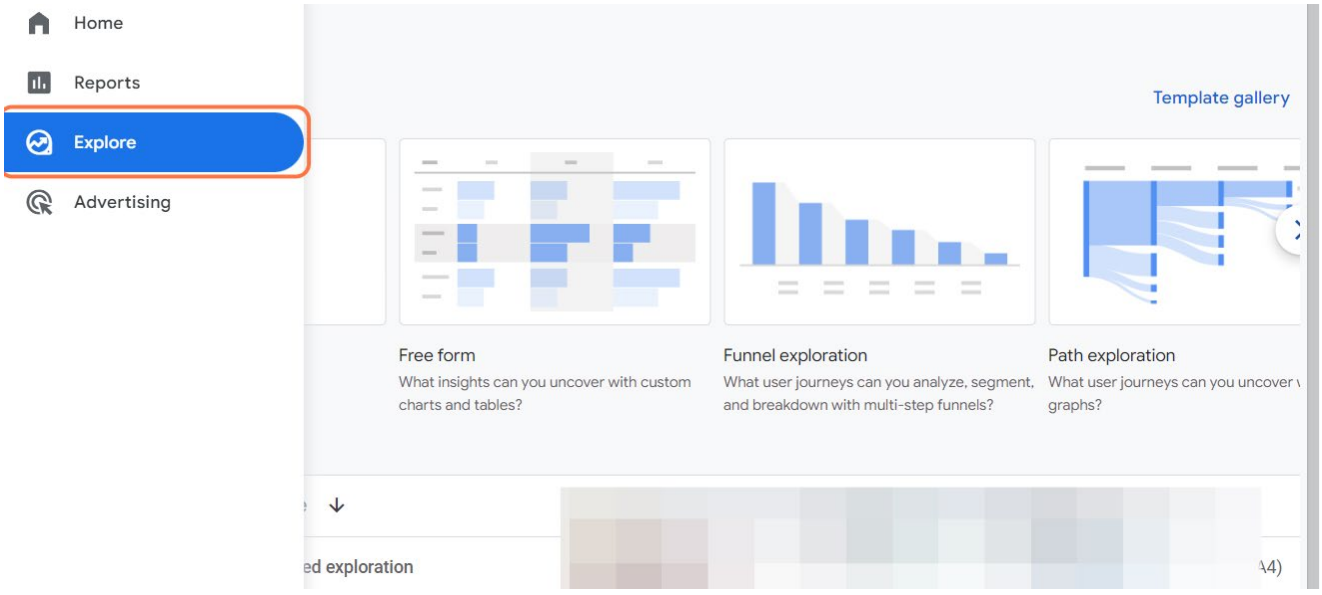
Exploration Tool

Now that we’ve covered the basics, let’s create a custom report using our own Google Analytics 4 property.

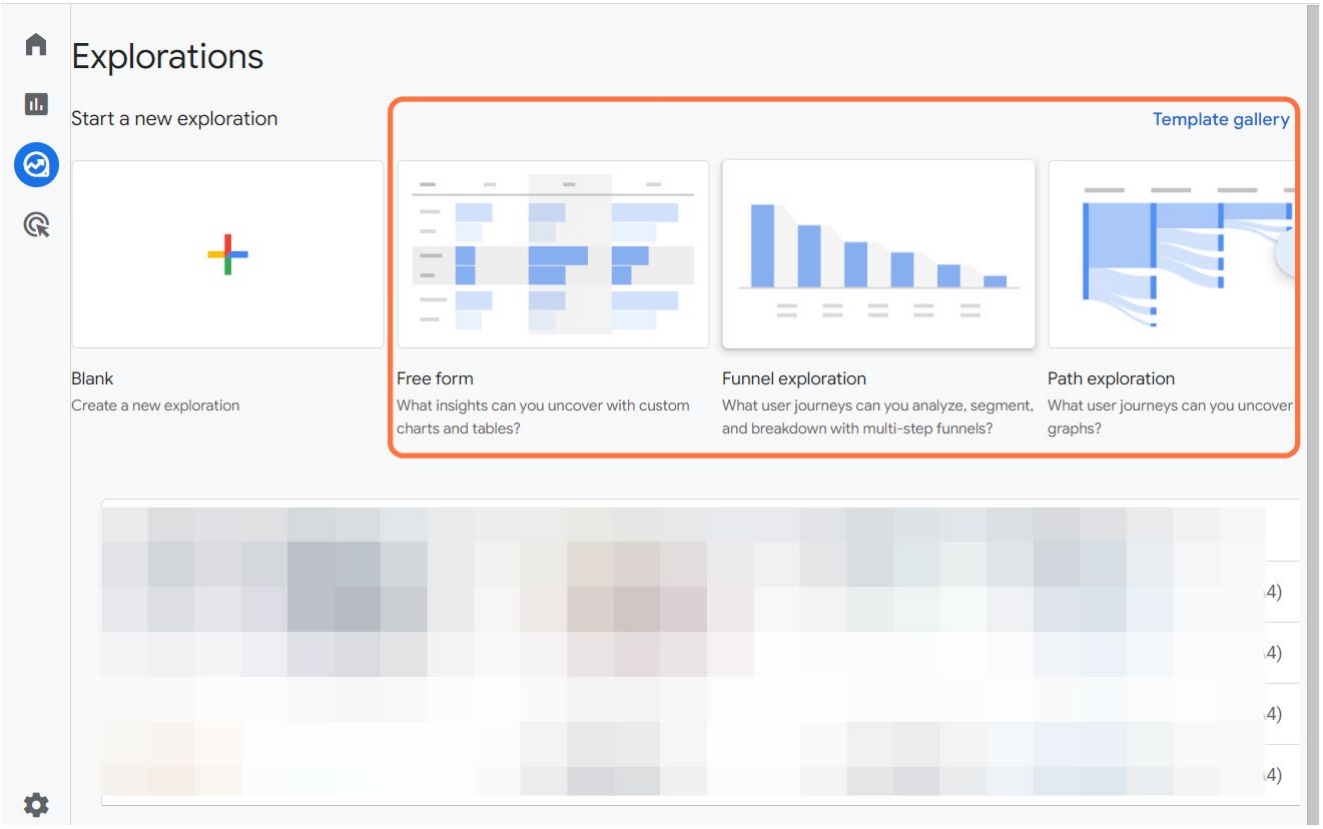
One of the most powerful features of GA4 is the **Explore tool.** It allows you to **create custom reports and visualizations** using your data and dimensions.

To access Explorations, **you need to have a GA4 property set up** for your website or app.

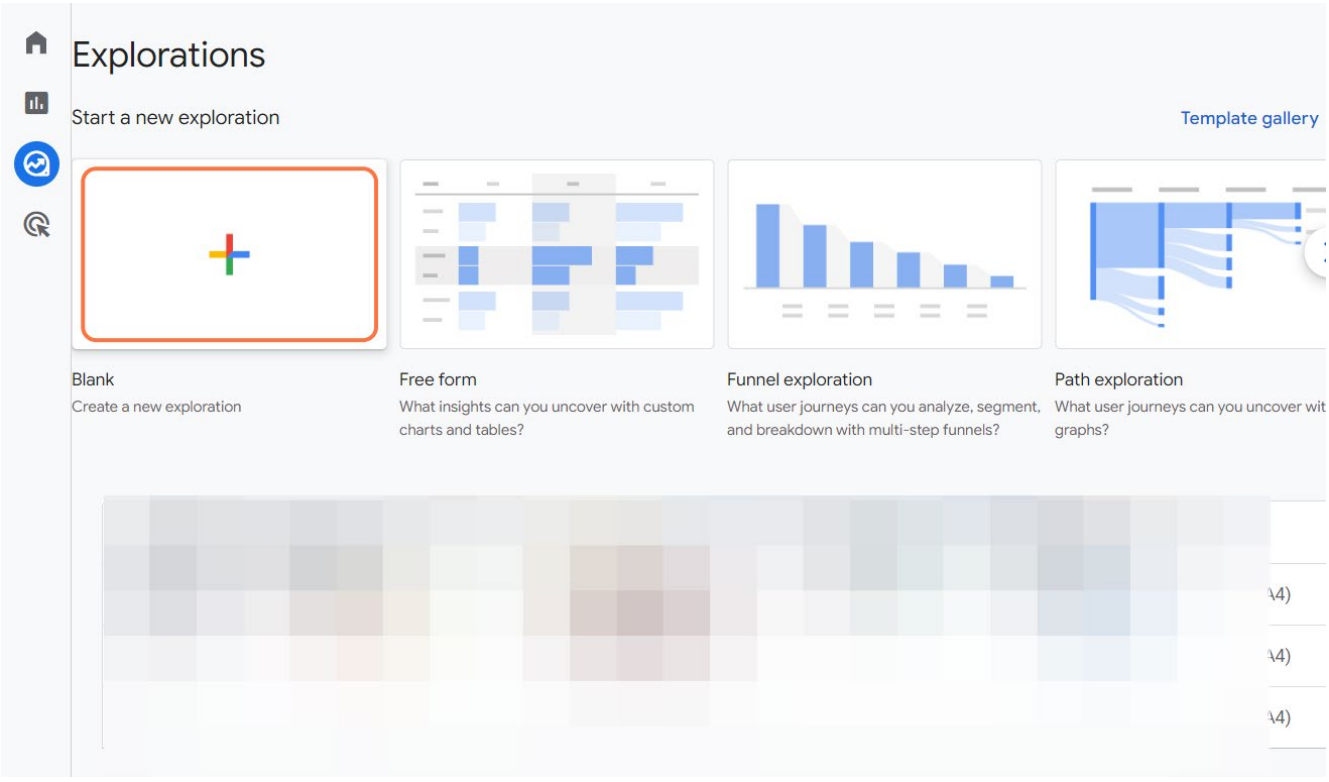
Once you have a GA4 property, you can find the **Explore tool in the main navigation menu on the left.**



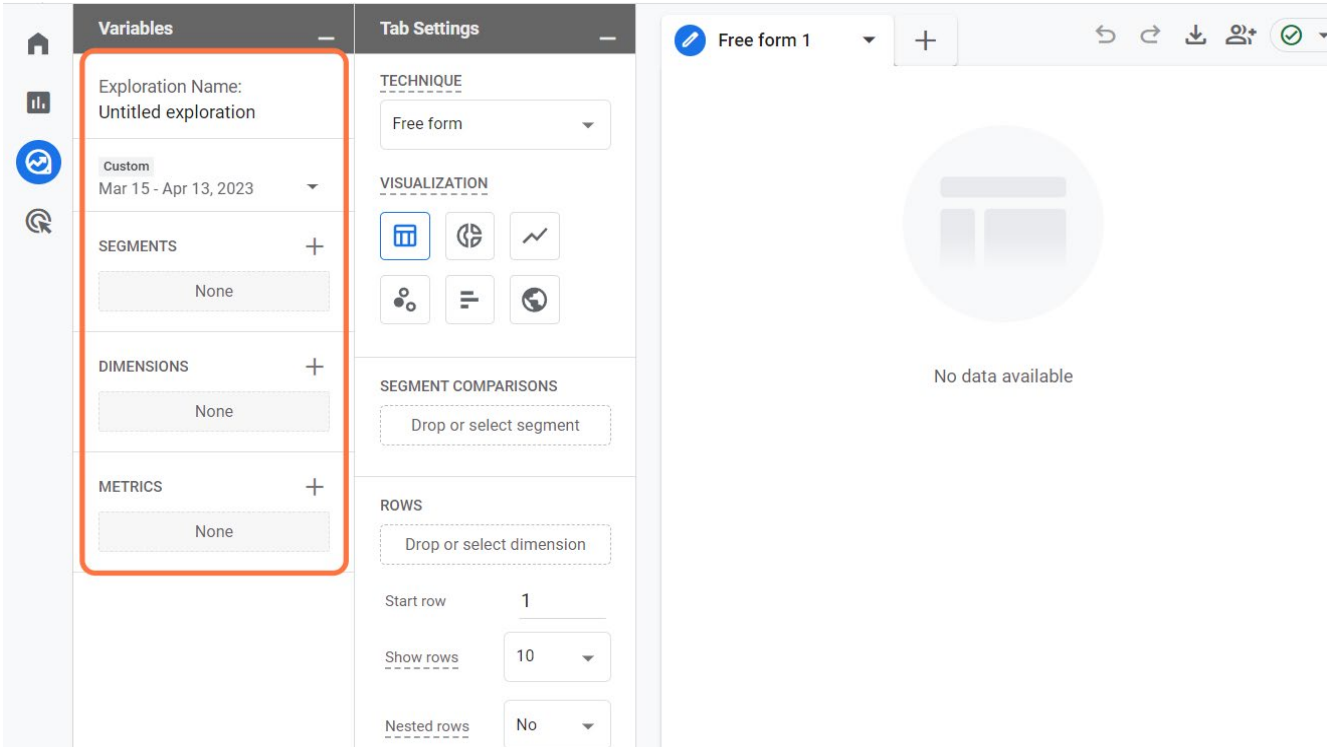
You can **choose from different templates in the gallery,** such as funnel analysis, path analysis, segment overlap, or cohort analysis,



or start from scratch and build your own report using various charts and tables.

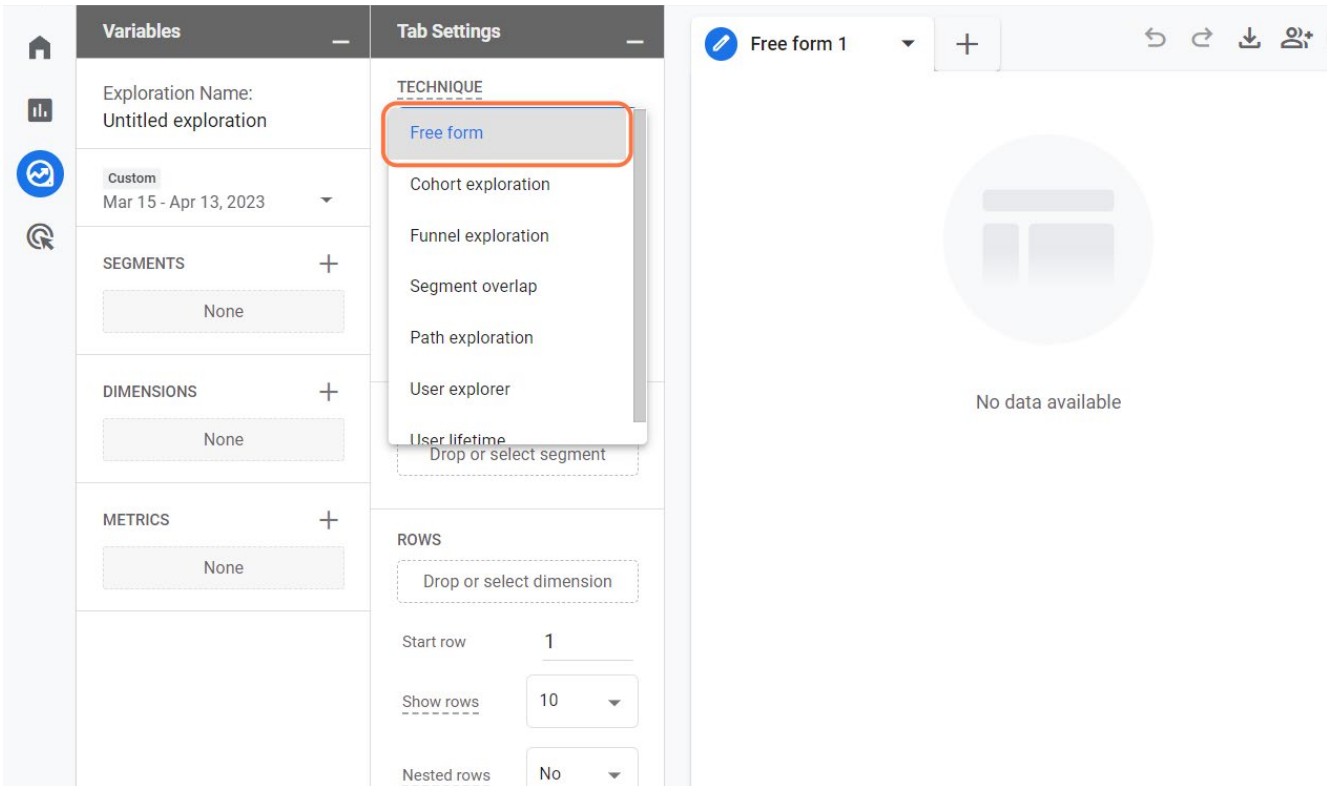


You can **apply filters, segments, and comparisons** to drill down into the details and uncover insights.

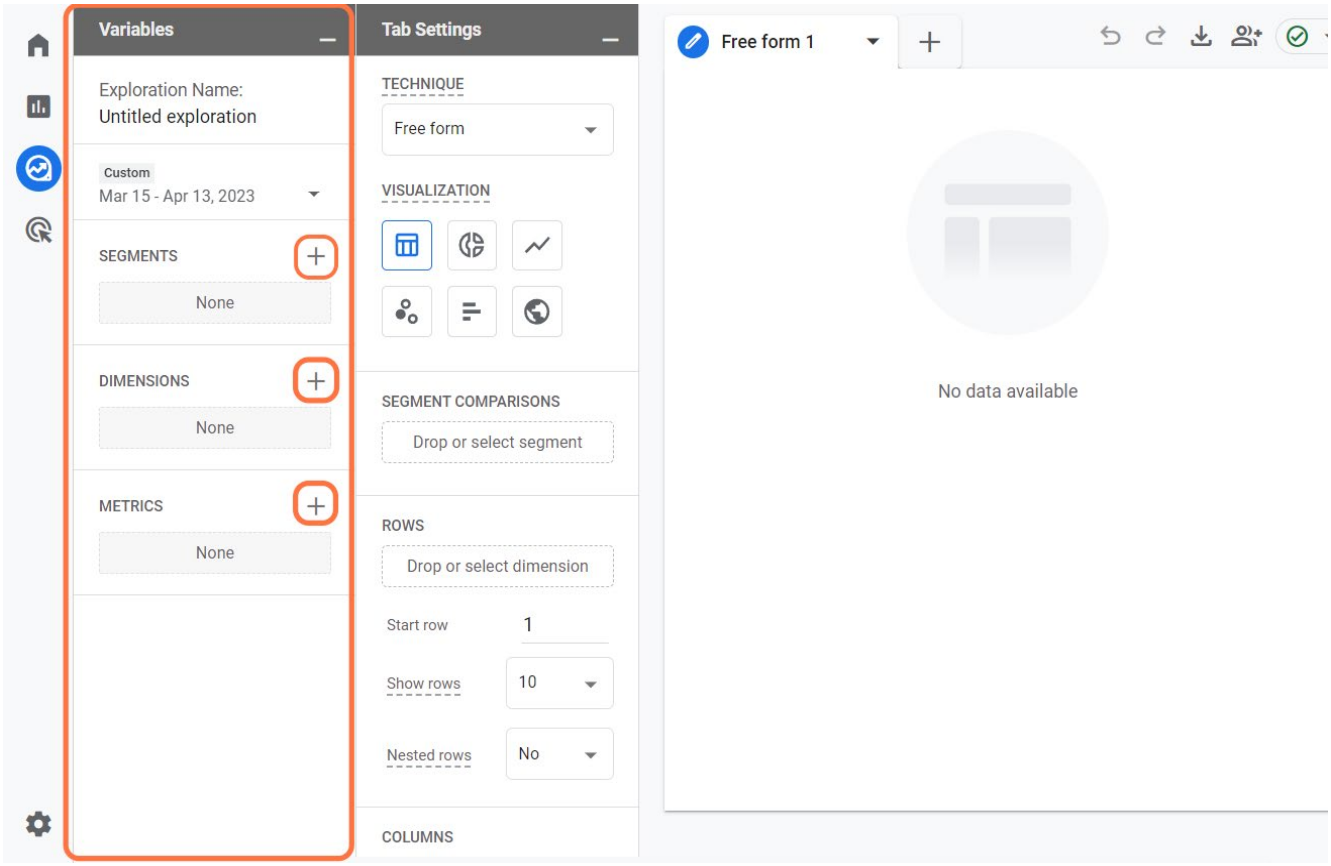


Create Your Report in Google Analytics 4 step-by-step

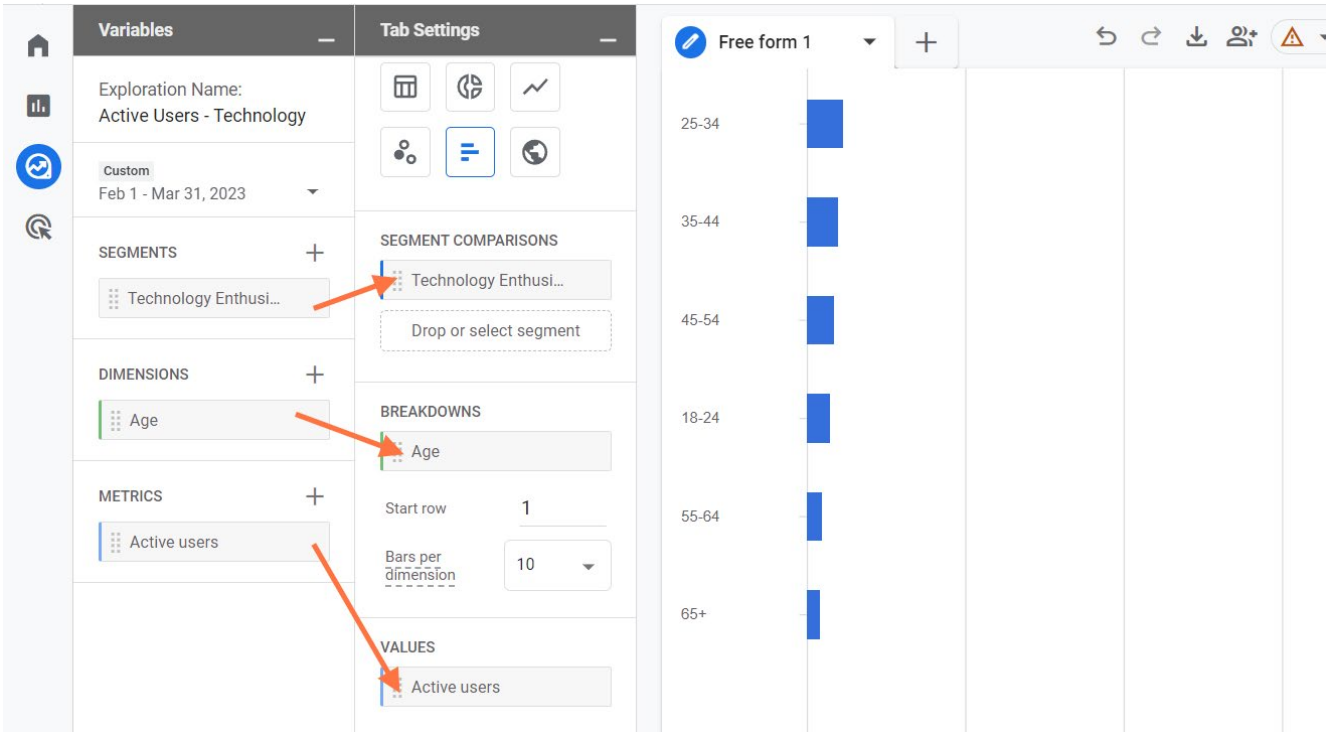
1. Choose analysis technique.



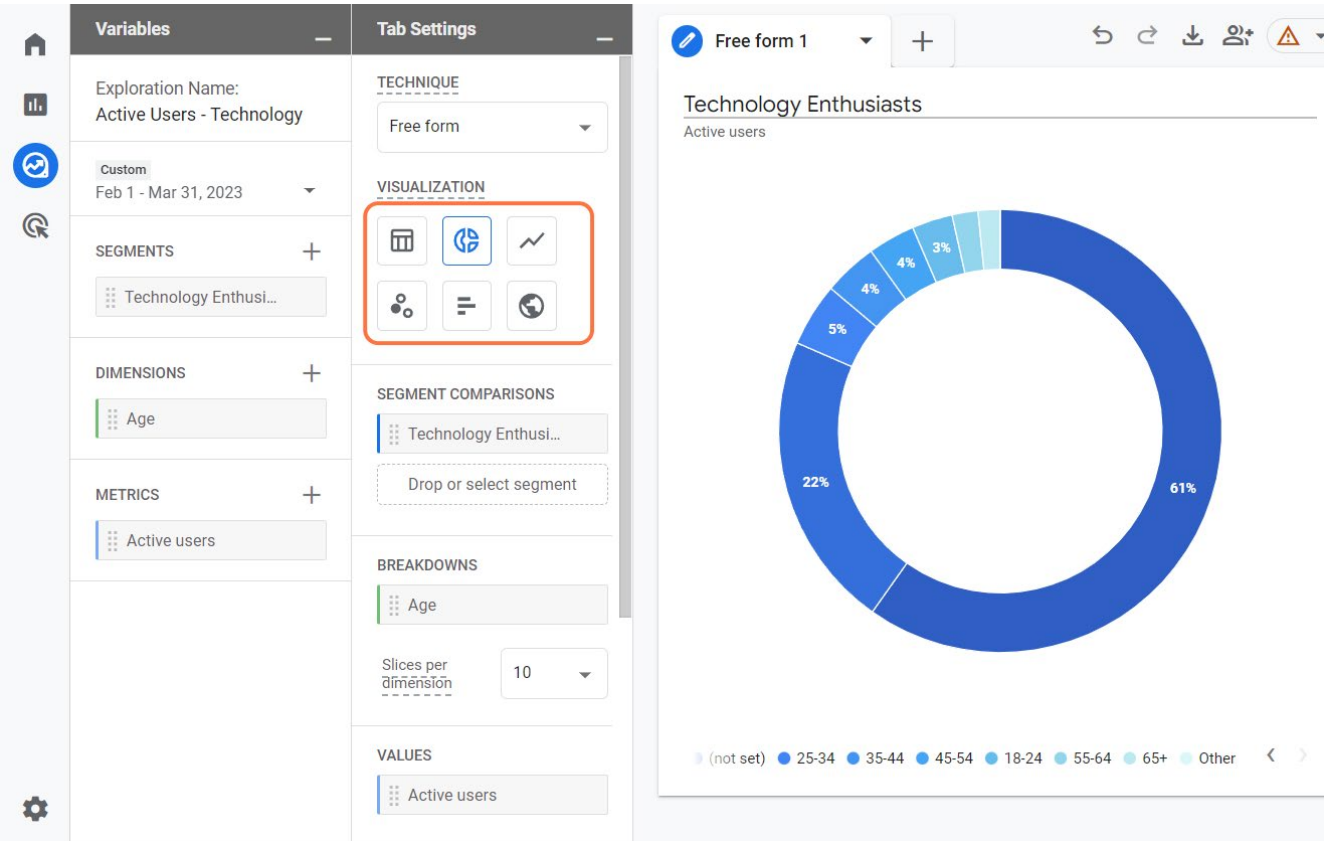
2. Configure your report settings. Name your report, set period, and add segments, dimensions, and metrics.



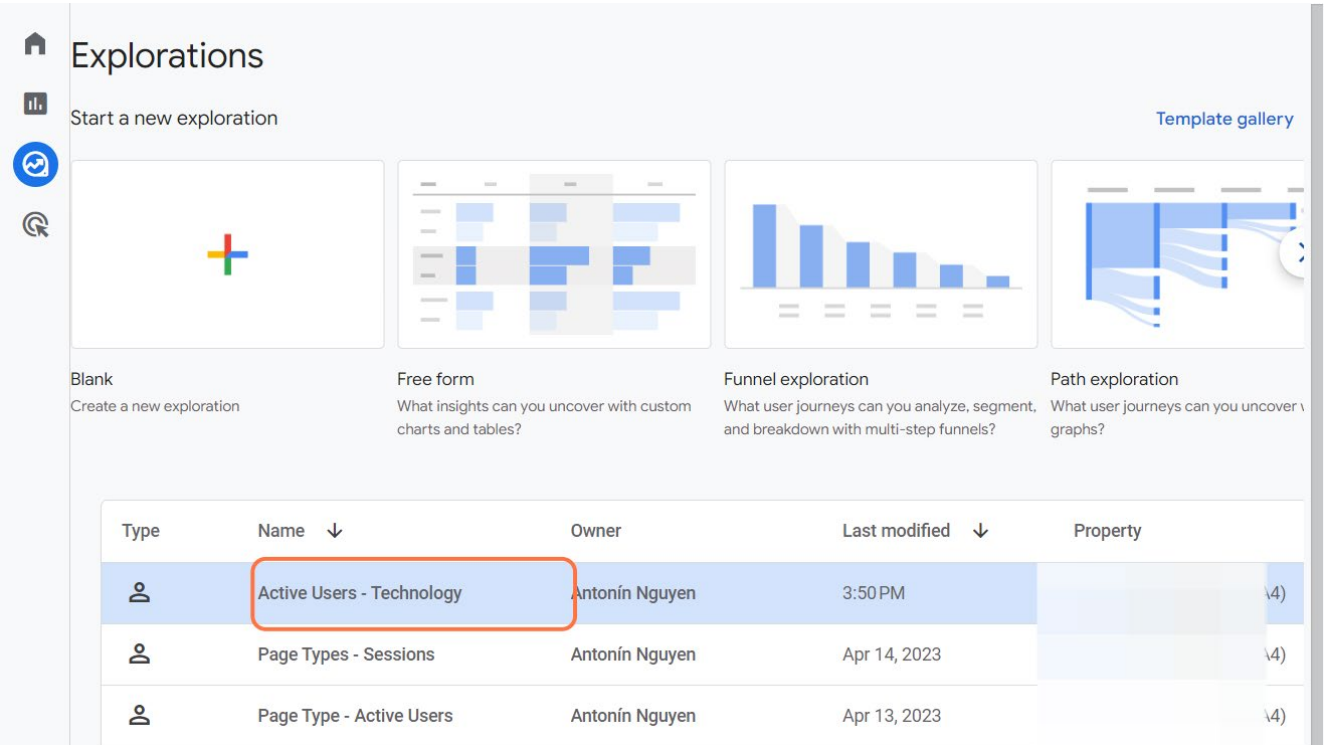
3. Drag each component to the corresponding blocks.



4. Customize your report layout and visualization options.



5. Completed! There's no save button. Locate your report on the Explorations page.



Different Types of GA 4 Reports

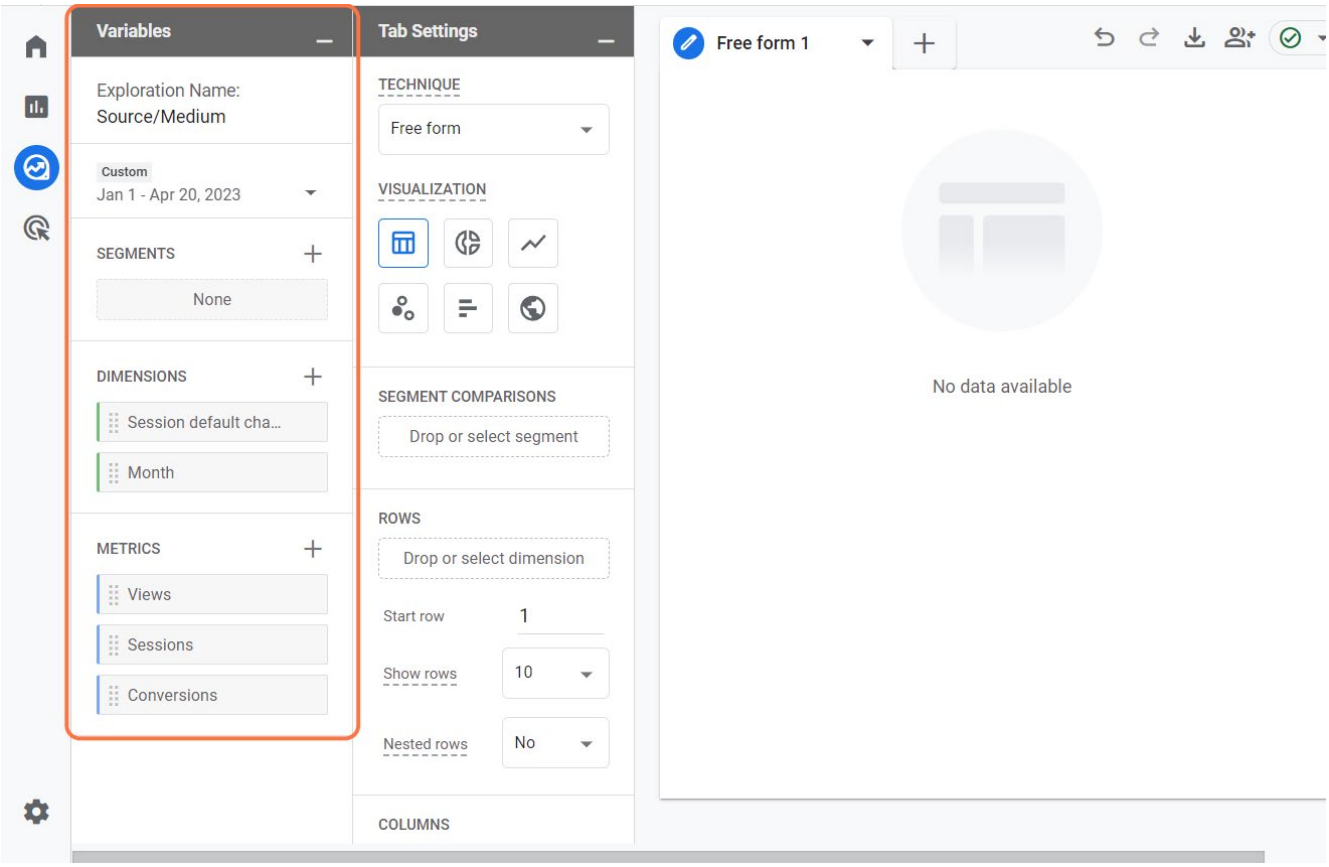
Creating tailored reports in Google Analytics 4 is key to understanding your website's performance and boosting its success. Now, I will create two of the many reports I'll review monthly. I encourage you to explore various report types in Google Analytics 4. **Customize them to your objectives** for optimal results.

Source/Medium Report

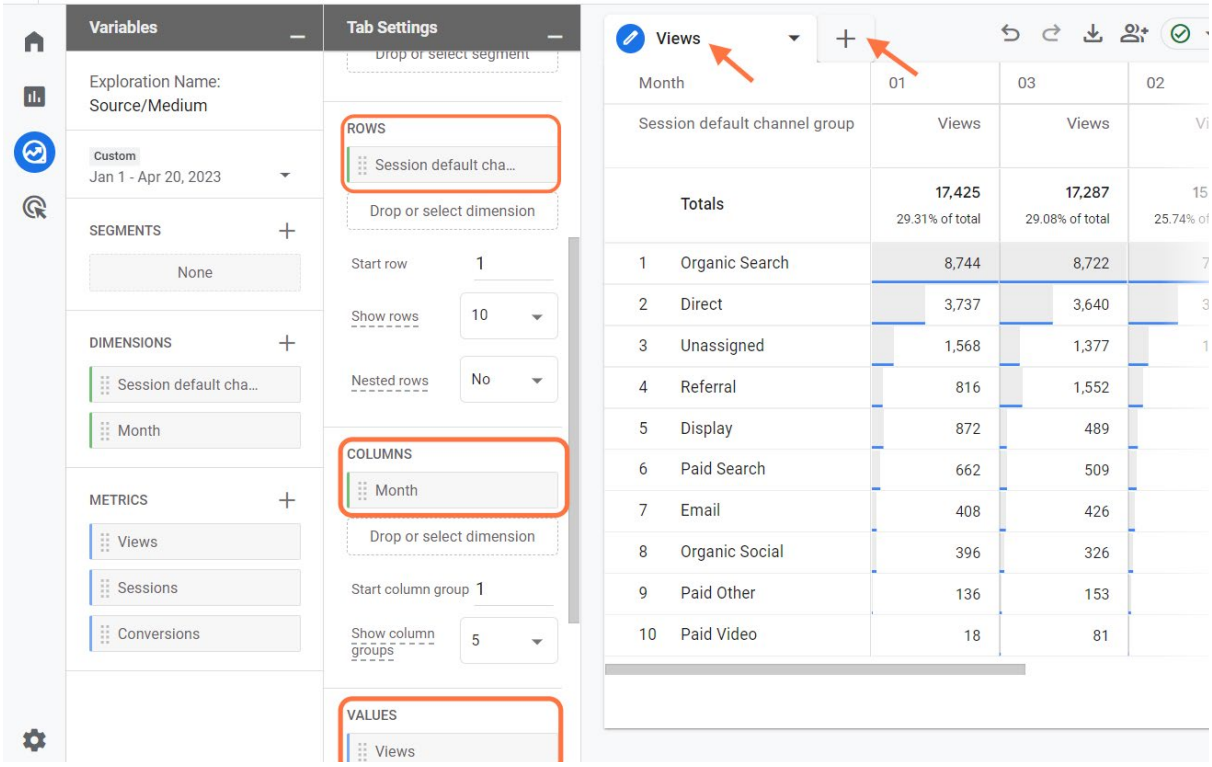
The Source/Medium report reveals the **sources that bring visitors to your website.** Use this information to decide where to invest your time and money for the best results.

Name your report and set the period you want to review. Then select the building blocks of this specific report as follows:

Note: Full name of the first dimension is Session default channel group



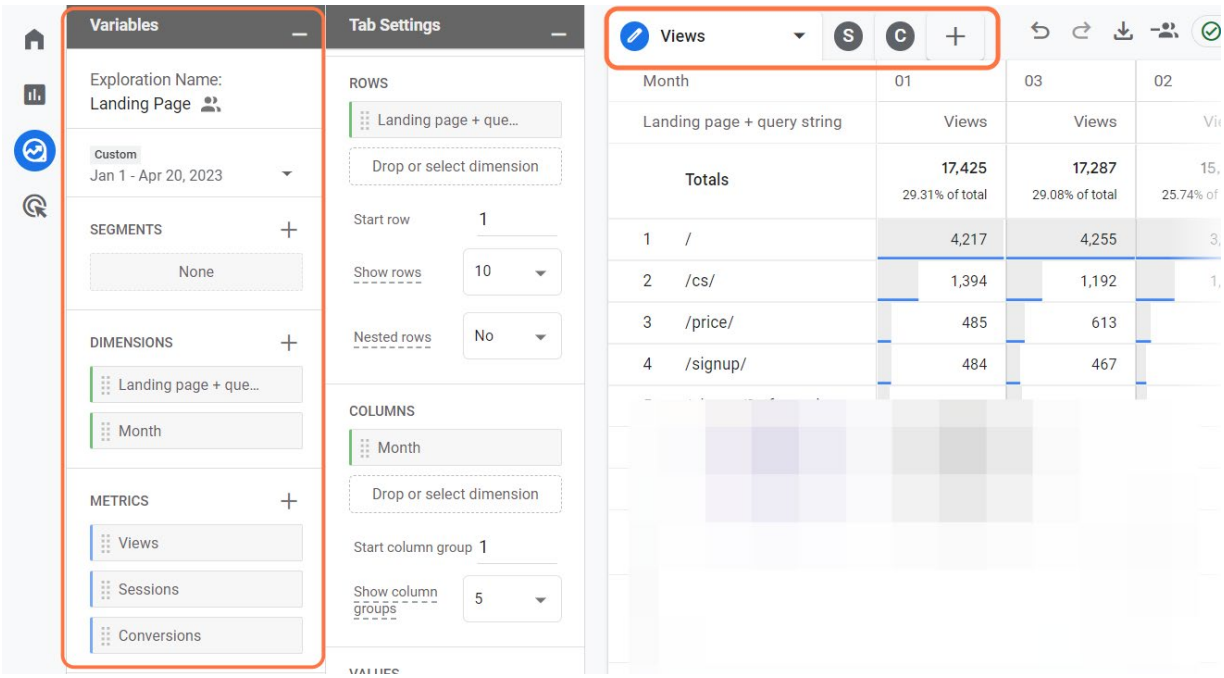
Drag and drop components to the corresponding blocks. To better navigate through these reports, create a new form for each metric we have defined (Views, Sessions, Conversions).



Landing Page Report

A landing page is the **first page that a user sees when they visit your website.** Optimize your landing pages for conversions, as it can influence the user's decision to stay on your website or leave. Knowing how different landing pages perform enables you to make smart changes that keep users engaged and interested.

Select the building blocks for this specific report. Again, make sure to create a new form for each metric to navigate yourself better.



Pro Tip

Copywriting is a special way of writing that helps convince people to do something, like buy a product or sign up for a newsletter. It's important for websites, especially on landing pages. It's crucial to make them interesting and exciting! Good copywriting can make people want to learn more, sign up for something, buy something, or even get hired. In a world with so many websites, great copywriting helps a landing page stand out and get more people to act.

Conclusion and Final Words

Starting this journey, I was like a detective trying to crack the case of Universal Analytics and Google Analytics 4. Then, I had to figure out how to smoothly switch between the two. It was like going on a grand adventure of discovery.

Stepping into my role as the new marketing content manager at eWay-CRM, I felt like I'd just been handed a Rubik's Cube named Google Analytics 4. In my last job, it was different. Whenever I needed data reports, I had a whole squad of analysts who'd swoop in and save the day.

But suddenly, I had to crack the code of this new tool myself. The analysts were gone, and the familiar interface of Universal Analytics was replaced by the new, somewhat daunting layout of Google Analytics 4.

Writing each of the four parts of this series was like climbing a mountain. With every step, I was not just learning to use the tool, but also sharpening my skills and gaining confidence.

This guide is like a travel diary of that journey. It's here to pass on the knowledge and hands-on experience you need to become a Google Analytics 4 (GA4) wizard. Just like the great Albert Einstein said, "The only source of knowledge is experience." So, keep learning, keep trying new things, and keep tweaking your strategies based on what the data tells you.

I want to give a big shout-out to Zdeněk Hejl, a professional data analyst who guided me along this path. Also, hats off to Jan Lalinský, who gave me the chance to create this series, and now this chunky eBook.

As you set off on your own data adventure, I wish you all the luck. Don't shy away from challenges. Instead, treat them like brain teasers that make you smarter. Remember, as the saying goes, "What doesn't kill you, makes you stronger."

To wrap up, remember, your journey, like mine, will have its ups, downs, and aha! moments. It's these experiences that make the journey exciting. In the world of digital marketing, data isn't just a bunch of numbers—it's a story waiting to be told.

As you progress on your path of growth and learning, we kindly invite you to visit our eWay blog as well. Go ahead and take your time exploring it. I hope it helps you in your quest for knowledge and success.

Be effective.