

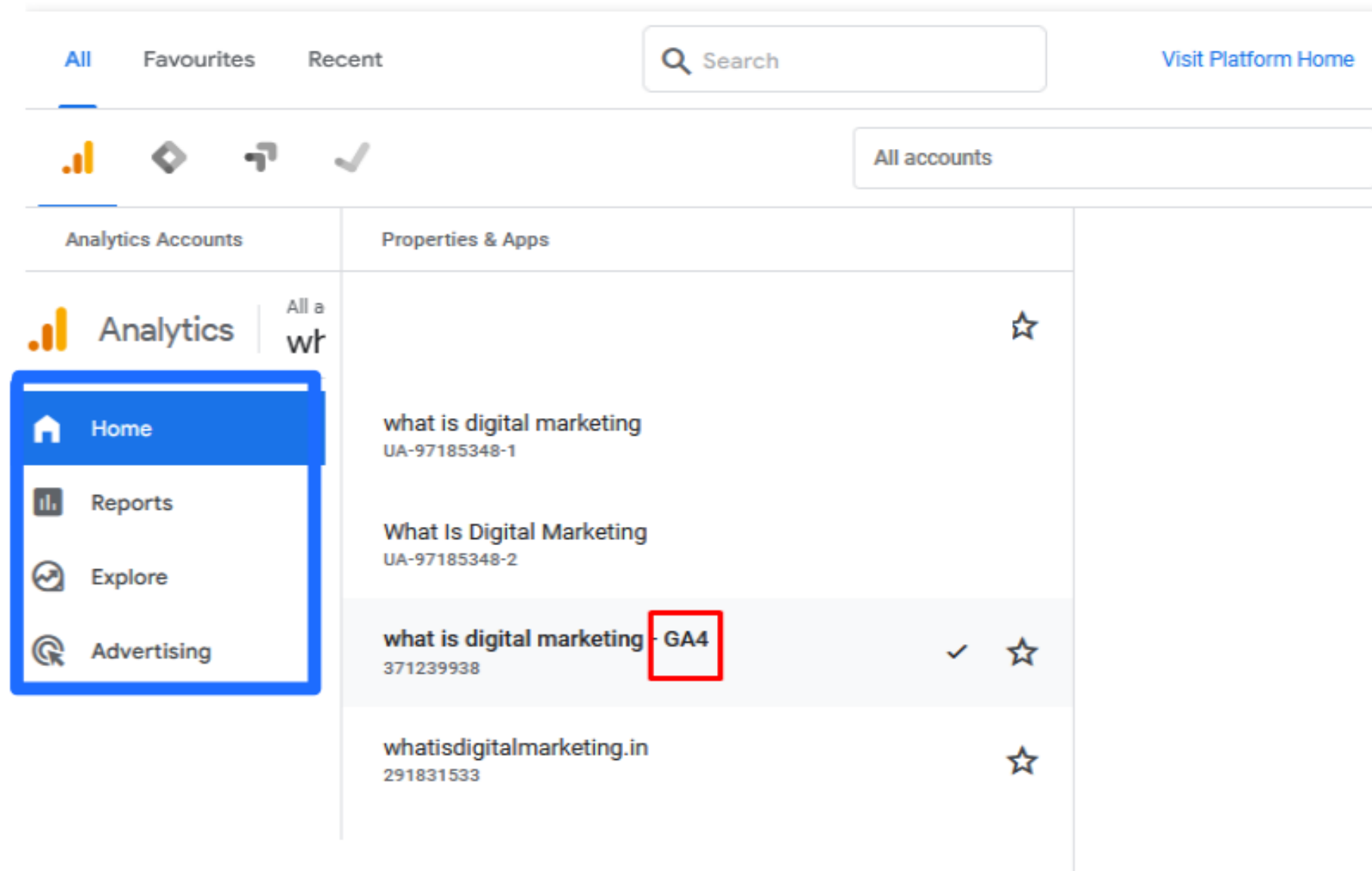
A Comparative Study of Google Universal Analytics & Google Analytics 4 with detailed explanation of GA4 features



ANALYTICS

Introduction

Google Analytics 4 is the next generation of analytics from Google that provides smarter insights for better marketing decisions. It offers a more holistic view of user behavior across different devices and platforms, while Universal Analytics is based on cookies and sessions.

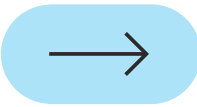


Features of Google Universal Analytics

Tracks website visitors and their behavior using cookies.



Provides data on user demographics, interests, and location.



Enables e-commerce tracking and goal setting for website conversions.



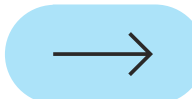
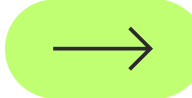
Features of Google Universal Analytics

Data Collection: UA collects data on website traffic, user behavior, and conversion rates through cookies and tracking codes.

Customizable Reports: UA provides customizable reporting options that allow users to create reports specific to their business needs.

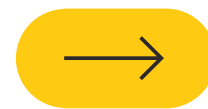
Goal Tracking: UA allows users to set and track goals, such as completing a purchase or filling out a contact form.

E-commerce Tracking: UA provides e-commerce tracking capabilities that allow businesses to track sales and revenue from their website.

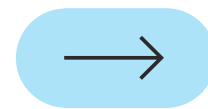


Features of Google Analytics 4

Cross-device and cross-platform tracking.



AI-powered insights and predictions.



Event tracking without coding skills needed.

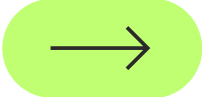


Features of Google Analytics 4

Event-Driven Data Model: GA4 uses an event-driven data model that allows for more flexible tracking and reporting of user behavior.



Cross-Device Tracking: GA4 provides better cross-device tracking capabilities, allowing for a more accurate view of user engagement across multiple devices and platforms.



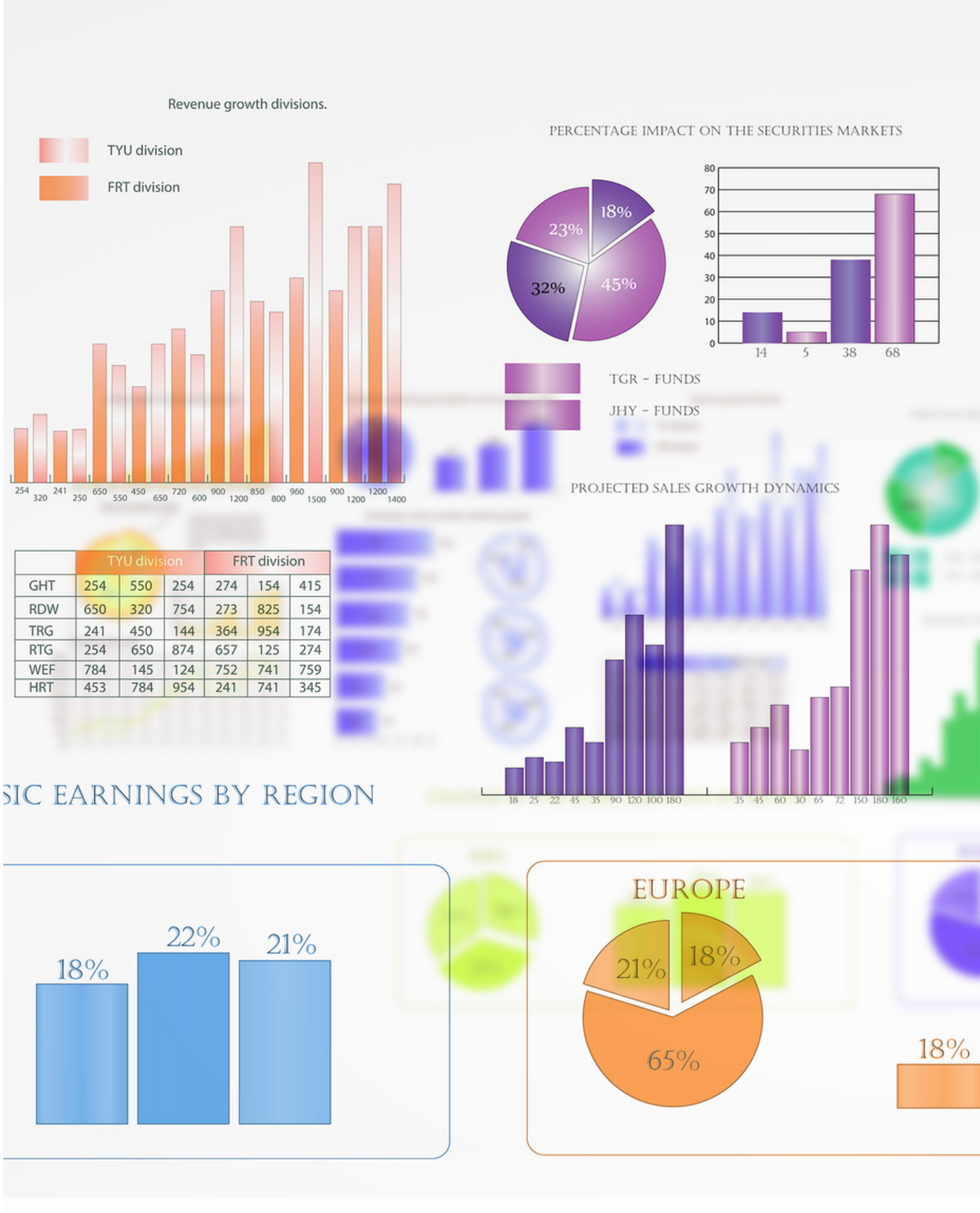
Predictive Analytics: GA4 incorporates machine learning to provide predictive analytics and automated insights into user behavior and engagement.



Customizable Reporting: GA4 provides customizable reporting options that allow users to create reports specific to their business needs.



Integration with Google Ads: GA4 provides integration with Google Ads, making it easier to track and optimize ad campaigns.



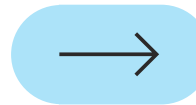
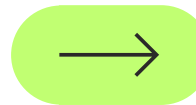
Differences between Google Universal Analytics & Google Analytics 4

Google Universal Analytics (UA) is a version of Google Analytics that was launched in 2012.

It uses cookies to track user behavior and provides insights into website traffic, user engagement, and conversion rates.

Google Analytics 4 (GA4) is the latest version of Google Analytics that provides a more advanced and flexible tracking system than its predecessor, Google Universal Analytics (UA).

GA4 was launched in 2020 and incorporates machine learning and a user-centric approach to provide more accurate and relevant insights into user behavior and engagement.

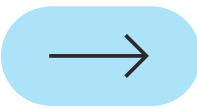


Advantages of Google Universal Analytics

Provides a complete view of user behavior across multiple platforms.



Customizable reports and dashboards for deeper insights.



Integration with Google Ads and other Google marketing tools.

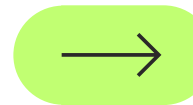


Advantages of Google Universal Analytics

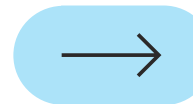
Improved Website Performance: UA provides insights into website traffic, user behavior, and conversion rates, allowing businesses to identify areas for improvement and optimize their website's performance.



Increased ROI: UA's goal tracking and e-commerce tracking capabilities allow businesses to track their return on investment (ROI) and make data-driven decisions to improve their website's performance.



Customizable Reporting: UA's customizable reporting options allow businesses to create reports specific to their business needs, providing a more comprehensive view of their website's performance.

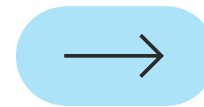


Advantages of Google Analytics 4

More data controls and privacy features.



Enhanced cross-device tracking capabilities.



Smarter insights with machine learning and AI-powered analysis.

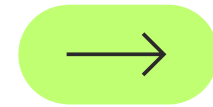


Advantages of Google Analytics 4

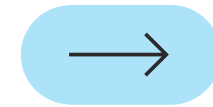
More Accurate Data: The event-driven data model in GA4 provides a more accurate view of user behavior and engagement, allowing businesses to make more informed decisions.



Better User Insights: The user-centric approach in GA4 provides insights into individual user behavior and engagement, allowing businesses to create more personalized experiences for their customers.



Improved Cross-Device Tracking: GA4's improved cross-device tracking capabilities allow businesses to better understand how users interact with their website across multiple devices and platforms.



Predictive Analytics: GA4's predictive analytics and automated insights provide businesses with actionable information to improve their website's performance and user experience.



Customizable Reporting: GA4's customizable reporting options allow businesses to create reports specific to their business needs, providing a more comprehensive view of their website's performance.

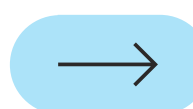


Disadvantages of Google Universal Analytics

Limited Cross-Device Tracking: UA has limited cross-device tracking capabilities, which may limit its usefulness for businesses with users that interact with their website across multiple devices and platforms.

Inaccurate Data: UA's data collection method relies on cookies, which can be blocked or deleted by users, leading to inaccurate data.

Limited Real-Time Data: UA's real-time reporting capabilities are limited compared to other analytics tools, which may limit its usefulness for businesses that require real-time data.

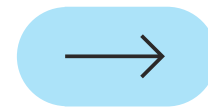


Disadvantages of Google Analytics 4

Learning Curve: GA4 has a steeper learning curve than its predecessor, Google UA, due to its more advanced tracking system and new features.



Limited Historical Data: GA4 cannot import data from Google UA, which means businesses starting with GA4 will have limited historical data to work with.



Limited Third-Party Integrations: GA4 has limited third-party integrations compared to Google UA, which may limit its usefulness for some businesses.



Feature to Feature Comparison of Google Universal Analytics (GUA) with Google Analytics 4 (GA4)

GUA. Focus on sessions

GA4. Focus on users

GUA. Page impressions as standard event

GA4. 6 events such as scroll, click as standard events

GUA. Definition of events via GTM

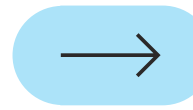
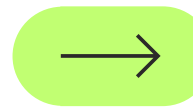
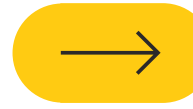
GA4. Definition of events via data streams

GUA. Tracking only with cookies

GA4. Cookie-less tracking in the future

GUA. Account property & data view

GA4. Account & Property level



Feature to Feature Comparison of Google Universal Analytics (GUA) with Google Analytics 4 (GA4)

GUA. Data storage for 14, 26, 38, 50 months

GA4. Data storage for 2 & 14 months

GUA. Strong filters for data view

GA4. No filter options, except for internal traffic

GUA. Configuration of custom goals

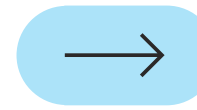
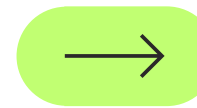
GA4. Easy activation of standard goals

GUA. 20 goals per data view, 25 data views

GA4. Definition of max 30 events as a conversion

GUA. 100 properties per account

GA4. 100 properties per account



Feature to Feature Comparison of Google Universal Analytics (GUA) with Google Analytics 4 (GA4)

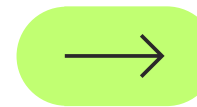
GUA. Superficial live analysis

GA4. Detailed live analysis



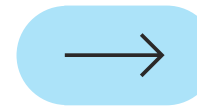
GUA. Visualization of reports & Dashboards

GA4. Strong Analysis hub



GUA. Easy ML algorithm for analysis

GA4. Built-in ML for analysis



GUA. Segments instead of audiences

GA4. Audience instead of segments



GUA. Advanced filters for standard expressions

GA4. Simple table filters



A brief on Google UA and GA4 differences

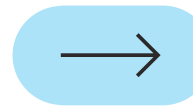
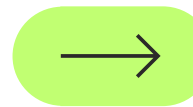
Google Universal Analytics provides a comprehensive view of website traffic, user behavior, and conversion rates through its data collection and reporting capabilities.

While it may have limitations in cross-device tracking and real-time reporting, the benefits of UA make it a valuable tool for businesses looking to improve their website's performance and track their ROI.

Google Analytics 4 provides a more advanced and flexible tracking system that incorporates machine learning and a user-centric approach to provide more accurate and relevant insights into user behavior and engagement.

While there may be a learning curve and limited historical data, the benefits of GA4 make it a valuable tool for businesses looking to improve their website's performance and user experience.

Both GA and GA4 offer valuable insights for businesses. Google UA provides traditional reporting and GA4 provides advanced analysis and prediction. As Google UA is expiring on 30th June, 2023, GA4 becomes the compulsory option to use.



How you set up Google Analytics 4

Analytics | All accounts > Demo Account | GA4 - Google Merch Shop

ADMIN | USER

Property [+ Create Property](#)

01 Main Property 121WATT (01) (UA-5...

[Upgrade to GA4](#) 1

Property Settings

Property User Management

Tracking Info

Property Change History

Data Deletion Requests

PRODUCT LINKING

Google Ads Linking

Upgrade to Google Analytics 4 Not connected

Get started with Google Analytics 4 properties. [Learn More](#)

- Set up a Google Analytics 4 property based on this Universal Analytics property's settings
- This Universal Analytics property remains unchanged and continues to collect data.
- You'll set up data collection for your new Google Analytics 4 property. More tools to copy your configurations to your connected Google Analytics 4 property will become available over time.

I need to create a new Google Analytics 4 property

We'll connect the property to a new Google Analytics 4 property, so that you don't have to start with existing tagging and settings.

[Get Started](#) 2

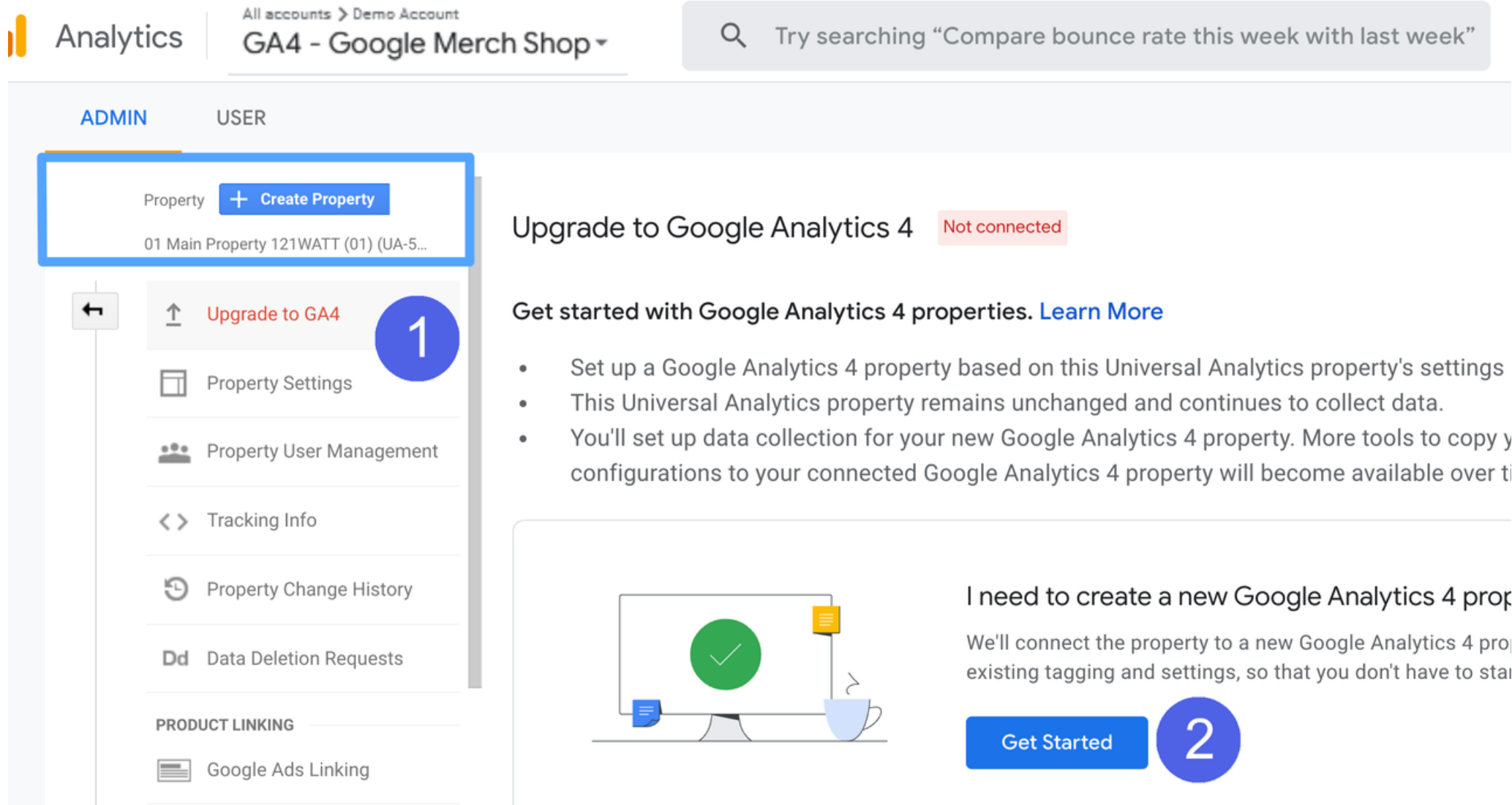
#1 SetUp GA4 now

Create a Google Analytics 4 Property that, in Google's opinion, has no bearing on your current UA Property. →

Now, fundamental settings (user rights) from the Universal Analytics Property can be replicated. →

You may now visit the setup assistant to define more details. Even if you now create a new GA4 Property, the interface is the same. →

How you set up Google Analytics 4



#2 Settings of Google Analytics 4

Exclusion of internal traffic →

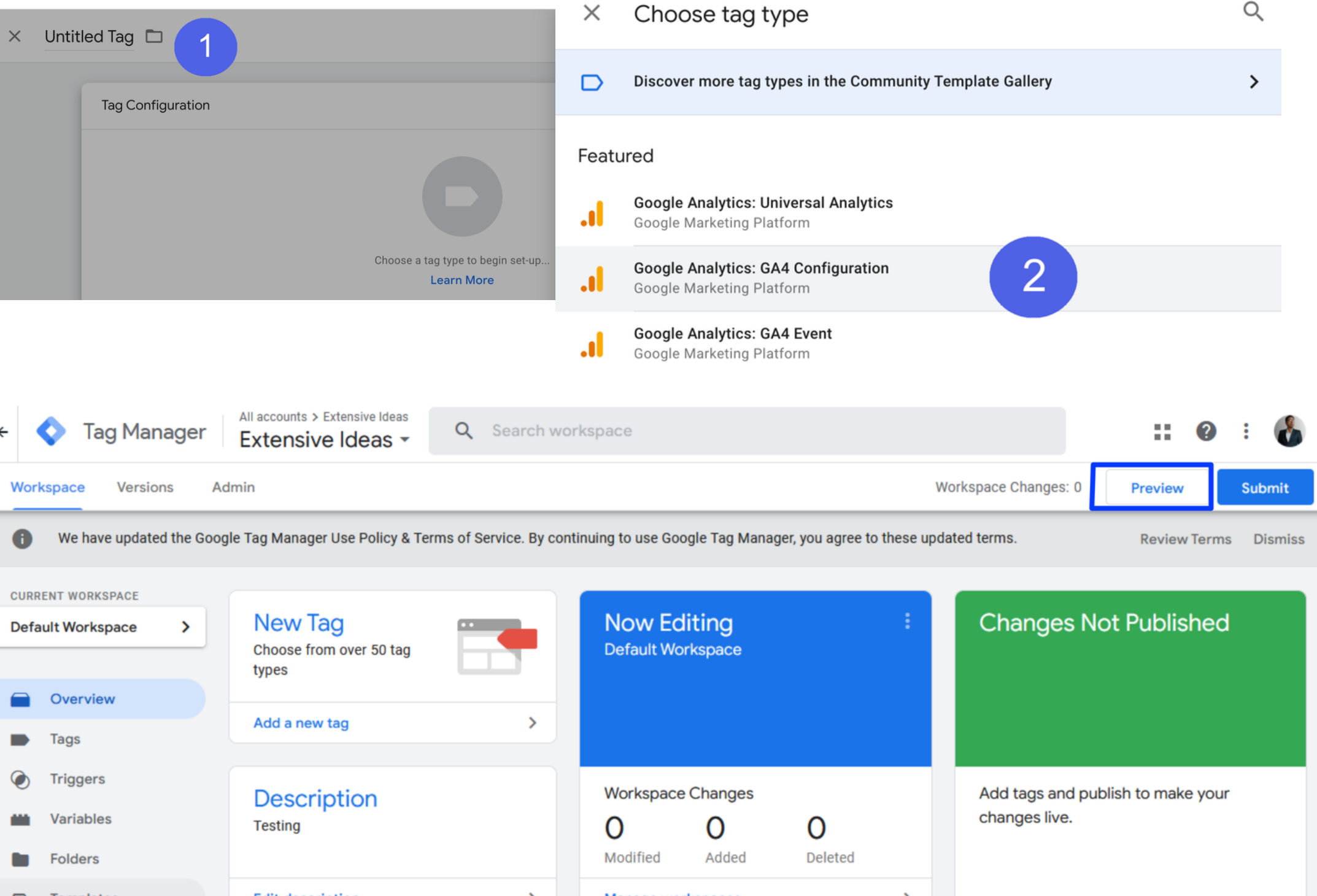
Cross-domain tracking →

Google signals, e.g. for cross-device tracking. With this, you get more information on users that are signed in with their Google account and allow personalized ads →

Connect Google Ads with your GA4 Property →

Set up conversions →

How you set up Google Analytics 4



Integrate GA4 via Google Tag Manager


Create a new TAG in GTM 

In Tag Configuration choose a tag type. 

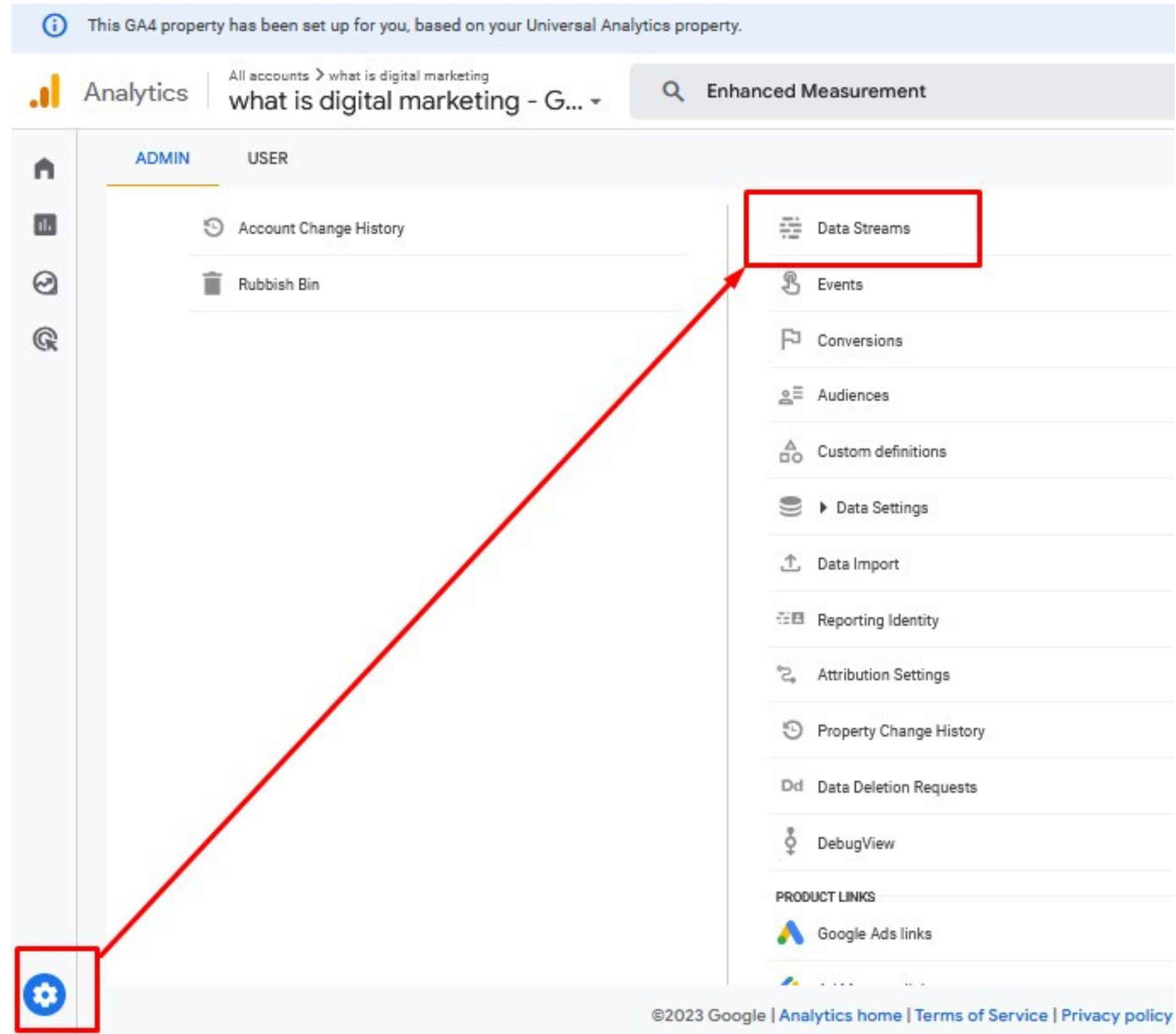
Select Google Analytics: GA4 Configuration 

Define Google Analytics: GA4 event 

Test in preview 

Now, go live with your new GA4 tag and start collecting data in your new Property 

Exclude internal traffic



#Step 1

Go to Admin Settings of GA4 Property



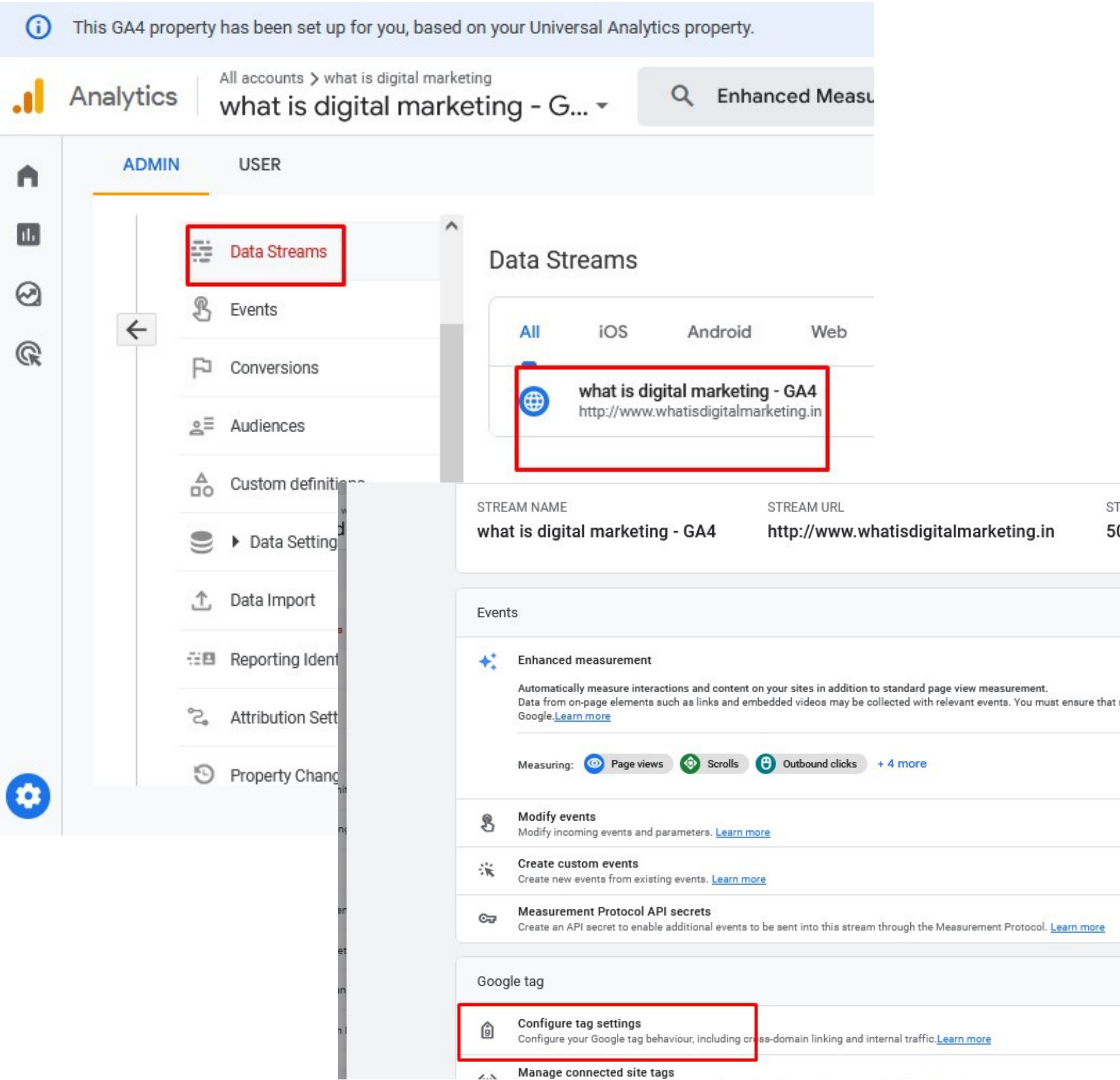
Click on the Data Streams



This will take to the next step



Exclude internal traffic

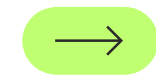


#Step 2

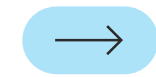
Click on the GA4 Property under All/IOS/Android/Web



It will open a new window



Click on Configure tag settings



Exclude internal traffic

Google tag | what is digital marketing - GA4

Configuration | History | Admin

Google tag | what is digital marketing - GA4

Settings

Some tag settings apply only to specific destinations

- Manage automatic event detection
- Configure your domains
- Allow user-provided data capabilities
- Collect Universal Analytics events
- Define internal traffic** (highlighted with a red box)
- List unwanted referrals

Create internal traffic rule | what is digital marketing - GA4

Define traffic that should be marked as internal. Incoming traffic from matching IP addresses will have a "traffic_type" parameter appended with the selected value. [Learn more](#)

Configuration

Rule name: Example: Corporate headquarters

traffic_type value: internal

IP addresses [What's my IP address?](#)

Match type: IP address is in range (CIDR notation) | Value: Example: 192.0.2.0/24

[Add condition](#)

#Step 3

Click on Define Internal Traffic 

Create new IP based rule 

Configure the internal traffic for the IP 

Define internal traffic | what is digital marketing - GA4

Internal traffic rules [Create](#)

No rules yet. Click "Create" to begin. [Learn more](#)

GA4 User Interface

Analytics | All accounts > what is digital marketing | what is digital marketing - G... | Try searching "how many users last month vs last year" | 18

Reporting | Home | All Users | Add comparison +

15 16 17

Reporting

- Home 1
- Real-time 2

LIFE CYCLE

- Acquisition 3
- Engagement 4
- Monetisation 5
- Retention 6

USER

- Demographics
- Tech

EVENTS

- Conversions 8
- All events 9

EXPLORE

- Analysis 10

CONFIGURE

- Audiences 11
- User properties 12
- DebugView
- Admin 13

Home

Users: 64, New users: 64, Event count: 258, Average engagement time: 0m 33s

14

USERS IN LAST 30 MINUTES: 33

USERS PER MINUTE

TOP COUNTRIES

COUNTRY	USERS
Germany	29
Switzerland	2
Austria	1
Netherlands	1

INSIGHTS 2

- AUTOMATED INSIGHT New: Performance week-over-week. From the 15th to the 21st of November, 2020.
- AUTOMATED INSIGHT New: Event count per user was 216% higher than average for users from source " " who triggered "page_view". From the 15th to the 21st of November, 2020.

WHERE DO YOUR NEW USERS COME FROM?

New users by User medium

User medium	Count
organic	~2500
referral	~1500
cpc	~1000
(none)	~800
email	~500
post	~200

WHAT ARE YOUR TOP CAMPAIGNS?

Sessions by Session medium

SESSION MEDIUM	SESSIONS	Change
organic	3.1K	↑ 5.4%
email	992	↓ 21.1%
referral	991	↑ 16.3%
(none)	765	↓ 25.1%
cpc	595	↑ 5.5%
post	16	↓ 54.3%

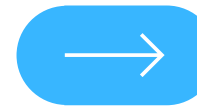
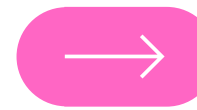
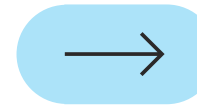
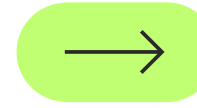
WHERE ARE YOUR USERS VISITING FROM?

Users by Country

COUNTRY	USERS
Germany	13K
Austria	1.3K
Switzerland	881
Italy	139
Spain	49
Netherlands	38

GA4 User Interface

1. Home: View important reports and ML analyses at a glance.
2. Real-time: See what users are doing on your website right now.
3. Acquisition: Understand how users are arriving at your site, including UTM parameters.
4. Engagement: Measure how users interact with your content and events.
5. Monetization: Track revenue generation through e-commerce integration.
6. Retention: Monitor user retention and cohort analysis.
7. User: Analyze user demographics and technical characteristics.
- 8 & 9. User Interaction: Measure how users engage with your content and whether they are achieving desired goals. (UA= Behavior > Events)



GA4 User Interface

10. Analysis: Configure detailed reports through dashboards and custom reports.

11. Audiences: Differentiate your target audience through segmentation.

12. User properties: Identify user characteristics through custom dimensions.

13. Admin: Manage Google Analytics 4 administration.

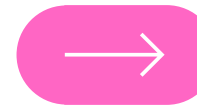
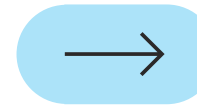
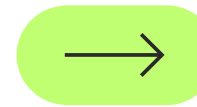
14. Reports: Customize homepage widgets to display specific reports.

15. Adapt reports: Adjust reports based on dimensions such as location and age.

16. Share reports: Share or export reports as needed.

17. Insights: Access pre-defined machine learning analysis questions in six categories.

18. Search bar: Use the search function to find analysis questions, such as "new user count this year."



How GA4 abide by GDPR Regulations

User Data Control: GA4 allows users to have greater control over their data by providing options to delete, restrict, or export their data. Users can also manage their consent settings for cookies and other tracking technologies.



Data Minimization: GA4 collects only the necessary data required for analysis, and users can set retention periods for their data. This helps ensure that user data is not stored for longer than necessary.



Anonymization: GA4 allows users to configure IP anonymization, which masks a portion of the user's IP address to prevent identification.



Customizable Settings: GA4 provides customizable settings that allow users to tailor their data collection and analysis according to their specific requirements.



Conclusion

Both Google UA and GA4 offer valuable insights for businesses. Google UA provides traditional reporting and GA4 provides advanced analysis and prediction. As Google UA is expiring on 30th June, 2023, GA4 becomes the compulsory option to use from 1st July, 2023.



Created by Mr Omkar Nath Nandi

Learn from me how GA4 works and benefits your business. I am a qualified digital marketing professional with a diverse skill set and extensive experience in the industry. I hold certifications from reputable organizations such as Google, Salesforce, and PMI-PMP, & I am also a Google Analytics Individual Qualification Certified Professional.

Over the course of 14 years, I have successfully executed digital marketing strategies for 500+ businesses worldwide and 80,000 students joined my courses on Udemy and Alison. Additionally, I have had the privilege of serving as a guest faculty at prestigious institutions such as the Indian Institute of Technology, Kharagpur, Indian Institute of Management, Calcutta, Coimbatore Institute of Technology, Coimbatore, and Army Institute of Management, Kolkata.

As a mentor to MBA students from IAE Montpellier, I have provided valuable insights and guidance to help them achieve their career goals.

