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

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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.
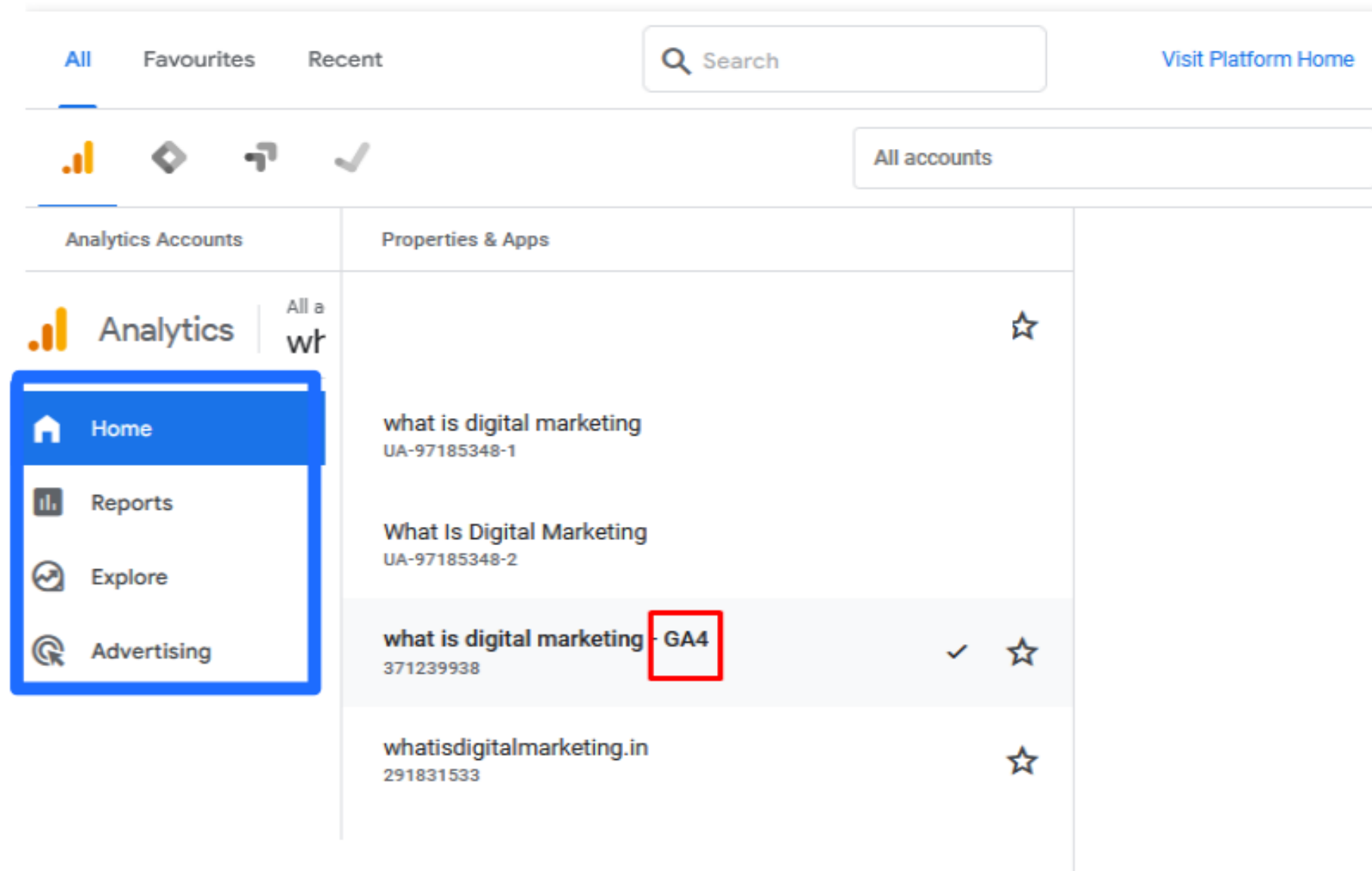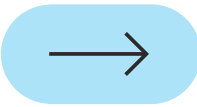
Features of Google Universal Analytics

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.

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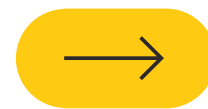
Goal Tracking: UA allows users to set and track goals, such as completing a purchase or filling out a contact form.

E-commerce Tracking: UA provides e-commerce tracking capabilities that allow businesses to track sales and revenue from their website.
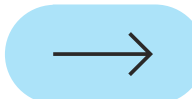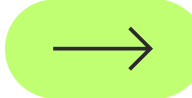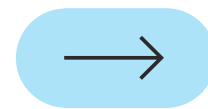
Features of Google Analytics 4

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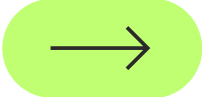
Predictive Analytics: GA4 incorporates machine learning to provide predictive analytics and automated insights into user behavior and engagement.

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.
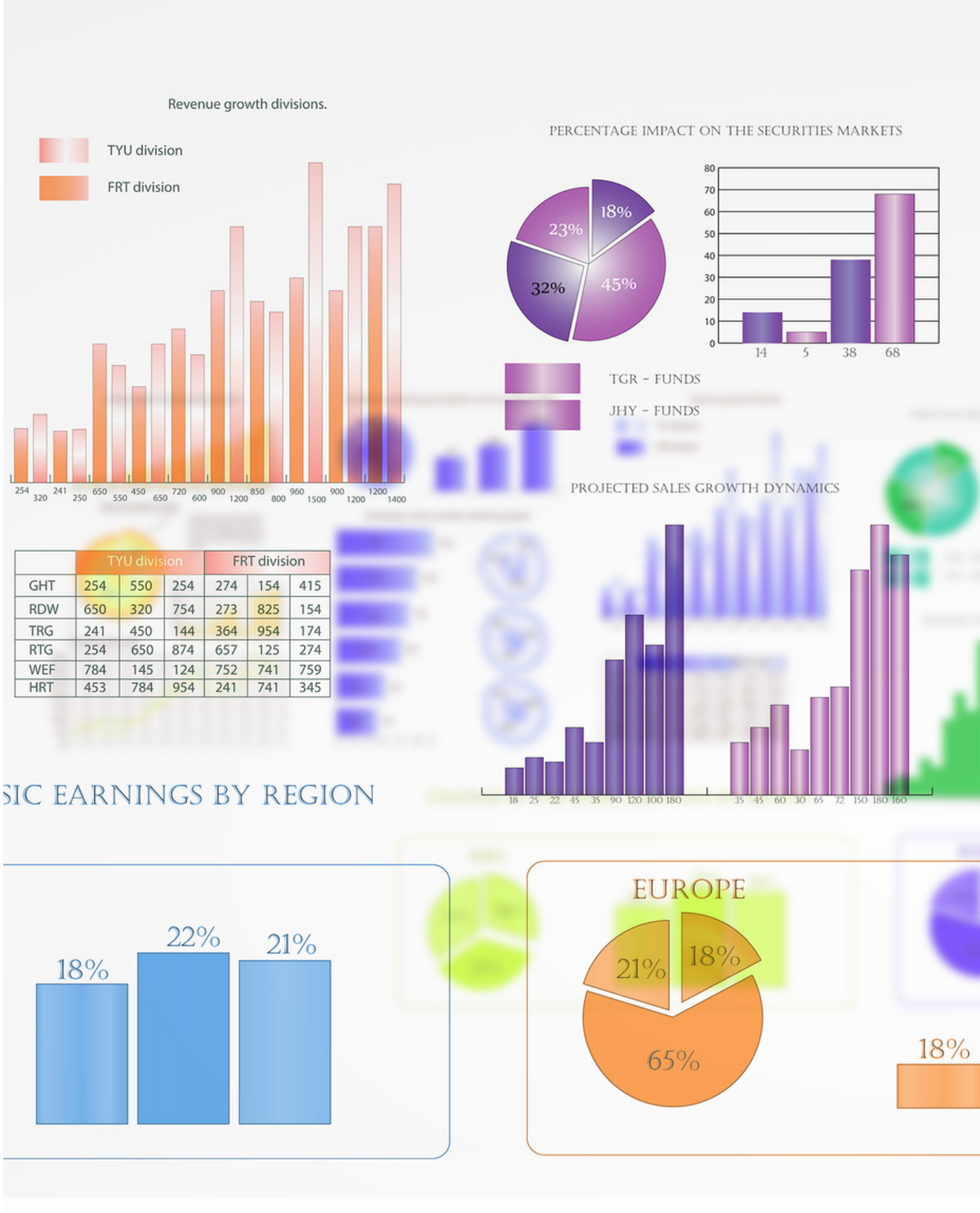
Differences between Google Universal Analytics & Google Analytics 4

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.
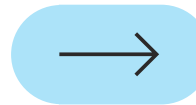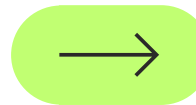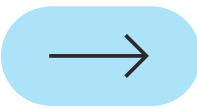
Advantages of Google Universal Analytics

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.
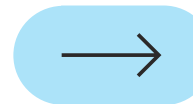
Advantages of Google Universal Analytics

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.
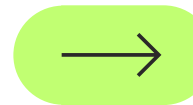
Customizable Reporting: UA's customizable reporting options allow businesses to create reports specific to their business needs, providing a more comprehensive view of their website's performance.
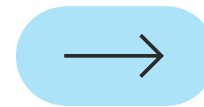
Advantages of Google Analytics 4

More data controls and privacy features.

Enhanced cross-device tracking capabilities.

Smarter insights with machine learning and AI-powered analysis.

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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.
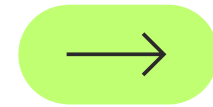
Improved Cross-Device Tracking: GA4's improved cross-device tracking capabilities allow businesses to better understand how users interact with their website across multiple devices and platforms.
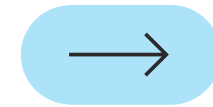
Predictive Analytics: GA4's predictive analytics and automated insights provide businesses with actionable information to improve their website's performance and user experience.

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.
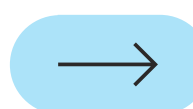
Disadvantages of Google Universal Analytics

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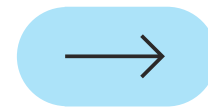
Limited Third-Party Integrations: GA4 has limited third-party integrations compared to Google UA, which may limit its usefulness for some businesses.

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

GUA. Focus on sessions
GA4. Fous on users

GUA. Page impressions as standard event
GA4. 6 events such as scroll, click as standard events
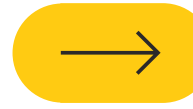
GUA. Definition of events via GTM
GA4. Definition of events via data streams

GUA. Tracking only with cookies
GA4. Cookie-less tracking in the future

GUA. Account property & data view
GA4. Account & Property level
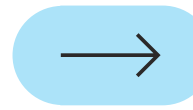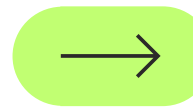
Feature to Feature Comparison of Google Universal Analytics (GUA) with Google Analytics 4 (GA4)

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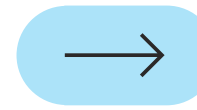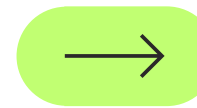
Feature to Feature Comparison of Google Universal Analytics (GUA) with Google Analytics 4 (GA4)

GUA. Superficial live analysis
GA4. Detailed live analysis

GUA. Visualization of reports & Dashboards
GA4. Strong Analysiss hub
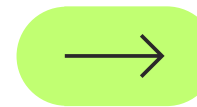
GUA. Easy ML algorithm for analysis
GA4. Built-in ML for analysis
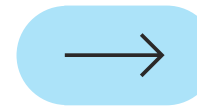
GUA. Segments instead of audiences
GA4. Audience instead of segments

GUA. Advanced filters for standard expressions
GA4. Simple table filters

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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

#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
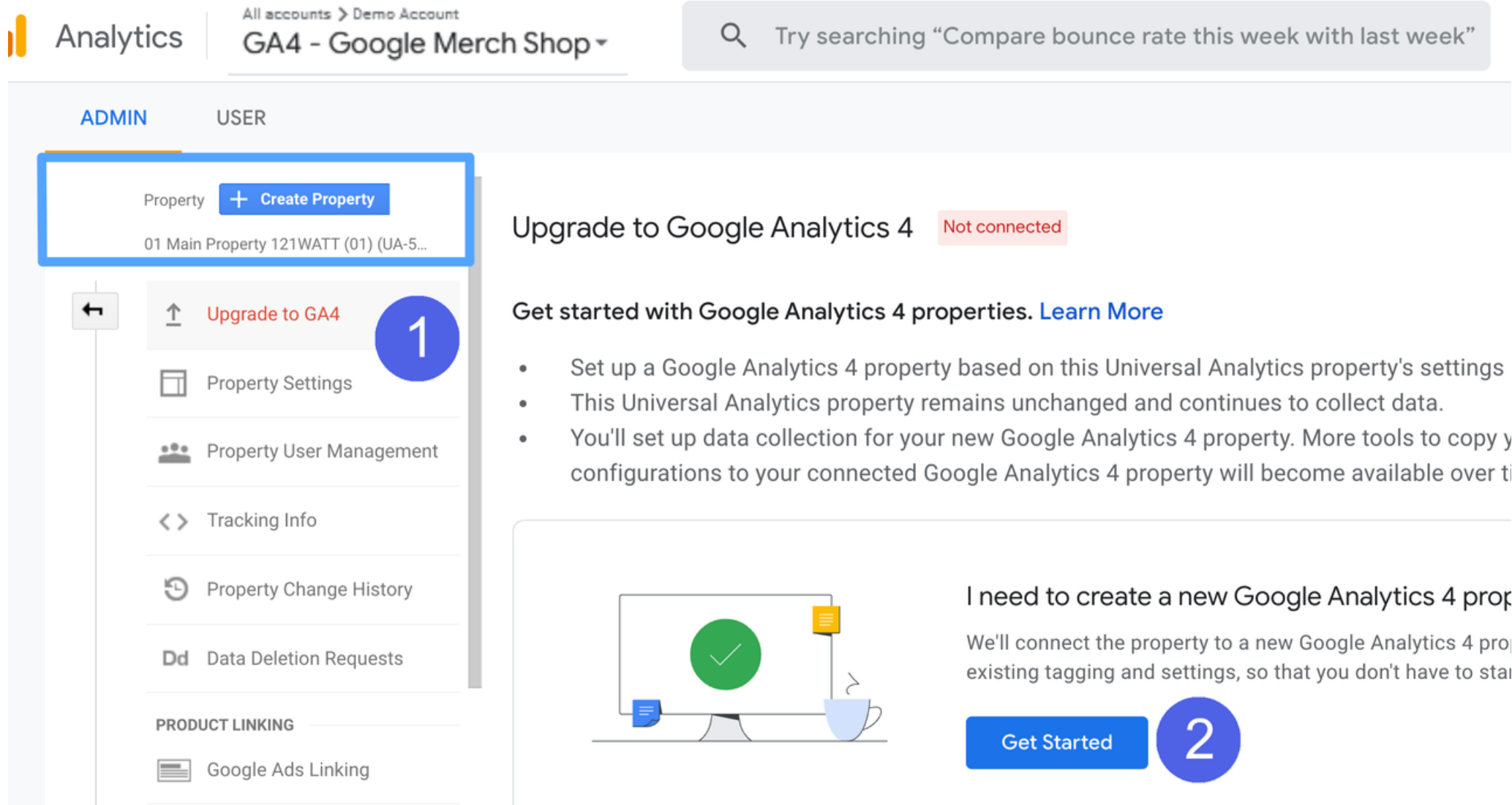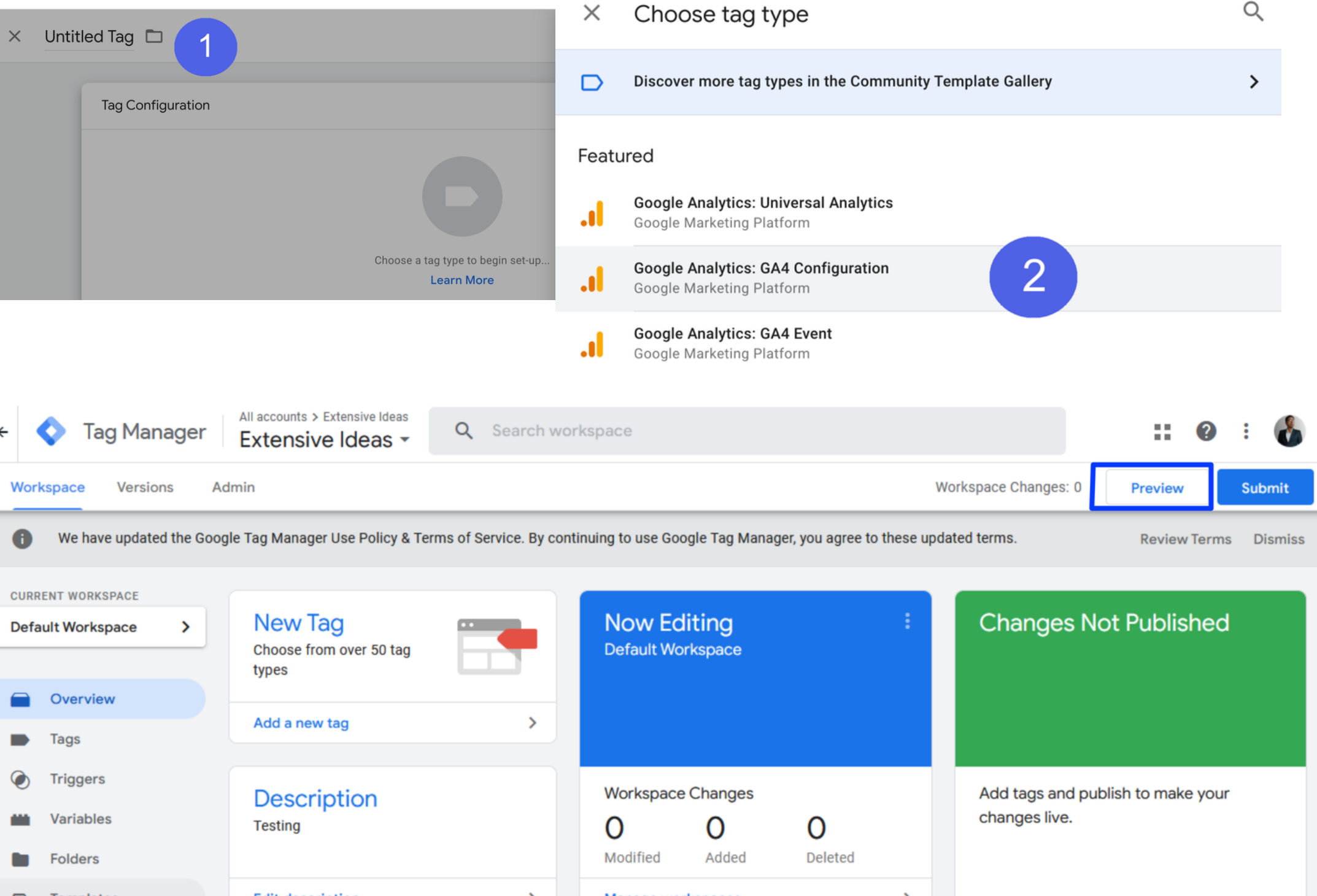

#2 Settings of Google Analytics 4

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 →

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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

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Exclude internal traffic
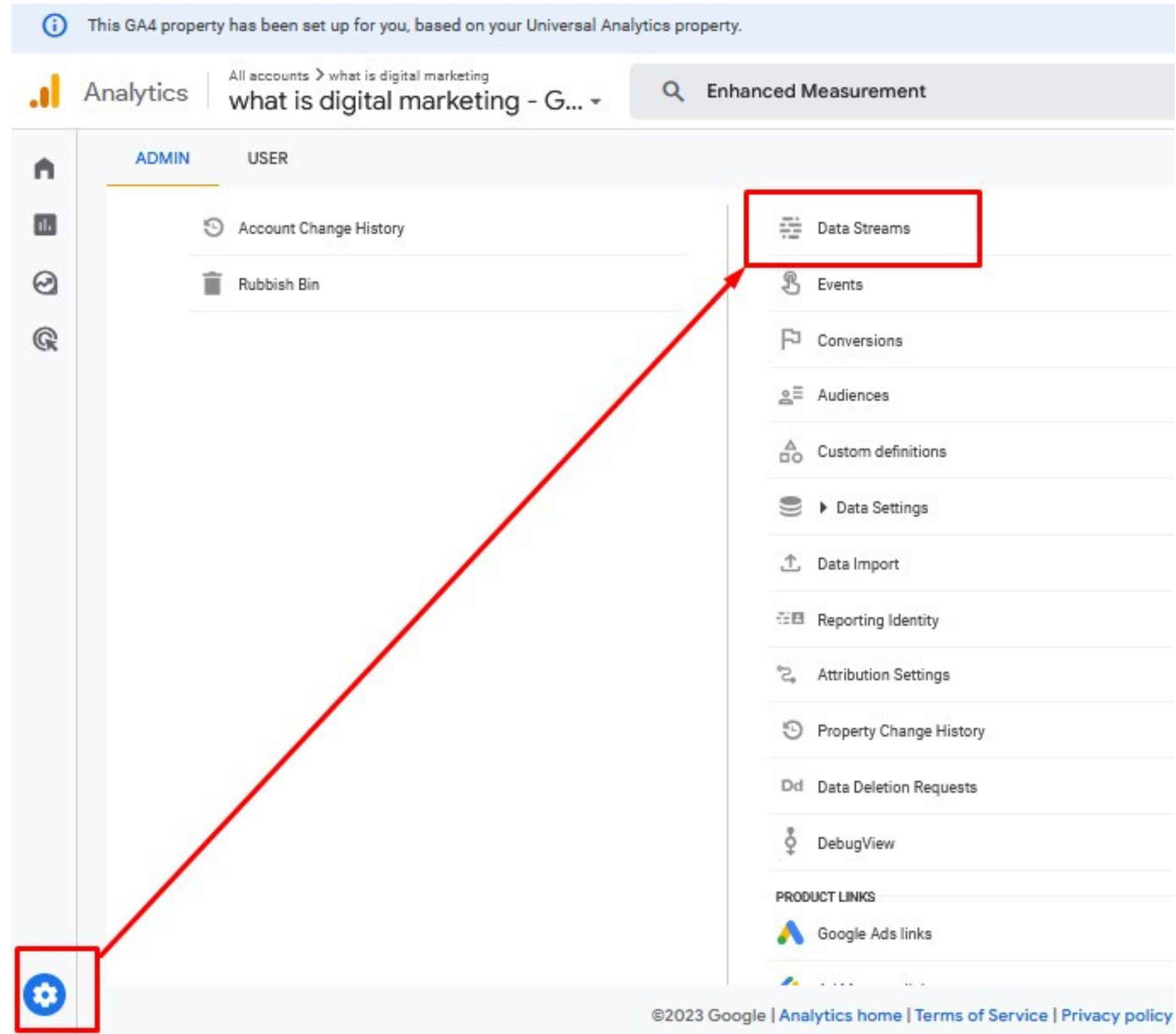
#Step 1

Go to Admin Settings of GA4 Property

Click on the Data Streams

This will take to the next step

Exclude internal traffic
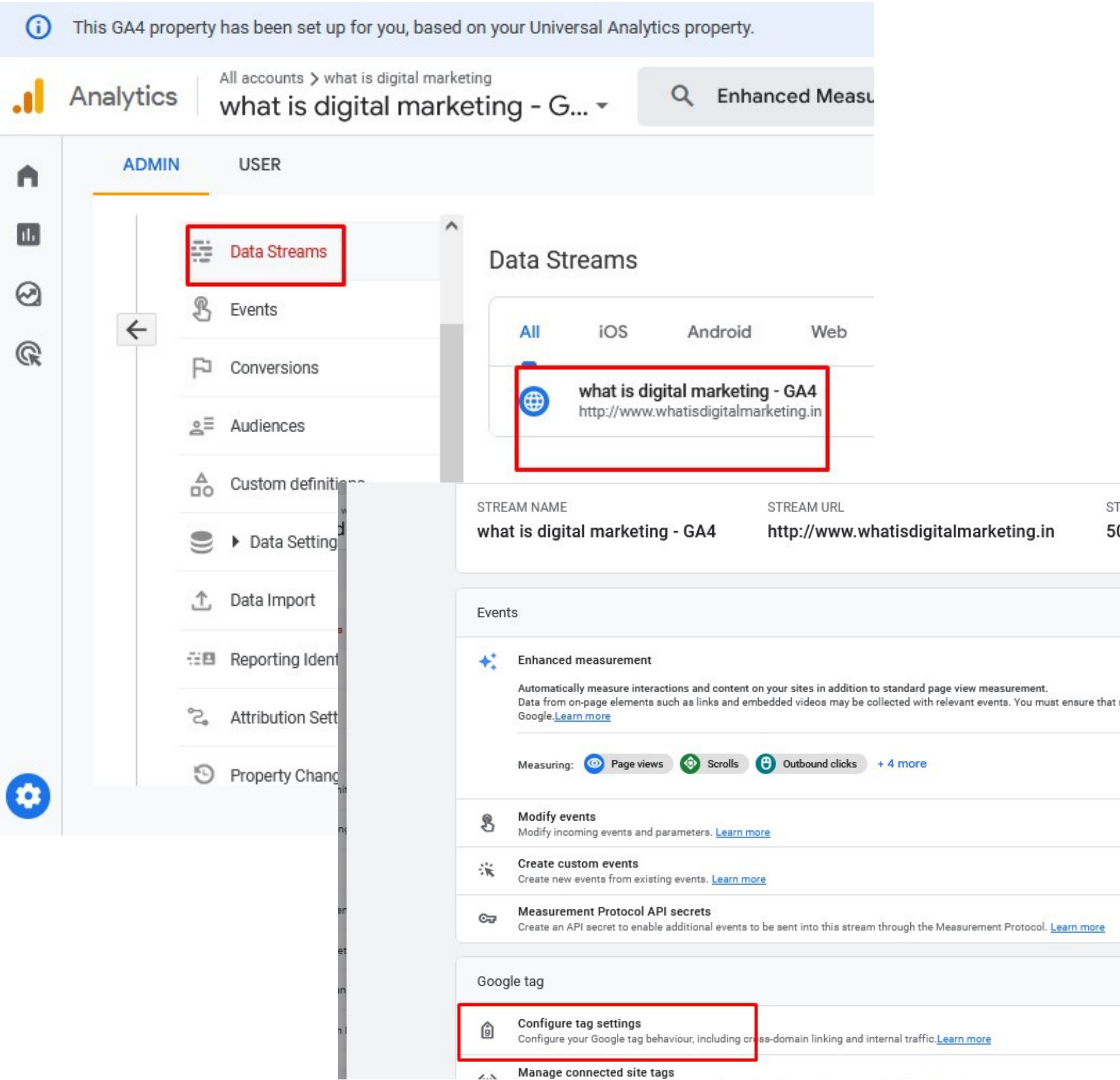
#Step 2

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

It will open a new window
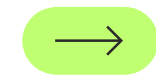
Click on Configure tag settings

Exclude internal traffic

#Step 3

Click on Define Internal Traffic →

Create new IP based rule →

Configure the internal traffic for the IP →

GA4 User Interface

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)
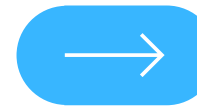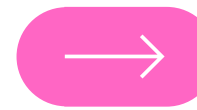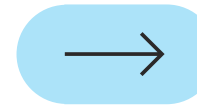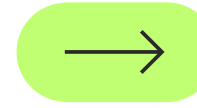
GA4 User Interface

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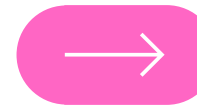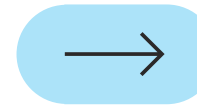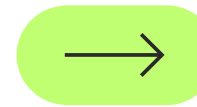
15. Adapt reports: Adjust reports based on dimensions such as location and age.

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.

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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.