WebBox®

GA4 Guidance

The Complete How-To Guide on Google Analytics 4

— What is GA4?

GA4 stands for "Google Analytics 4," and it is the new version of Google Analytics.

Google first released GA4 in October 2020, and in the announcement post, Google cited changes in user behaviour and privacy standards as major reasons for the switch.

Universal Analytics & Its History

UA collects data based on web sessions and hits

These can be pageviews or events generated using a limited set of descriptors.

It is powered by first- and third-party cookies.

By default, event tracking isn't set up, and you must configure this manually.

If you wanted to track data from mobile app users, you'd need to set up platform-specific tracking.

Google Analytics 4 & Its Features

GA4 includes a new data collection model that aims to solve the following problems

- A requirement for tracking that does not discriminate based on the device

- Privacy concerns about third-party cookies

GA4 uses first-party cookies and signals to enable cross-device data collection and reporting.

GA4's primary data point is a different type of event.

By default, these GA4 events are much more granular and descriptive of the specific action that triggers them. You also don't have to manually configure them.

GA4 allows you to track a visitor's journey without having to use Google Tag Manager.

What's Changing In GA4?

You'll have to create new properties in GA4 right away.

You can't import your UA data because the structure has changed. The data collection method has switched, and many of the metrics have as well.

GA4 will combine web and mobile data as well as, to track and report on users from various devices in real time.

— *Third-Party Cookies Are Going Away*

GA4 will not track third-party cookies. Instead, it will concentrate on first-party cookies.

Third-party cookies are being phased out for a variety of reasons, one of which is privacy.

— *What is the difference between first-party cookies & third-party cookies?*

First-party cookies are those placed on a website by the website's owner to track your activity.

Third-party cookies are cookies that have been positioned on a website by an individual other than the site's owner, allowing third parties to track your activity automatically.

— *What do I gain with Google Analytics 4?*

- Historical data in UA
- Your custom conversions
- Limits on filters and customer dimensions
- Third-party integrations
- Views (internal traffic from the data)

— *What do I lose with Universal Analytics?*

- You see more of the user journey
- Analysis tools are now more focused on user engagement
- Create more powerful audiences for your ad campaigns
- More intelligent user privacy and tracking features
- Simplified Goals and Events setup
- Enhanced visualisations and reporting
- A plethora of Parameters

GA4 Is Changing Key Metrics

Due to the new data collection model, many of the metrics you're used to cannot be maintained.

You can't import your UA data because the structure has changed. The data collection method has switched, and many of the metrics have as well.

GA4 will combine web and mobile data as well as, to track and report on users from various devices in real time.

The bounce rate is one example of a changing metric.

UA	GA4
Metric: Bounce Rate Bounce rate is a percentage of sessions that end without any interaction on a page.	Metric: Engagement Rate Engagement rate is a percentage of "engaged sessions."

*Engaged Sessions is the number of sessions that lasted longer than 10 seconds, had a conversion event, or had at least 2 page views or screenviews.

— Audience

UA	GA4
Users	Total Users
New Users	New Users
Sessions	Sessions
Number of Sessions per User	Sessions per User
Page Views	Views
Pages / Session	Views / Session
Avg. Session Duration	Avg. Engagement Time

— Acquisition

The following are the standard traffic source dimensions available in GA4:

UA	GA4
Default Channel Grouping	Session default channel grouping
Campaign	Session campaign
Medium	Session Medium
Source	Session Source

— Behaviour

Since GA4 is designed to allow measurement throughout websites and mobile apps, reporting on web pages and app screens together is now easier.

UA	GA4
Page Title Screen Name	Page Title Screen Name
Pageviews Screenviews	Views
Event Category Event Action Event Label	Event name Custom dimensions
Total Events	Event Count

— Conversion

A conversion is simply a specific event that has been enabled in your GA4 property by setting the "conversion" flag.

UA	GA4
Goal XX Completions	Conversions filtered by Event name
Goal XX Conversion Rate	Conversions filtered by Event name / Sessions

Saving Your Historical Data

We acknowledged that we cannot import historical data/reports into GA4, but the good news is that they can be saved.

There are three methods for saving your UA data before completing the GA4 migration.

— *Export Your Data Manually*

Exporting data is the easiest way to get it from your Google Analytics account. Open the GA standard report you need – Acquisition > All Traffic > Source/Medium.

Customise it accordingly and click EXPORT in the upper right corner and select your preferred file extension (.pdf, .xlsv, .csv)

— *Google Analytics Sheets Add-On*

In this case, the Google Analytics add-on is responsible for exporting data from Google Analytics. Data is transferred from Google Analytics directly into Google Sheets

— *Google Analytics Dev Tools: Query Explorer*

The Campaign URL Builder is commonly used to create UTM parameters for campaigns.

GA dev tools also have a query explorer. This is an easy way to export data.

Sign in to your Google Analytics account that has access to the property you are working on. Select the account, property, and view you want to save data for.

Choose every metric in the report you want to replicate, download the data and open it in Excel or Google Sheets.

Events in Google Analytics 4 vs Universal Analytics

— *Universal Analytics data collection model*

In Universal Analytics, the basic unit of collected data is referred to as a hit. A hit is essentially a package of descriptors that is sent to the Analytics servers to record a user interaction.

The two most commonly used hit types in Universal Analytics are pageviews and events.

Google Tag Manager provides a default tag type of Google Analytics: Universal Analytics, which in turn provides a default track type of Page View.

Event tracking in Universal Analytics, you're likely familiar with the three descriptors you can use for an interaction: event category, event action, and event label.

— *Google Analytics 4 data collection model*

Google Analytics 4 is based on a different kind of event and offers a more flexible and agnostic data collection paradigm that has its origins in Google Analytics for Firebase.

Firebase is a suite of services designed to facilitate the development and marketing of Android and iOS mobile apps.

Since a pageview is not relevant in the context of mobile apps, Firebase Analytics, from the beginning, has been based on the event and event-parameter paradigm.

— *Events*

A Universal Analytics event has a Category, Action, and Label and is its own hit type. In Google Analytics 4 properties, every "hit" is an event; there is no distinction between hit types. For example, when someone views one of your website pages, a page_view event is triggered.

Google Analytics 4 events have no notion of Category, Action, and Label and, unlike Universal Analytics reports, Google Analytics 4 reports do not display Category, Action, and Label. Therefore, it's better to rethink your data collection in terms of the Google Analytics 4 model rather than port your existing event structure to Google Analytics 4.

— *Pageviews and screenviews*

Page views in Universal Analytics translate to the page_view event in Google Analytics 4 properties.
A page_view event is automatically triggered by the config gtag command or by the Google Analytics 4 Configuration tag in Google Tag Manager.

Pageview attribute in Universal Analytics	Pageview attribute in Google Analytics 4
page_title	page_title
page_location	page_location
page_path	page_path
none	page_referrer

Google Analytics 4 Migration Guide

Google Analytics 4 Migration Guide

Intro To GA4

Universal Analytics has been a favourite of Marketers, however with the change in privacy and the decline of cookies, Google decided to build this all–new platform Google Analytics 4.

Google Analytics 4 is the next generation for the analytics platform, all users and advertisers will need to transition over to GA4 before July 2023 as Universal Analytics will be sunsetted and will stop processing new data.

GA4 will bring innovation in terms of measurement standards, the platform allows users to measure an array of data from Android apps and IOS apps to the Web. Google Analytics 4 software will also allow businesses to identify user journeys across their website.

What Access You Need For Migration

Access To Google Analytics Account / Access to Google Tag Manager / Access To Google Ads Account

We recommend that you create a Google Analytics property alongside your existing Universal Analytics account to use as a base for data and to utilise the tools and capabilities that have not been yet added to GA4.

Steps For A Successful Migration

Step 1 – Create a new GA4 Property and data stream

The first step to migration is that you need to create a new GA4 Property, by going onto the google analytics account and pressing on the property in question and the admin section.

Then you will be given the option to create a new GA4 property or to connect to an existing one. We advise you to create a new property to check your data against the universal analytics platform.
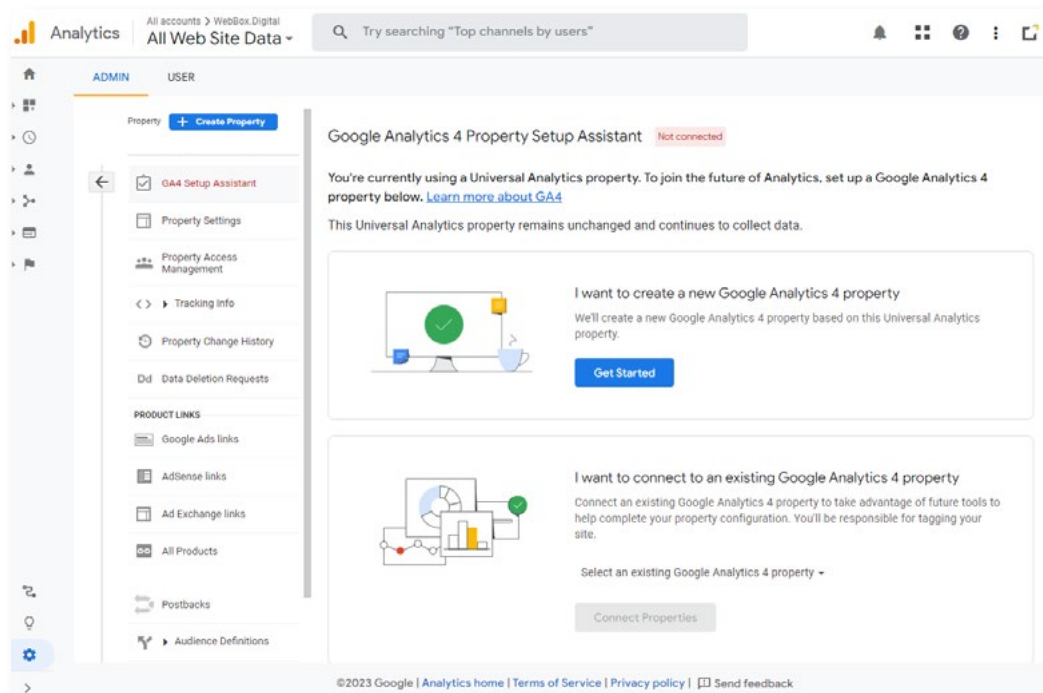
Then depending on your Universal Analytics implementation, you can use a setup assistant, however, in most cases, the setup assistant won't get any data flowing into GA4 as you will need the gtag code snippet on your website.
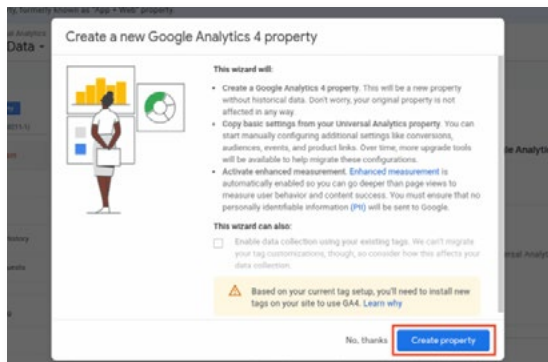
If your current Google Analytics uses the common set-ups such as (using Google Tag Manager or a built-in integration as provided within Squarespace, Shopify, Wix, and some other website platforms) then the setup Assistant comes up short.
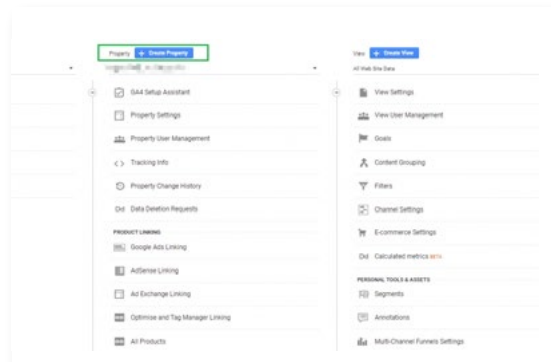
If you choose to create the property without the setup Assistant and you want to create a new property for the GA4 go back to Admin and next to Property Select **+ Create Property**
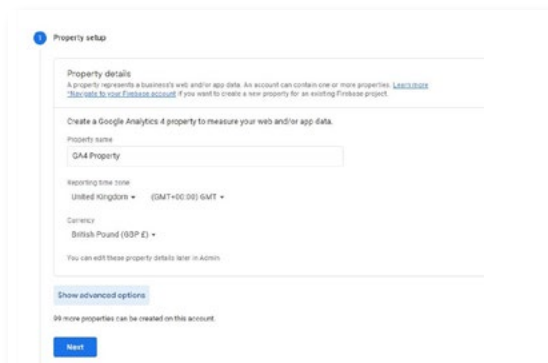
Next, you need to give the property a name and select the time zone for yourself for reporting and then the required currency you use.

Give Google a bit more information about how you are using GA4 and then click create.

Your Google Analytics 4 property is now set up, but you need to then complete tracking for the data stream.
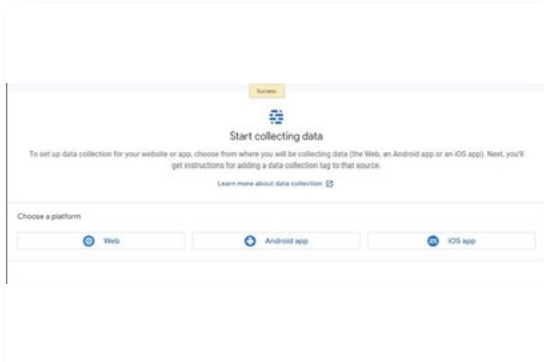
You need to choose which data collection you use, the most common data source is website data so in this scenario we will then click Web.
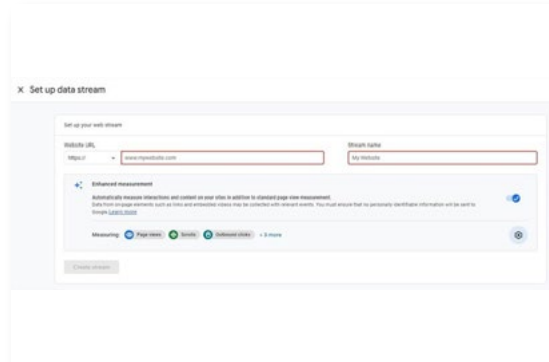
Next, you need to fill out the details regarding the Data Stream with the Website URL and a stream name for reference.

Make sure that the Enhanced Measurement with the slider is switched on.
Then click Create Stream.

Step 2 – Collect website data

You'll need to follow this step to collect data from web pages.

To start collecting data in your new GA4 property, you will have to add the Google tag to your web pages. If your using, Hubspot, Wix, WordPress, Google Sites or WooCommercial, you can paste your G– ID into the Google Analytics Field provided by your CMS.

Your G – ID that is specific to your GA4 Property can be found by looking at the Data Steams Section – it'll be in the top right corner.
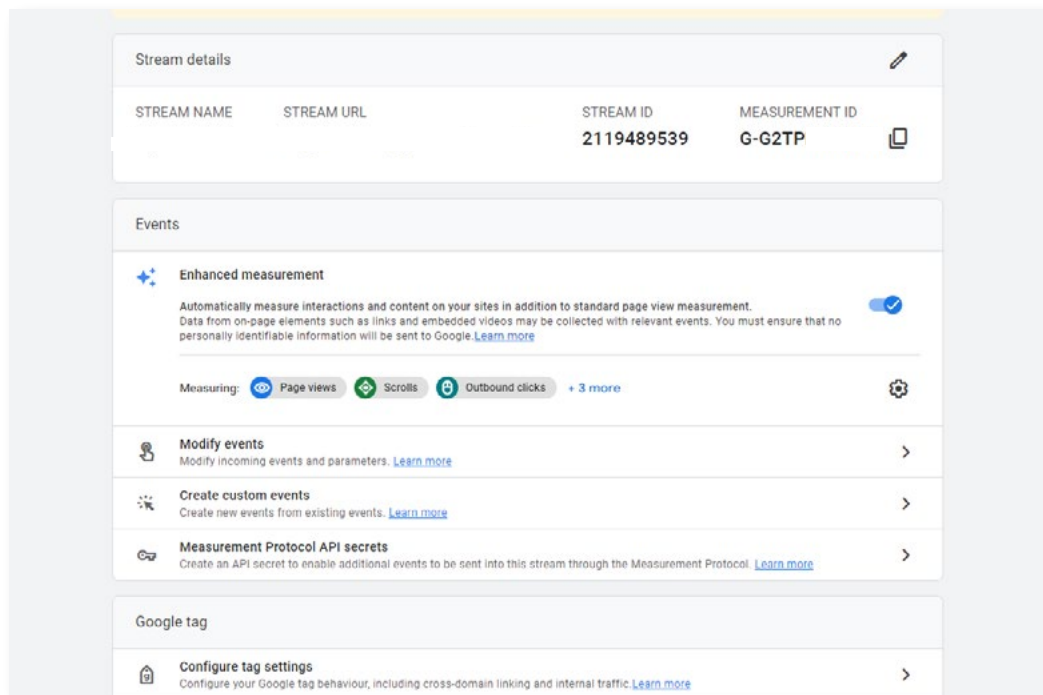
However, if you don't have access to the field to enter your G– ID, you then would paste the Google tag into your CMS's custom HTML feature.

To complete this, go to the Data Streams Page, select Web, and go into the data stream.

Under Google Tag, click view tag instruction and then installation instructions before clicking Install Manually. At this point, you will be given the Java snippet for your account's Google tag, which then can be pasted after the <head> on each page of your website.

You can also add the tag using Google Tag Manager, this allows you to set up and manage GA4 events in one place.

So if you prefer using Google Tag Manager for your tracking Google has a concise guide for setting up your google tag manager and the tags for an alternative way to connect your website to GA4.

Step 3 - Turn on Google signals

This step is vital for enhancing remarketing and for your reporting.

With Google signals active, audiences that are created in Google Analytics 4 which are published to Google Ads can then serve ads in cross-device-eligible remarketing campaigns. These are served to Google users who have actually consented to the personalisation of Ads.

To Activate google signals for your GA4 property you will need to go into the account and click Admin. Then in the Property column, click **Data Setting** > **Data Collection**, then turn on the switch for **Enable Google Signals data collection.**
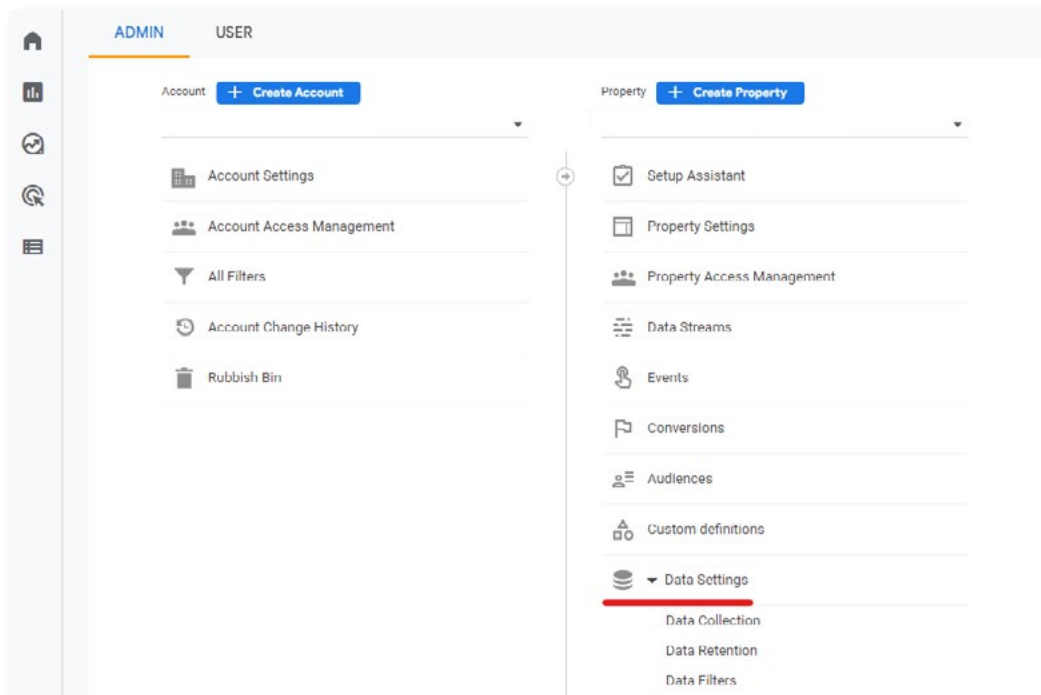
When you activate Google signals, that data is collected in all regions.

Step 4 – Set up Conversions

To set up Conversions for Google Analytics go into the Google Analytics account, then click the *Admin* tab, from there *click* on *Events* which is on the left of the page.
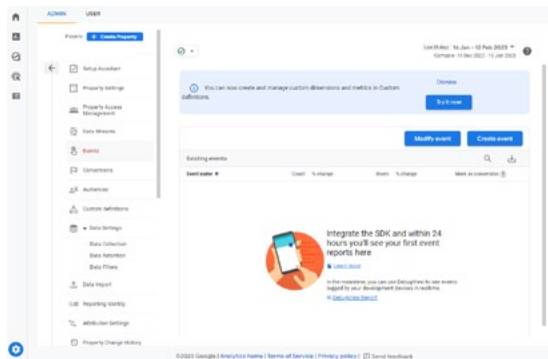
From there you will need to click ***create event*** and then ***create***. Next, you will need to write in the custom event name field, and enter the name for the conversion such as "generate_lead". In the *Matching Conditions* section, enter the first matching condition "event_name equals page_view". You will then need to click ***Add Condition.***
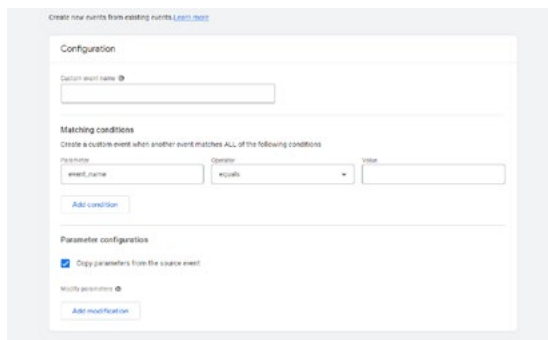
Enter the second matching condition "page location equals https://www.example.contact-us-submitted".

In the *Parameter Configuration* section on the page, click **Add modification** twice. Because you are using a recommended event, you need to define each of the required parameters. Otherwise, Google Analytics will treat the event as a custom event.

In the first row on the page, enter the parameter "value" and value "100" to define the value of the conversion. Then in the second row, enter the parameter "currency" and the value "GBP", then click **Create**.

However, if you are using Google Tag Manager with your GA4 you will need to set up an event using Google Tag Manager. First, you will need to configure a Google Analytics:GA4 Event tag, and then you would create a trigger that identifies when you want to send the event.

Google has a specific guide for setting up Google Analytics 4 events with Tag Manager which goes through each step in great detail and explains the components needed.

Step 5 – Add users

To add individuals to the Google Analytics account you can complete this manually or use the migration tool.

You can add users at the analytics account or property level. The level at which you add a user determines that user's initial access. If you want a user to have access to only that individual property then you will need to add a user at the property level.

Users are identified by their individual email addresses. You can add only users whose email addresses are registered to an individual Google Account.
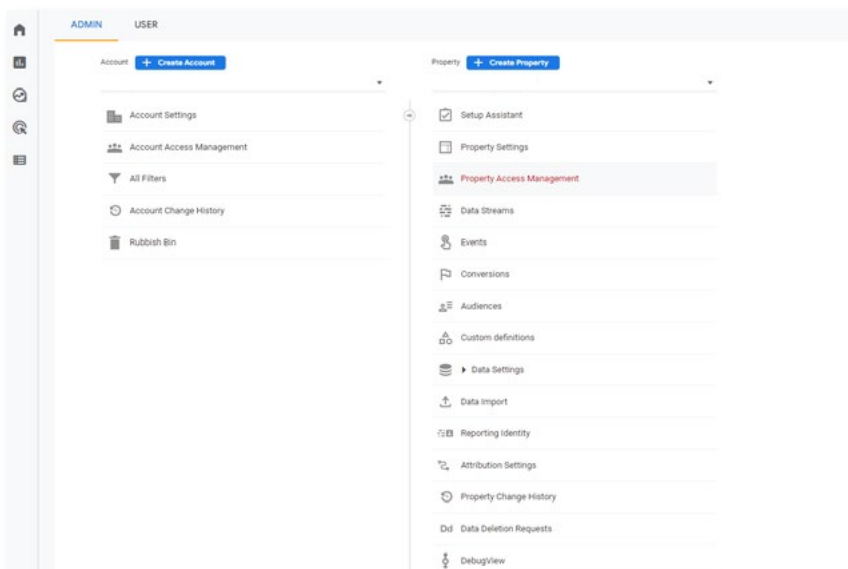
To add a new user to an account or property you first go to the Admin tab. Then in the *Property Access Management* List click the plus +, then click **Add Users.**
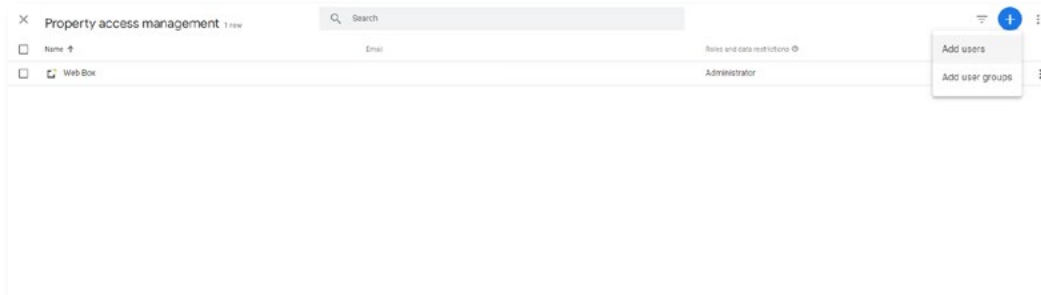

You then need to enter the email address for the user's Google Account or Google Workspace Account.

Then select **Notify New users by email** to send a message to the user. Additionally, choose the permissions you want for the individuals, this will depend on the roles you want them to be able to do in the account or areas they can edit. Then finally click **Add.**
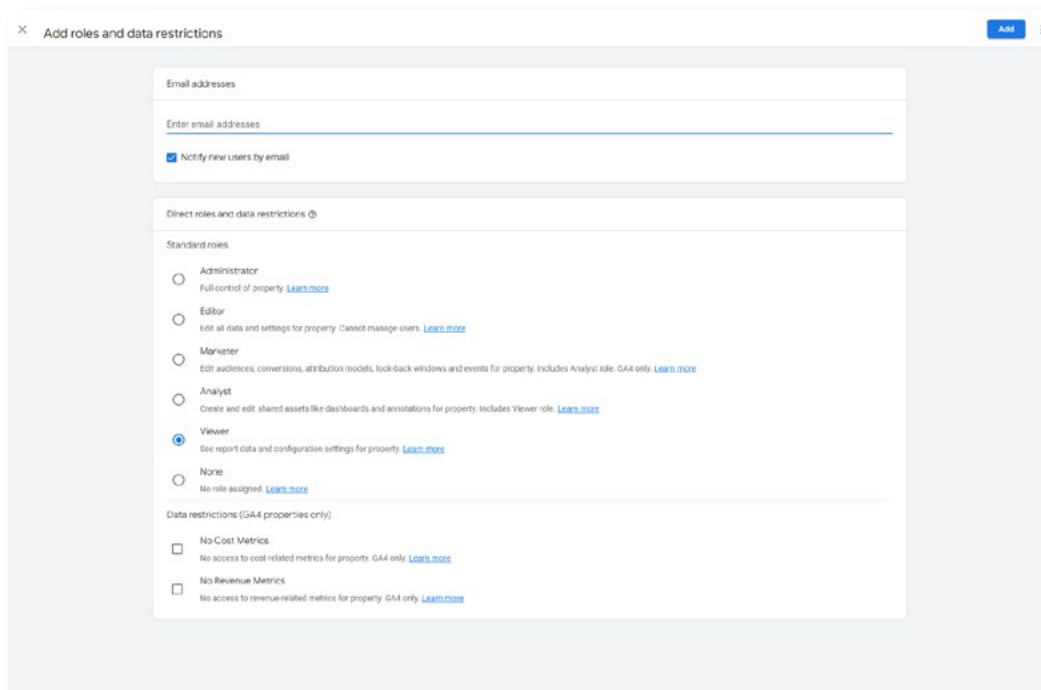
Step 6 – Link to Google Ads

For this step, Google has a tool you can use the Google Ads Link Migration tool but we prefer creating a new Google Ads link as it is a straightforward step.
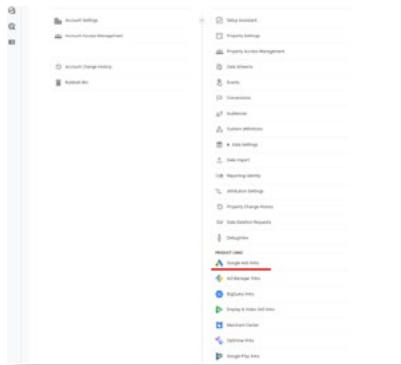
The first step is it go to your google analytics account, and then click on the **admin** tab. Under the Product Links, click **Google Ads Links**.
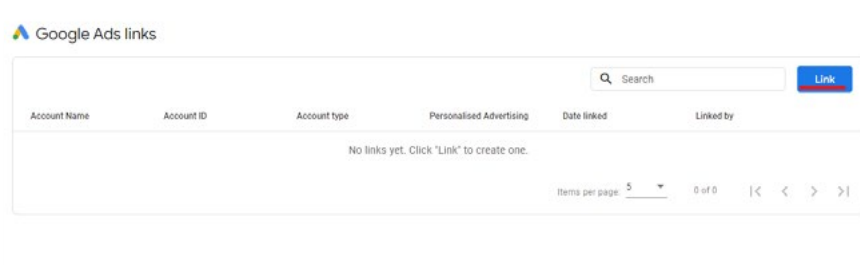
You then need to click **Link** and Click **Choose Google Ads accounts**, then select the Google Ads account you want to link to your property, click Confirm and click **Next.**
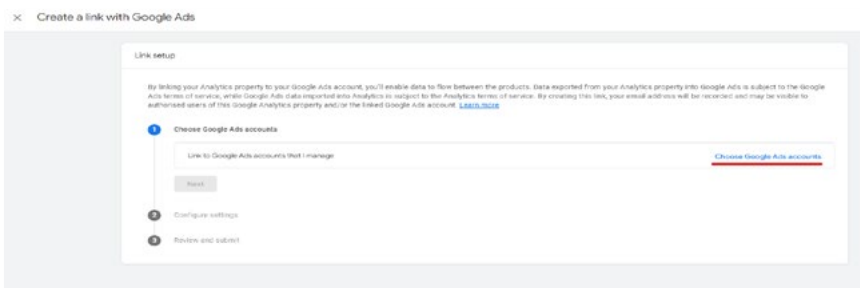
For the account, by default, the option to Enable Personalised advertising is applied to the property.

Next, expand the **enable auto-tagging** option to enable auto-tagging or to leave your auto-tagging settings as they were.

Click **Next**, then review your settings. Then Click **Submit** to link your accounts with the current settings.

Step 7 – Create Audiences

Audiences are subsets/groups of users that you can use for analysis purposes or to show ads. By migrating audiences from your Universal Analytics property to your Google Analytics property, you can identify the same user groups using your Google Analytics 4 data and export those audiences to your linked Google Ads accounts to address the same use cases

Google Analytics gives you the option to define your audience from audience templates that are partially configured audiences with an already identified set of dimensions and/or metrics to form the basis for the widely applicable audiences you may need.
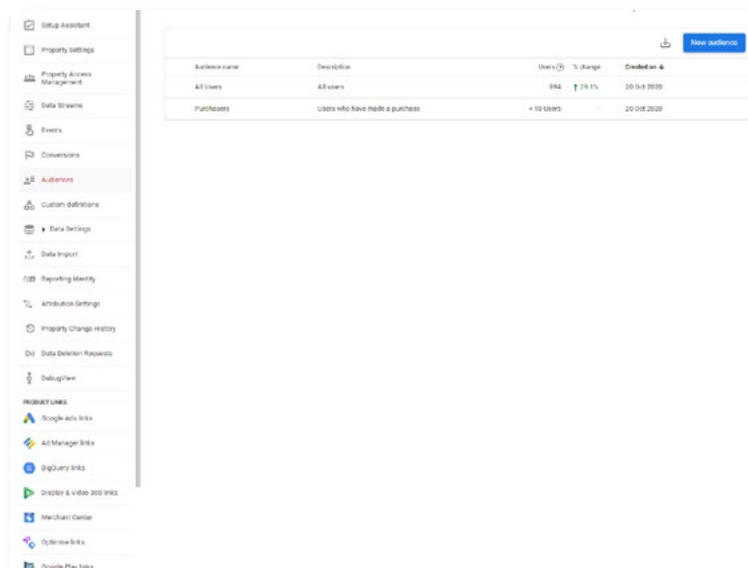
If you want to create an audience from scratch you will be creating a custom audience. to create a custom audience first you click on **Admin** which is on the left–hand menu panel. Click on the **Audiences** option, then click on the **New audience** button.
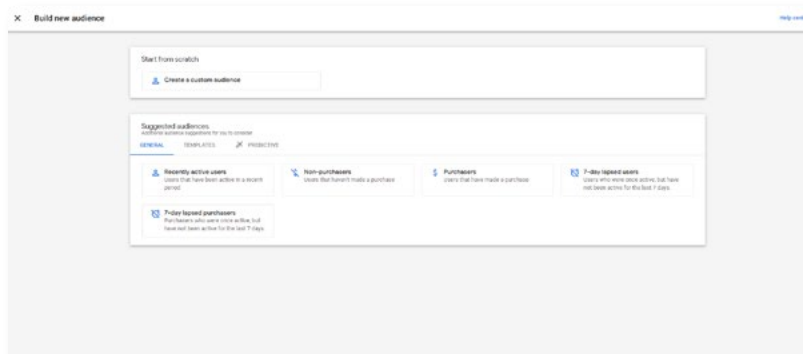
Then in the next screen is where you can set the criteria for your audience.
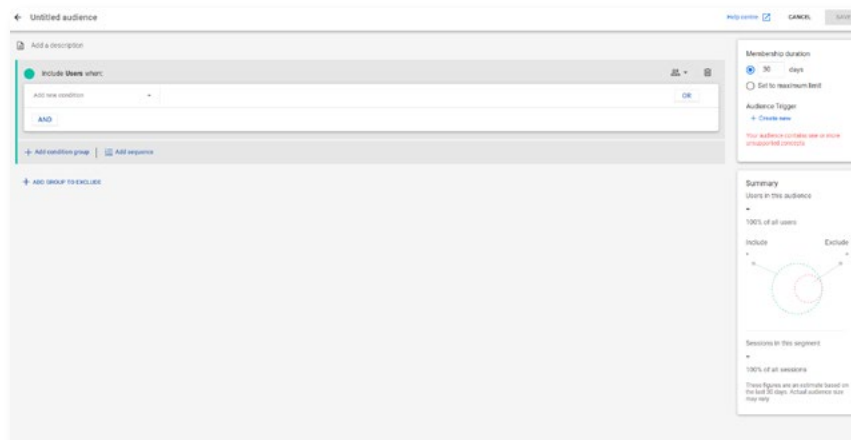
 You can use include and exclude criteria in addition to sequence conditions to see your users. Then choose how long a user can stay part of that audience. You can choose 1 – 540 (max) as the number of days. Once this is filled out you next press save and this audience is now ready.

If you need additional information for what criteria and conditions to include in a custom audience for Google Analytics then Google has a very informative article on how to create, edit, and archive audiences.

Step 8 – Validate your conversions

Before importing your Google Analytics 4 conversions into Google Ads, you should compare them to their Universal Analytics counterparts.

So once you've migrated conversions or created new conversions, you need to compare the total number of Universal Analytic conversions to the total number of GA4 conversions.

In your Google Analytics 4 property, go to **Reports > Engagement > Conversions** and look at the total number of conversions (Conversions).

In your Universal Analytics property, add the following two numbers::

    Go to **Conversions > Goals > Overview** and look at the number of goal completions (Goal Completions).

    Go to **Conversions > Ecommerce > Overview** and look at the number of transactions (Transactions).

We are striving to have the count of GA4 conversions to be as close as possible to your Universal Analytics Conversions, the numbers could actually not match for a variety of reasons.

Verify Event Measurement

For each conversion to be counted, the corresponding event must be sent to the GA4 Property. To verify that an event is being sent, go to Reports > Engagement > Events
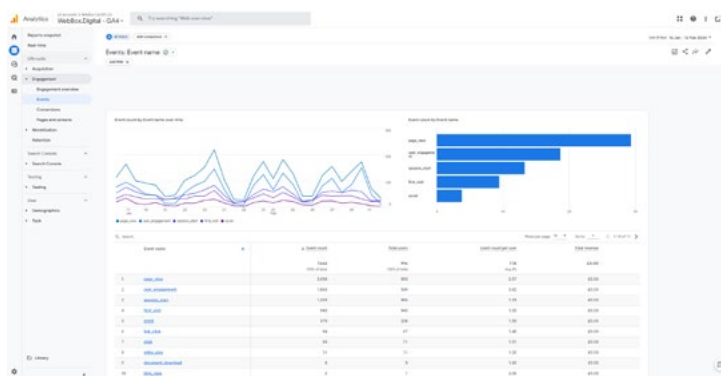
If the certain event you are checking is not present, use the preview and debug mode in the Google Tag Manager or activate the debug mode which is specifically for GA4 Events.
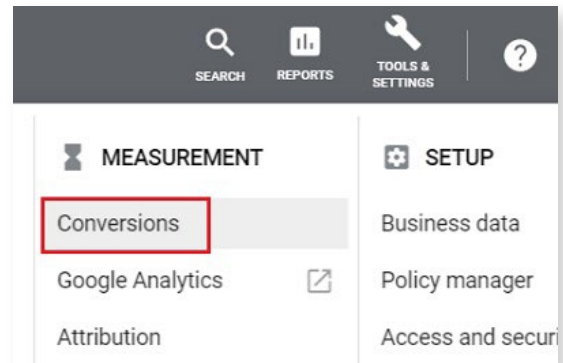
To use the debug mode, walk through your site by touching buttons or text that are events and monitor what events are in the DebugView in the GA4 property to be certain that they are being triggered properly.
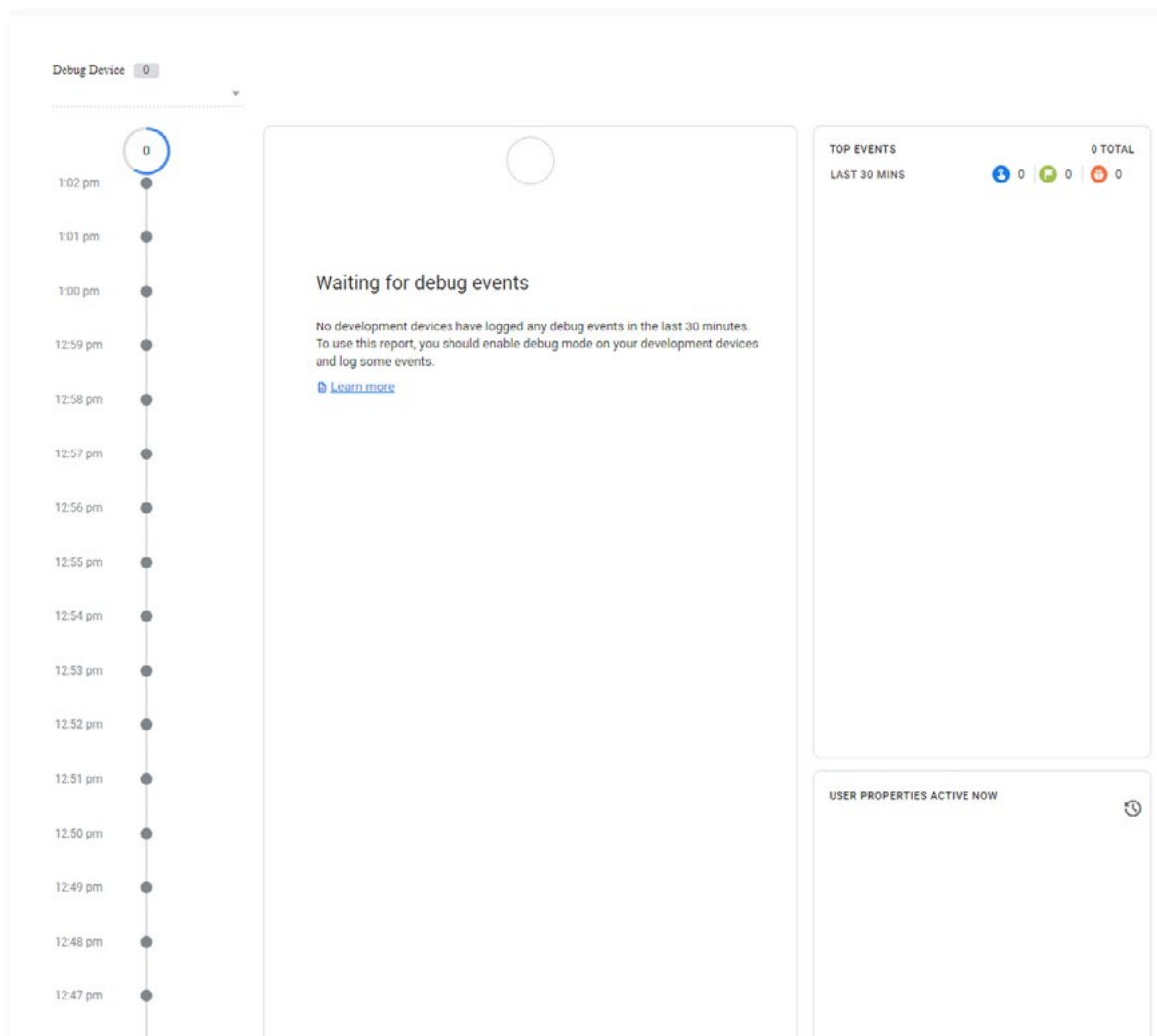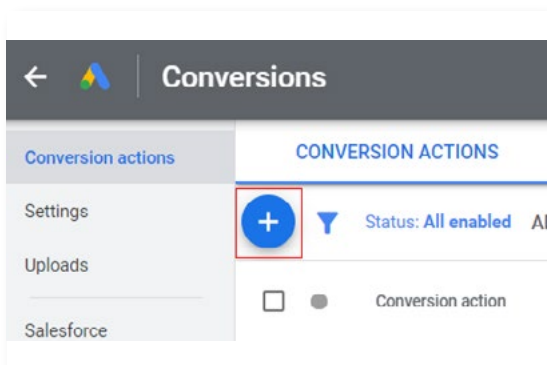
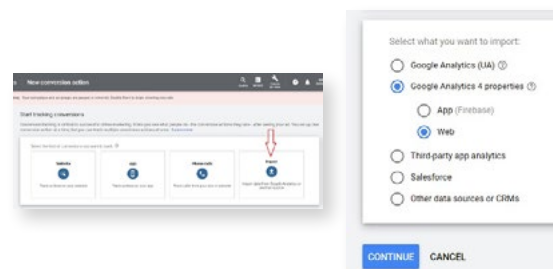# Step 9 – Import Conversions into Google Ads for bidding
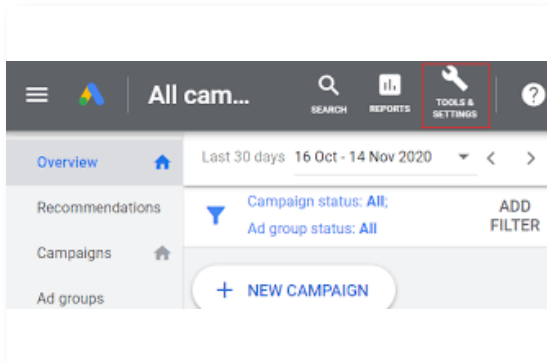
To import conversions got onto your Google Ads account and in the top right click **Tools and Settings.**
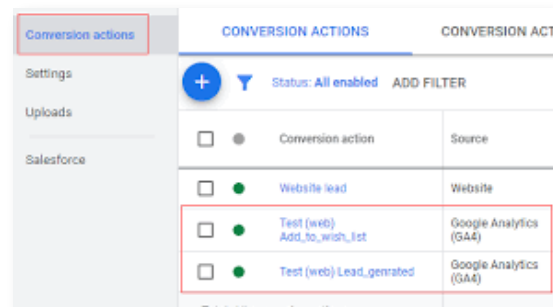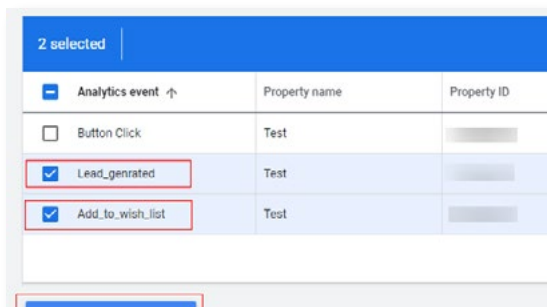

From there go to Measurements tab and additionally the Conversions tab.

Then in the top left section of the window click **+ New conversion action.**

Click Import, Select **Google Analytics 4 Properties**, then click **Continue**.

Next select every conversion event you want to import, then click **import and continue;** then finally click **Done.**

If you already have a Universal Analytics conversion action in the google ads account, the Google Analytics 4 action will be set as a "secondary" conversion action by default. At this stage once you know that the data is accurate you need to set this as your primary source to have a source ready before July 2023.

To set a conversion as a "primary" conversion in Google Ads, you click the **Tools and Settings** section on the platform, go to measurements then conversion. Find the certain goal that includes the conversion action that needs to be updated. Then click **Edit goal,** next for the conversion action that you would like to update, click the drop-down, select **Primary Action**, and then click **Save changes.**

Step 10 – Add analytics audiences to a campaign or ad group for remarketing

Audience sources are used to create your own data segments for Google Ads. These benefit the account as you can monitor your audience sources, view data lists created from each audience source and you can link audience sources to expand your reach.
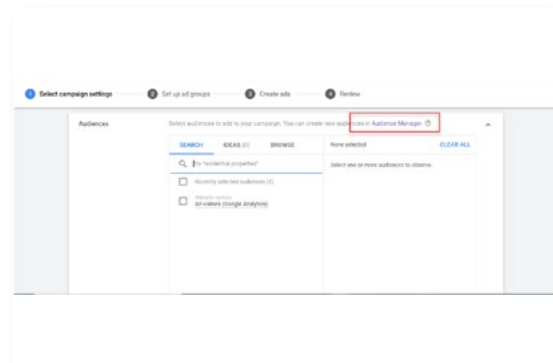
To add your GA4 Audiences after completing the initial campaign set-up, you are faced with the general settings of your campaign, where you can connect your custom audience build in Google Analytics 4.
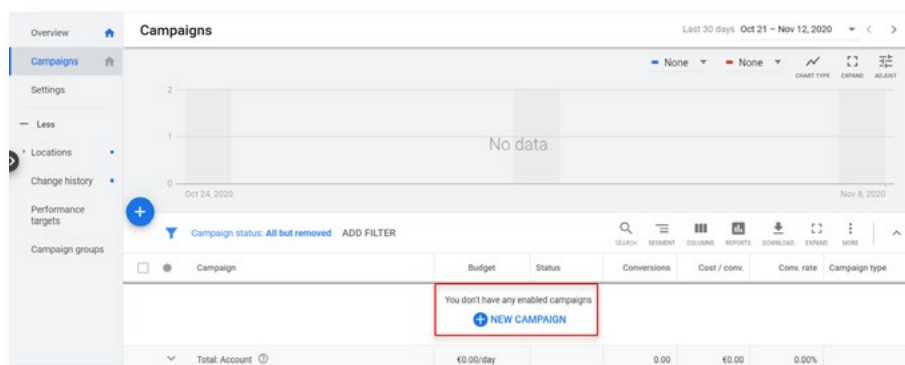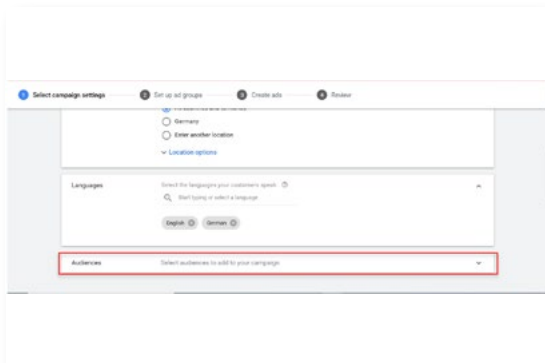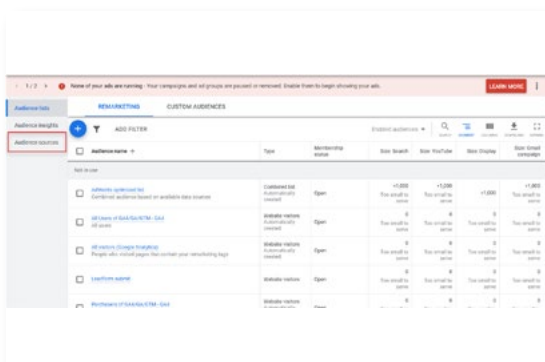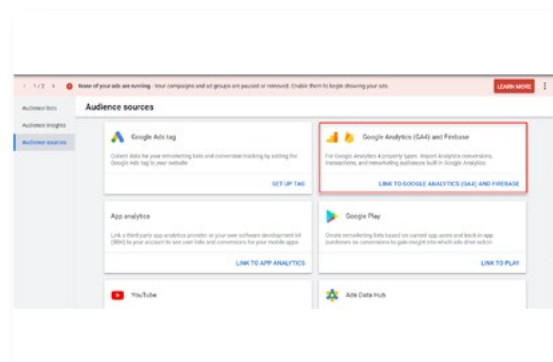
From here scroll down to the page to the **Audience** section and click **Select audience to add to your campaign.**


Click on **Audience Manager**

Once in the audience manager section of the platform, navigate to **Audience Sources** on the left of the page and click.
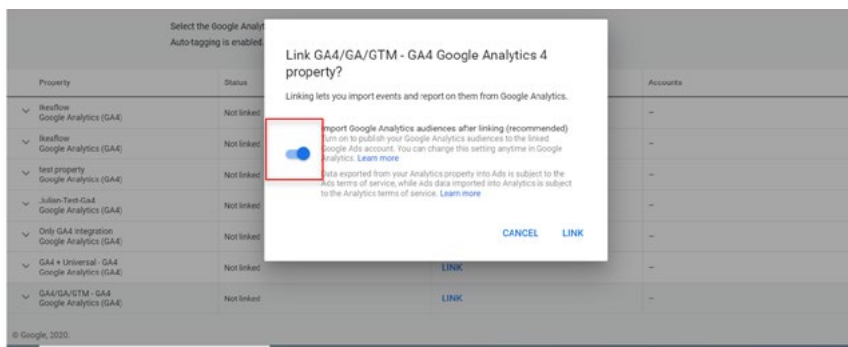

Select the Link To **Google Analytics (GA4) and Firebase.**

After linking the right Google Analytics 4 property to Google Ads, you will see an overview of all the Google Analytics 4 properties. Find your specific property containing the custom audience and click **Link.**
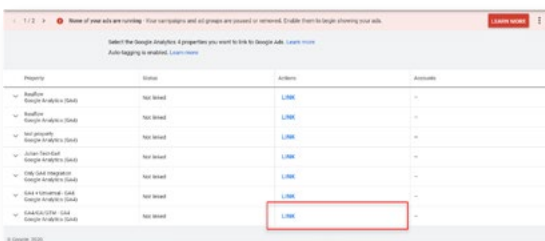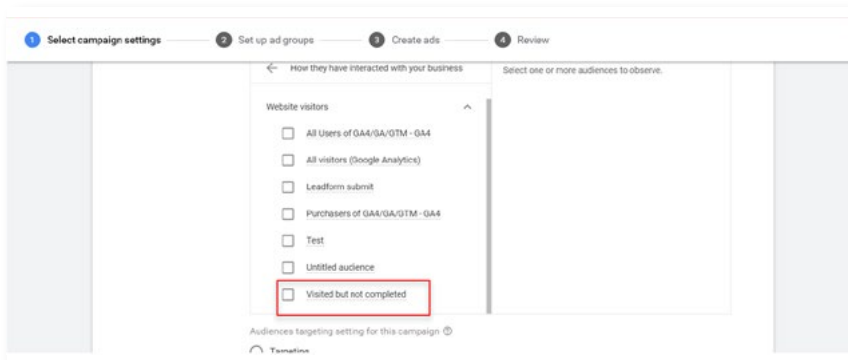
Next, make sure you enable the import of your Google Analytics 4 audience when being asked.

After linking you can go back to the general settings of your ad campaign and select the audience you defined within your Google Analytics 4 Find your property under the *Select audience section.*

Navigate to the Browse tab and select **How they interacted with your business.** Next, select **Website Visitors** and then select your previously built audience.

Please note that it will take some time for Google Ads and Google Analytics 4 to connect and transfer the custom audiences.

Step 11 – Archive your Universal Analytics Data

Google has also decided that they will delete all historical Universal Analytics data beginning on January 1, 2024.

This means you do have additional time before this needs to be archived, but you should plan a date for archiving the data for reference in the future.

The first step is to determine the data you will regularly need; such as certain reports.

Next, determine the intervals for which you access this data. Typically we access this data on a monthly basis, such as May 1st – 31st. So you will want to archive this data in a manner that matches your own data usage habits for easy usage in the future.

The Universal Analytics interface is clunky for the purpose of archiving so we advise using the Google Analytics Spreadsheet Add-On, this add-on works with Google Sheets so it's relatively easy to get the data quickly.

For Timeline purposes, if you are using Universal Analytics 360, you must archive your data before June 30th, 2023.

Checklist For Migration

Step 1 – Create a new GA4 Property and data stream

Step 2 – Collect website data

Step 3 – Turn on Google signals

Step 4 – Set up Conversions

Step 5 – Add users

Step 6 – Link to Google Ads

Step 7 – Create audiences

Step 8 – Validate your conversions

Step 9 – import conversions into Google Ads for bidding

Step 10 – Add analytics audiences to a campaign or ad group for remarketing

Step 11 – Archive your UA Data

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