

Vpon

How to Implement Google Analytics 4

2023 Ultimate Guide & Tutorial

Vol.1



Contact Us

Google Analytics 4

Learn How to Implement Google Analytics 4 with Google Tag Manager in 7 Simple Steps

Google Analytics 4 (GA4) is a web analytics service offered by Google that tracks & reports traffic & events for websites and mobile apps. For businesses embracing a digital transformation, it is an essential tool for finding new business insights & making data-driven decisions. All the essential data your business needs is available in one place. The great news is setting up GA4 is a relatively straightforward process. This article aims to help you set up Google Analytics 4 with the help of Google Tag Manager in just **Seven Simple Steps**.

Setup GA4 in 7 Simple Steps

This article is designed to help anyone, even a total beginner, get GA4 quickly. Following steps 1 & 2 below, your website or app can be ready to receive data in GA4 in just 1 hour.

7 Steps to Implement GA4 Overview

Step 1: Set up your Google Analytics 4 account

Step 2: Implementation, Planning, & Defining Goals

Step 3: Setup GA4 Event Tracking & Custom Events

Step 4: Setup Conversion Goals & Funnels

Step 5: Advance Event Tracking

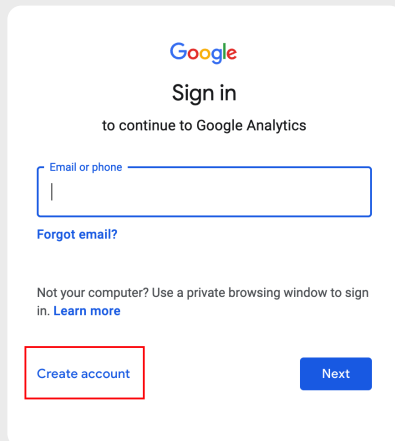
Step 6: GA4 Console Setup

Step 7: Share and Export GA4 Reports

Let's get into it and start setting up Google Analytics 4!

Step 01

Set Up Your Google Analytics 4 Account



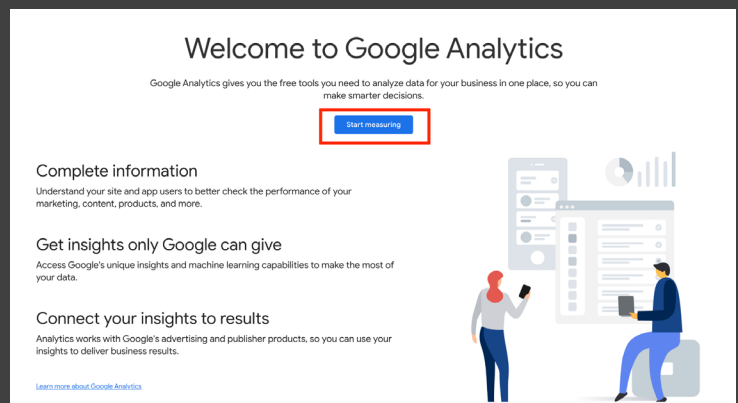
The screenshot shows the Google sign-in interface. At the top, it says "Google Sign in to continue to Google Analytics". Below this is a text input field labeled "Email or phone" with a cursor inside. To the left of the field is a "Forgot email?" link. Below the field are two buttons: "Create account" (highlighted with a red box) and "Next".

The first thing you need to do is set up your account. This process should only take a few minutes. If you're entirely new to GA4, you must create an account first.

Visit <https://analytics.google.com/>. Click on Create Account button, and you will reach a welcome page.

1.1 Get Started

Click on the **Start Measuring** to Get Started.



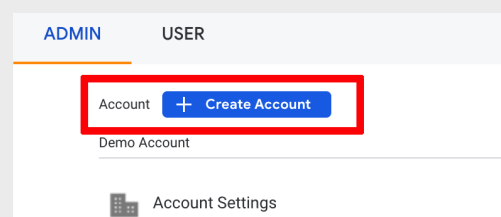
Already have a GA4 Google Account? Don't see Start Measuring?

Follow the steps below.

A. Click on the **Admin** Gear button on the bottom left of the screen.



B. Click on the **Create Account** button



1.2 Account Creation

Fill out the Name of the New account and then press next.

Create an account

Create an Analytics account to collect and organize data. Accounts can access multiple data sources, using one or more measurement IDs.

Account details

Account name (Required)
Accounts can contain more than one measurement ID.

Vpon Big Data Demo Account

Google Analytics is a business tool. Use it exclusively for purposes related to your trade, business, craft, or profession.

Account Data Sharing Settings

Google processes your Google Analytics data only as required to [maintain and protect](#) the Google Analytics service, as set out in the [Google Ads Data Processing Terms](#). The data sharing settings below allow you to customize whether the data that you collect in Google Analytics may also be shared with Google for additional purposes.

The data sharing options give you more control over sharing your Google Analytics data. [Learn more](#)

Google products & services
If you have enabled [Google signals](#), this setting will also apply to authenticated visitation data which is associated with Google user accounts. This setting is required for [Enhanced Demographics & Interests reporting](#). If you disable this option, data can still flow to other Google products explicitly linked to your property. Visit the product linking section in each property to view or change your settings. [Show Example](#)

Modeling contributions & business insights
Enable features like predictions, modeled data, and benchmarking that can provide you with richer business insights when you contribute aggregated measurement data. The data you share (including

1.3 Property Creation

Select a **Property name**, **Reporting Time Zone**, and **currency**. Then click Next.

A property is a website, mobile application, blog, web application, & etc. that is associated with a unique tracking ID. For example, if you want to track your website, you may name it. (Eg. Vpon Website).

Create a property

To measure your web and app data, create a Google Analytics 4 property. Each property you create holds all your measurement data for any selection of websites and apps you choose.

Property details

Property name (Required)
Vpon Big Data Demo Website

Reporting time zone
United States (GMT-07:00) Los Angeles Time

Currency
US Dollar (\$)

You can edit these property details later in Admin

[Show advanced options](#)

[Back](#) [Next](#)

Note : Each account can manage a maximum of 2,000 properties.

1.4 Business Details

Describe some basic information regarding your business.

Describe your business

Help us better understand your business by answering the following.
Your input helps improve Google Analytics.

Business details

Industry category (Required)
Computers & Electronics ▾

Business size (Required)
 Small - 1 to 10 employees
 Medium - 11 to 100 employees
 Large - 101 to 500 employees
 Very Large - 501+ employees

[Back](#) [Next](#)

1.5 Business Objectives

Select the business objectives that best fit your businesses and comply Terms of Service Agreement.

Choose your business objectives

For reports that are personalized to your business, select the topics most important to you.

- Generate leads**
Analyze visitor metrics and attract new customers
- Drive online sales**
Analyze purchase behavior and get more sales
- Raise brand awareness**
Spread the word about your business
- Examine user behavior**
Learn how people use your site or app
- Get baseline reports**
Multiple types of reports (this option can't be combined with other options)

[Back](#) [Create](#)

Google Analytics Terms of Service Agreement

To use Google Analytics you must first accept the terms of service agreement for your country / region.

United States ▾

Google Analytics Terms of Service

These Google Analytics Terms of Service (this "Agreement") are entered into by Google LLC ("Google") and the entity executing this Agreement ("You"). This Agreement governs Your use of the standard Google Analytics (the "Service").

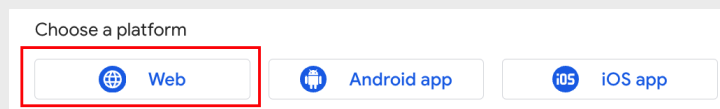
I also accept the [Data Processing Terms](#) as required by GDPR. [Learn more](#)

[I Accept](#) [I Do Not Accept](#)

1.6 Data Collection

To link your website to GA4 and start collecting incoming data, you will need to add your Google Analytics ID tag to your site. Here we will show you how to link your GA4 tag to your website or app.

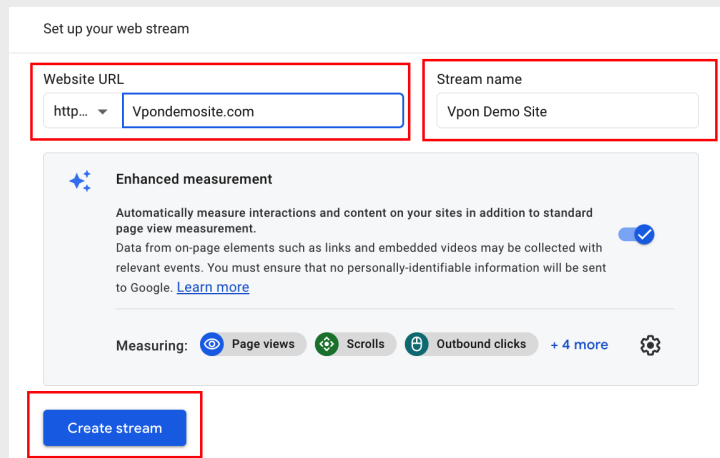
A. Choose a Platform : In the Choose the Platform section select Web



Choose a platform

Web Android app iOS app

B. Create a new Data Stream for the Web : Fill in the Website URL and Stream name then hit create stream.



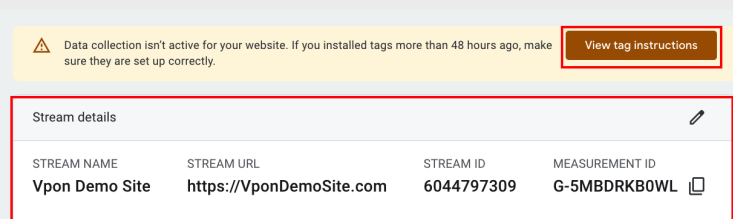
Set up your web stream

Website URL: Stream name:

Enhanced measurement
Automatically measure interactions and content on your sites in addition to standard page view measurement.
Data from on-page elements such as links and embedded videos may be collected with relevant events. You must ensure that no personally-identifiable information will be sent to Google. [Learn more](#)

Measuring: Page views Scrolls Outbound clicks + 4 more

C. Next, click on the View Tag Instructions link and follow the next step below to set up the GA4 Tag. Write down the Measurement ID number, we will need it again to set up Google Tag Manager.



Warning: Data collection isn't active for your website. If you installed tags more than 48 hours ago, make sure they are set up correctly. [View tag instructions](#)

STREAM NAME	STREAM URL	STREAM ID	MEASUREMENT ID
Vpon Demo Site	https://VponDemoSite.com	6044797309	G-5MBDRKBOWL

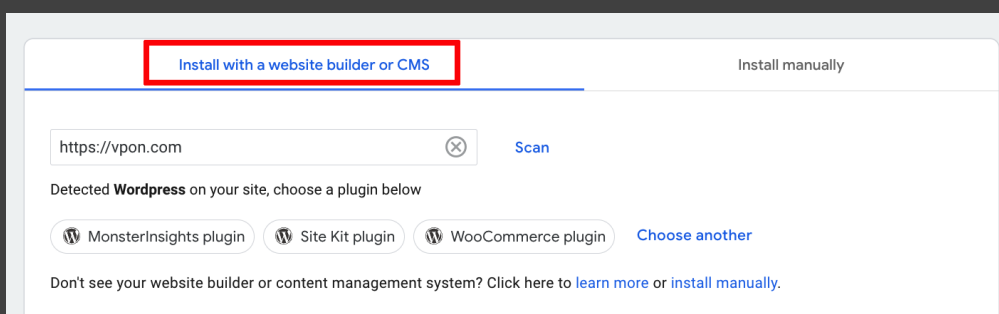
Setting Up the GA4 Tag to Website

There are 3 methods to set up GA4 on your website. Depending on the type of website you have, there are 3 methods to set up the GA4 Tag for your website.

Method 1 : Add Google Analytics tag via Content Management Service (CMS)

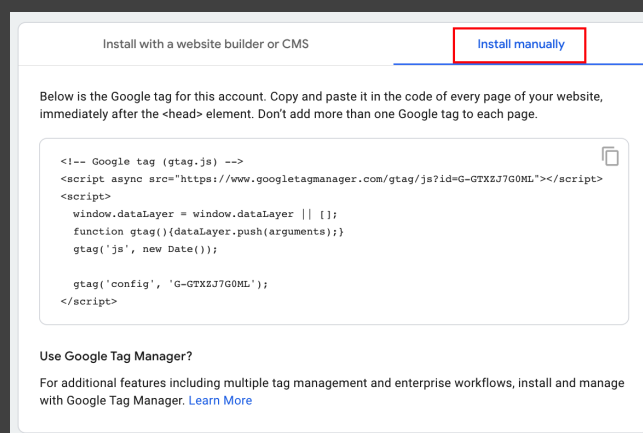
If your website uses a CMS like Wordpress, Drupal, Shopify, & etc., setting up your CMS to work with GA4 is easy. Simply follow the instructions provided by Google. Below you will see a complete list of compatible CMS that can be used by Google.

[See Official Google \[GA4\] Set up Analytics for a CMS-hosted website](#)



Method 2 : Embedding the GA4 Tag Manually

For businesses that do not use a CMS for their website, it will require some technical skill and it is best to have a web developer or engineer from the business to help. This method requires you to manually paste the tag code into your HTML code on all the pages of your website.



Above is an example of the code that Google will provide. Simply click on Install Manually and make sure to place this code after the <head> element of each page.

Method 3 (Recommended) : Setup Google Analytics (GA4) with Google Tag Manager (GTM)

Google Tag Manager (GTM) and Google Analytics (GA4) work together hand in hand. On the one hand, GA collects data, while on the other, GTM is useful for implementing and configuring GA and creating customized event tracking of GA.

Since we have already finished the following steps above

- Create a Google Analytics 4 account and property
- Create a web data stream for your website
- Setup & Install Google Tag Manager

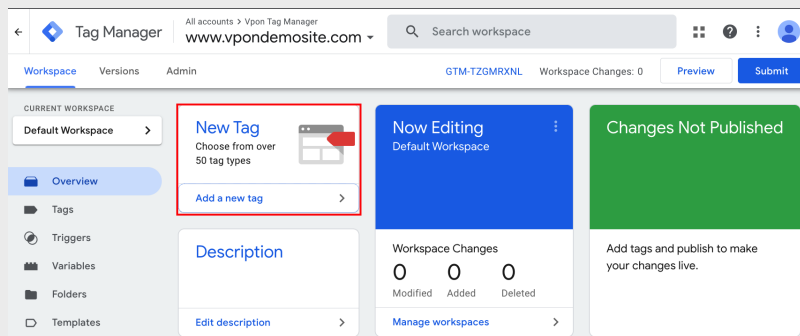
Set Up and Install Tag Manager

To Setup, watch the video below or follow the instructions [here](#).

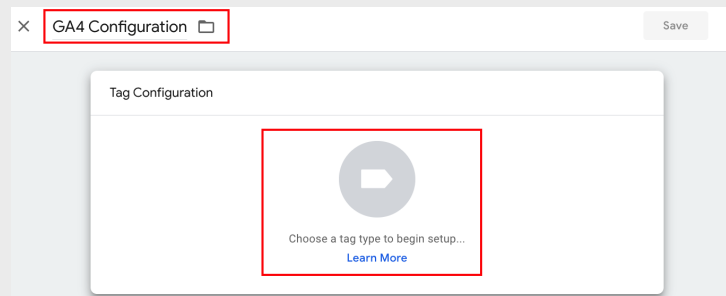
Set up Google Analytics 4 Configuration Tag

Now that GTM is installed and ready. It's time to set up GA4 by implementing a configuration tag.

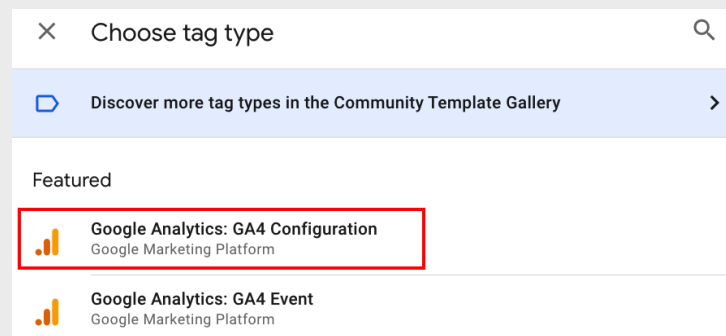
A. Start by creating a **New Tag** in Tag Manager.



B. Next, give your New Tag a Name (e.g GA4 Configuration, GA4 Config) and then Click on Tag Configuration to set up GA4.

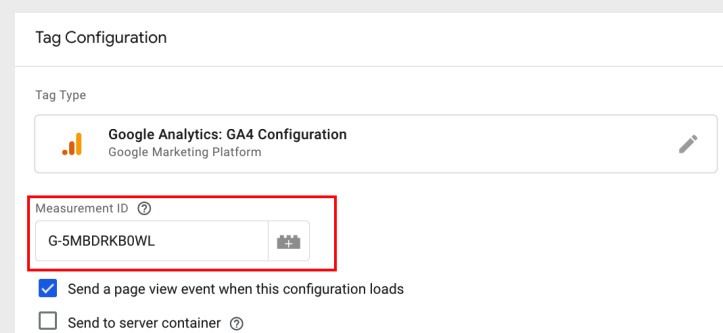


C. Select the Tag type Google Analytics : GA4 Configuration.

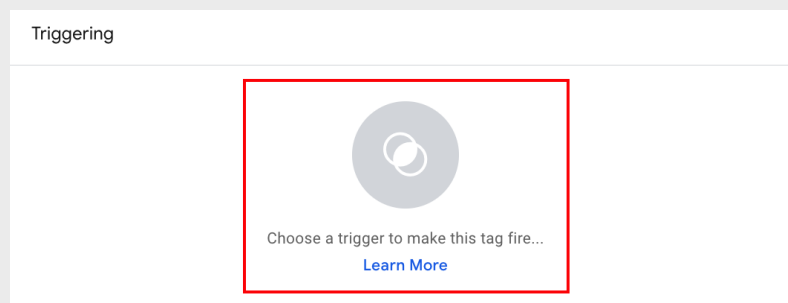


**Note: the Google tag will replace the Google Analytics : GA4 Configuration tag in September: <https://support.google.com/tagmanager/answer/13543899>*

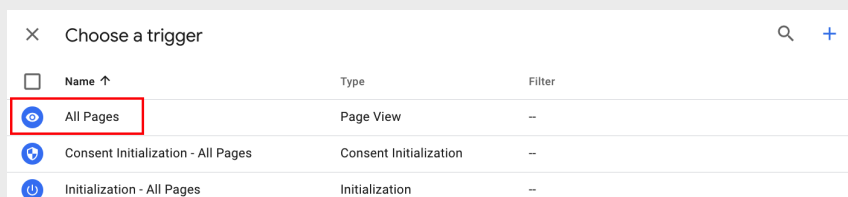
D. Enter the GA4 Measurement ID that you got from setting up GA4 in Step 1.6 Data Collection.



E. Next, we will need to create a trigger for the Tag. Press on the trigger section to set that up.



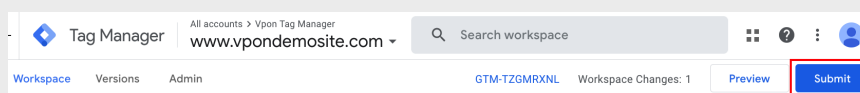
F. For your GA4 trigger, select Name : **All Pages** Type: Page View and click save.



G. Save your tag.



H. Click on **Submit**.

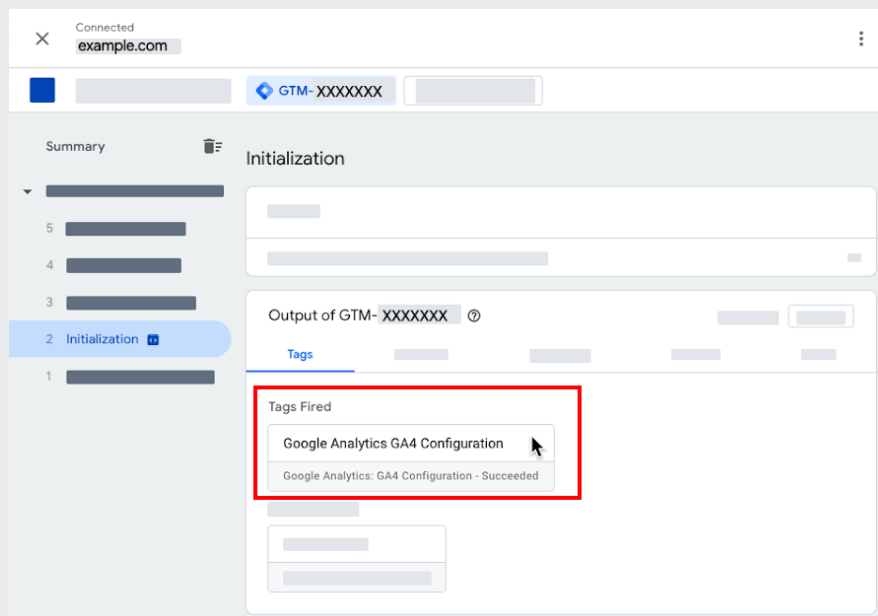


I. Publish the Tag.



J. Verify your tag is working :

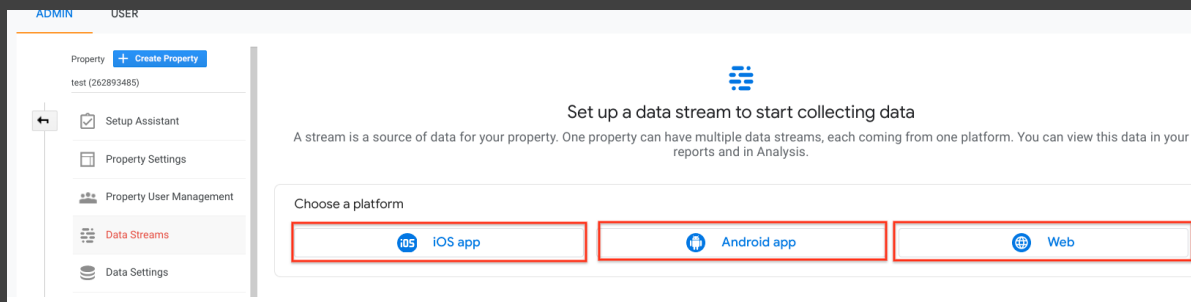
1. Click on **Preview**, and GTM will open up Tag Assistant.
2. Enter your **site URL**.
3. Check to see if the GA4 Configuration trigger has been activated on your website when loaded. You should see some information like this if the tag is fired successfully.



**Note : You can also check if the new tags are working correctly by visiting real time reports in GA4.*

Setting Up the GA4 Tag to Android or IOS App

When you set up an app data stream in GA4, Analytics will create a corresponding Firebase project and app data stream, then it will automatically create a connection between the Firebase project and your property if they are not already linked.



Follow these simple steps below :

1. Enter the **iOS bundle ID** or **Android package name**, the **app name**, and for iOS, the **App Store ID**, then click **Register app**.
2. Click **Next** and follow the instructions to download the config file for your app.
3. Click **Next** and follow the instructions to add the Google Analytics for Firebase SDK to your app.
4. Click **Next**.
5. Run your app to **verify the installation of the SDK** and that the app is communicating with Google servers.
6. Click **Finish**.

**Note: you can skip this step and finish later if needed.*

Implementation, Planning, & Defining Goals

Now that you have a basic idea of how GA4 works with GTM, it's time to start thinking about how you will use it to boost your business. There are a few things to remember as you do this.

How To Set Up The Framework For Analysis

Need help with what metrics you should measure? First, you must determine what information you want to collect. Your analysis framework will vary, depending on what your business is seeking to achieve.

Here are some questions that you should ask yourself :

- What goals do you have for your business this month/quarter/year?
- What metrics will tell you whether you are achieving those goals?
- What business queries can data analysis address?

Of course, it's important to be flexible. The things that you are measuring might change as your business matures.

For Example :

When a business starts growing into a medium-sized or enterprise business, and traffic is flowing regularly, they may want to shift focus from traffic generation to boosting conversion rates or increasing revenue. Take a look at our article on [Mastering Data Analysis with Google Analytics 4](#) and see how you can take your analytics to the next level.

Defining Your Events & Conversions Goals in GA4

In essence, planning out your events and goals in GA4 empowers you to gather accurate data, gain meaningful insights, and make informed decisions that contribute to the growth and success of your digital presence. With proper planning, the data will be easier to interpret and could create clarity for your whole digital strategy. In the following steps, we will discuss how to create event tracking and conversion tracking to help you gather the most critical data for your business.

Setup GA4 Event Tracking

Before we start setting up our own custom events in GA4, we need to have a basic understanding of what GA4 events are.

What are GA4 Events?

GA4 events are triggered as users interact with your site or app. There are a range of Google Analytics 4 events that can be tracked. Marketing tags allow you to track how users interact with your website through a small piece of code. When interacted with, the code activates, and the transaction is logged.

Events in GA4 fall into 4 main categories.

- Automatically collected events
- Enhanced Measurement events
- Recommended events
- Custom events

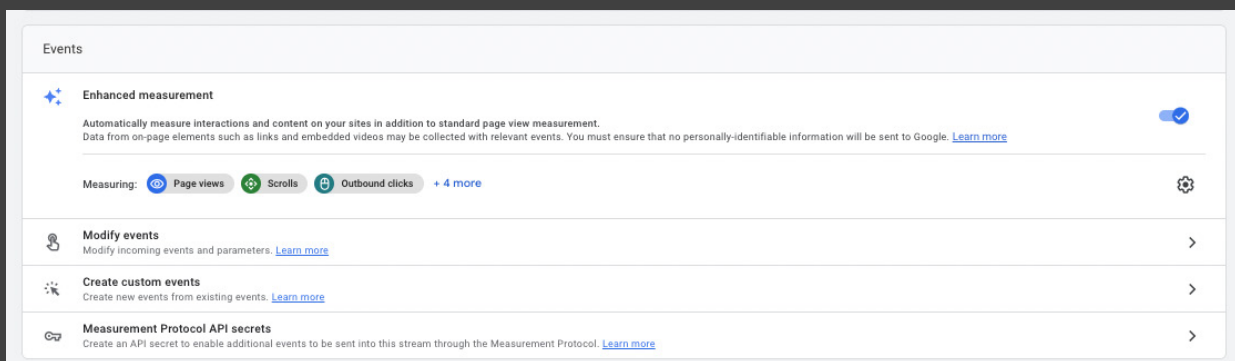
Let's explore these in more detail below.

Automatically Collected Events

After **completing just Steps 1 & 2**, Google Analytics 4 will automatically collect data for you. Some of the most used data events are :


- **first_visit** : event occurs when a user visits a website or launches an app for the first time.
- **session_start** : when a user engages the app or website and starts a new session.
- **user_engagement** : this event is fired 10 seconds after the visitor has stayed on a page. But it also might periodically fire while the app is in the foreground.

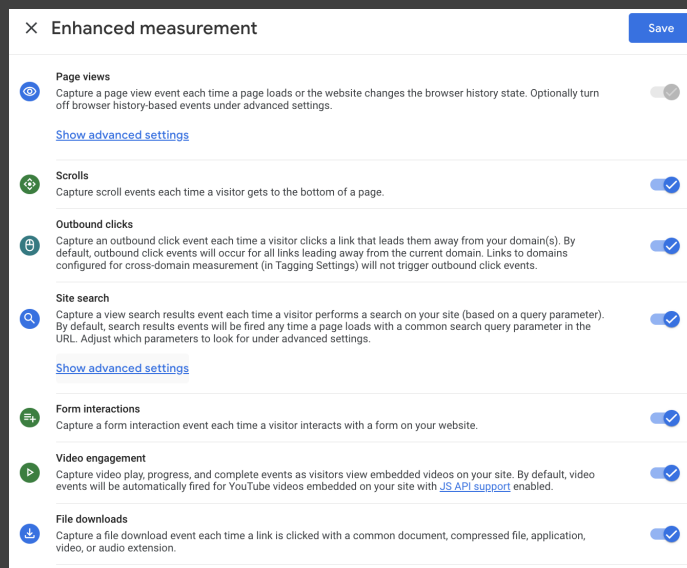
For the complete list of events, you can check [here](#).



Enhanced Measurements Events

The Enhanced measurement events allow you to configure your web stream to gather more information. To access enhanced measurements, you'll need to follow these steps.

1. Go to Admin by clicking the button  on the bottom left and click on **Data Streams**.
2. From here, you can select the **Enhanced Measurements** events that you want to collect.



Once you do this, you'll be able to track the following events (event name) :

- **Page view** (page_view)
- **Scroll** (scroll)
- **Outbound link click** (click with the parameter outbound: true)
- **Site search** (view_search_results)
- **Form Tracking** (form_start, form_submit)*
- **Video Engagement** (video_start, video_progress, video_complete)
- **File Download** (file_download)

In this section you can edit & adjust the type of events you are tracking through enhanced measurement, turning off the ones that your business doesn't need to follow.

**Form Tracking (form_start, form_submit) :*

Since there are still some limitations and bugs with Form Tracking enhanced events, we advise not to set "Form-Tracking" events as a default item. If there is a need, setting the events in GTM will be a better option.

Recommended Events

Google has created a list of recommended events that might apply to people within your industry. It is a great place to check for more niche events you want to track. The list will tell you what parameters to enter when creating an event. For example, if you're going to track when someone logs in, you will need to use login as the Event Name and method as the Event Parameter.

For Examples :

- Product Views, Product Add to Cart, Product Remove from Cart
- Product Purchases, Begin Checkout

Create Custom Events

Custom events can unlock a world of possibilities. There are plenty of custom events that you can track.

****Note** : It's always better to use default events that Google Analytics already recognizes because these events automatically populate the default dimensions and metrics and update standard reports.*

Before Creating Custom Events : use this checklist below

- Custom Event is not already in GA4 automatically collected events.
- Custom Event is not already in GA4 enhanced measurement events.
- Custom Event is not already in GA4 recommended events.
- Make sure the name of the custom event is not a reserved name.
- Review the event collection limits.

Here are some ideas for some custom events to consider tracking :

- Button Clicks*
- Form Submissions
- Video Interactions
- Social Media Shares
- Downloads
- Interactive Content
- Other Custom Conversions

For more information on custom events from Google, visit [here](#)

**Button Clicks :*

When setting up the tracking of button clicks, it is recommended to set it followed by the goal of organization. Undefined tracking of all buttons will not only cause too much data noise which is also meaningless, but will also make it difficult to get the insight from the data.

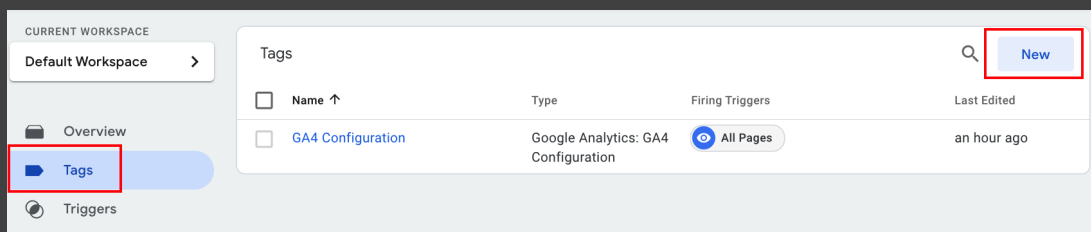
Setup Custom Events with Google Tag Manager (GTM)

As you start collecting data on your website or app, there will be situations where your business will need customized event tracking. In this section, we will show you how to set up your own custom events tracking with GTM. If you haven't already set up your GTM account, make sure to get that done first.

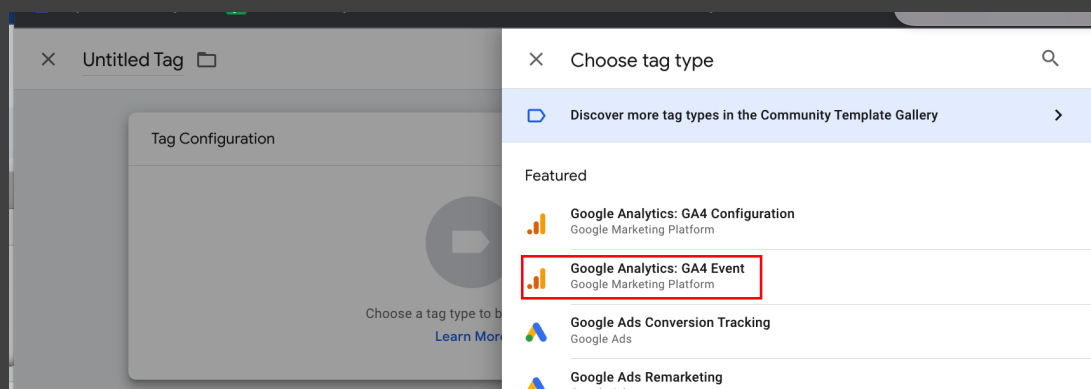
https://developers.google.com/analytics/devguides/collection/ga4/events?client_type=gtm

Let's get started and create your first custom event in GTM. For the example below, we will show you how to create a custom event for "newsletter signups".

1. **Sign in to Google Tag Manager** : Go to the [Google Tag Manager](#) website and sign in with your Google account.
2. **Select your Container** : Choose the container that corresponds to the website where you want to track custom events.
3. **Create a New Tag** : Inside your container, go to "Tags" and click on the "New" button to create a new tag.



4. **Choose a Tag Configuration** : Choose a tag type that corresponds to your custom event. For GA4 custom events, you'll likely want to use the "Google Analytics: GA4 Event" tag type.

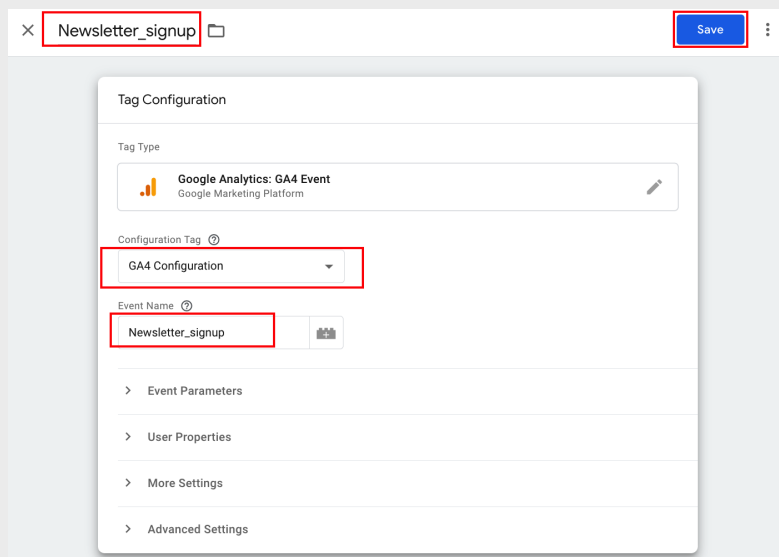


5. Configure Tag Settings :

A. Name your Untitled Tag (e.g., "Newsletter_signup").

B. Select the **GA4 Configuration Tag** we set earlier or you can manually enter your GA4 ID here.

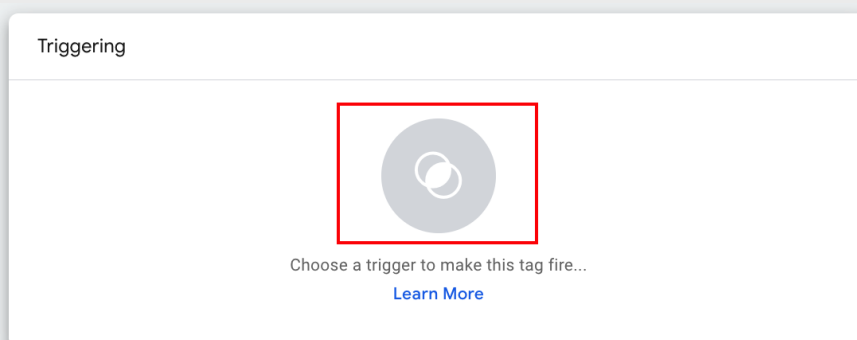
C. Provide an Event Name that describes the custom event (e.g., "Newsletter_signup").



The screenshot shows the 'Tag Configuration' dialog in Google Tag Manager. The dialog title is 'Newsletter_signup'. The 'Tag Type' is 'Google Analytics: GA4 Event'. The 'Configuration Tag' dropdown is set to 'GA4 Configuration'. The 'Event Name' is 'Newsletter_signup'. Below these fields are expandable sections for 'Event Parameters', 'User Properties', 'More Settings', and 'Advanced Settings'. A 'Save' button is visible in the top right corner.

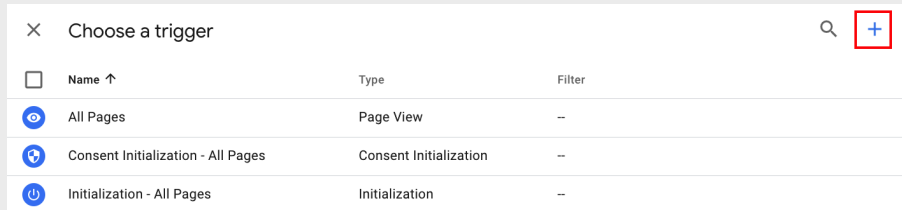
6. Choose a Trigger :

A. Click the Triggering box in your GA4 Event tag.



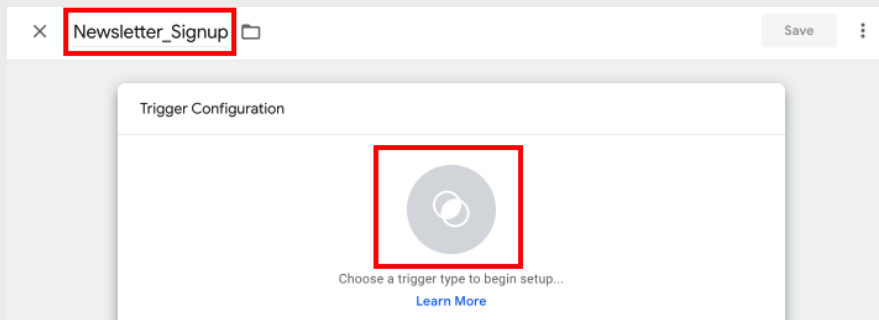
The screenshot shows the 'Triggering' section of the tag configuration. It features a large circular icon with two overlapping circles inside, which is highlighted with a red box. Below the icon, the text reads 'Choose a trigger to make this tag fire...' and there is a 'Learn More' link.

B. Click "+" on the top right.

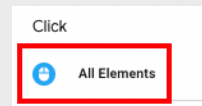


<input type="checkbox"/>	Name ↑	Type	Filter
<input checked="" type="radio"/>	All Pages	Page View	--
<input checked="" type="radio"/>	Consent Initialization - All Pages	Consent Initialization	--
<input checked="" type="radio"/>	Initialization - All Pages	Initialization	--

C. Enter a name for the trigger (e.g., "Trigger - Newsletter_signup").
Then click choose a trigger.

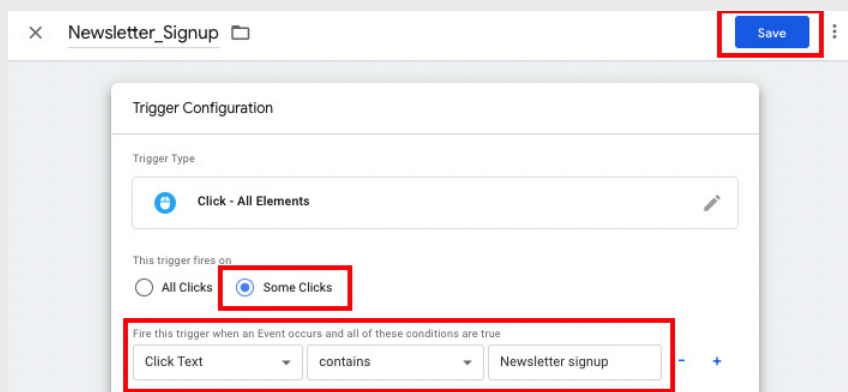


D. Choose trigger type under Click > **All Elements**



7. Configure Trigger Settings :

A. Under the This Trigger fires on select **Some Clicks**.

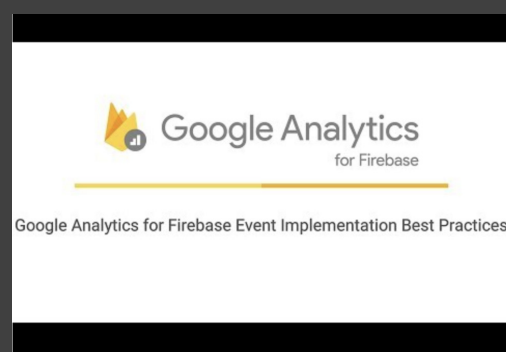


B. Then set the following conditions Select **Built-in Variables > Click Text > contains > Newsletter signup.**

8. **Save the Tag :** Once you've configured the tag and trigger settings, click "Save" to save the tag configuration.
9. **Preview and Test :** Before publishing, use the "Preview" mode in GTM to test your new tag. Click the button that uses "Newsletter signup" and see if your tag has been activated in the preview. If so then we can publish the changes.
10. **Publish Changes :** After testing and verifying that the custom event is tracking correctly, click the "Submit" button in GTM to publish your changes.
11. **Verify Data in GA4 :** Log in to your Google Analytics 4 account and go to the appropriate property to verify that the custom event is being tracked. You should be able to see the event data under the "Events" section.

Setup Custom Events in Firebase (apps)

Firebase is used in conjunction with Google Analytics 4 (GA4) to provide enhanced tracking and analysis capabilities for web and mobile applications. GA4 is the latest version of Google Analytics, designed to offer more advanced insights into user behavior and engagement. Learn how to create custom events in Firebase [here](#) and follow the steps in the video above.



And now you have done for all the basic settings, we can then move to the next few chapters to see how to set up your conversion goals, leads funnels and advance event tracking tools. The last but not the least that you will also want to know “how to track the report site search with GA4”.

The last four steps to Implement GA4 Overview :

Step 4: Setup Conversion Goals & Funnels

Step 5: Advance Event Tracking

Step 6: GA4 Console Setup

Step 7: Share and Export GA4 Reports

Stay tuned and don't miss the coming –

“How to Implement Google Analytics 4 - Vol.2”!