Google Analytics 4 Ecommerce: Data Layer specification

**Why is this needed?** Ecommerce feature in Google Analytics 4 enables businesses to track the entire ecommerce funnel (starting from product impressions and ending with a purchase. GA4 Ecommerce will let us identify the weak spots of the visitor’s journey (where they are dropping off) and improve them, therefore, increase revenue.

**Goal:** On certains pages or on certain interactions implement *dataLayer.push* snippets that contain the Ecommerce data. This information will be then captured by Google Tag Manager and automatically sent to Google Analytics.

**Useful resource for reference:**

* <https://www.simoahava.com/analytics/google-analytics-4-ecommerce-guide-google-tag-manager/>

**Support for questions:** [enter your email]

**Pages of implementation:**

There will be multiple pages and interactions where different *dataLayer.push* snippets must be implemented. [remove items that are irrelevant to your project]

* Product list impressions (*view\_item\_list* event)
* When a product is clicked (*select\_item* event)
* When product page is viewed (*view\_item* event)
* When a product is added or removed from a cart (*add\_to\_cart* and *remove\_from\_cart*)
* When a product is added to a wishlist (*add\_to\_wishlist*)
* When a cart page is viewed(*view\_cart*)
* When the checkout is started (*begin\_checkout*)
* When shipping and billing information is entered (*add\_shipping\_info, add\_payment\_info*)
* on *[/shop/success-page.html]* when a successful purchase was made (*purchase* event)
* When internal promotion banners are displayed (*view\_promotion*)
* When internal promotion banners are clicked (*select\_promotion*)

**Code location:** Does not matter, just make sure that every code is activated only when the situation/interaction meets the description that I’ve provided below

**Things to keep in mind:**

* For **different** situations/interactions **different** tracking codes must be implemented
* *dataLayer.push* code snippets must follow the strict data structure that I have provided in the codes below. If you think that some other custom parameters should be included (or something is missing), please let me know and we will discuss this.
* Money-related data must be formatted in a following way:
  + type: string
  + contains: only a number separated by a decimal point,
  + separator: dot
  + Good example: ‘14.00’
  + Bad examples: ‘15,00’, ‘20.00 EUR’, ‘$5.00’
* Keep an eye on the comments in the provided code snippets. They contain useful information.
* Copy/pasting codes is not enough. You have to replace the values of keys/parameters in the code with the actual values of that particular interaction. For example, if the transaction ID is “abc123”, it must be reflected in the code.

# **#1. Products list impressions**

To avoid unnecessary formatting in the code, copy the code from here: [enter link to gist.github.com or pastebin.com, e.g.<https://pastebin.com/dmbNemLj>]

This snippet must be activated when a visitor lands on a page and sees one or many products in a particular list. If there are more than one product, include all of them (that are visibile) in the *items* array.

Keep an eye on the comments in the code. I’ve explained there which values must remain static and which ones must be dynamically replaced by your custom functions.

**Important:** every product in the “items” array contains the **item\_list\_name** key. This key contains the name of a list in which the product was displayed. Here are all the possible list names [think carefully of all the lists in the store where the products can be displayed. If you don’t plan to track product lists, remove this part from the specification]:

* search results
* sidebar
* category
* related products
* homepage - features collection
* footer

# **#2. Products list - when a product is clicked**

When a product is clicked in a certain product list, activate this code. To avoid unnecessary formatting in the code, copy the code from here: [enter link to gist.github.com or pastebin.com, e.g.<https://pastebin.com/yRdFdk70> ]

# **#3. Product page - when a product is viewed**

Fire this code when a visitor opens a product details page, e.g. *[/shop/phones/iphone6.html]* or expands/previews product information in the product list [this does not apply to all online stores, therefore, if you find it irrelevant, remove this part from the specification]

To avoid unnecessary formatting in the code, copy the code from here: [enter link to gist.github.com or pastebin.com, e.g.<https://pastebin.com/vNrUasiL> ]

# **#4. When a product is added or removed from a cart**

When a product is added or removed from a cart, fire these codes

## #4.1. When a product was added to cart

To avoid unnecessary formatting in the code, copy the code from here: [enter link to gist.github.com or pastebin.com, e.g.<https://pastebin.com/QDrGAjZH>]

## #4.2. Remove from Cart

To avoid unnecessary formatting in the code, copy the code from here: [enter link to gist.github.com or pastebin.com, e.g.<https://pastebin.com/dPU0BUxp>]

# **#5. When a cart page is viewed**

When a user goes to a cart page, activate this code. To avoid unnecessary formatting in the code, copy the code from here: [enter link to gist.github.com or pastebin.com, e.g.<https://pastebin.com/05VzmGfA>]

# **#6. When a product is added to a wishlist**

When a product is added to a wishlist, activate this code. To avoid unnecessary formatting in the code, copy the code from here: [enter link to gist.github.com or pastebin.com, e.g.<https://pastebin.com/9TegEVXw>]

# **#7. Checkout**

When a visitor enters a checkout process, you need to fire a specific code snippet. Snippets in some situations are slightly different.

## #7.1. Checkout started

To avoid unnecessary formatting in the code, copy the code from here: [enter link to gist.github.com or pastebin.com, e.g.<https://pastebin.com/1FPJSJrc>]

## #7.2. Delivery method chosen and shipping info is entered

When a visitor selects the delivery method and enters the shipping address, activate this code. Please note that there is a new parameter called **shipping\_tier**.

To avoid unnecessary formatting in the code, copy the code from here: [enter link to gist.github.com or pastebin.com, e.g.<https://pastebin.com/ijD6cVbR>]

## #7.3. Entered payment information

When a visitor selects the payment method and enters the billing information, activate this code. Please note that there is a new parameter called **payment\_type**.

To avoid unnecessary formatting in the code, copy the code from here: [enter link to gist.github.com or pastebin.com, e.g.<https://pastebin.com/WJxUwUGc>]

# **#8. Purchase**

When a purchase is completed successfully, fire this code. Please note that there is a bunch of new parameters (compared to the previous code snippets)

To avoid unnecessary formatting in the code, copy the code from here: [enter link to gist.github.com or pastebin.com, e.g. <https://pastebin.com/hckwmr8k>]

Fire this code only once. If a visitor refreshes or revisits the page, this code must not fire (in order to avoid tracking duplicates)

# **#9. When internal promotion (banner) is displayed**

When an internal promo banner is displayed, fire this code. To avoid unnecessary formatting in the code, copy the code from here: [enter link to gist.github.com or pastebin.com, e.g.<https://pastebin.com/PCgZhjb0>]. If there are more promotions on a page, then include them in the *items* array.

# **#10. When an internal promotion (banner) is clicked**

When an internal promo banner is clicked, fire this code. To avoid unnecessary formatting in the code, copy the code from here:[enter link to gist.github.com or pastebin.com, e.g. <https://pastebin.com/gPuSJc41>].