Universal Analytics Data Backup

Context

Google Analytics 4 has replaced Universal Analytics

Last updated: June 18, 2024

> ⚠ **Urgent:** Starting on July 1, 2024, you will lose access to Universal Analytics data in the interface and the API, and via any product integrations like Google Ads, or Search Ads 360. If you haven't completed the migration, go to the Setup Assistant to get started with Google Analytics 4 (GA4). To maintain access to data from your property, you should download your data now.

Google Analytics 4 is our next-generation measurement solution, and it has replaced Universal Analytics. To maintain your website measurement, you'll need a Google Analytics 4 property. If you haven't already, make the switch to Google Analytics 4 .

Understand the migration timeline

Starting the week of July 1, 2024: You will not have access to any current or historical Universal Analytics data and most users will lose access to the interface and the API on this date. For some properties it may take longer. All properties visible after July 1, 2024 will show a banner that they are queued for deletion. Universal Analytics 360 properties currently in an active BigQuery backfill will show in the interface for the full duration of that backfill. Correctly configured BigQuery backfills that start on or before June 30, 2024 will continue until completion, even if that date is after July 1, 2024.

Objectives

To back-up valuable historical data in raw format to be used for future analysis and comparisons.

Methodology

Existing Methods of Data Extraction:

- Manually through UA platform on each report page
- UA Query Explorer
- Third Party SAAS Providers (e.g Funnel.io [1], mamoto [2])
- Google API + Python to save csv files locally

Limitations

Limitations according to the above list of methods:

- Time Consuming, Tedious and Possible Data Loss
- Time Consuming, Tedious and Possible Data Loss
- Estimated time required for extraction based on data size >1 week
- Requires some Technical Knowledge

Pricing information for Funnel.io can be found here.
Pricing information for mamoto can be found here.

Google API + Python

Basic Info

- Uses Google Analytics API and Python
- Extracts a sample of all data based on the date range, metrics and dimensions specified and outputs it in a .csv file

Limitations

- The actual raw data for Singapore has hundreds of millions of rows of entries, hence sampling is necessary. However, sampling only pulls about 450-500k rows of data out of tens of millions of entries at a time. Malaysia and Thailand are less affected by this issue
- 'bounceRate' is calculated based on individual pages/sites, which is not representative of the actual bounce rate for the whole website, so we added an extra metric i.e. 'bounces' for more accurate calculation of bounce rate

  e.g Average Bounce Rate for a given day should not be calculated by taking the average of bounceRate, instead should be calculated by $\frac{SUM\ Bounces}{SUM\ PageViews}\ x\ 100\%$

Metrics

sessions	sessionDuration	avgSessionDuration
users	newUsers	bounceRate
pageviews	uniquePageviews	bounces

Dimensions

sessionCount	pagePath
deviceCategory	pageTitle
date	

Google API + Python

Data Overview

	Date Range	Sample Size	Total Number of Rows of Data
Singapore	2015-01-01 to 2023-06-30	477084 out of 25264277	720835
Malaysia		488870 out of 514231	369068
Thailand		499436 out of 1289823	295391

Google API + Python

Snapshot of Data

ga:sessionCoun	ga:pagePath	ga:deviceCategory	ga:pageTitle	ga:date	ga:session	ga:sessionDuration	ga:avgSessionDuration	ga:users	ga:newUsers	ga:bounceRate	ga:pageviews	ga:uniquePageviews	ga:bounces
1	/	desktop	(not set)	20150727	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20150805	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20150904	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20151128	106	0	0	106	106	100	106	106	106
1	/	desktop	(not set)	20151201	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20151203	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20151207	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20151208	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20151209	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20151210	106	0	0	106	106	100	106	106	106
1	/	desktop	(not set)	20151216	106	0	0	106	106	100	106	106	106
1	/	desktop	(not set)	20151217	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20151226	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160324	159	0	0	159	159	100	159	159	159
1	/	desktop	(not set)	20160325	106	0	0	106	106	100	106	106	106
1	/	desktop	(not set)	20160401	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160402	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160406	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160411	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160509	106	0	0	106	106	100	106	106	106
1	/	desktop	(not set)	20160513	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160519	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160523	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160526	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160714	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160715	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160719	106	0	0	106	106	100	106	106	106
1	/	desktop	(not set)	20160720	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160726	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160729	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160731	106	0	0	106	106	100	106	106	106
1	/	desktop	(not set)	20160802	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160806	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160807	106	0	0	106	106	100	106	106	106
1	/	desktop	(not set)	20160808	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160811	53	0	0	53	53	100	53	53	53
1	/	desktop	(not set)	20160826	106	0	0	106	106	100	106	106	106
1	/	desktop	(not set)	20200312	106	89760	846.7924528	106	106	0	318	106	0
1	/	desktop	(not set)	20200317	53	71172	1342.867925	53	53	0	159	53	0
1	/	desktop	(not set)	20200318	53	79645	1502.735849	53	53	0	159	53	0
1	/	desktop	(not set)	20210422	53	530	10	53	53	0	106	53	0
1	/	desktop	4 Ways to Sell Your Car ¦ Traditional vs Unconventional, you decide | Motorist.sg	20151029	0	0	0	53	0	0	53	53	0
1	/	desktop	About Us | Motorist.sg	20151030	0	0	0	53	0	0	53	53	0
1	/	desktop	Articles - CarAdvice, CarNews & CarReviews | Motorist.sg	20151029	0	0	0	53	0	0	106	53	0
1	/	desktop	Articles - CarAdvice, CarNews & CarReviews | Motorist.sg	20160113	0	0	0	53	0	0	53	53	0
1	/	desktop	Ask Motorists | Motorist.sg	20151029	0	0	0	53	0	0	159	53	0
1	/	desktop	Buy Used Cars | Motorist.sg	20150729	0	0	0	53	0	0	53	53	0
1	/	desktop	Buy Used Cars in Singapore | Motorist.sg	20151029	0	0	0	53	0	0	106	53	0
1	/	desktop	Buy Used Cars in Singapore | Motorist.sg	20151030	0	0	0	53	0	0	53	53	0
1	/	desktop	Buy Used Cars in Singapore | Motorist.sg	20160113	0	0	0	53	0	0	106	53	0
1	/	desktop	Buy Used Cars in Singapore | Motorist.sg	20160326	0	0	0	53	0	0	53	53	0
1	/	desktop	Can i get a refund of the unused proportion of my insurance premium if i scrap car before my COE expires? | Motorist.sg	20151029	0	0	0	53	0	0	53	53	0
1	/	desktop	Contact Us | Motorist.sg	20151029	0	0	0	53	0	0	53	53	0
1	/	desktop	eu-cookie-law.info eu cookie law	20160731	106	0	0	106	106	100	106	106	106
1	/	desktop	eu-cookie-law.info eu cookie law	20160802	53	0	0	53	53	100	53	53	53
1	/	desktop	Gulf Liveried McLaren Elva Debuts in Singapore Alongside Limited Edition 720S Le Mans and 620R | Articles | Motorist	20210507	0	0	0	53	0	0	53	53	0
1	/	desktop	Happenings on Motorist | Motorist Singapore	20230517	0	0	0	53	0	0	0	0	0
1	/	desktop	Home page	20150703	0	0	0	53	0	0	53	53	0
1	/	desktop	Home page	20150705	0	0	0	53	0	0	53	53	0
1	/	desktop	Home page	20150708	53	0	0	53	53	100	53	53	53
1	/	desktop	Home page	20150716	53	0	0	53	53	100	53	53	53
1	/	desktop	Home page	20150718	106	0	0	106	106	100	106	106	106
1	/	desktop	Home page	20150726	0	0	0	53	0	0	53	53	0
1	/	desktop	Home page	20150727	106	0	0	106	106	100	106	106	106
1	/	desktop	Home page	20150808	53	0	0	53	53	100	53	53	53
1	/	desktop	Home page	20150809	53	0	0	53	53	100	53	53	53
1	/	desktop	Home page	20150812	53	0	0	106	53	100	106	106	53
1	/	desktop	Home page	20150918	53	0	0	53	53	100	53	53	53
1	/	desktop	Home page	20151015	53	0	0	53	53	100	53	53	53
1	/	desktop	Home page	20151022	106	0	0	106	106	100	106	106	106
1	/	desktop	Home page	20151030	53	0	0	53	53	100	53	53	53
1	/	desktop	Home page	20160622	53	0	0	53	53	100	53	53	53
1	/	desktop	Home page	20160704	53	0	0	53	53	100	53	53	53

Link to the google drive folder containing the csv exports can be found here.