Lab 01: Web Analytics

Learning Objectives

1. Able to describe the functions of Google Sites.
2. Know how to build and host a web site on Google Sites.
3. Know how to embed Google Analytics Tracking ID/Measurement ID to the site.
4. Able to understand the audience behavior from statistics.

Part 1: Google Sites

With modern technology, publishing is no longer restricted to professional institutions. Anyone with a computer can create a website, keep a weblog, or write tweets. This trend leads to, as Clay Shirky puts it, the mass amateurization of publishing activities. There is essentially no barrier for anyone with any background to become a publisher online.

In this part of laboratory, you are going to create your own website with Google Sites service. While there are many other ways in which you can share information with others, creating your own website would be the most flexible way to create your digital presence. More importantly, with Google Sites, it is not difficult at all!
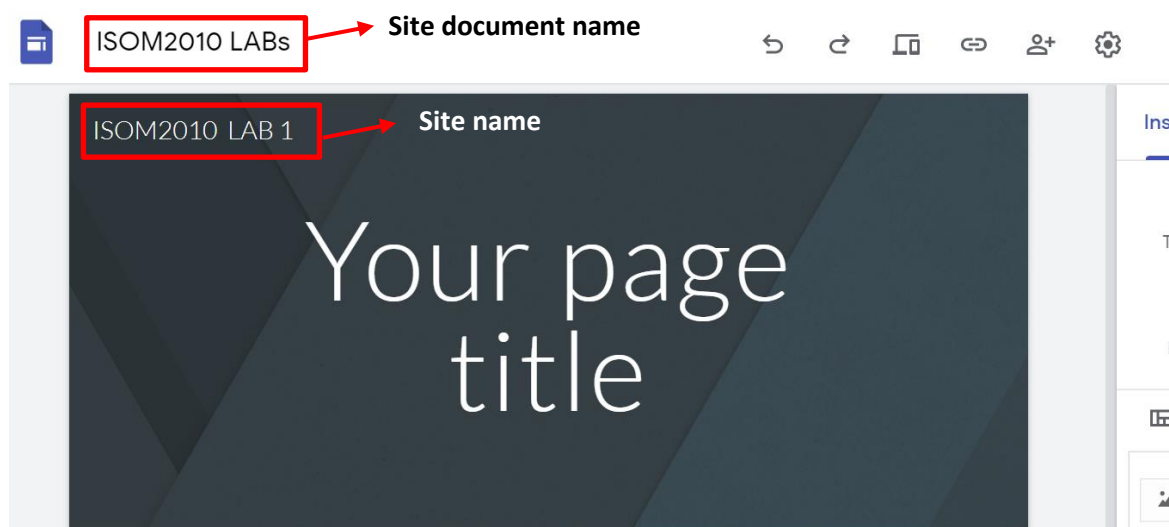
The following guided exercise is provided to help you know the basics.

1. Creating your site – Hello World!

i) Go to Google sites => http://sites.google.com
ii) Login with your Google account.
iii) Click **+** button
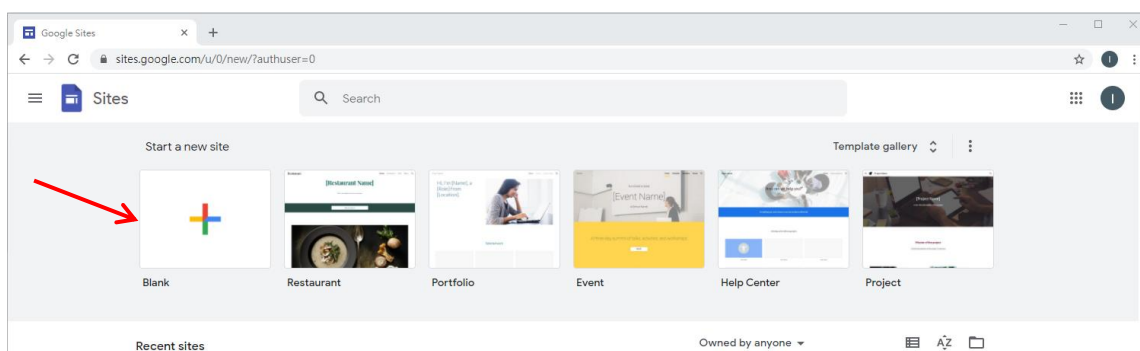
iv) Rename your site from **Untitled Site** to **any name that you want**. And also put your site name in "Enter site name" field.

v) Click **PUBLISH** button on the top right corner, input **any name that you want** as Site location/Web address, and click **PUBLISH**. If you cannot register the name, please rename with other unused name.
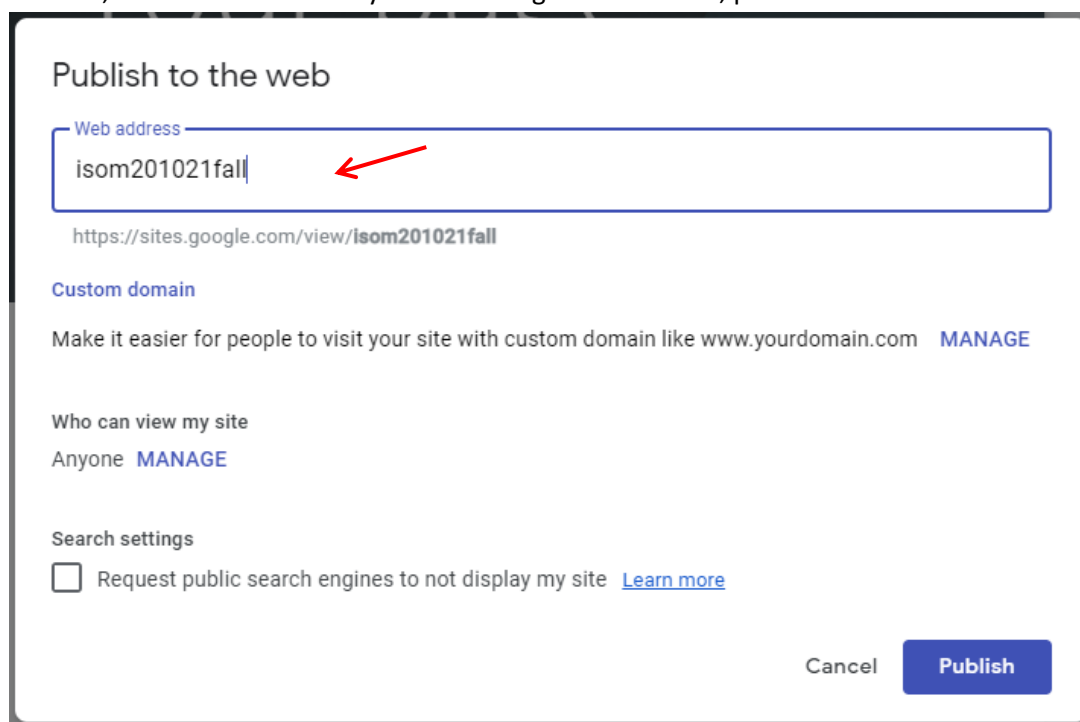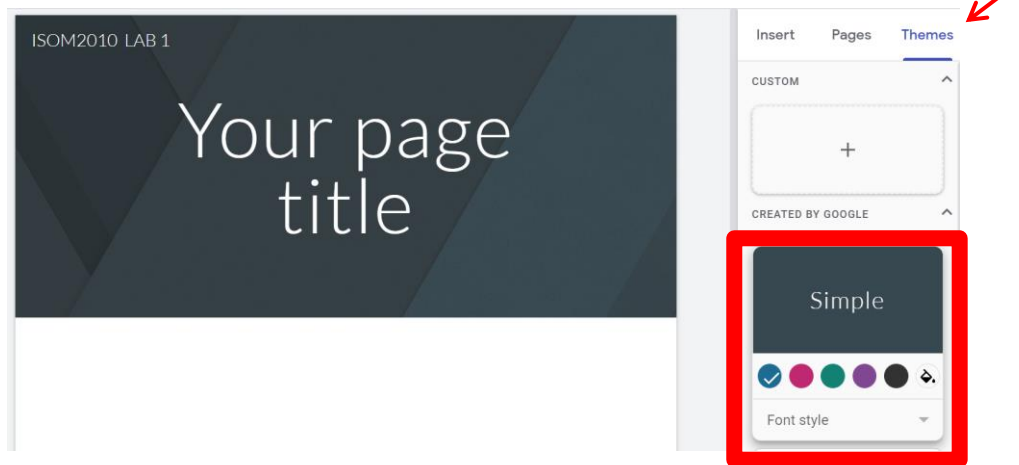

vi) Wait for a moment. Now you can view your site by clicking View published site.
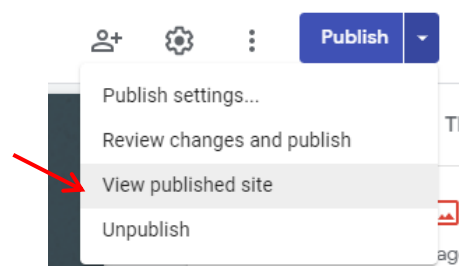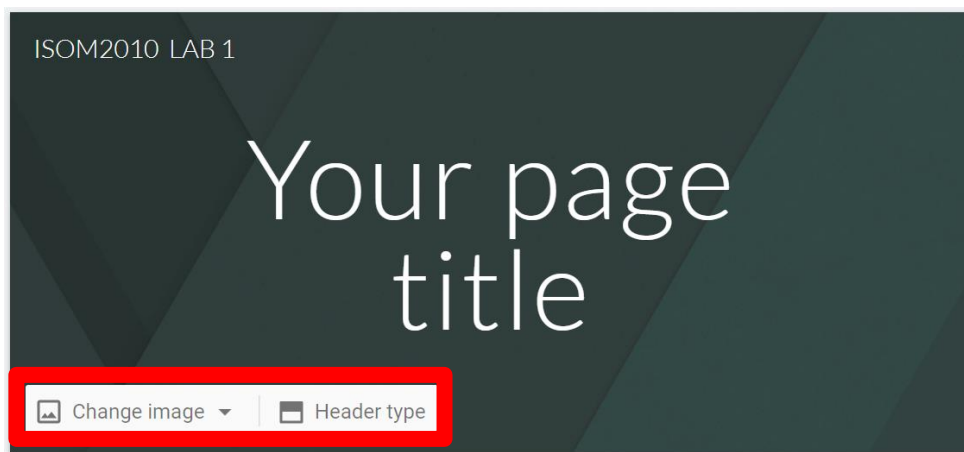
2. Edit your first page

A new site comes up with a default home page. Start to edit the page.
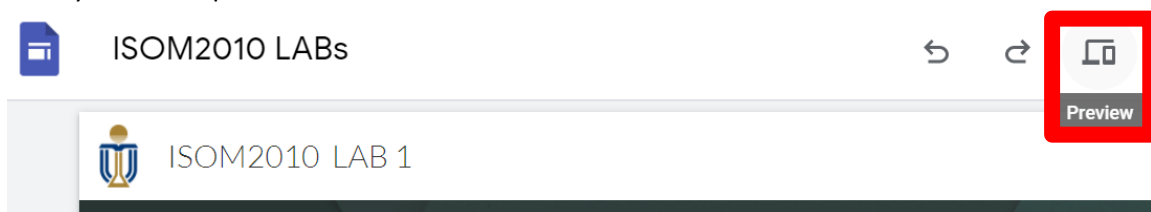
    i)   Set a Site Themes

    ii)   Edit page header: Title, image, header type
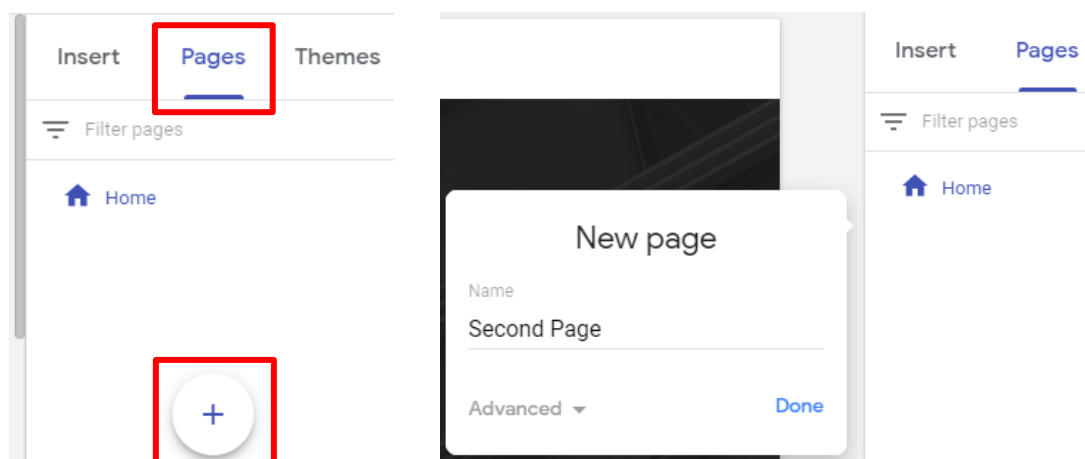

    iii)   View your site in preview mode

    iv)   Select different types of devices

Phone	Tablet	Large screen

3. New Web Page

i)   Click **Pages** Tab, then **Add page** button. Enter **Page Name**, and click **DONE**.

ii)   Wait for a while and the new page will be created. You can see the page name will be appeared on the navigation bar automatically.
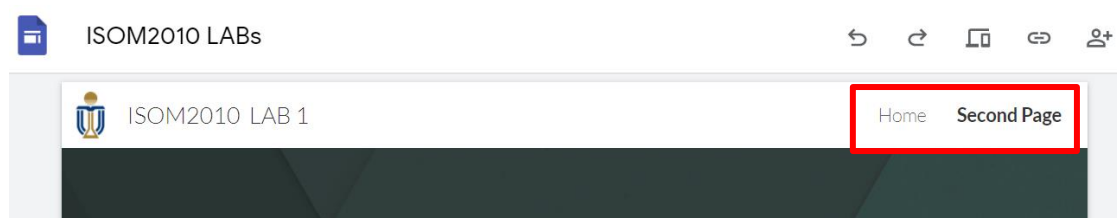
4. Inserting different types of media contents

Google Sites offers a number of predefined multimedia components for your own website. You may find them in the **Insert** tab at right panel.
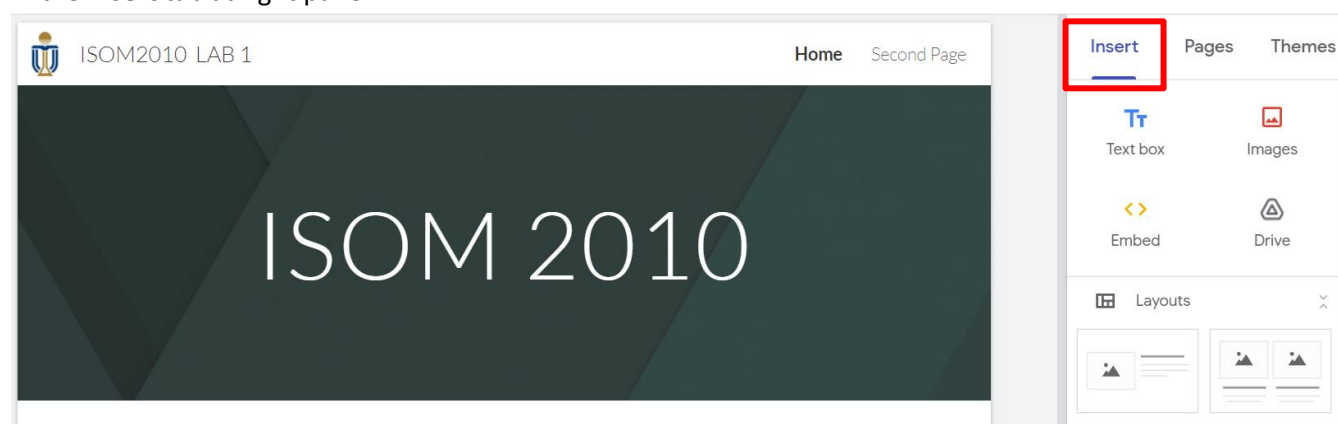
YOUR TASK NOW!!!

Assume you are running a bakery in HKUST and would like to build a website for your shop. The website should have at least 2 pages. Explore the following components in order to have them available on your website.

- Text box (Display information)
- Image
- Video (YouTube Video)
- Map

Website design tips:

| Don't make users wait for content to load	
▪ Optimize images	▪ Measure your website's current performance
Make your website responsive	
▪ Make essential information easily findable	▪ Size interactive elements according to the screen
Take content seriously	
▪ Make sure the text on the website is relevant	▪ Avoid jargon

- ◆ Google Test My Site tool (https://www.thinkwithgoogle.com/intl/en-gb/feature/testmysite/)

5. Sharing and collaboratively working on the site

Most of the times, creating a site is a collaborative work. With Google Sites, collaborating with your classmates is extremely easy.

i) Click **Share with others**.
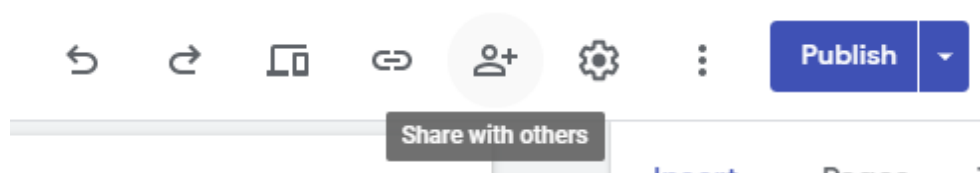
ii) Select the roles for the people you invite.
iii) Type in their emails and separated with commas in **Invite people**.
iv) Click **Send** to invite these people.
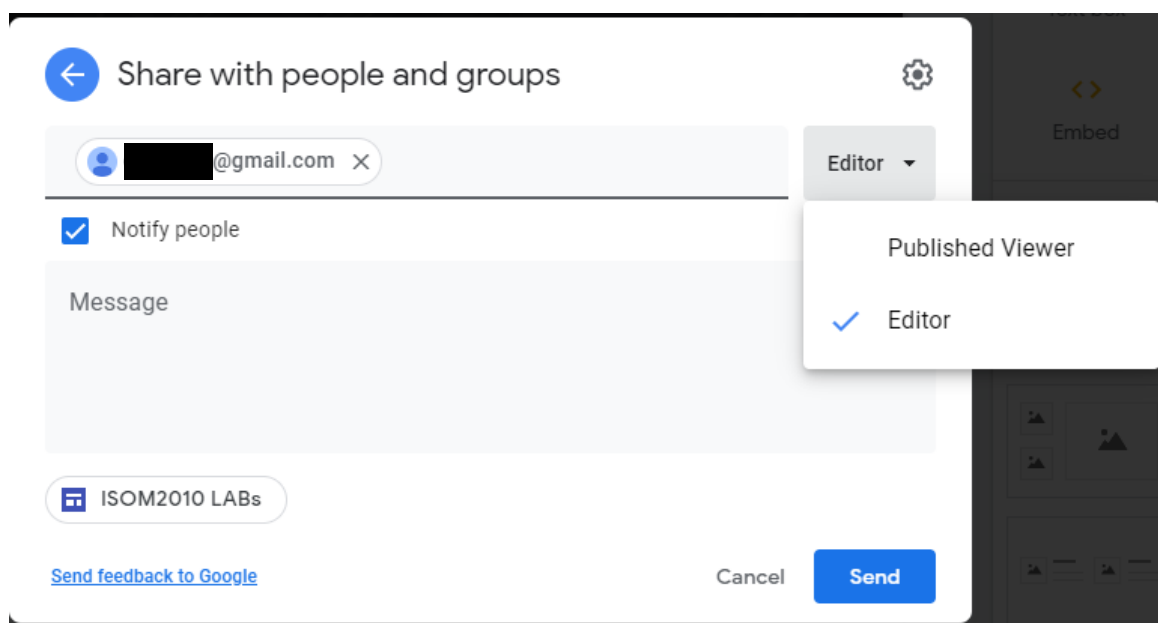
Part 2: Google Analytics Tracking ID / Measurement ID

Google Analytics will be embedded as a statistical tool in your website.

1. Creating Google Analytics account and Tracking ID / Measurement ID

i) Browse https://analytics.google.com
ii) Sign in with your google account

iii) Click **Start measuring** button

.ıl Analytics

Welcome to Google Analytics

Google Analytics gives you the free tools you need to analyse data for your business in one place, so you can make smarter decisions.

Start measuring

iv) Complete the **Create** account form. Here is the example using **isom2010lab2021fall**:
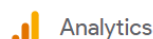
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(1) Account setup

Account Name: **isom2010lab2021fall**

(2) *Property setup*

Property Name: **isom2010lab2021fall**

Reporting Time Zone: Hong Kong (GMT +08:00) Hong Kong Time

Currency: Hong Kong Dollar (HKD HK$)

(3) About your business

Industry category: Other

Business size: Small

Answer the survey: Measure customer engagement with my site or app

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v) Click **Create** button, accept the terms of service, and click **I Accept** button.

vi) Click **Web**.

Next Step: Set up a data stream to start collecting data

After creating a data stream, you'll get tagging information and a Measurement ID for web streams.

Learn more: Add a data stream and set up data collection ↗

Choose a platform

| Web | Android app | iOS app |

vii) Set up your web stream
Website URL: **https://** sites.google.com/view/**isom201021fall**
Stream name: ISOM2010 Lab
Enhanced measurement: Enabled

viii) Click **Create stream**, and you will get a Tracking ID / Measurement ID

✕ Web stream details

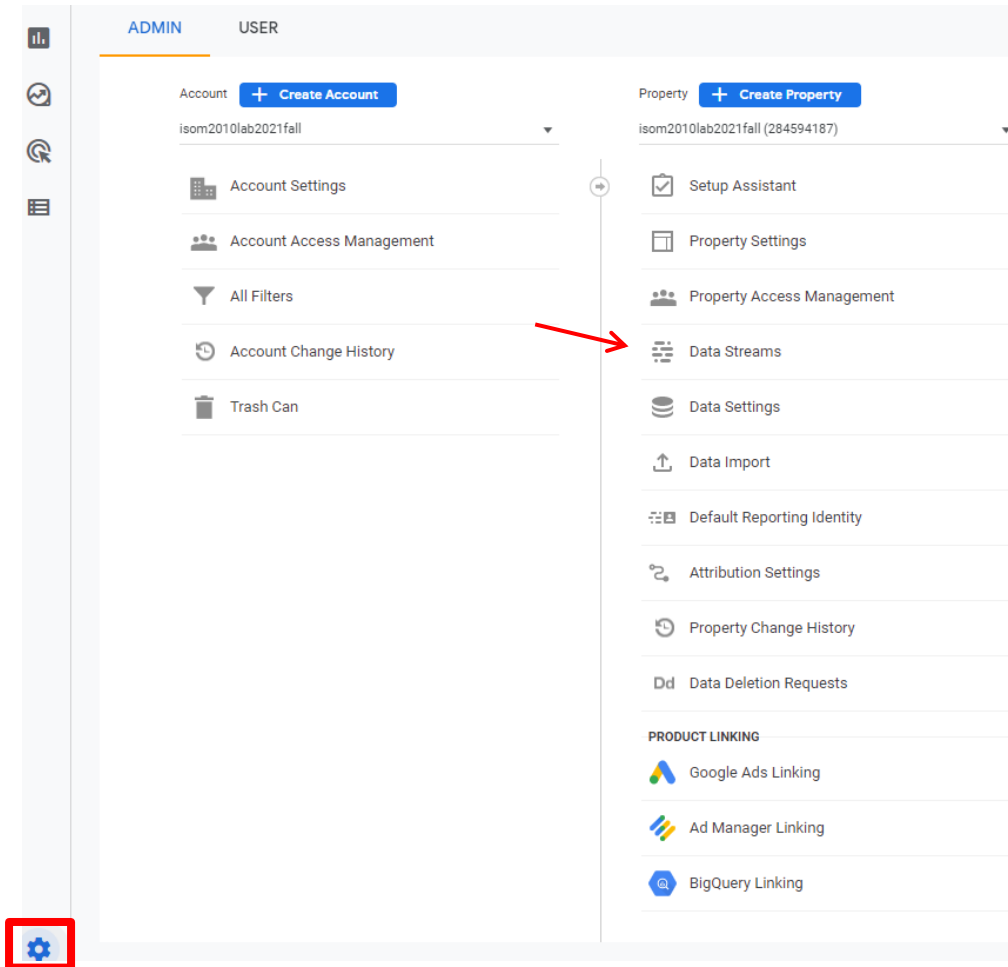| STREAM URL	STREAM NAME	MEASUREMENT ID
https://sites.google.com/view/isom201021fal	ISOM2010 Lab	G-G4PKDEWTSV

STREAM ID	STATUS
2770316052	No data received in past 48 hours. Learn more

You can also find your Measurement ID by clicking Admin button → Data Streams →Your stream
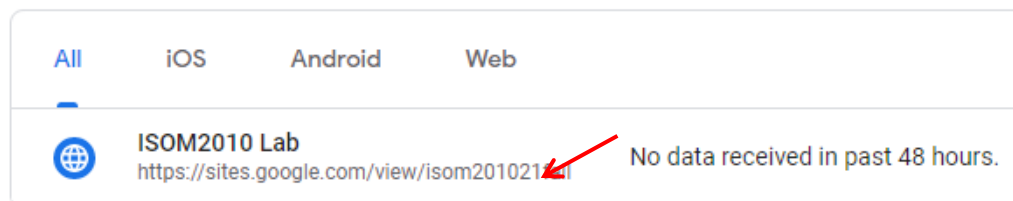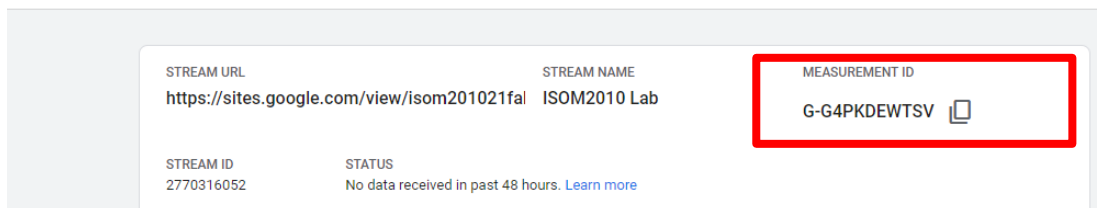
2. Setting Tracking ID / Measurement ID to your site
    i)   Copy the Tracking ID / Measurement ID

ii)   Click **Settings** button → **Analytics**
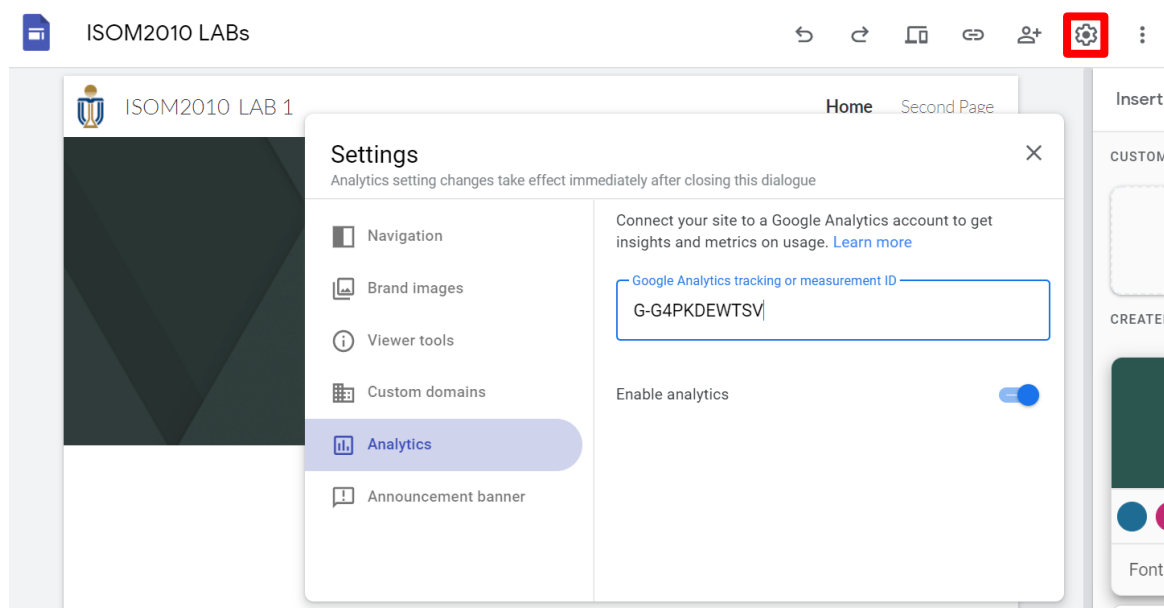
iii)   Paste the tracking ID / measurement ID

Part 3: Google Analytics

Google Analytics is a free web analytics service that provides statistics and basic analytical tools for search engine optimization and marketing purposes. To start with,

i)   Visit https://analytics.google.com
ii)   Sign in with your google account used in the Part 2.

1.   Real Time Information

Google Analytics provides the Real-Time statistics about who are browsing the website.

i)   Click **Reports** > **Realtime** on the left navigation menu.
ii)   **Realtime** will show the current statistics (e.g. number of active users, active pages, event count and audience location).
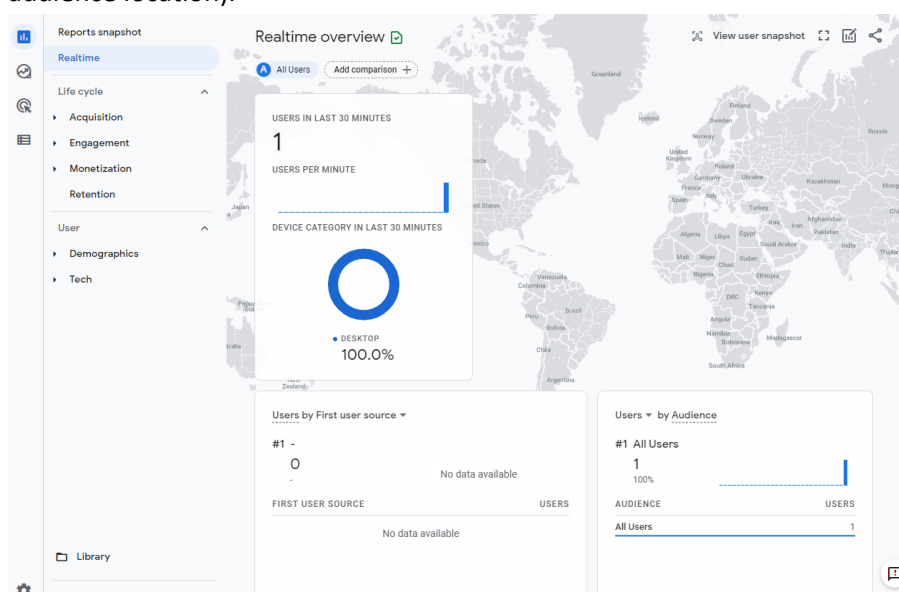
2. *Insights*

You can click the Insights button to explore more about Google Analytics.
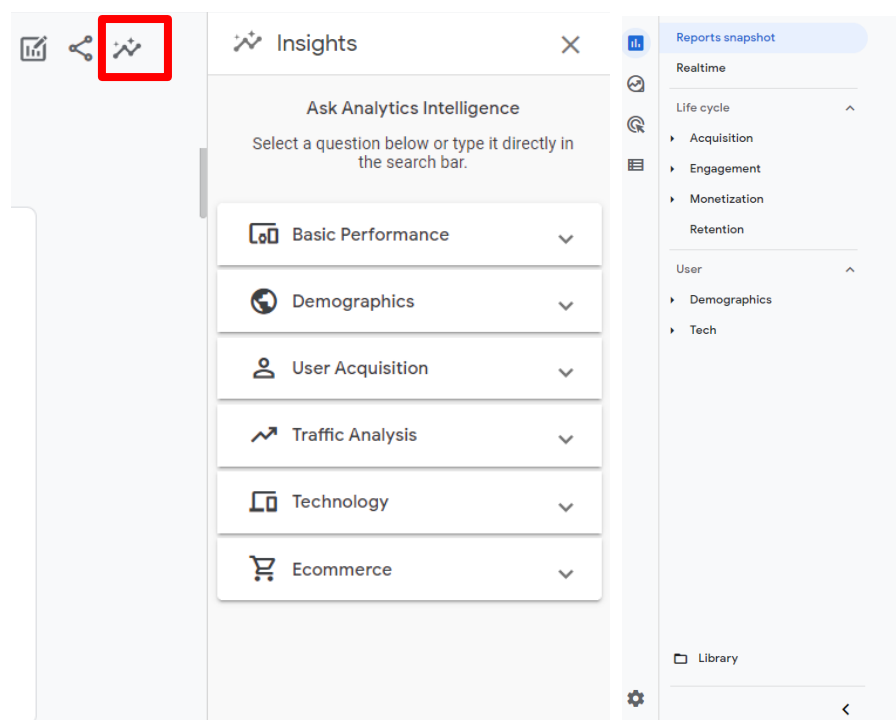
Or you can click on different Tab to explore the data you gathered from the website.
As Google Analytics is keep on updating the features, please visit the link for more information:
https://marketingplatform.google.com/about/analytics/?hl=en_US

For Reference Only

Below is the user interface of Google Analytics for users linked the website with Google Analytics before 2021.
Although the user interface is different, they share similar features in Google Analytics.

1. *Real Time Information*

Google Analytics provides the Real-Time statistics about who are browsing the website.

iii) Click **Realtime** on the left navigation menu.

iv) **Realtime** will show the current statistics (e.g. number of active users, active pages, event count and audience location).
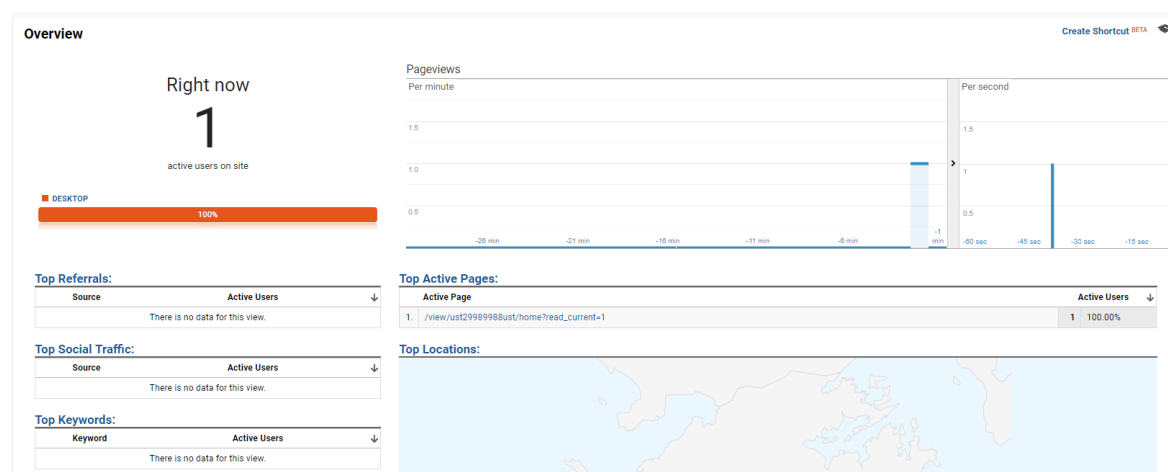
2. *Acquisition*

The Acquisition Overview gives you a quick view of the top channels that sending visitors to your website, as well as the associated acquisition, behavior and conversions details for each channel.

2.1 All Traffic

You can have a higher level look of your **traffic sources**: **Search** (user clicks through from search engine), **Social** (Twitter, Facebook, etc.), **Direct** (user types in your site directly), **Referral** (user clicks links from other sites), **Email** and **Paid search**

i)   Click **Acquisition,** in the left navigation menu.
ii)   Click the sub-category **All Traffic**
iii) Click "**Channels**" or "**Source/Medium**" or "**Referrals**" one by one.

"**Channels**" reports you the traffic by channel grouping (group by Medium)

	Default Channel Grouping	Acquisition			Behavior		
		Users ↓	New Users	Sessions	Bounce Rate	Pages / Session	Avg. Session Duration
		403 % of Total: 100.00% (403)	404 % of Total: 100.25% (403)	493 % of Total: 100.00% (493)	59.03% Avg for View: 59.03% (0.00%)	1.95 Avg for View: 1.95 (0.00%)	00:02:09 Avg for View: 00:02:09 (0.00%)
☐	1. Direct	298 (69.95%)	299 (74.01%)	342 (69.37%)	65.20%	1.85	00:02:06
☐	2. Referral	124 (29.11%)	103 (25.50%)	143 (29.01%)	45.45%	2.17	00:02:06
☐	3. Social	3 (0.70%)	2 (0.50%)	7 (1.42%)	42.86%	2.00	00:04:18
☐	4. Organic Search	1 (0.23%)	0 (0.00%)	1 (0.20%)	0.00%	4.00	00:07:22

"**Source/Medium**" reports you the traffic with the source in each channel

	Source / Medium	Acquisition			Behavior		
		Users ↓	New Users	Sessions	Bounce Rate	Pages / Session	Avg. Session Duration
		403 % of Total: 100.00% (403)	404 % of Total: 100.25% (403)	493 % of Total: 100.00% (493)	59.03% Avg for View: 59.03% (0.00%)	1.95 Avg for View: 1.95 (0.00%)	00:02:09 Avg for View: 00:02:09 (0.00%)
☐	1. (direct) / (none)	298 (69.95%)	299 (74.01%)	342 (69.37%)	65.20%	1.85	00:02:06
☐	2. canvas.ust.hk / referral	123 (28.87%)	103 (25.50%)	141 (28.60%)	44.68%	2.18	00:02:08
☐	3. m.facebook.com / referral	2 (0.47%)	2 (0.50%)	6 (1.22%)	50.00%	1.83	00:04:52
☐	4. facebook.com / referral	1 (0.23%)	0 (0.00%)	1 (0.20%)	0.00%	3.00	00:00:57
☐	5. google / organic	1 (0.23%)	0 (0.00%)	1 (0.20%)	0.00%	4.00	00:07:22
☐	6. owa.exchange.ust.hk / referral	1 (0.23%)	0 (0.00%)	2 (0.41%)	100.00%	1.00	00:00:00

"**Referrals**" reports you the traffic only from other sites.

	Source	Acquisition			Behavior		
		Users ↓	New Users	Sessions	Bounce Rate	Pages / Session	Avg. Session Duration
		127 % of Total: 31.51% (403)	105 % of Total: 26.05% (403)	150 % of Total: 30.43% (493)	45.33% Avg for View: 59.03% (-23.20%)	2.16 Avg for View: 1.95 (10.93%)	00:02:12 Avg for View: 00:02:09 (2.91%)
☐	1. canvas.ust.hk	123 (96.85%)	103 (98.10%)	141 (94.00%)	44.68%	2.18	00:02:08
☐	2. m.facebook.com	2 (1.57%)	2 (1.90%)	6 (4.00%)	50.00%	1.83	00:04:52
☐	3. facebook.com	1 (0.79%)	0 (0.00%)	1 (0.67%)	0.00%	3.00	00:00:57
☐	4. owa.exchange.ust.hk	1 (0.79%)	0 (0.00%)	2 (1.33%)	100.00%	1.00	00:00:00

What does the statistics tell you?

It depends on different situation. For example, maybe you put your website on different advertising platform (e.g. Facebook ads). Then, you may know whether the majority of visitors are from those social media or advertising companies. Then you may take some actions like reducing the advertising rate on those ineffective advertising companies or have more promotions on other platforms.

2.2 Social

This section gives you details about social activity related to your website. For example, the social network that refers to your website, which pages of your website are shared on social network.

   i)   Click **Acquisition,** in the left navigation menu.
   ii)   Click the sub-category **Social**
   iii)   Click "**Network Referrals"** or **"Landing Pages"** one by one.

Network Referrals

Social Network	Sessions ↓	Pageviews	Avg. Session Duration	Pages / Session
1. Facebook	7(100.00%)	14(100.00%)	00:04:18	2.00

Show rows: 10 ▼ Go to: 1   1 - 1 of 1 ‹ ›

Landing Pages

Shared URL	Sessions ↓	Pageviews	Avg. Session Duration	Pages / Session
1. sites.google.com/view/ust20134567ust/lab-schedule	6 (85.71%)	12 (85.71%)	00:02:43	2.00
2. sites.google.com/view/ust20134567ust/hello	1 (14.29%)	2 (14.29%)	00:13:52	2.00

Show rows: 10 ▼ Go to: 1   1 - 2 of 2 ‹ ›

3. Audience

Audience Statistics are the past information about the visitors who browsed your site. The number of active users in every time zone is recorded.

   i)   Click **Audience,** in the left navigation menu.
   ii)   Click the sub-category **Active Users**
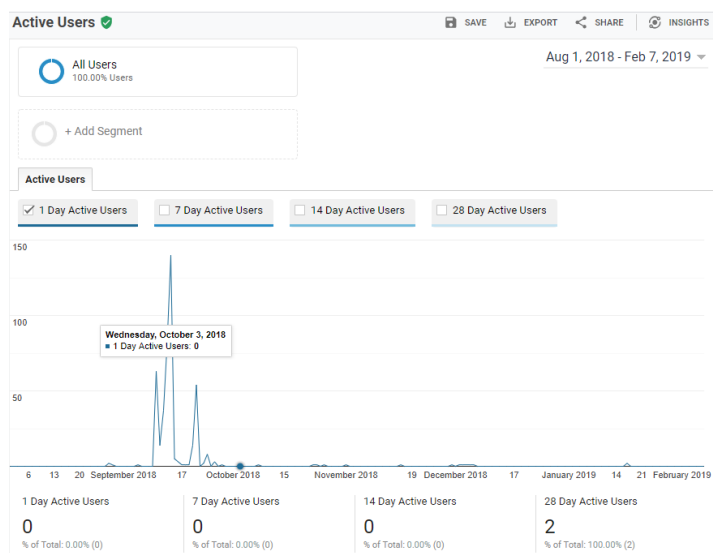
3.1 Geo

You may get the traffics grouped by language (system language, e.g. en-us, zh-tw, etc) or location.

i)   Click the sub-category **Geo**
ii)   Click "**Language**" or "**Location**" one by one.

Language:

|	Language	Acquisition			Behavior		
		Users ↓	New Users	Sessions	Bounce Rate	Pages / Session	Avg. Session Duration
		403 % of Total: 100.00% (403)	404 % of Total: 100.25% (403)	493 % of Total: 100.00% (493)	59.03% Avg for View: 59.03% (0.00%)	1.95 Avg for View: 1.95 (0.00%)	00:02:09 Avg for View: 00:02:09 (0.00%)
☐	1. en-us	271 (67.08%)	272 (67.33%)	315 (63.89%)	58.41%	1.96	00:02:28
☐	2. zh-tw	70 (17.33%)	70 (17.33%)	88 (17.85%)	68.18%	1.61	00:00:50
☐	3. en-gb	32 (7.92%)	31 (7.67%)	40 (8.11%)	50.00%	2.25	00:03:16
☐	4. zh-hk	20 (4.95%)	20 (4.95%)	31 (6.29%)	58.06%	2.26	00:01:25

Location:
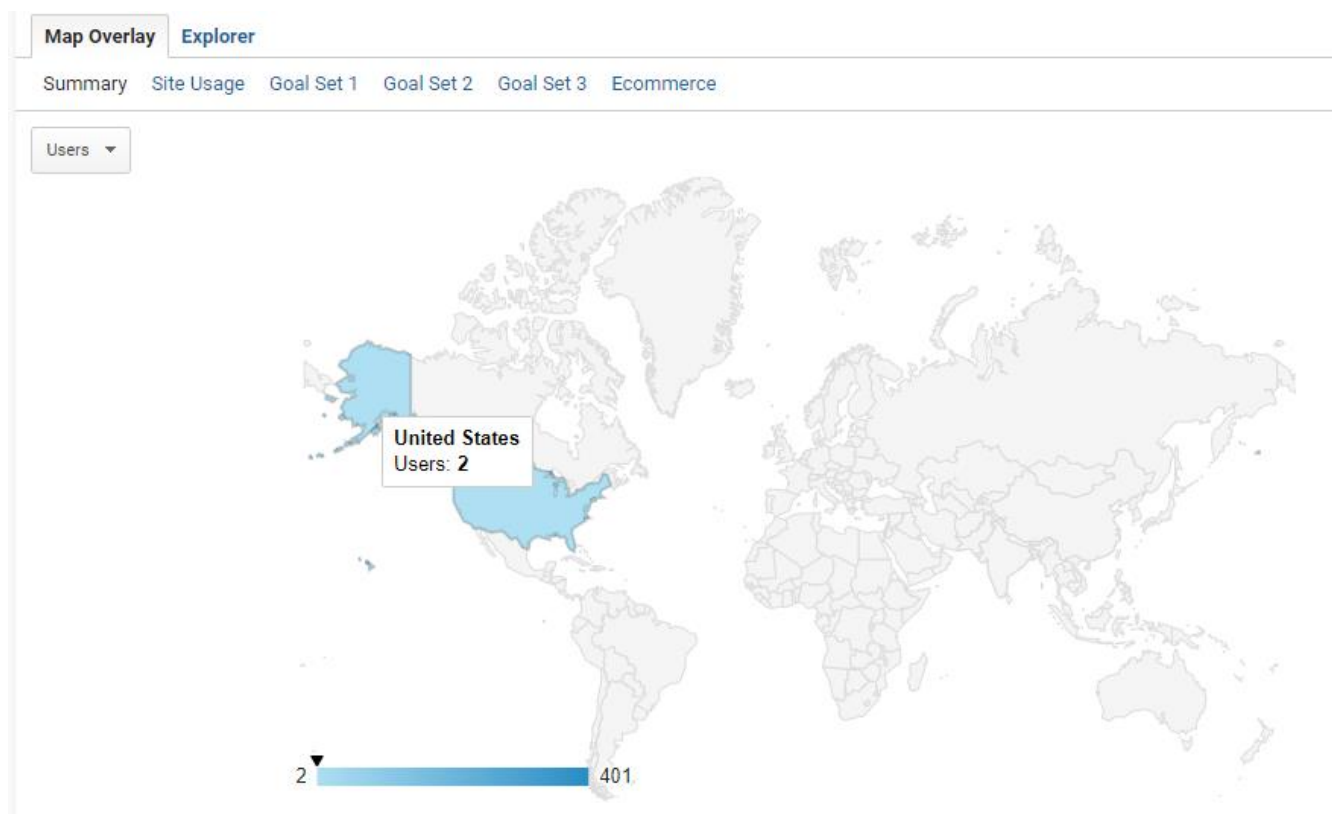
3.2 Behavior

New Visitors vs Returning Visitors

New Visitors are those navigating to your site for the first time on a specific device.
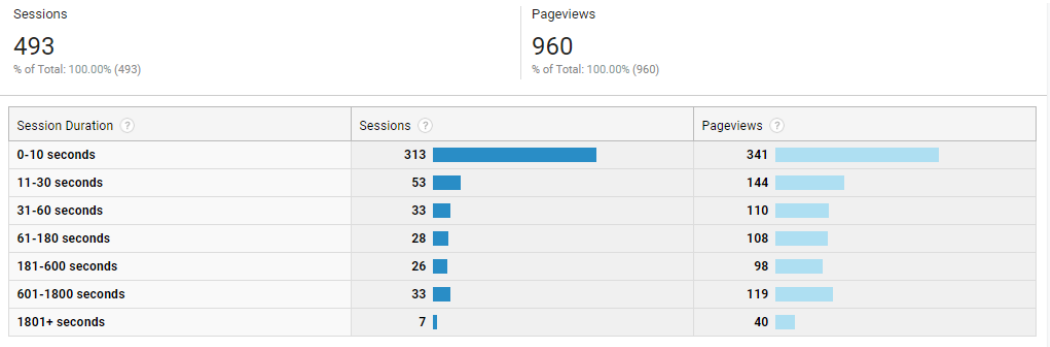
Returning Visitors have visited your site before and are back for more.

i)   Click the sub-category **Behavior**
ii)   Click "**New vs Returning**".

	User Type	Acquisition			Behavior		
		Users ↓	New Users	Sessions	Bounce Rate	Pages / Session	Avg. Session Duration
		403 % of Total: 100.00% (403)	404 % of Total: 100.25% (403)	493 % of Total: 100.00% (493)	59.03% Avg for View: 59.03% (0.00%)	1.95 Avg for View: 1.95 (0.00%)	00:02:09 Avg for View: 00:02:09 (0.00%)
☐	1. New Visitor	403 (86.30%)	404 (100.00%)	404 (81.95%)	63.37%	1.86	00:01:56
☐	2. Returning Visitor	64 (13.70%)	0 (0.00%)	89 (18.05%)	39.33%	2.35	00:03:05

iii)   Click "**Engagement**".

This option shows you the distribution of session duration. (i.e. how long did the visitors stay in your site.)

Sessions
493
% of Total: 100.00% (493)

Pageviews
960
% of Total: 100.00% (960)

Session Duration	Sessions	Pageviews
0-10 seconds	313	341
11-30 seconds	53	144
31-60 seconds	33	110
61-180 seconds	28	108
181-600 seconds	26	98
601-1800 seconds	33	119
1801+ seconds	7	40

3.3 Technology

Under this section, Google Analytics gives you details about visitors' browser, operating system, screen resolution, screen colors (24-bit, 32-bit, etc.) and Network (Service Provider).

i)   Click the sub-category **Technology**

ii)   Click "**Browser & OS**".

	Browser	Acquisition			Behavior		
		Users ↓	New Users	Sessions	Bounce Rate	Pages / Session	Avg. Session Duration
		403 % of Total: 100.00% (403)	404 % of Total: 100.25% (403)	493 % of Total: 100.00% (493)	59.03% Avg for View: 59.03% (0.00%)	1.95 Avg for View: 1.95 (0.00%)	00:02:09 Avg for View: 00:02:09 (0.00%)
☐	1. Chrome	280 (69.48%)	280 (69.31%)	342 (69.37%)	58.48%	1.97	00:02:15
☐	2. Safari	60 (14.89%)	61 (15.10%)	76 (15.42%)	64.47%	1.63	00:01:21
☐	3. Edge	38 (9.43%)	38 (9.41%)	41 (8.32%)	68.29%	1.68	00:00:48
☐	4. Android Webview	19 (4.71%)	19 (4.70%)	27 (5.48%)	48.15%	2.59	00:03:51

iii)   Select the Primary Dimension tab: **Operating System** (you may select other tabs for other details)

Primary Dimension: Browser   Operating System   Screen Resolution   Screen Colors   Flash Version   Other ▼

Plot Rows   Secondary dimension ▼   Sort Type: Default ▼

|	Operating System	Acquisition			Behavior		
		Users ↓	New Users	Sessions	Bounce Rate	Pages / Session	Avg. Session Duration
		403 % of Total: 100.00% (403)	404 % of Total: 100.25% (403)	493 % of Total: 100.00% (493)	59.03% Avg for View: 59.03% (0.00%)	1.95 Avg for View: 1.95 (0.00%)	00:02:09 Avg for View: 00:02:09 (0.00%)
☐	1. Windows	276 (68.49%)	276 (68.32%)	325 (65.92%)	59.08%	1.97	00:02:24
☐	2. Macintosh	77 (19.11%)	78 (19.31%)	105 (21.30%)	58.10%	1.88	00:01:21
☐	3. iOS	27 (6.70%)	27 (6.68%)	32 (6.49%)	71.88%	1.38	00:00:53
☐	4. Android	23 (5.71%)	23 (5.69%)	31 (6.29%)	48.39%	2.58	00:03:24

3.4 Mobile

This section gives you the device information of your visitors. In the **Overview** part, it groups the statistics by device category. In the **Devices** part, it lists out the details grouped by devices brand, device information, etc.

4. Users Flow

The Users Flow report is a graphical representation of the paths users took through your site, from the source, through the various pages, and where along their paths they exited your site. The Users Flow report lets you compare volumes of traffic from different sources, examine traffic patterns through your site, and troubleshoot the efficacy of your site.

- Click **AUDIENCE**, **Users Flow**
- Select the **Dimension** options in the pull down menu.
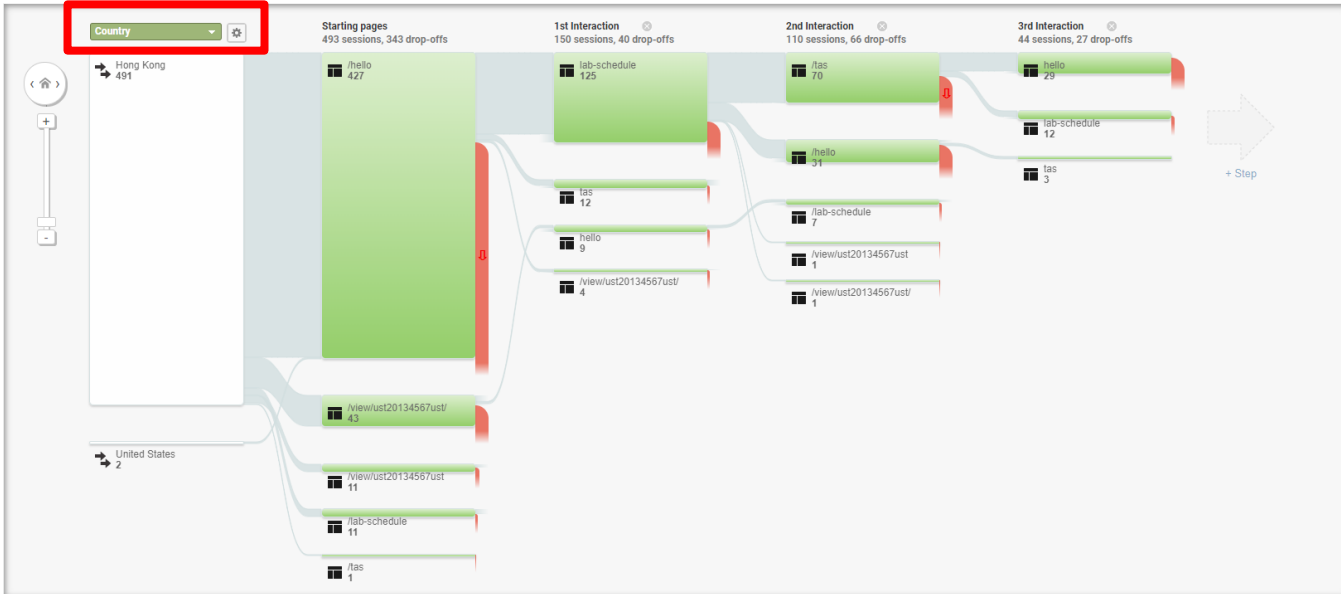
5. Goal

Goals measure how well your site fulfills your target objectives. A goal represents a completed activity (known as a conversion) that contributes to the success of your business.

Goal types

Goals fall into one of 4 types, listed in the table below:

Goal Type	Description	Example
Destination	A specific location loads	*Thank you for registering!* web page
Duration	Sessions that lasts a specific amount of time or longer	10 minutes or longer spent on a support site
Pages/Screens per session	A user views a specific number of pages or screens	5 pages or screens have been loaded
Event	An action defined as an Event is triggered	Social recommendation, video play, ad click

Create a new goal

i) Click **Admin** at the bottom left corner
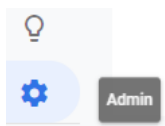
ii) Click **Goals** in the **VIEW** column
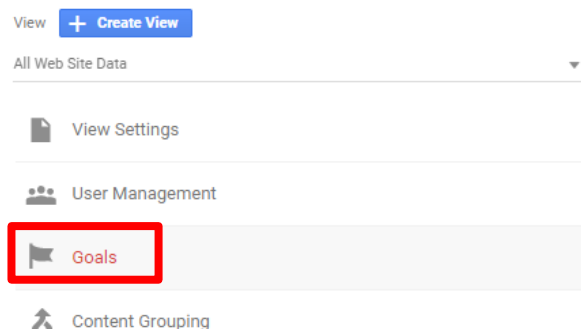
iii) Click **NEW GOAL**

iv) Choose a goal setup: **Custom**

v) Goal description Name: **View a specific page**
Goal slot ID: any
Type: Destination

vi) Click **Continue**

vii) Destination select **Equals to**
Fill in **/view/xxxxxxxx** (where xxxxxxxx is your web address)
Value: ON
Fill in conversion rate **1** $USD

viii) Click **Save**

After creating goals, you may get the details (e.g. number of goal completions, goal value that calculated by conversion rate x completion #)

- Click **Conversions → Goals → Overview**