

Marketing Data and Technology



Draw Insights from
Marketing Data



Part One: Setting Goals



Identify Key Business Objectives

Key Business Objective: A defined goal or outcome used to plan the desired direction of your company. Write at least 3 but no more than 5 business objectives that support your business model. Each objective should be SMART.

1	<i>increasing the proportion of new visitors from Japan by 10% more than 2022 at the end of the 2023.</i>
2	<i>Decrease the time of loading page for homepage by 5 sec through three months.</i>
3	<i>Increase the number of sales by 15% in Q1 2023.</i>
4	<i>increasing the IOS mobile operating system users in In the first half of the year 2023.</i>



Identify Key Performance Indicators

Key Performance Indicator (KPI): A quantifiable metric used to determine how effectively your key business objectives are being met. Ensure that the specific metric is clearly identified.

1	<i>The number of new visitors from Japan at the end of 2023.</i>
2	<i>The time of loading page for homepage by 5 sec through three months.</i>
3	<i>The number of sales in Q1 2023.</i>
	<i>The number of IOS mobile operating system users in In the first half of the year 2023.</i>



Part Two: A/B Testing Proposal



A/B Testing Proposal: KPI, Variable, and Hypothesis

KPI used as the basis for an A/B Test:

The number of new visitors from Japan at the end of 2023.

Identify a variable that will have an impact on the KPI and metric

Screen Size

Determine a hypothesis for your A/B Test. Your hypothesis should include the variable you are testing and your predicted outcome.

A-test: *We make the website responsive(RWD),so that the users will be accessible comfortably viewable across a range of devices, including smaller smartphones and all the types of device.*

B-test: *We make a static website, but the static website will not accessible comfortably viewable across a range of devices for the users.*

I predict A- test will increase the number of new visitors than B-test"



A/B Testing Proposal: Testing Process

Describe the steps you would take to perform the A/B test.

1. Identify the variable.
2. Determine the hypothesis.
3. Run my A/B test.
4. Get the result from the google analytics.

Insert a general description of the steps you would take to perform the A/B test.

Describe how you would determine the results of the A/B test.

Insert a general description of how you would determine the results, including the metrics that you would look at.

A-test : We make responsive website so when the user enters the site from all types of device will comfortably viewable.

B- test: We make a static website, but when the user enters the site from smartphones or tablets will not be a comfortably viewable.

I used google analytics to determine the results based on the metrics i looked for which is the number of new visitors from Japan at the end of 2023.

The result is: For the end of 2023 in December month, my A-test scored higher than the B-test, which the A-test scoring 62% and the B-test 45%.



Part Three: Data Exploration

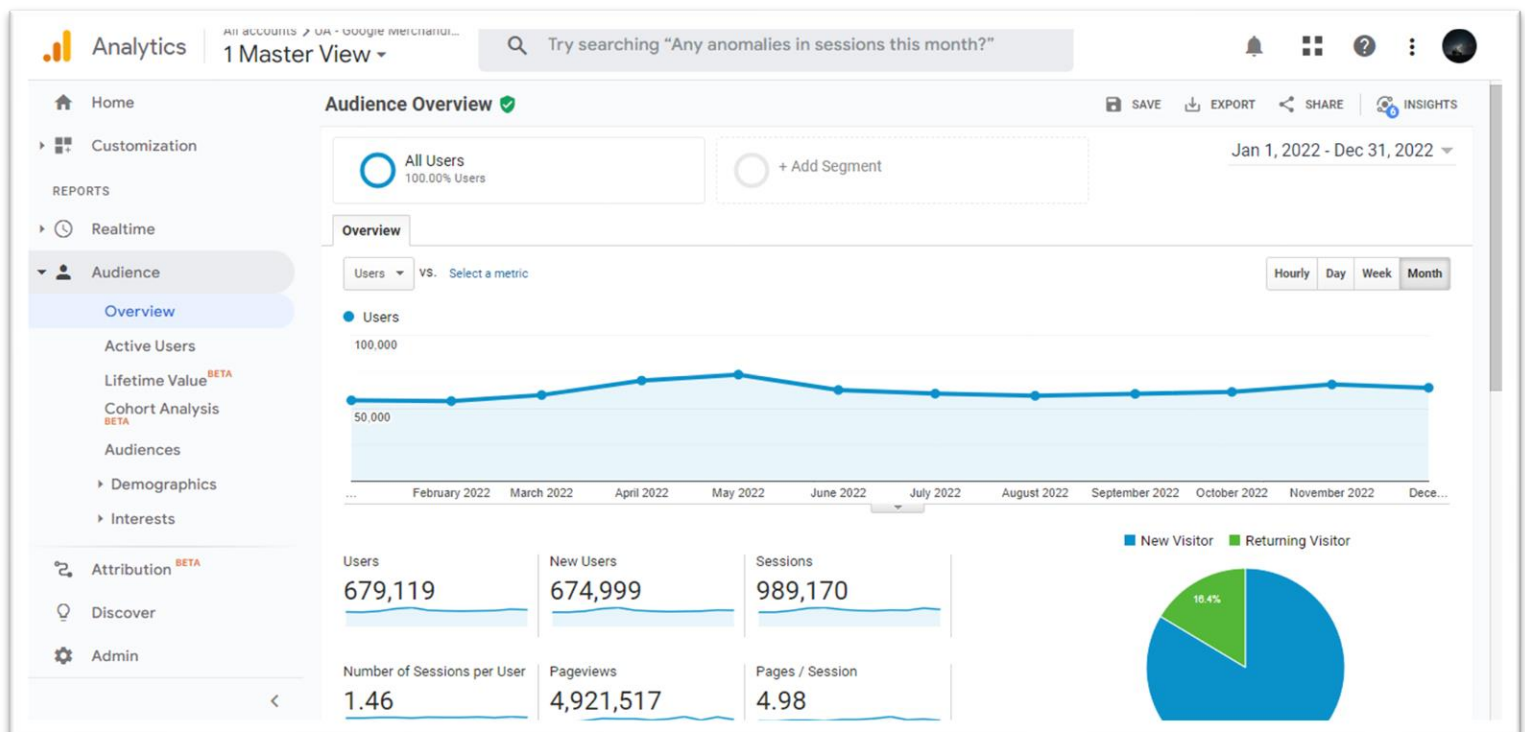


Standard Display - Audience

From the Audience Overview Report, select a twelve month time period you would like to explore.

Ensure that the following are visible in the screenshot:

- Timeframe
- Segment
- Metric
- Axis values





Standard Display - Audience

Which month had the most visitors, and which month had the fewest visitors to your site?

May 2022 had the most visitors.

Feb 2022 had the fewest visitors.

Do you have any ideas why certain trends are associated with these specific months?

In May the visitors had increased because the mother's day and National Technology Day.

In Feb the visitors has decreased because of the negative impact of the COVID 19.

Insert your notes about the screenshot on the previous page here.

We selected a twelve month as timeframe and we had explored the segment , metric, axis values. As a result we found it is in the May 2022 had the most visitors, in the Feb 2022 had the fewest visitors.



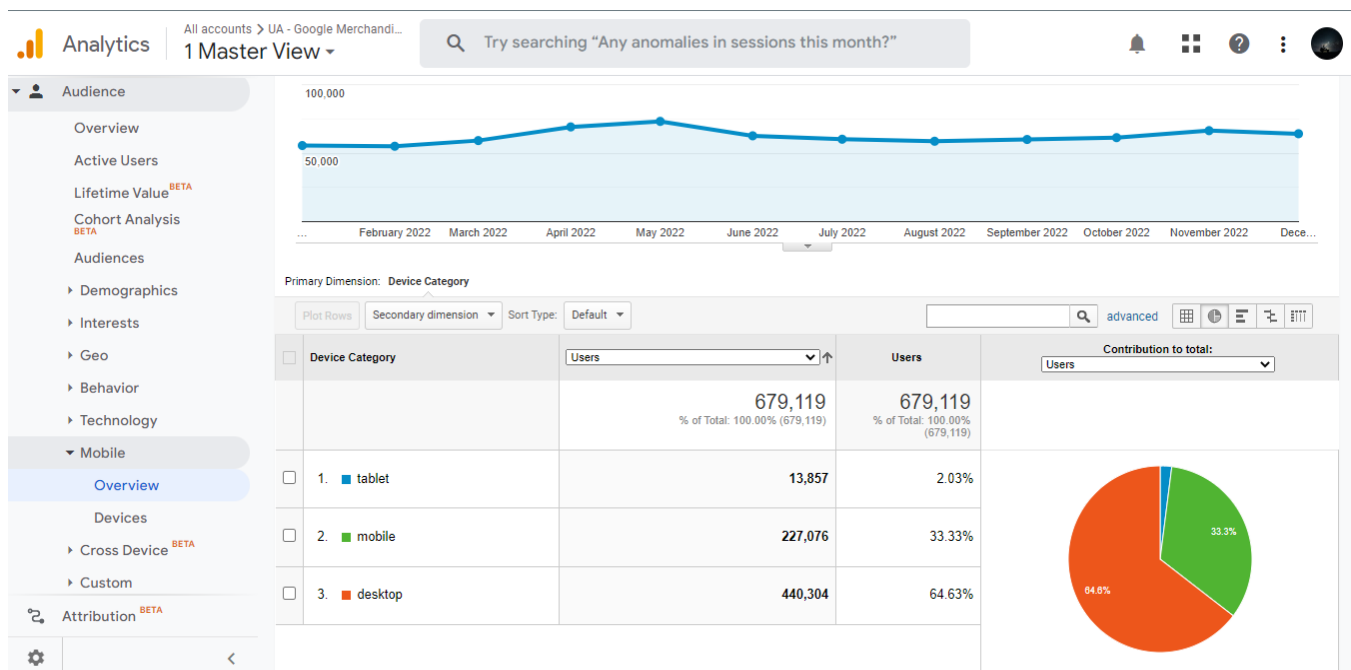
Percentage Display: Audience

Please go into the Audience → Mobile → Overview report for the following:

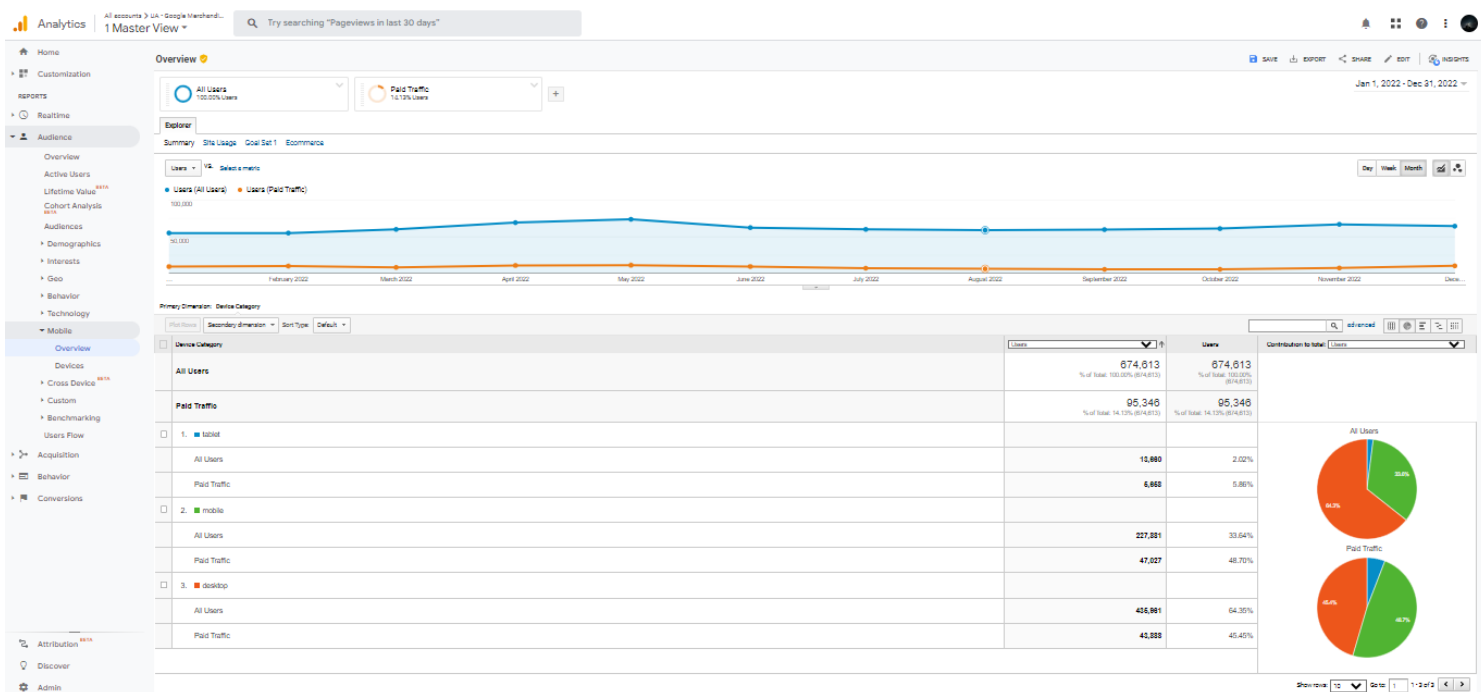
For the twelve month period you've chosen, provide a screenshot showing percentage charts (pie charts) of All Users that came from mobile, desktop, and tablet devices and the percentage of Paid Traffic Users came from mobile, desktop, and tablet devices.

Ensure that the following are visible in the screenshot:

- Device Category
- Total number of All Users and Paid Users
- Two pie charts showing % breakdown by device



Percentage charts (pie charts) of All Users



The percentage of Paid Traffic Users.



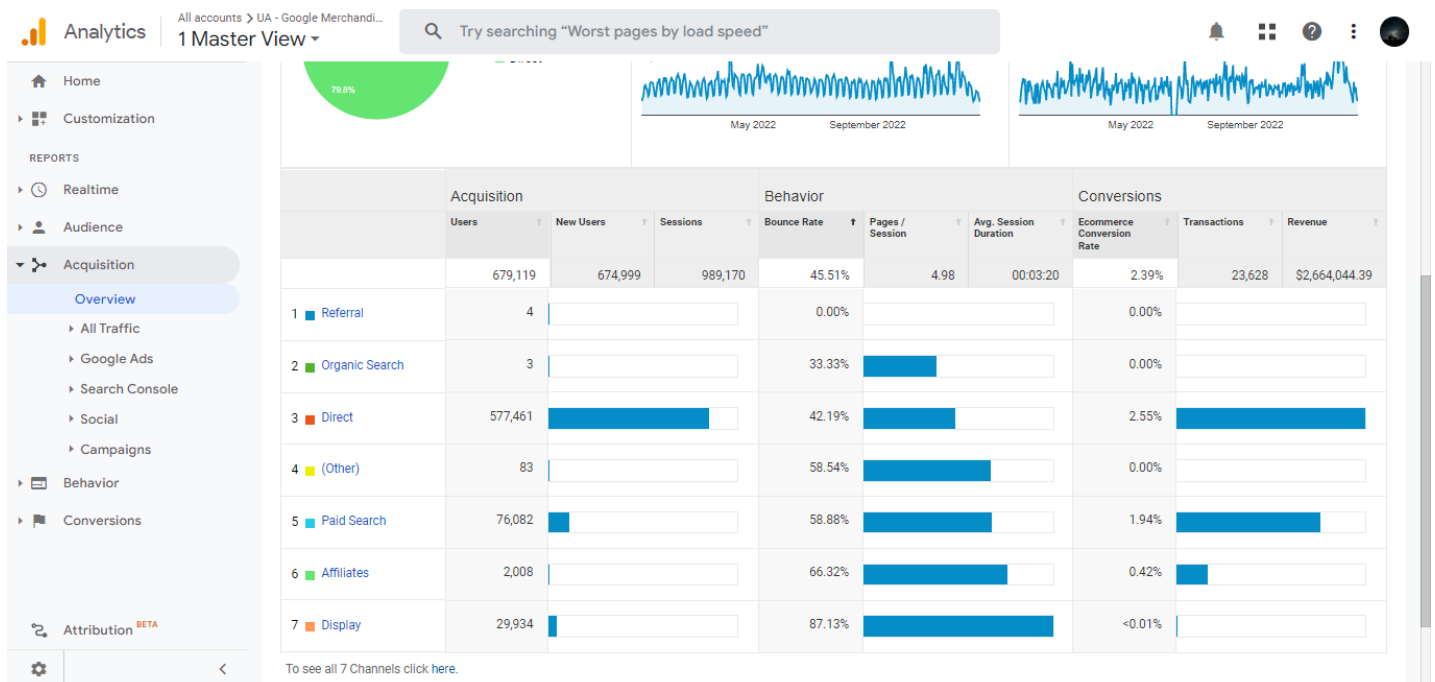
Standard Display: Acquisition

For this section, if you are using your own business's Google Analytics data but do not have eCommerce capabilities established, please use the Google Analytics demo data provided from the Google Merchandise store.

Take a screenshot that shows the bounce rate of the different acquisition channels over a 12 month period.

Ensure that the following are visible in the screenshot:

- Channel
- Users
- Bounce Rate





Standard Display: Acquisition

During the twelve month period you've selected, excluding *Direct* and *(Other)*, which channels had the highest and lowest bounce rates and the highest and lowest eCommerce conversion rates?

Analytics

Home

Customization

REPORTS

Realtime

Audience

Acquisition

Overview

All Traffic

Channels

Treemaps

Source/Medium

Referrals

Google Ads

Search Console

Social

Attribution

Settings

Help

All accounts > UA - Google Mechan...1 Master View

Try searching "Compare bounce rate this week with last week"

Notifications

Help

Feedback

More

Primary Dimension: Default Channel Grouping

Source / Medium

Source

Medium

Other

Plot Rows

Secondary dimension

Sort Type: Default

Advanced

Table

Map

Funnel

Alerts

More

Default Channel Grouping		Acquisition			Behavior			Conversions		eCommerce	
		Users	New Users	Sessions	Bounce Rate	Pages / Session	Avg. Session Duration	Ecommerce Conversion Rate	Transactions	Revenue	
		679,119 <small>% of Total: 100.00% (679,119)</small>	675,902 <small>% of Total: 100.13% (674,999)</small>	989,170 <small>% of Total: 100.00% (989,170)</small>	45.51% <small>Avg for View: 45.51% (0.00%)</small>	4.98 <small>Avg for View: 4.98 (0.00%)</small>	00:03:20 <small>Avg for View: 00:03:20 (0.00%)</small>	2.39% <small>Avg for View: 2.39% (0.00%)</small>	23,628 <small>% of Total: 100.00% (23,628)</small>	\$2,664,044.39 <small>% of Total: 100.00% (32,664,044.39)</small>	
<input checked="" type="checkbox"/>	1. Display	29,934 (4.37%)	29,879 (4.42%)	34,876 (3.53%)	87.13%	1.36	00:00:29	<0.01%	2 (0.01%)	\$161.00 (0.01%)	
<input checked="" type="checkbox"/>	2. Affiliates	2,008 (0.29%)	1,814 (0.27%)	2,613 (0.26%)	66.32%	2.40	00:02:01	0.42%	11 (0.05%)	\$6,716.80 (0.25%)	
<input checked="" type="checkbox"/>	3. Paid Search	76,082 (11.10%)	71,627 (10.60%)	99,446 (10.05%)	58.88%	3.93	00:02:08	1.94%	1,928 (8.16%)	\$201,523.96 (7.56%)	
<input type="checkbox"/>	4. (Other)	83 (0.01%)	59 (0.01%)	123 (0.01%)	58.54%	2.48	00:01:45	0.00%	0 (0.00%)	\$0.00 (0.00%)	
<input type="checkbox"/>	5. Direct	577,461 (84.23%)	572,520 (84.70%)	852,103 (86.14%)	42.19%	5.25	00:03:36	2.55%	21,687 (91.79%)	\$2,455,642.63 (92.18%)	
<input checked="" type="checkbox"/>	6. Organic Search	3 (0.00%)	3 (0.00%)	3 (0.00%)	33.33%	2.33	00:00:03	0.00%	0 (0.00%)	\$0.00 (0.00%)	
<input checked="" type="checkbox"/>	7. Referral	4 (0.00%)	0 (0.00%)	6 (0.00%)	0.00%	11.67	00:09:57	0.00%	0 (0.00%)	\$0.00 (0.00%)	

Show rows

10

Go to:

1

1 - 7 of 7

Previous

Next

This report was generated on 1/27/23 at 9:24:59 PM - Refresh Report

Channels had the highest bounce rates:
Display

Plot Rows

Secondary dimension

Sort Type: Default

Q

advanced

Default Channel Grouping

Acquisition

Behavior

Conversions

eCommerce

Users

New Users

Sessions

Bounce Rate

Pages / Session

Avg. Session Duration

Ecommerce Conversion Rate

Transactions

Revenue

679,119
% of Total: 100.00%
(679,119)

675,902
% of Total: 100.13%
(674,999)

989,170
% of Total: 100.00%
(989,170)

45.51%
Avg for View:
45.51%
(0.00%)

4.98
Avg for View:
4.98
(0.00%)

00:03:20
Avg for View:
00:03:20
(0.00%)

2.39%
Avg for View:
2.39%
(0.00%)

23,628
% of Total:
100.00% (23,628)

\$2,664,044.39
% of Total: 100.00%
(\$2,664,044.39)

1. Referral

4 (0.00%)

0 (0.00%)

6 (0.00%)

0.00%

11.67

00:09:57

0.00%

0 (0.00%)

\$0.00 (0.00%)

2. Organic Search

3 (0.00%)

3 (0.00%)

3 (0.00%)

33.33%

2.33

00:00:03

0.00%

0 (0.00%)

\$0.00 (0.00%)

3. Direct

577,461 (84.23%)

572,520 (84.70%)

852,103 (86.14%)

42.19%

5.25

00:03:36

2.55%

21,687 (91.79%)

\$2,455,642.63 (92.18%)

4. (Other)

83 (0.01%)

59 (0.01%)

123 (0.01%)

58.54%

2.48

00:01:45

0.00%

0 (0.00%)

\$0.00 (0.00%)

5. Paid Search

76,082 (11.10%)

71,627 (10.60%)

99,446 (10.05%)

58.88%

3.93

00:02:08

1.94%

1,928 (8.16%)

\$201,523.96 (7.56%)

6. Affiliates

2,008 (0.29%)

1,814 (0.27%)

2,613 (0.26%)

66.32%

2.40

00:02:01

0.42%

11 (0.05%)

\$6,716.80 (0.25%)

7. Display

29,934 (4.37%)

29,879 (4.42%)

34,876 (3.53%)

87.13%

1.36

00:00:29

<0.01%

2 (0.01%)

\$161.00 (0.01%)

Show rows: 10

Go to: 1

1 - 7 of 7

This report was generated on 1/27/23 at 9:29:01 PM. Refresh Report

Channels had the lowest bounce rates: Referral

Standard Display: Acquisition

Primary Dimension: Default Channel Grouping Source / Medium Source Medium Other

Plot Rows		Secondary dimension	Sort Type: Default			advanced					
		Acquisition			Behavior			Conversions eCommerce			
Default Channel Grouping		Users	New Users	Sessions	Bounce Rate	Pages / Session	Avg. Session Duration	Ecommerce Conversion Rate	Transactions	Revenue	
		679,119 % of Total: 100.00% (679,119)	675,902 % of Total: 100.13% (674,999)	989,170 % of Total: 100.00% (989,170)	45.51% Avg for View: 45.51% (0.00%)	4.98 Avg for View: 4.98 (0.00%)	00:03:20 Avg for View: 00:03:20 (0.00%)	2.39% Avg for View: 2.39% (0.00%)	23,628 % of Total: 100.00% (23,628)	\$2,664,044.39 % of Total: 100.00% (\$2,664,044.39)	
<input type="checkbox"/>	1. Direct	577,461 (84.23%)	572,520 (84.70%)	852,103 (86.14%)	42.19%	5.25	00:03:36	2.55%	21,687 (91.79%)	\$2,455,642.63 (92.18%)	
<input checked="" type="checkbox"/>	2. Paid Search	76,082 (11.10%)	71,627 (10.60%)	99,446 (10.05%)	58.88%	3.93	00:02:08	1.94%	1,928 (8.16%)	\$201,523.96 (7.56%)	
<input checked="" type="checkbox"/>	3. Affiliates	2,008 (0.29%)	1,814 (0.27%)	2,613 (0.26%)	66.32%	2.40	00:02:01	0.42%	11 (0.05%)	\$6,716.80 (0.25%)	
<input checked="" type="checkbox"/>	4. Display	29,934 (4.37%)	29,879 (4.42%)	34,876 (3.53%)	87.13%	1.36	00:00:29	<0.01%	2 (0.01%)	\$161.00 (0.01%)	
<input type="checkbox"/>	5. (Other)	83 (0.01%)	59 (0.01%)	123 (0.01%)	58.54%	2.48	00:01:45	0.00%	0 (0.00%)	\$0.00 (0.00%)	
<input checked="" type="checkbox"/>	6. Organic Search	3 (0.00%)	3 (0.00%)	3 (0.00%)	33.33%	2.33	00:00:03	0.00%	0 (0.00%)	\$0.00 (0.00%)	
<input checked="" type="checkbox"/>	7. Referral	4 (0.00%)	0 (0.00%)	6 (0.00%)	0.00%	11.67	00:09:57	0.00%	0 (0.00%)	\$0.00 (0.00%)	

Show rows: 10 Go to: 1 1 - 7 of 7

This report was generated on 1/27/23 at 9:43:37 PM - Refresh Report

The highest eCommerce conversion rates: Paid Search

Primary Dimension: Default Channel Grouping Source / Medium Source Medium Other

Plot Rows		Secondary dimension	Sort Type: Default			advanced					
		Acquisition			Behavior			Conversions eCommerce			
Default Channel Grouping		Users	New Users	Sessions	Bounce Rate	Pages / Session	Avg. Session Duration	Ecommerce Conversion Rate	Transactions	Revenue	
		679,119 % of Total: 100.00% (679,119)	675,902 % of Total: 100.13% (674,999)	989,170 % of Total: 100.00% (989,170)	45.51% Avg for View: 45.51% (0.00%)	4.98 Avg for View: 4.98 (0.00%)	00:03:20 Avg for View: 00:03:20 (0.00%)	2.39% Avg for View: 2.39% (0.00%)	23,628 % of Total: 100.00% (23,628)	\$2,664,044.39 % of Total: 100.00% (\$2,664,044.39)	
<input type="checkbox"/>	1. (Other)	83 (0.01%)	59 (0.01%)	123 (0.01%)	58.54%	2.48	00:01:45	0.00%	0 (0.00%)	\$0.00 (0.00%)	
<input checked="" type="checkbox"/>	2. Organic Search	3 (0.00%)	3 (0.00%)	3 (0.00%)	33.33%	2.33	00:00:03	0.00%	0 (0.00%)	\$0.00 (0.00%)	
<input checked="" type="checkbox"/>	3. Referral	4 (0.00%)	0 (0.00%)	6 (0.00%)	0.00%	11.67	00:09:57	0.00%	0 (0.00%)	\$0.00 (0.00%)	
<input checked="" type="checkbox"/>	4. Display	29,934 (4.37%)	29,879 (4.42%)	34,876 (3.53%)	87.13%	1.36	00:00:29	<0.01%	2 (0.01%)	\$161.00 (0.01%)	
<input checked="" type="checkbox"/>	5. Affiliates	2,008 (0.29%)	1,814 (0.27%)	2,613 (0.26%)	66.32%	2.40	00:02:01	0.42%	11 (0.05%)	\$6,716.80 (0.25%)	
<input checked="" type="checkbox"/>	6. Paid Search	76,082 (11.10%)	71,627 (10.60%)	99,446 (10.05%)	58.88%	3.93	00:02:08	1.94%	1,928 (8.16%)	\$201,523.96 (7.56%)	
<input type="checkbox"/>	7. Direct	577,461 (84.23%)	572,520 (84.70%)	852,103 (86.14%)	42.19%	5.25	00:03:36	2.55%	21,687 (91.79%)	\$2,455,642.63 (92.18%)	

Show rows: 10 Go to: 1 1 - 7 of 7

This report was generated on 1/27/23 at 9:45:16 PM - Refresh Report

The lowest eCommerce conversion rates: Organic Search

Standard Display: Acquisition

What do these metrics mean, based on your experience?

The metrics of bounce rate means the user enter a website and they immediately exits without triggering another request or without interaction.

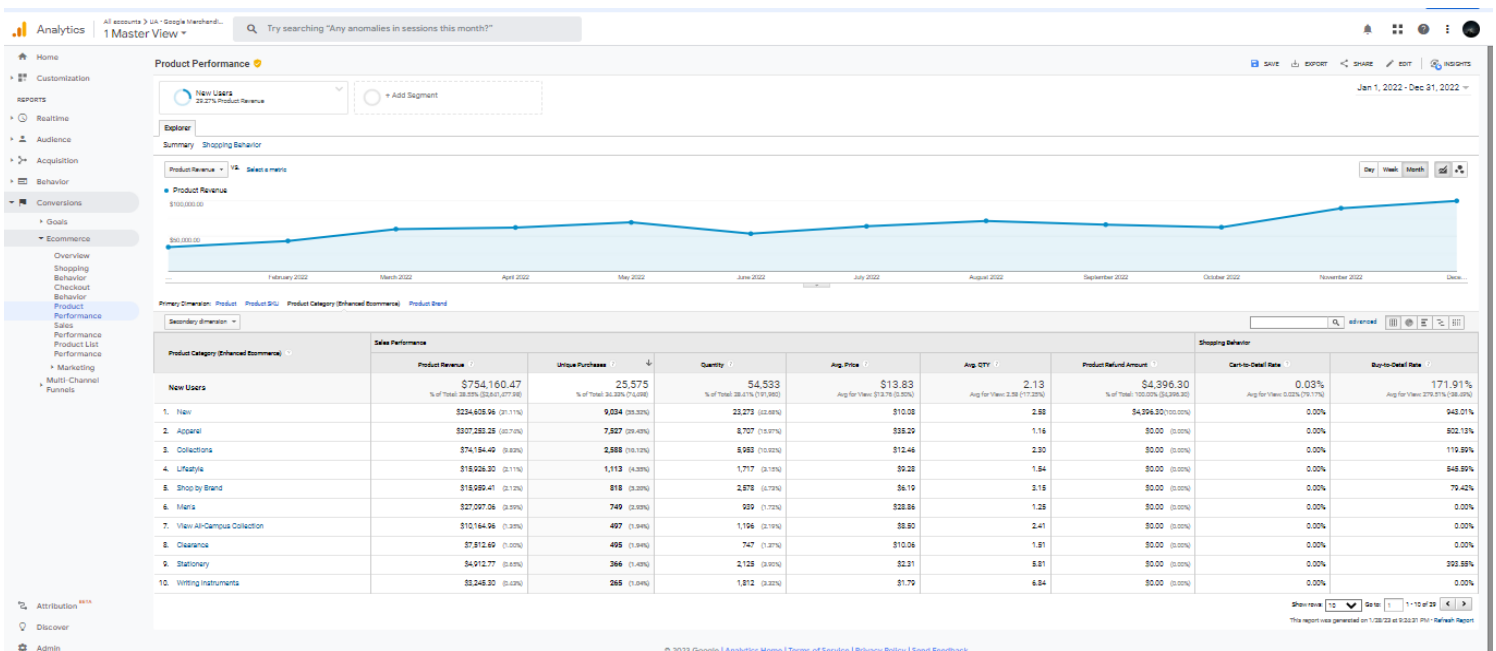
The metrics of eCommerce conversion rates means the percentage of user that makes transaction on the website.



Percentage Display: Conversion

For this section, if you are using your own business's Google Analytics data but do not have eCommerce capabilities established, please use the Google Analytics demo data provided from the Google Merchandise store.

During the twelve month period you've selected, provide a screenshot that shows the Product Category that contributed the highest number of unique purchases for New Users and the Product Category that was responsible for the largest percentage of revenue for New Users? (Screenshot(s) only; no annotation required.)



Product Category that contributed the highest number of unique purchases for New Users



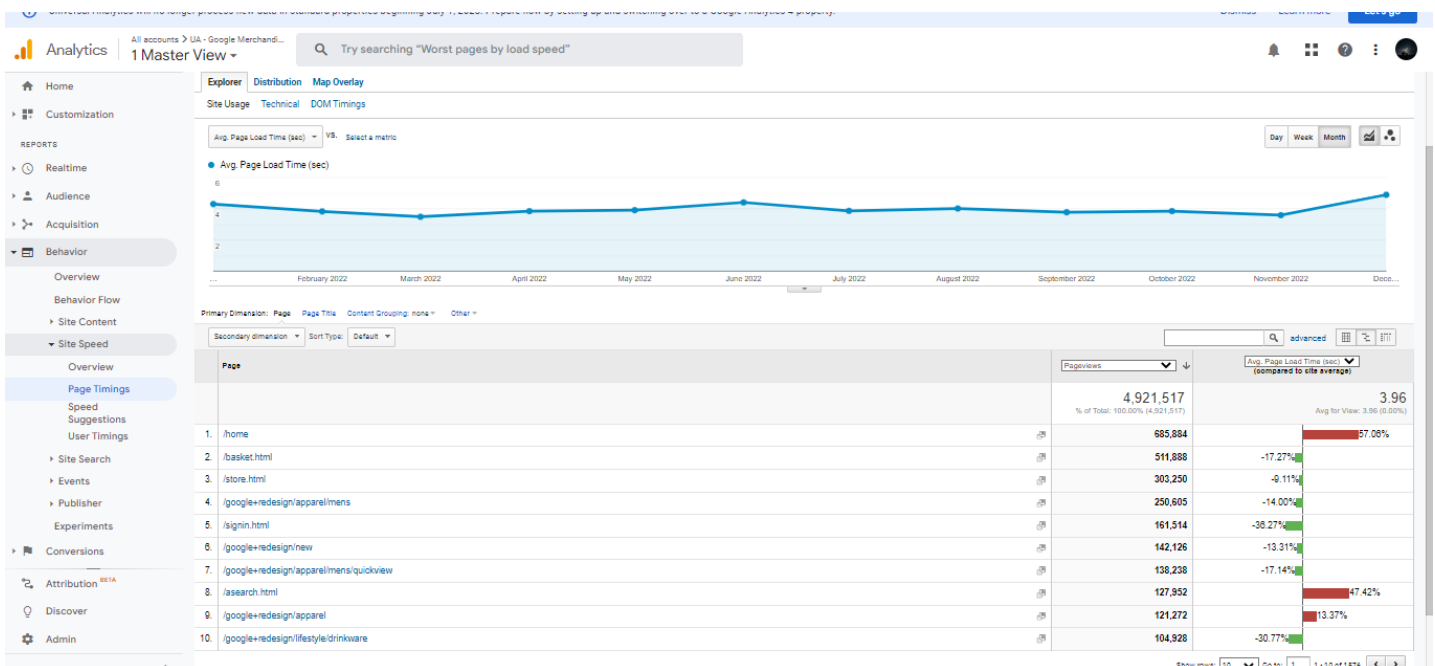
Comparison Display: Behavior

For traffic from All Users between the start and end of your twelve month period, please provide a comparison report showing Site Speed Page timings for the top ten pages (based on pageviews).

Ensure that the following are visible in the screenshot:

- Top 10 Pages
- Pageviews
- Average page load time

Note that the time frame selected does not need to be visible in the screenshot, but will be reflected by the number of pageviews.





Comparison Display: Behavior

Based on the screenshot, Identify any trouble spots related to speed page timings.

The trouble spots are the time loading of the homepage and search page where is the homepage takes 6.22 Avg. Page Load Time (sec), and the search page takes 5.84 Avg. Page Load Time (sec).



Part Four: Segmentation

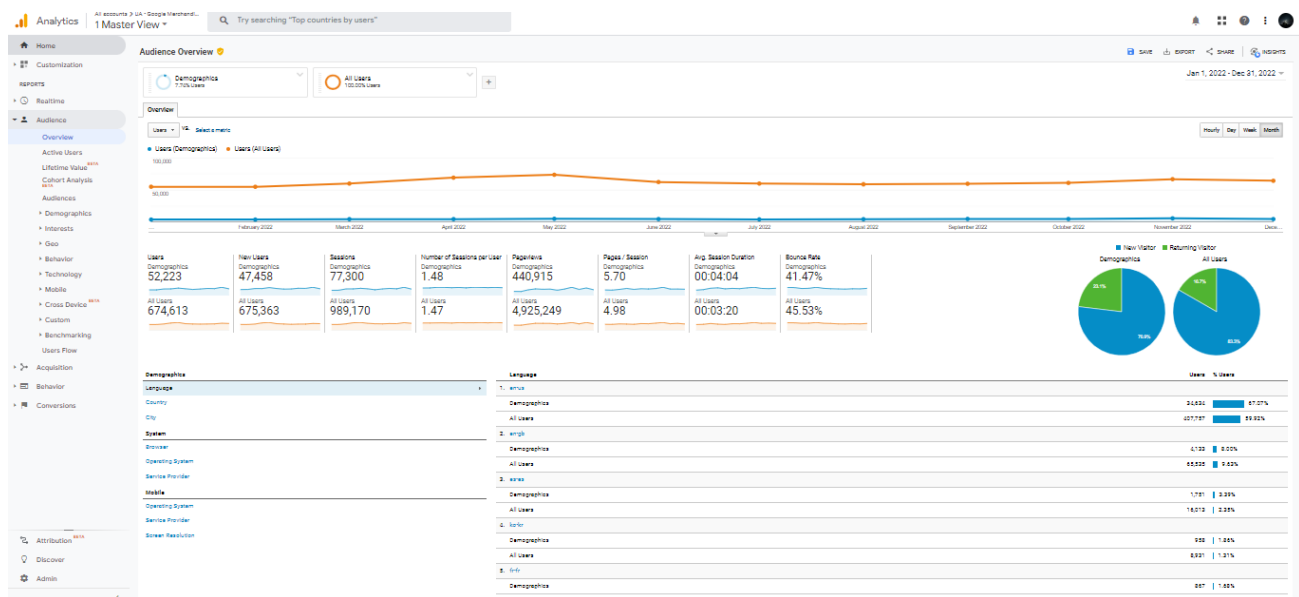


Audience Segment: Demographics

Insert the screenshot of a view (such as the Audience Overview) that includes both your Audience Demographic segment as well as “All Users.” Write down or include a screenshot of the values used to create the segment.

Age: 25-34 , 45-54.

Gender: Female.



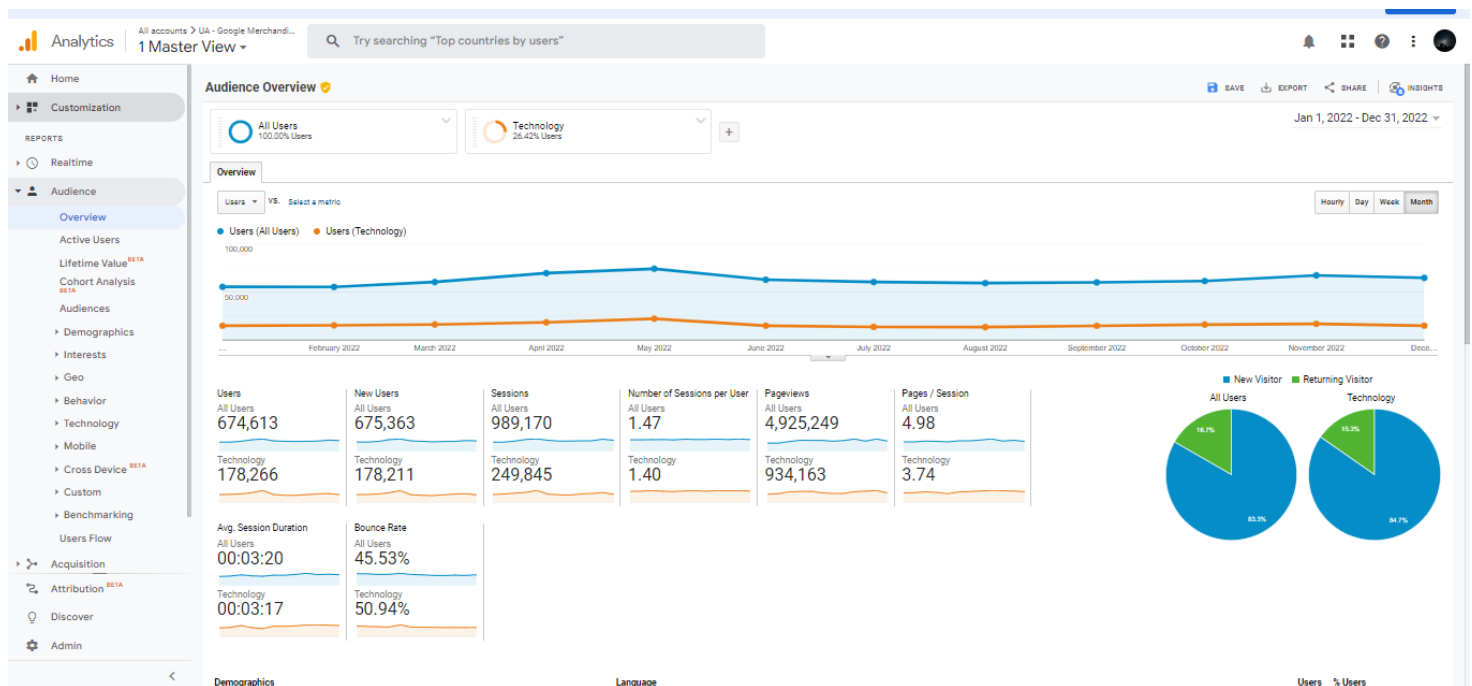


Audience Segment: Technology

Insert the screenshot of a view (such as the Audience Overview) that includes both your Technology segment as well as “All Users.” Write down or include a screenshot of the values used to create the segment.

Operating System: windows.

Browser: Chrome.

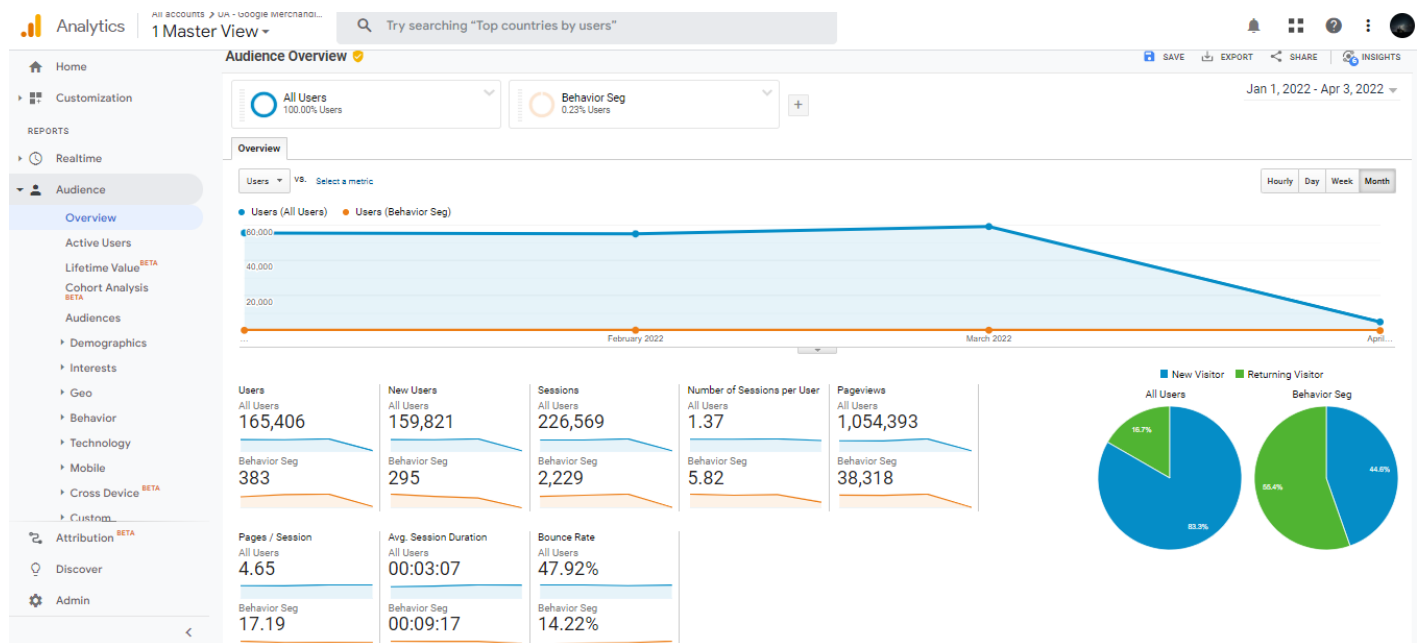




Audience Segment: User Behavior

Insert the screenshot of a view (such as the Audience Overview) that includes both your user behavior segment as well as “All Users.” Write down or include a screenshot of the values used to create the segment.

Transactions per user = 2.





Part Five: Analysis and Suggestions



Analysis and Suggestions: Business Sales Growth

Analyze your existing marketing campaigns to grow your business. In order to complete this section using your own data, you must have the required data (Campaign, Cost, Revenue, ROAS) for a minimum of two campaigns. If you do not have at least two campaigns or are missing some of the necessary data, you can use the Google Analytics demo account or the [2021 GSMM Solar YouTube Ad Sales Funnel Campaigns Pitch Deck](#) to answer this question. You are also welcome to add additional data beyond what is specified.

If using your own data, complete the following table adding rows as necessary. If using the provided GSMM Pitch Deck, delete the table.



Analysis and Suggestions: Business Sales Growth

Based on the data and other information provided, how might the campaigns be realigned and improved to potentially achieve a 20% YOY sales growth? You can assume that the c\data will remain consistent over the projected time frame. Please reference specific data to support your answer like metrics and campaigns.

Include your response here. You may also include screenshots if desired.

We will stop the (Solar Leads In Stream Solar Exclusive Website) campaign, Which has not generated enough revenue in the table, we will take its cost and put it in Solar (Subscribers Discovery Keywords CPV) campaign. Which has achieved a profit rate of (7) and achieved ROAS (4.8), Thus, we will increasing the revenue to arrive to 20%.



Analysis and Suggestions: eCommerce

Now you will evaluate the current state of eCommerce for your business and how it might be improved.

Looking at your website pages or the Google Merchandise store website and current eCommerce experience, identify one change to the eCommerce UX and one additional eCommerce option you would recommend implementing.

Example: One way to improve eCommerce capabilities would be to add the option of a digital wallet with the option to securely store and manage cards that have been used for payment, along with the option of using PayPal or ApplePay.

UX change:

- Change the title of “Shop by brand” to “Shop by Category”
- Change the position of "Log in" icon from side menu to navigation bar beside the basket icon.
- Change the design of the form page "Special Request".

Other eCommerce change or addition:

Add option to change and support multiple currency, for example: change Dollar currency to euro.

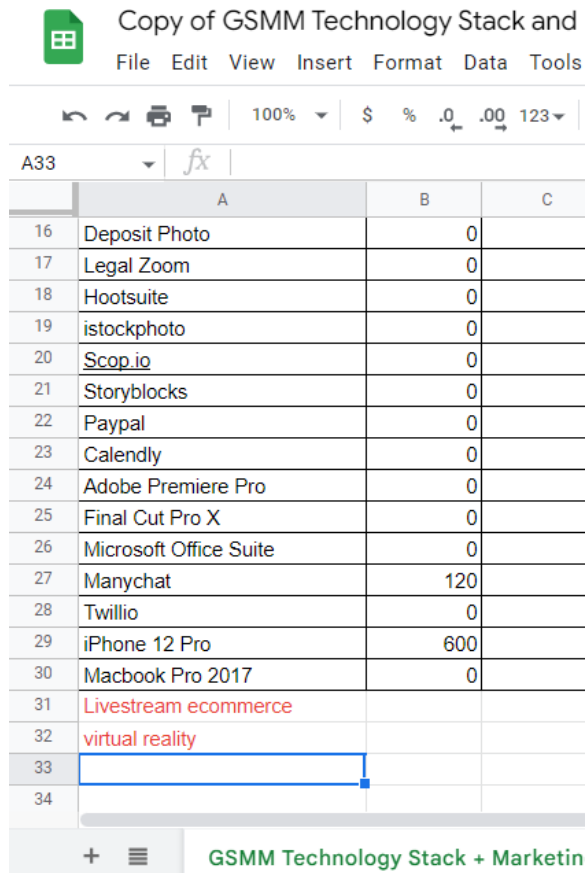


Analysis and Suggestions: Technology

Now you will look at your existing technology stack and make recommendations for the future. This should include at least two additional technologies that are not currently utilized, one of which is a new emerging technology.

If using your own business, provide both the existing technology stack and the recommended update which.

If you are not using your own business or do not currently have a technology stack, you can use the [GSMM 2021 Marketing Technology and Channels Spreadsheet](#) to answer this question or as a template to create your own.



Copy of GSMM Technology Stack and

File Edit View Insert Format Data Tools

100% \$ % .0 .00 123

	A	B	C
16	Deposit Photo	0	
17	Legal Zoom	0	
18	Hootsuite	0	
19	istockphoto	0	
20	Scop.io	0	
21	Storyblocks	0	
22	Paypal	0	
23	Calendly	0	
24	Adobe Premiere Pro	0	
25	Final Cut Pro X	0	
26	Microsoft Office Suite	0	
27	Manychat	120	
28	Twilio	0	
29	iPhone 12 Pro	600	
30	Macbook Pro 2017	0	
31	Livestream ecommerce		
32	virtual reality		
33			
34			

+ GSMM Technology Stack + Marketin