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	*Key Business Objective 1* Raise the online revenue at least by 15% within a period of one year.
2	*Key Business Objective 2* Increase transactions by 30% by the end of December.
3	*Key Business Objective 3* Increase traffic to the store by 3000 new customer until end of 4th Q.

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	*Key Performance Indicator 1 for Key Business Objective 1* Online revenue achieved in one year (Metric is: Revenue).
2	*Key Performance Indicator 2 for Key Business Objective 2* Number of transactions until end of December (Metric is: Transaction).
3	*Key Performance Indicator 3 for Key Business Objective 3* Number of new users through Holiday season (Metric is: New User).

Part Two:
A/B Testing Proposal

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

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

Percentage of clients completed at least one transaction increased by 30% with the end of December 2022.

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

Holiday new design for the main page is our variable here, and we will use bounce rate as a metric.

Determine a hypothesis for your A/B Test. Your hypothesis should include the variable you are testing and your predicted outcome.
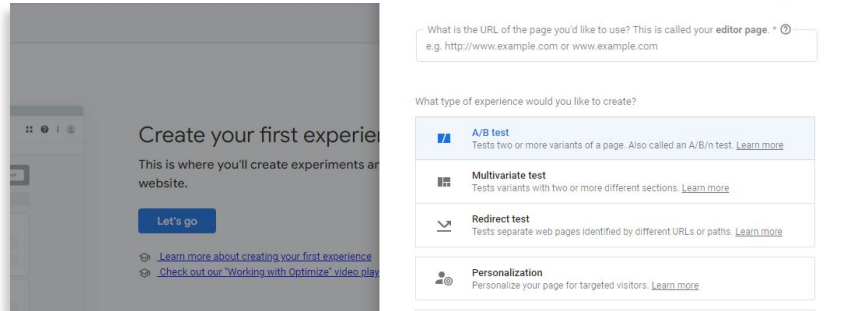
Change the design of the home page to an eye catching holiday theme lowers the bounce rate by at least 30%.
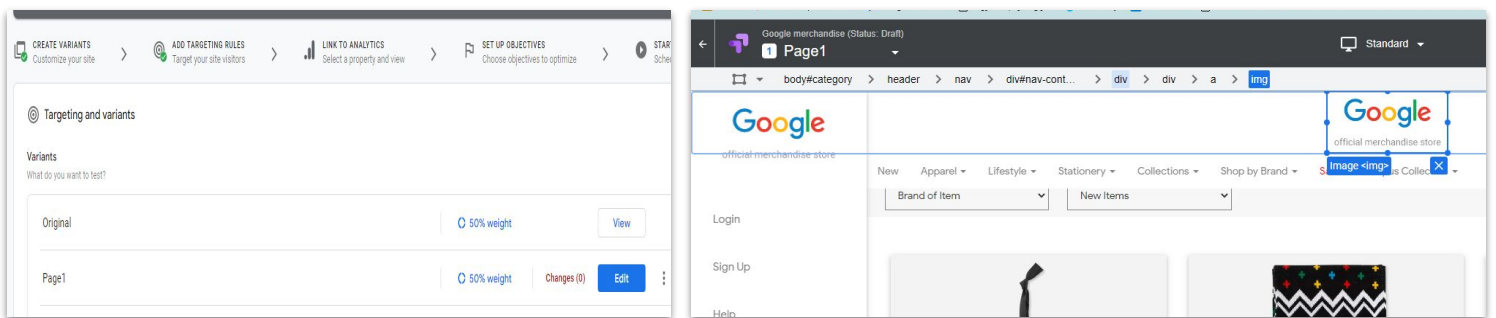
A/B Testing Proposal: Testing Process

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

1- Using google optimize, I created a new experiment & fill all of the info, then click A/B test.


2- In Targeting and variants section, I create (page 1) with the new designs I want to test using visual editor.

3- Determine the Audience targeting, I chose to equally device the audience based on cities (USA).

4- In the Measurement and objectives section, I added Google Analytics 4 property's link.

5- Add the objective & determine **who** & **when** to target from Targeting and variants section.

6- Start the experiment, and keep it running for two weeks.
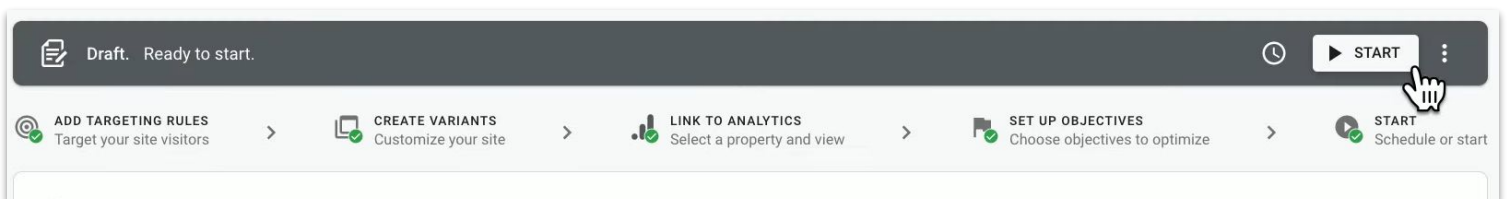
Describe how you would determine the results of the A/B test.

By checking the metric (bounce rate) score in testing page and control page, determine the winner page (lower bounce rate), then adopt the changes to show up to all visitors.

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?

December 2021 is the highest, while January 2022 was the lowest.

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

December is the holiday season, and this explains the highest visitors/potential buyer percentage, while January is the beginning of the year after many purchasing occasion (last three months of the previous year), sales & visitors rates are usually at its lowest .

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

The bounce rate is already declining starting from June 2022 until December 2022, this indicates a good opportunity to our objective (mentioned in part 1) to succeed.

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

Note that the time frame selected does not need to be visible in the screenshot, but will be reflected by the number of users.
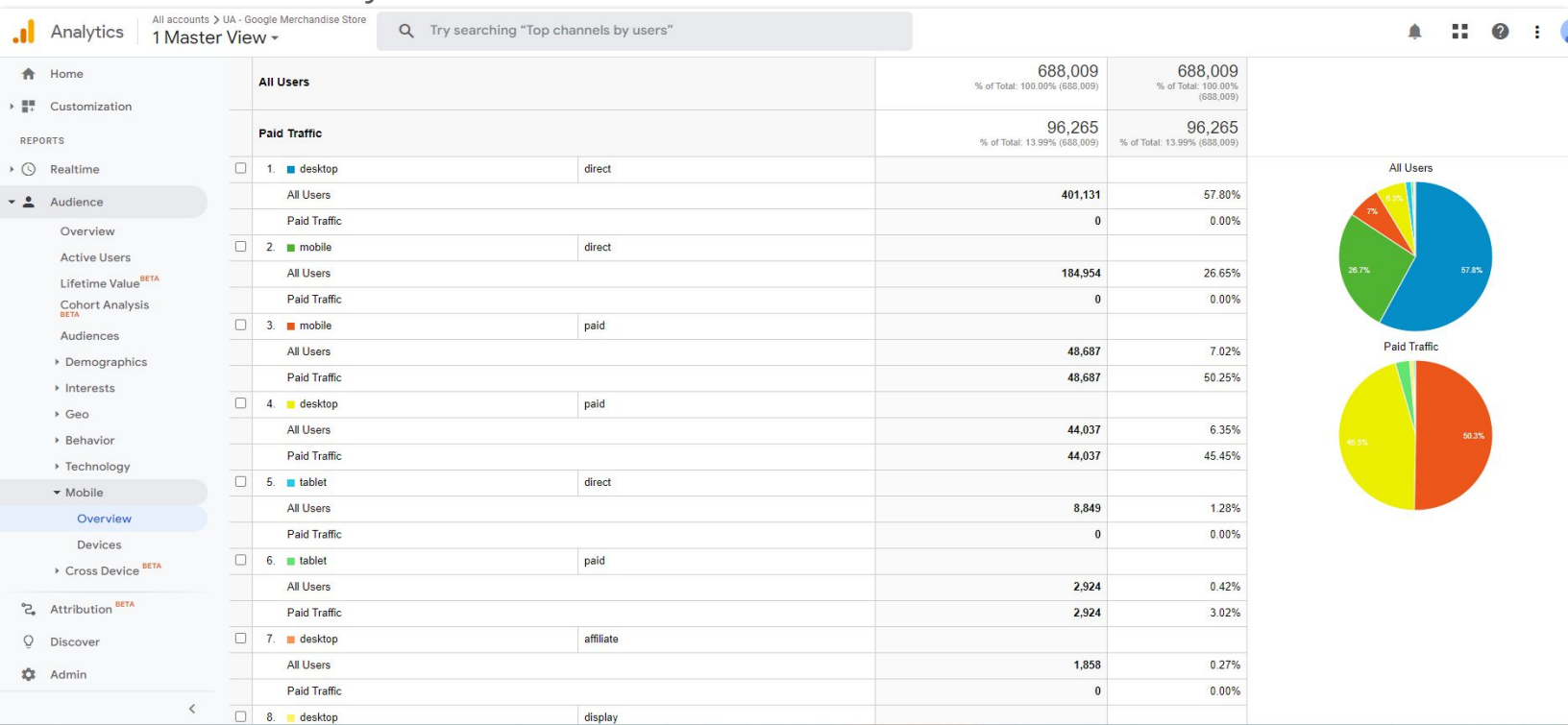
Standard Display: Acquisition

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

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

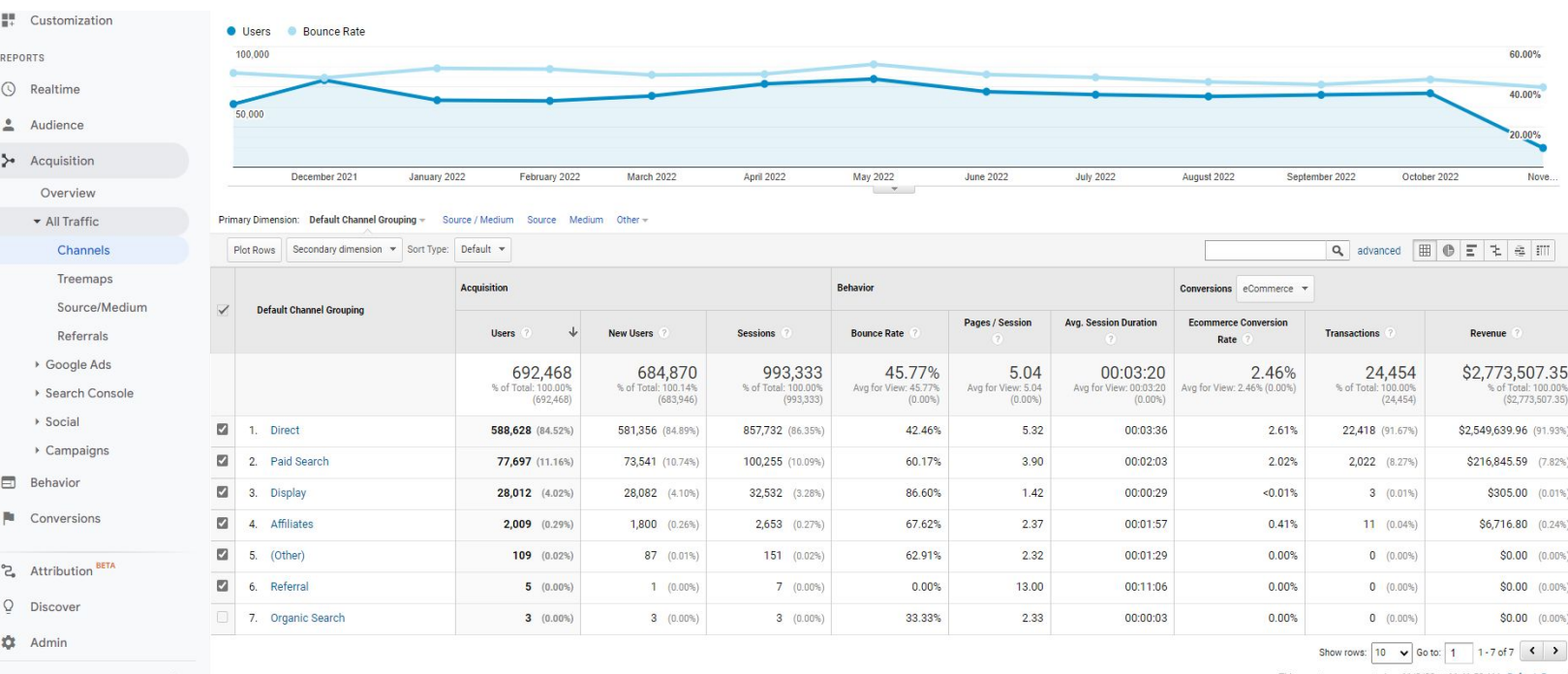| Default Channel Grouping	Users	New Users	Sessions	Bounce Rate	Pages / Session	Avg. Session Duration	Ecommerce Conversion Rate	Transactions	Revenue
	692,468 % of Total: 100.00% (692,468)	684,870 % of Total: 100.14% (683,946)	993,333 % of Total: 100.00% (993,333)	45.77% Avg for View: 45.77% (0.00%)	5.04 Avg for View: 5.04 (0.00%)	00:03:20 Avg for View: 00:03:20 (0.00%)	2.46% Avg for View: 2.46% (0.00%)	24,454 % of Total: 100.00% (24,454)	$2,773,507.35 % of Total: 100.00% ($2,773,507.35)
1. Direct	588,628 (84.52%)	581,356 (84.89%)	857,732 (86.35%)	42.46%	5.32	00:03:36	2.61%	22,418 (91.67%)	$2,549,639.96 (91.93%)
2. Paid Search	77,697 (11.16%)	73,541 (10.74%)	100,255 (10.09%)	60.17%	3.90	00:02:03	2.02%	2,022 (8.27%)	$216,845.59 (7.82%)
3. Display	28,012 (4.02%)	28,082 (4.10%)	32,532 (3.28%)	86.60%	1.42	00:00:29	<0.01%	3 (0.01%)	$305.00 (0.01%)
4. Affiliates	2,009 (0.29%)	1,800 (0.26%)	2,653 (0.27%)	67.62%	2.37	00:01:57	0.41%	11 (0.04%)	$6,716.80 (0.24%)
5. (Other)	109 (0.02%)	87 (0.01%)	151 (0.02%)	62.91%	2.32	00:01:29	0.00%	0 (0.00%)	$0.00 (0.00%)
6. Referral	5 (0.00%)	1 (0.00%)	7 (0.00%)	0.00%	13.00	00:11:06	0.00%	0 (0.00%)	$0.00 (0.00%)
7. 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%)

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

This report was generated on 11/8/22 at 11:41:50 AM - Refresh Report

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?

Highest bounce rate: **Display**

Lowest bounce rate: **Referral (Then Organic Search)**

Highest eCommerce conversion rate: **Paid Search**

Lowest eCommerce conversion rate: **Referral and Organic Search**

What do these metrics mean, based on your experience?

It means that Display generates the lowest transactions in this given circumstances, while referral & organic search leads gives higher chances of at least one transaction per visitor. As for eCommerce conversion rate it indicates that paid search generate more leads than Referral & Organic one.

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

As seen before in Audience Overview Report, The bounce rates start to drop from June until December, This means this is the most suitable time of the year to use Display, Affiliates and Paid search in our campaign.

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.)

Ensure that the following are visible in the screenshot:

1- New User segment   2- Product Categories

3- Unique Purchases   4- Revenue
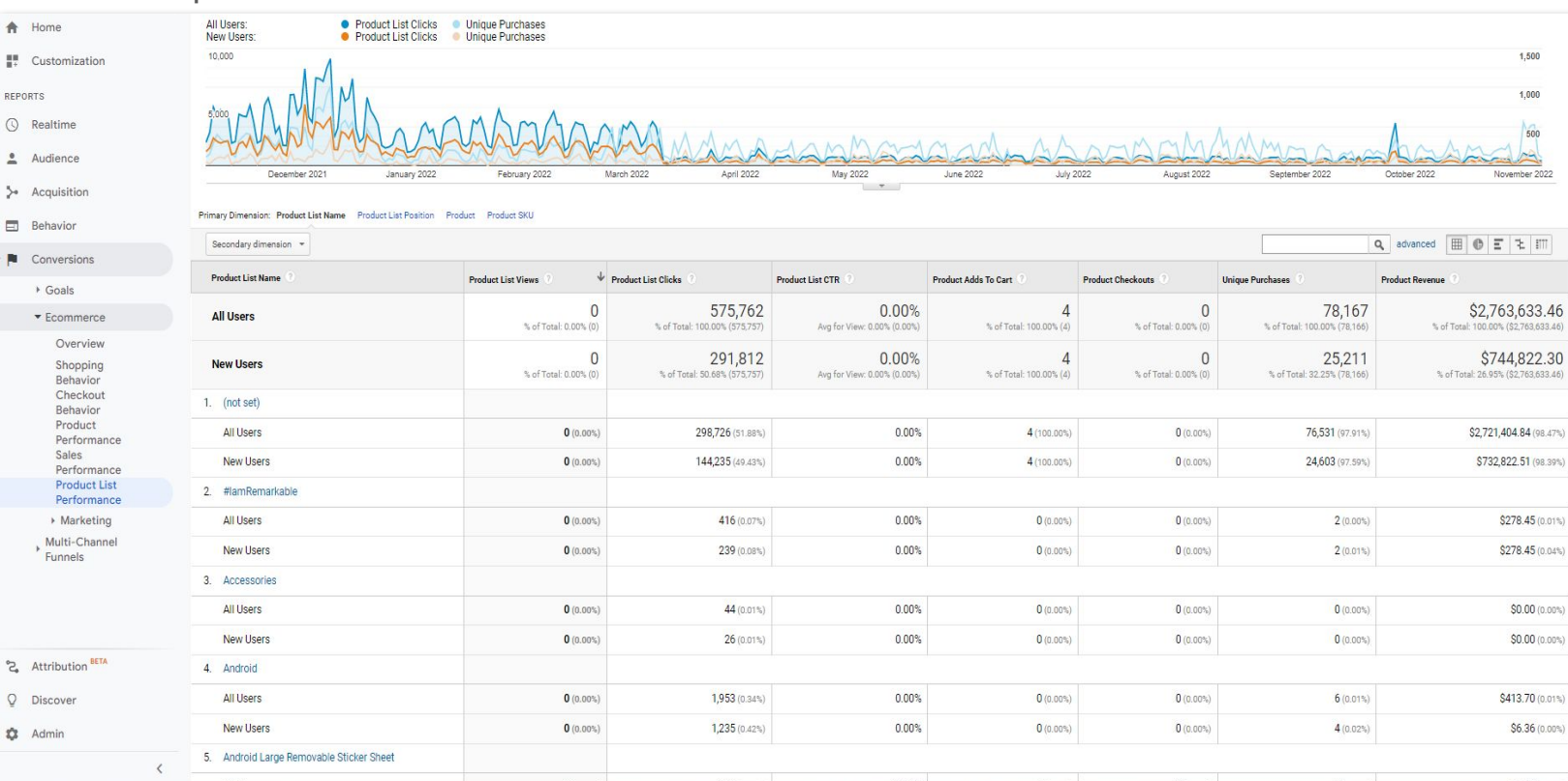
Comparison Display: Behavior

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.
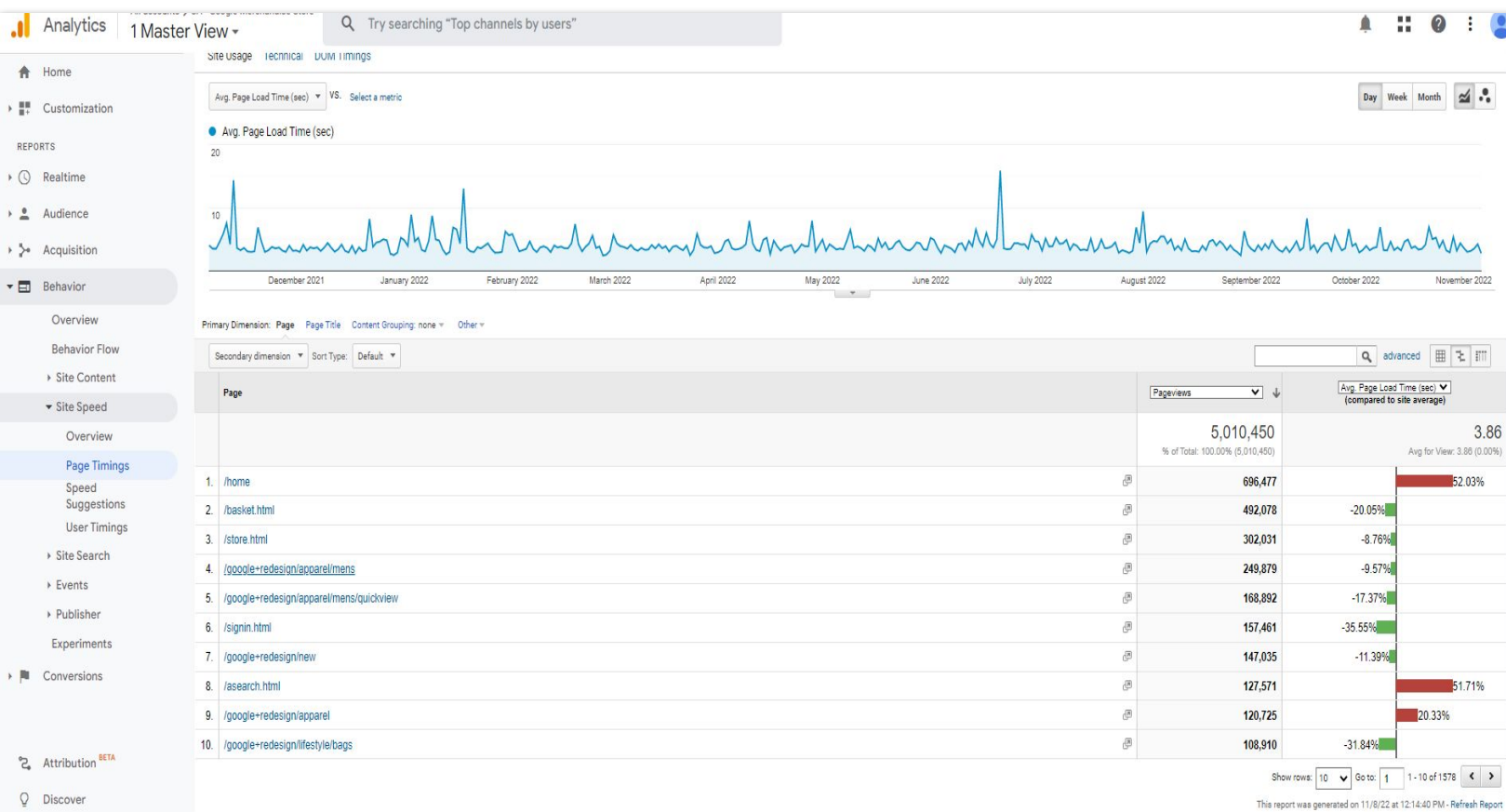
Comparison Display: Behavior

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

Home page is the slowest loading page comparing to other pages by 52.03%, Solving this problem will lower the bounce rate, therefor increase the number of transactions.

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

As our A/B testing is mainly about changing the theme of the home page, we have to make sure the loading speed is not negatively affected by the new design.
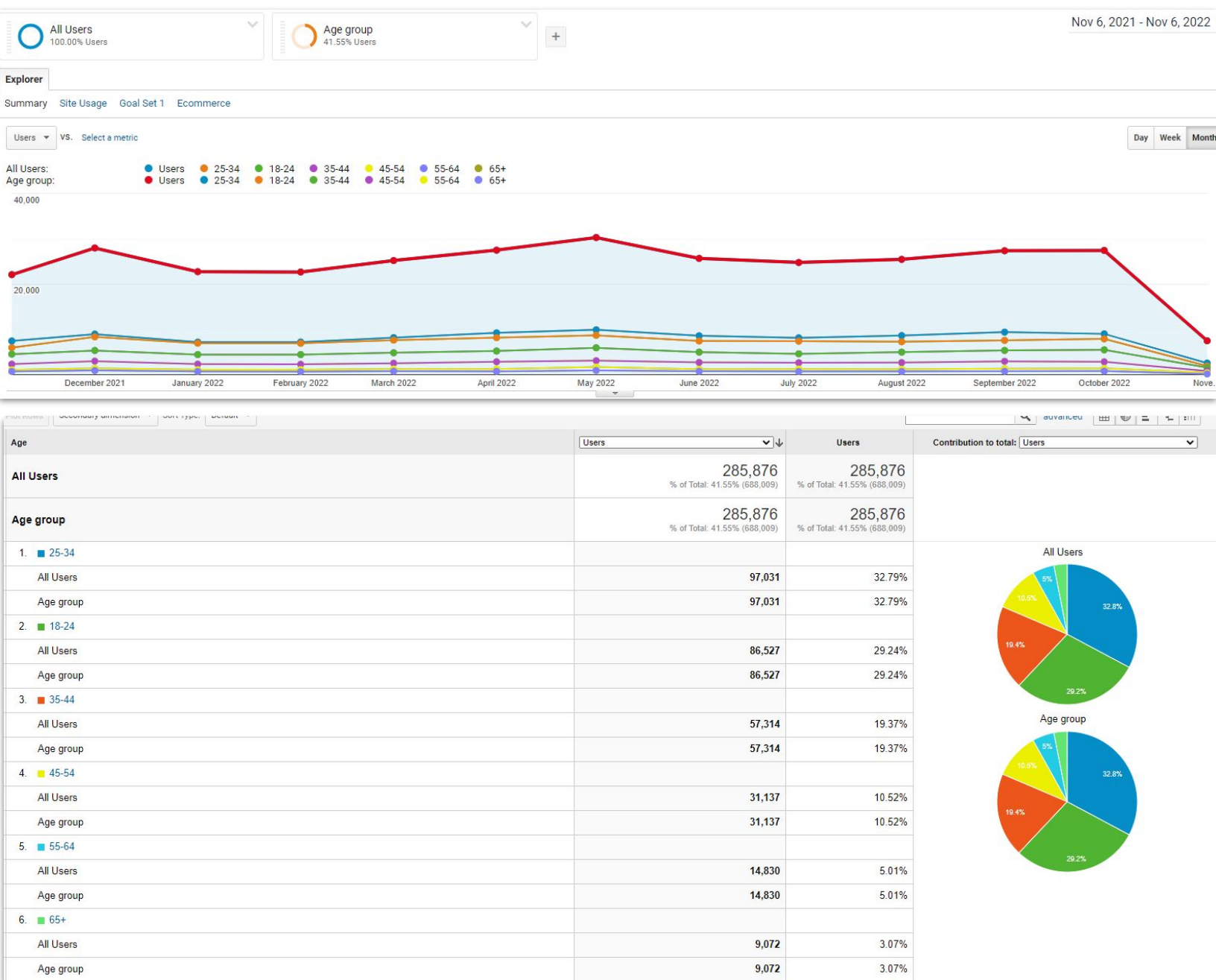
Part Four:
Segmentation

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.

The value used to segment the Audience based on Age group as follow: (18-24) , (25-34), (35-44),m (45-54), (55-64) and (65+)

| Age	Users	Users	Contribution to total: Users
All Users	285,876 % of Total: 41.55% (688,009)	285,876 % of Total: 41.55% (688,009)	
Age group	285,876 % of Total: 41.55% (688,009)	285,876 % of Total: 41.55% (688,009)	
1. ■ 25-34			
All Users	97,031	32.79%	
Age group	97,031	32.79%	
2. ■ 18-24			
All Users	86,527	29.24%	
Age group	86,527	29.24%	
3. ■ 35-44			
All Users	57,314	19.37%	
Age group	57,314	19.37%	
4. ■ 45-54			
All Users	31,137	10.52%	
Age group	31,137	10.52%	
5. ■ 55-64			
All Users	14,830	5.01%	
Age group	14,830	5.01%	
6. ■ 65+			
All Users	9,072	3.07%	
Age group	9,072	3.07%	

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.

The value used to segment the Audience as per Device category as follow: Desktop, Mobile, Tablet
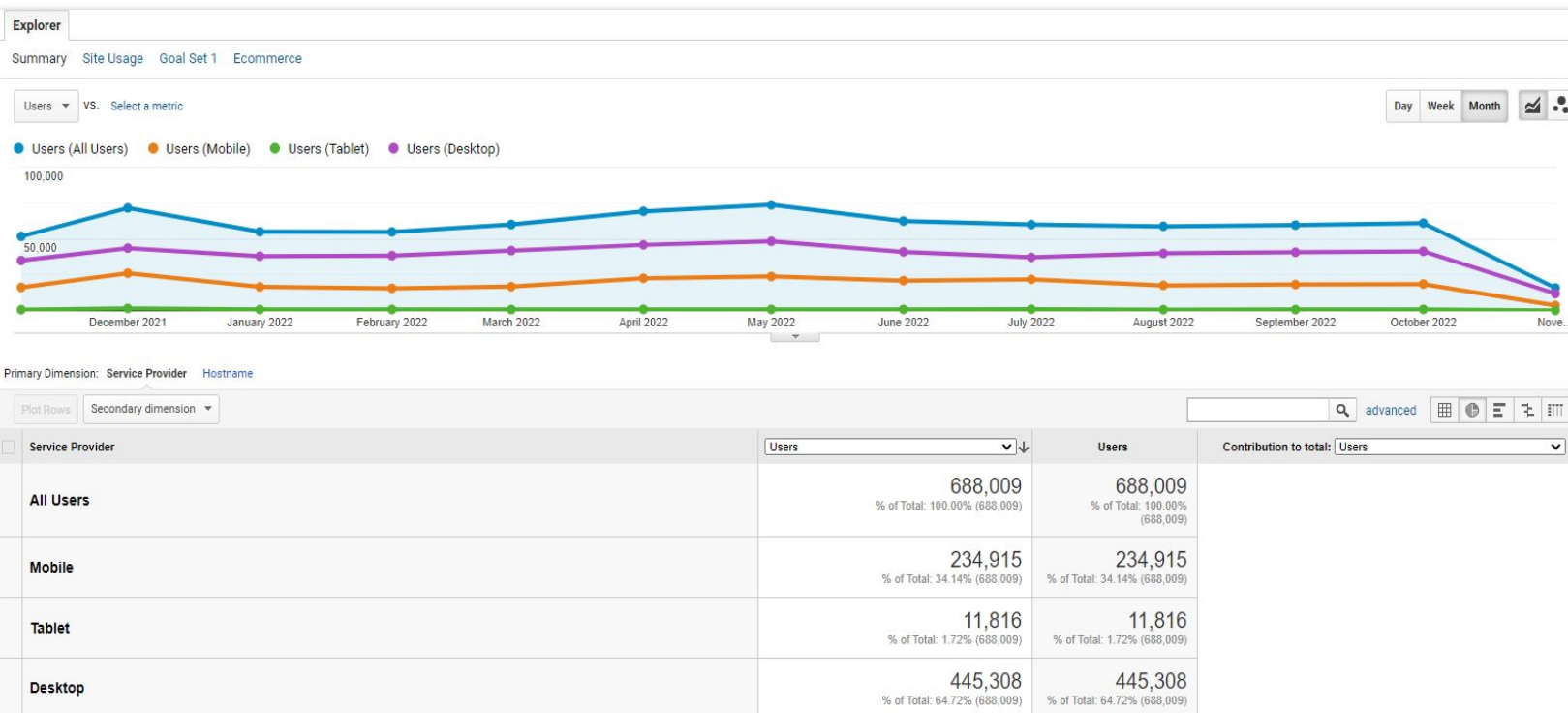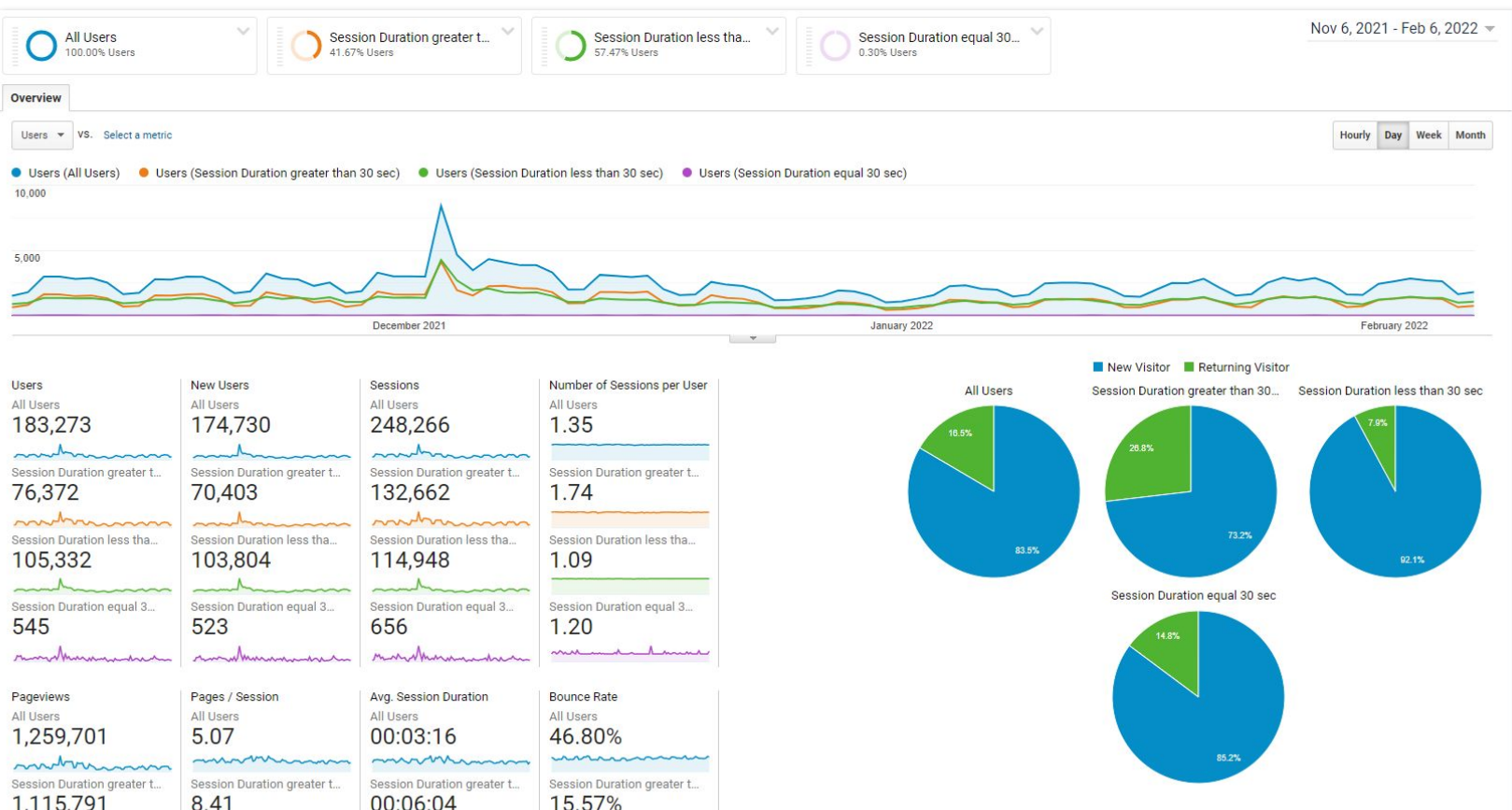
Audience Segment: User Behavior

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.

I've segmented the Audience's behavior to three segments: Greater, lower, and equal to 30 seconds per session.

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.

As the Solar Leads - In-Stream RT - Conversions is the best achieving campaign in term of ROAS, we might achieve 20% or even more YOY sales growth, by implementing a similar approach.

Using Youtube as main platform for Ads. generates the leads as this proven to be the best tool to acquire clicks (9,964 clicks)

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:

Changing the sizes of the animated banner images, because it reduces the possibility of the visitor seeing the rest of the content. Also activate "Quick add to basket" to facilitate purchase while browsing without having to enter the product page

Other eCommerce change or addition:

Add installment services to offer more payment options.

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.

Provide a link to your technology stack or place a screenshot below. Make sure that the screenshot clearly shows a minimum of 2 new additional technologies, one of which is emerging, and a total stack of no less than 10.

	GSMM 2021 Technology Stack	
1	Google Workspace	
2	Google Search engine	
3	Google Analytics	Emerging
4	Google Optimize	New
5	Peerspace	
6	Shutter stock	
7	Microsoft Office	
8	WordPress	
9	HubSpot	
10	Mailchimp	