UDACITY

# 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.<br>Write at least 3 but no more than 5 business objectives that support your business model. Each objective should be SMART. | |
|---|---|
| 1 | *Drive at least 50 leads to my website every week* |
| 2 | *Reduce monthly bounce rate by 30%* |
| 3 | *Move customers to action on the customer Journey* |
| 4 | *Create Brand Awareness* |
| 5 | *Key Business Objective 5 (optional)* |

# 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 | *Number of Ads Click Per Day* |
| 2 | *Number of Website Interactions/Page Views* |
| 3 | *Number of Purchases* |
| 4 | *Number of reffered users from third party websites* |
| *5* | *Key Performance Indicator 5 for Key Business Objective 5 (optional)* |

# Part Two:
# A/B Testing Proposal

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

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

*Number of Ads Click Per Day*

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

*Two versions of sponsored ad (Social media ad and email ad)*

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

*I predict that the Social media ad will generate a higher conversion rate at the end of the A/B test than the Email Marketing Ad*

# A/B Testing Proposal: Testing Process

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

*For the social media ad, I will promote organic content and also employ the service of a social media influencer to generate more social media ad clicks.*

*For the email ad clicks, I will send emails with a link to my website's landing page to my target audience*

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

*At the end of at least 2 weeks, I'll take a look at the outcomes of the two versions and be able to tell which version generated more clicks to my website. With that information, I can use the more effective version for future campaigns.*

# Part Three: Data Exploration

# Reports Snapshot

From the Reports Snapshot, select a twelve month time period you would like to explore.

Ensure that the following are visible in the screenshot:

- Timeframe
- New users
- Axis values

# Reports Snapshot

# Reports Snapshot

Which month had the most new users, and which month had the fewest new users?

*August had the most new users while March had the fewest new users*

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

*I assume there are holidays or special celebrations in the month with most new users and little or no activity in the month with the fewest new users in the US because most news users are from the US.*

# User Tech

Please go into the User → Tech → Tech overview report for the following:

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

Ensure that the following are visible in the screenshot:

- Device Category
- Donut chart showing % breakdown by device

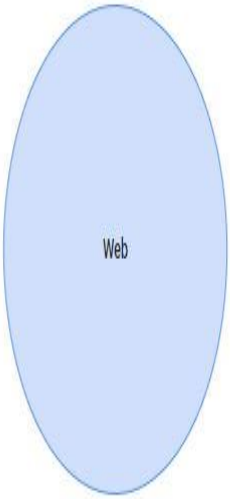
Note that the time frame selected does not need to be visible in the screenshot..

# User Tech

## Tech overview

Custom Sep 19, 2022 - Sep 19, 2023

### Users by Platform




WEB
100.0%

View platforms →

### USERS IN LAST 30 MINUTES

130

USERS PER MINUTE

| TOP PLATFORMS | USERS |
|---|---|
| web | 127 |

View realtime →

### Users by Operating system

| OPERATING SYSTEM | USERS |
|---|---|
| Android | 289K |
| Windows | 179K |
| Macintosh | 172K |
| iOS | 160K |
| Chrome OS | 35K |
| Linux | 17K |
| Tizen | 47 |

View operating systems →

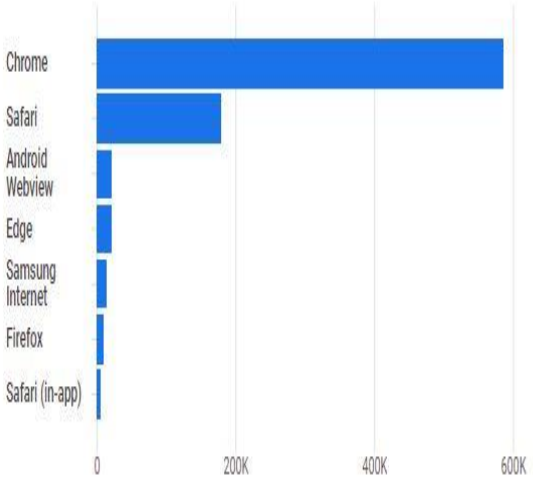
### Users by Platform / device ca...

| PLATFORM / DEVIC... | USERS |
|---|---|
| web / mobile | 407K |
| web / desktop | 400K |
| web / tablet | 41K |
| web / smart tv | 132 |

View platform devices →

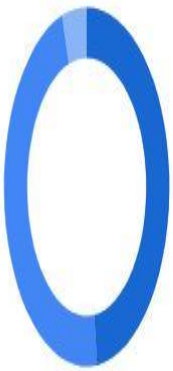
### Users by Browser

Platform exactly matches 'Web'




View browsers →

### Users by Device category

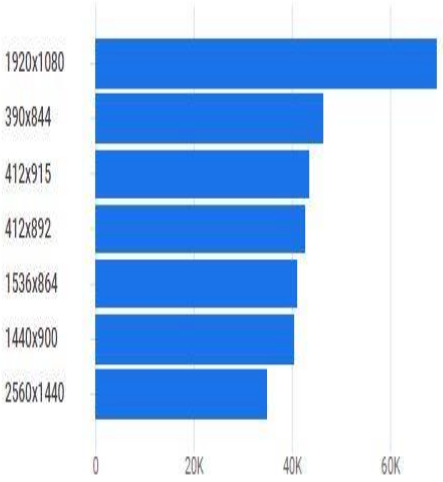


| MOBILE | DESKTOP | TABLET |
|---|---|---|
| 48.0% | 47.2% | 4.8% |

View device categories →

### Users by Screen resolution

Platform exactly matches 'Web'




View screen resolutions →

Activate Windows
Go to Settings to activate Windo

# User 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 Engagement rate of the different acquisition channels over a 12 month period.

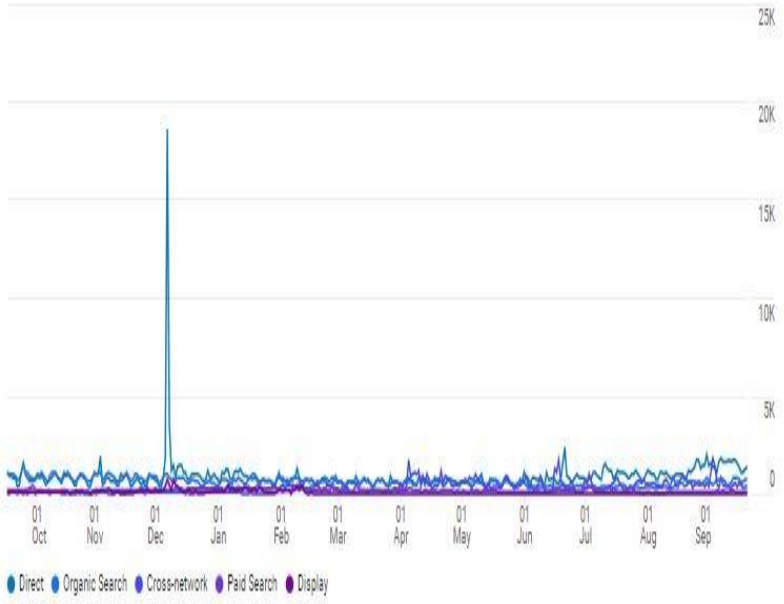
Ensure that the following are visible in the screenshot:

- Channel group
- Users
- Engagement Rate

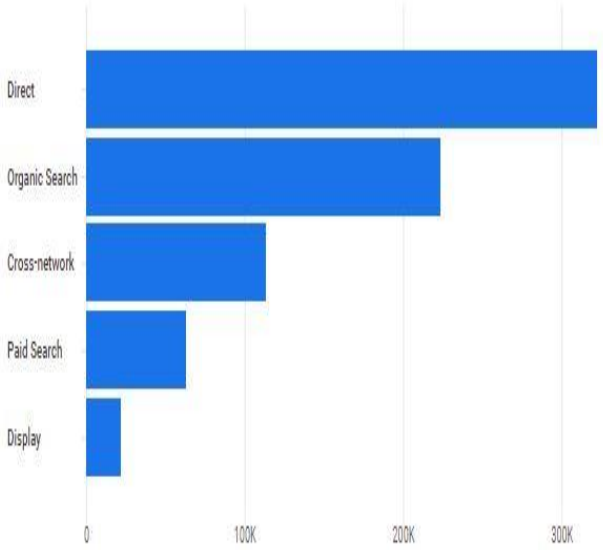
Note that the time frame selected does not need to be visible in the screenshot, but will be reflected by the number of users.

# User Acquisition

New users by First user default channel group over time




New users by First user default channel group




Search...

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| | First user defa... channel group | New users | Engaged sessions | Engagement rate | Engaged sessions per user | Average engagement time | Event count All events | Conversions All events | Total revenue |
|---|---|---|---|---|---|---|---|---|---|
| | | 786,017 100% of total | 1,032,726 100% of total | 80.5% Avg 0% | 1.22 Avg 0% | 2m 02s Avg 0% | 28,423,578 100% of total | 4,331,316.00 100% of total | $1,966,022.85 100% of total |
| 1 | Direct | 322,566 | 487,463 | 75.99% | 1.31 | 2m 32s | 15,001,250 | 2,012,565.00 | $1,351,720.13 |
| 2 | Organic Search | 223,380 | 281,652 | 83.49% | 1.24 | 1m 57s | 7,406,849 | 1,055,506.00 | $381,661.33 |
| 3 | Cross-network | 113,341 | 132,443 | 91.16% | 1.15 | 1m 16s | 1,886,388 | 436,659.00 | $36,614.22 |
| 4 | Paid Search | 62,881 | 73,233 | 81.03% | 1.16 | 0m 41s | 842,468 | 168,763.00 | $15,139.33 |
| 5 | Display | 22,156 | 20,690 | 68.13% | 0.93 | 0m 35s | 344,903 | 44,222.00 | $0.00 |
| 6 | Referral | 16,118 | 24,649 | 85.89% | 1.46 | 2m 59s | 908,727 | 93,363.00 | $62,857.89 |
| 7 | Email | 7,034 | 13,706 | 79.22% | 1.93 | 6m 24s | 628,133 | 50,360.00 | $88,081.66 |
| 8 | Organic Social | 6,827 | 9,812 | 80.58% | 1.39 | 3m 16s | 329,605 | 45,411.00 | $28,349.64 |
| 9 | Organic Video | 3,577 | 2,984 | 67.15% | 0.83 | 0m 50s | 65,328 | 5,471.00 | $159.60 |
| 10 | Unassigned | 3,233 | 2,628 | 60.25% | 0.82 | 0m 09s | 927,457 | 407,207.00 | $0.00 |

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Go to Settings to a

# User Acquisition

During the twelve month period you've selected, which channel groups had the highest and lowest engagement rates and the highest and lowest total revenue?

*The channel with the highest engagement rate is the Cross Network channel while lowest engagement rate is the unassigned channel*

*The channel with the highest total revenue is the direct channel while Organic video channel has the lowest total revenue. Unassigned & Display has 0 as total revenue.*

What do these metrics mean, based on your experience?

*The metrics means that most new users visited the Google Merchandise store by directly searching for the website on their browser, users that visited the website through the direct channel also has the highest engagement sessions, conversion and total revenue*

# Monetization

**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.**

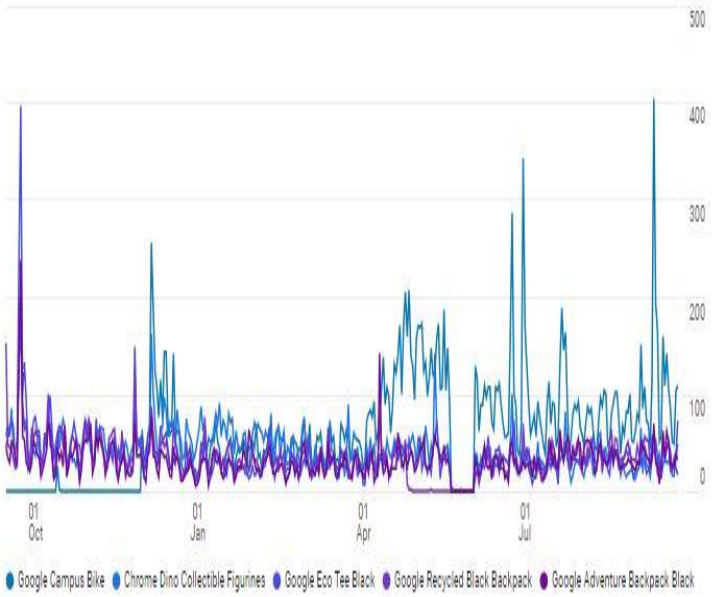
During the twelve month period you've selected, provide a screenshot that shows the Item name that contributed the highest number of unique purchases and the item name that was responsible for the largest percentage of revenue? (Screenshot(s) only; no annotation required.)

Ensure that the following are visible in the screenshot:

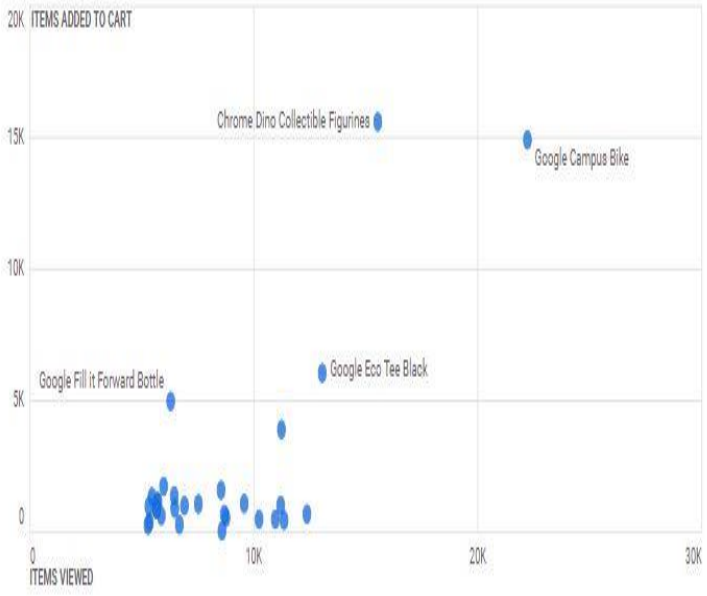
- Item names
- Number of items purchased
- Item revenue

# Monetization

Items viewed by Item name over time




Items viewed and Items added to cart by Item name

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| | Item name | Items viewed | Items added to cart | Items purchased | Item revenue |
|---|---|---|---|---|---|
| | | 1,132,294<br>100% of total | 164,148,883,538,535<br>100% of total | 138,568<br>100% of total | $1,965,982.85<br>100% of total |
| 1 | (not set) | 27,857 | 0 | 2 | $0.00 |
| 2 | Google Campus Bike | 22,233 | 14,891 | 400 | $17,811.00 |
| 3 | Chrome Dino Collectible Figurines | 15,549 | 15,573 | 292 | $8,088.00 |
| 4 | | 14,772 | 0 | 0 | $0.00 |
| 5 | Google Eco Tee Black | 13,069 | 6,024 | 0 | $0.00 |
| 6 | Google Recycled Black Backpack | 12,387 | 660 | 208 | $15,750.00 |
| 7 | Google Adventure Backpack Black | 11,363 | 427 | 134 | $14,185.60 |
| 8 | Super G Timbuk2 Recycled Backpack | 11,247 | 3,879 | 198 | $20,500.00 |
| 9 | Chrome Dino Dark Mode Collectible | 11,214 | 990 | 302 | $8,292.00 |
| 10 | Pixel Superfan Dark Mode Bottle | 10,972 | 466 | 202 | $10,086.10 |

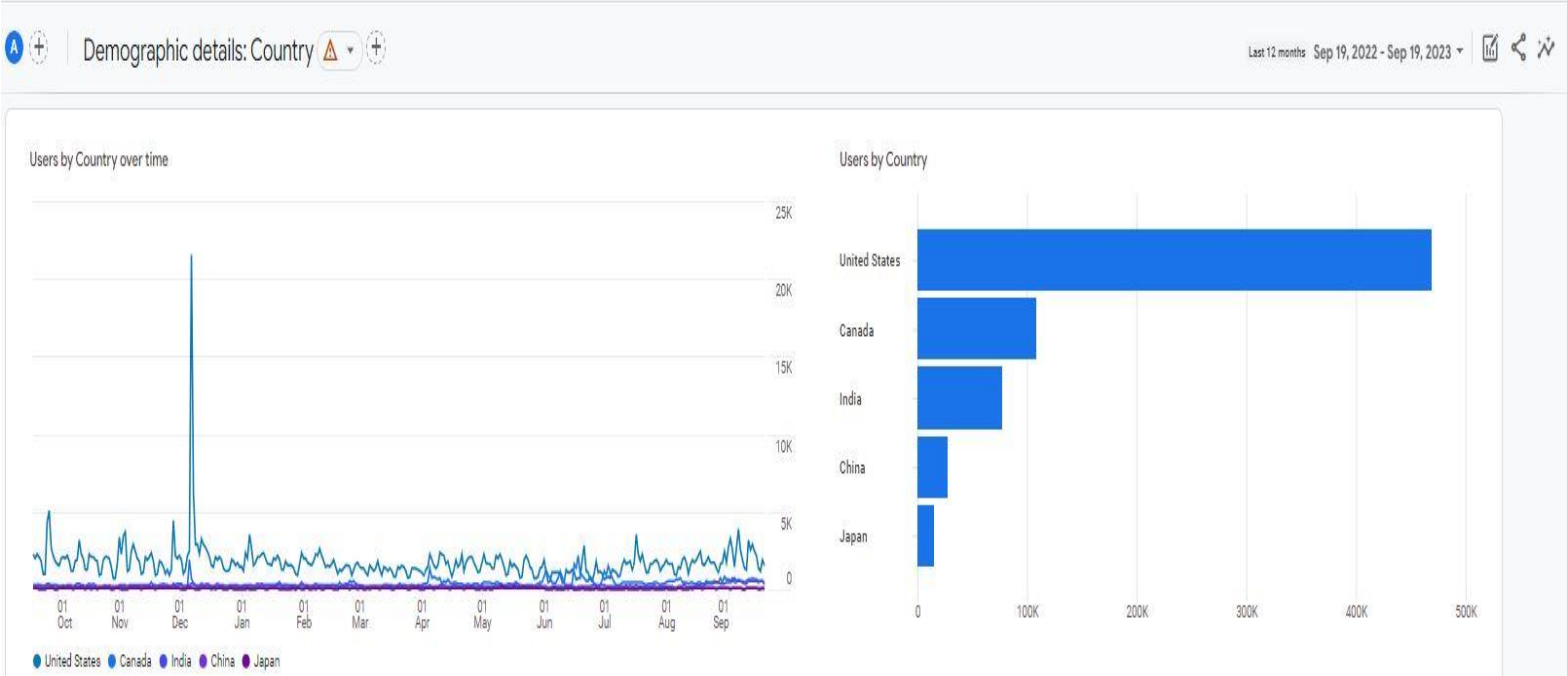
Activate Wind
Go to Settings to a

# Part Four: Segmentation

# Audience Segment: Demographics

Insert the screenshot of a view (such as the Reports snapshot) that includes a comparison of your chosen Audience Demographic segment and “All Users”.

Write down or include a screenshot of the values used to create the segment.




Search...

Rows per page: 10 Go to: 1 1-10 of 129

| | Country | Users | New users | Engaged sessions | Engagement rate | Engaged sessions per user | Average engagement time | Event count All events | Conversions All events | Total revenue |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 844,091 100% of total | 784,043 100% of total | 1,028,874 100% of total | 80.39% Avg 0% | 1.22 Avg 0% | 2m 02s Avg 0% | 28,367,316 100% of total | 4,324,392.00 100% of total | $1,964,570.61 100% of total |
| 1 | United States | 468,632 | 433,477 | 616,475 | 80.02% | 1.32 | 2m 35s | 17,800,467 | 2,569,498.00 | $1,858,867.87 |
| 2 | Canada | 108,645 | 106,455 | 126,427 | 83.98% | 1.16 | 1m 03s | 2,002,763 | 347,385.00 | $42,549.62 |
| 3 | India | 77,444 | 71,254 | 83,838 | 79.14% | 1.08 | 1m 12s | 1,855,338 | 259,439.00 | $1,514.39 |
| 4 | China | 27,370 | 25,861 | 24,082 | 81.33% | 0.88 | 0m 20s | 240,350 | 51,880.00 | $351.00 |
| 5 | Japan | 15,290 | 12,775 | 17,346 | 70.79% | 1.13 | 2m 08s | 609,018 | 72,928.00 | $2,389.40 |
| 6 | South Korea | 12,218 | 10,620 | 15,874 | 73.47% | 1.30 | 1m 33s | 463,006 | 51,717.00 | $2,659.65 |
| 7 | Taiwan | 11,106 | 9,526 | 14,689 | 73.99% | 1.32 | 2m 42s | 523,449 | 53,714.00 | $17,360.80 |
| 8 | Pakistan | 9,819 | 9,302 | 10,367 | 87.61% | 1.06 | 0m 39s | 188,281 | 18,156.00 | $35.75 |
| 9 | Singapore | 8,796 | 7,578 | 11,694 | 74.44% | 1.33 | 2m 27s | 365,503 | 42,994.00 | $5,936.63 |
| 10 | (not set) | 7,769 | 7,708 | 7,138 | 90.09% | 0.92 | 0m 09s | 956,024 | 417,085.00 | $664.32 |

Activate Windows

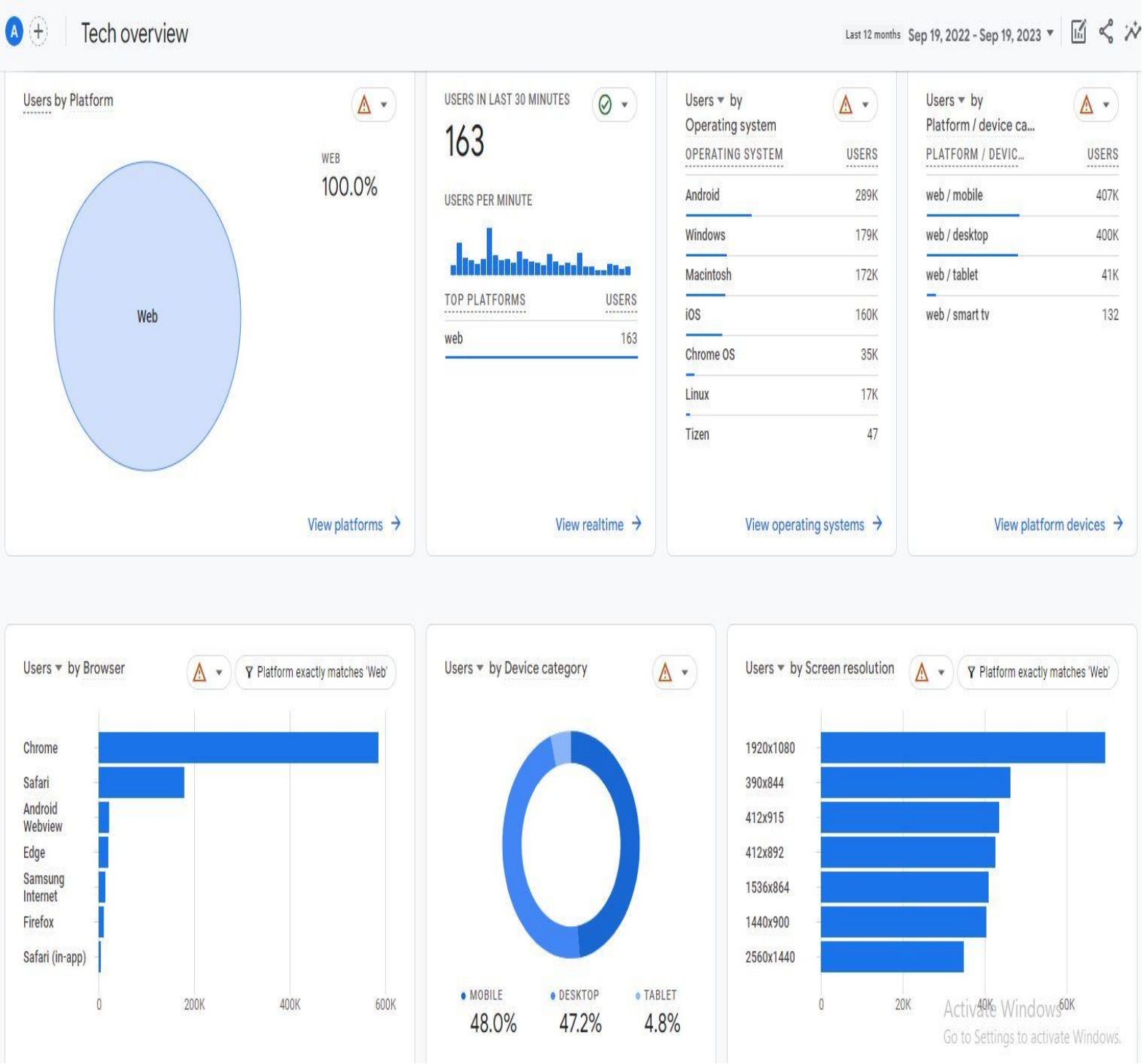
# Audience Segment: Demographics

Total number of users within the period Sep 19 202 – Sep 19 2023 is 844,091 as shown in the screenshot.
Most users are from the US, with the most conversion and total revenue.

# Audience Segment: Technology

Insert the screenshot of a view (such as the Reports snapshot) that includes a comparison of your chosen Technology segment and “All Users”.

Write down or include a screenshot of the values used to create the segment.



# Audience Segment: Technology

In the screenshot, 100% of users are from the web. However, to distinguish by browser, most users came to the website through chrome followed by safari which means also and is shown in the screenshot that most users are android users.

# 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 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.

*Based on the data provided, I will remarket the Youtube ads keywords campaign because it doesn't cost as much as other campaigns as shown in the screenshot below, although it has the second to last number of views, it brought the most conversion. To achieve a 20% YOY sales growth, I will increase the budget for the Youtube ads keywork campaign*

| A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Google Ads Campaigns Reports January 1, 2021 - December 31, 2021 | | | | | | | | | | | |
| Campaign | Bid strategy type | Campaign type | Cost | Clicks | Avg. CPC | Earned subscribers | Views | Avg. CPV | Conversions | Cost / conv. | CTR |
| Solar Leads - In-Stream RT - Conversions | Maximize Conversions | Video | 1760.23 | 9,964 | 0.18 | 1–20 | 41,677 | 0.04 | 20 | 88.01 | 3.04% |
| Google Hangout Video Call | Manual CPV | Video | 0.01 | 0 | -- | 0 | 1 | 0.01 | 0 | 0 | 0.00% |
| Solar Subscribers - Discovery Keywords - CPV | Manual CPV | Video | 4344.11 | 0 | -- | 1,040 | 185,217 | 0.02 | 0 | 0 | 0.00% |
| Search- SMM Leads- CPC Enhanced | CPC (enhanced) | Search | 32.97 | 7 | 4.71 | 0 | 0 | -- | 0 | 0 | 6.03% |
| How To Get Sales With YouTube Ads | Manual CPV | Video | 691.38 | 0 | -- | 323 | 51,260 | 0.01 | 0 | 0 | 0.00% |
| YouTube Strategy Call - YouTube Ads Keywords | Maximize Conversions | Video | 142.67 | 122 | 1.17 | 0 | 1,186 | 0.12 | 88 | 1.62 | 1.72% |
| Linkedin Recruiting Video Subs | Manual CPV | Video | 22.28 | 0 | -- | 1–20 | 2,005 | 0.01 | 0 | 0 | 0.00% |
| Course Creator Subscribers - Discovery Keywords - CPV | Manual CPV | Video | 445.43 | 0 | -- | 1–20 | 3,802 | 0.12 | 0 | 0 | 0.00% |
| Maximize Conv - Solar Sales Calls - Custom Intent | Maximize Conversions | Video | 920.59 | 655 | 1.41 | 1–20 | 3,527 | 0.26 | 6 | 153.43 | 2.56% |
| Ecommerce Sales Subsribers - Discovery - CPV | Manual CPV | Video | 72.89 | 0 | -- | 1–20 | 742 | 0.1 | 0 | 0 | 0.00% |
| 3.99 Ebook Sales Conversions - Keywords | Maximize Conversions | Video | 576.03 | 452 | 1.27 | 0 | 8,936 | 0.06 | 2 | 288.01 | 0.75% |
| Contact Us Page Conversions | Maximize Conversions | Video | 36.28 | 86 | 0.42 | 0 | 1,183 | 0.03 | 0 | 0 | 0.87% |
| Solar Leads - In-Stream Solar Exclusive Website - Conversions | Maximize Conversions | Video | 323.81 | 302 | 1.07 | 0 | 2,852 | 0.11 | 0 | 0 | 2.03% |
| Solar Leads - In-Stream Solar Cheat Code Website - Conversions | Maximize Conversions | Video | 270.11 | 318 | 0.85 | 0 | 2,002 | 0.13 | 0 | 0 | 2.07% |
| Solar Search- Solar Leads KY - Conversions | Maximize Conversions | Search | 40.39 | 15 | 2.69 | 0 | 0 | -- | 0 | 0 | 1.10% |
| Total: Campaigns | | | 9679.18 | 11,921 | 0.81 | 1,393 | 304,390 | 0.03 | 116 | 83.44 | 0.14% |
| Total: Account | | | 9679.18 | 11,921 | 0.81 | 1,393 | 304,390 | 0.03 | 116 | 83.44 | 0.14% |
| Total: Display | | Display | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Total: Discovery | | Discovery | 0 | 0 | -- | 0 | 0 | -- | 0 | 0 | -- |
| Total: Search | | Search | 73.36 | 22 | 3.33 | 0 | 0 | -- | 0 | 0 | 1.48% |
| Total: Video | | Video | 9605.82 | 11,899 | 0.81 | 1,393 | 304,390 | 0.03 | 116 | 82.81 | 0.14% |

# 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:

*To improve eCommerce user experience, I'll add the option of stripe. That way customers can accept payments and issue payouts anywhere in the world.*

Other eCommerce change or addition:

An addition will be, to be able to connect with customers directly, which will make faster, the process of getting customer reviews and service feedback. This will in turn give a better understanding of the customers and how they view the Google Merchandise customer's service.

# 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.

*I'll recommend the emerging visual and voice search technology as it'll help customers to search for products or information on the website seemlessly thereby improving the user experience.*

*Secondly, tracking tools like Google Data Studio can be implemented to allow the GSMM to tag, analyse, track and visualize user data and gain insights using the datas.*