University of Westminster

Informatics Institute of Technology

Department of Business

BSc (Hons) Business Information Systems

6MMCS005C - Digital Marketing

Individual Coursework 2

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Site Address: https://sites.google.com/view/binari-business-analyst/home

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1. Part A: Analytics

1.1 Linking the Personal Website with Google Analytics

1.1.1 Steps to Enable Google Analytics (GA4)

- Create an account on Google analytics platform.
- Fill the “account details” section with an appropriate name.
- Choose sharing account data types.
- Assign a name to the property (default - GA4) in the “property setup”.
- Set the reporting time zone & currency.
- Add the organization details (number of employees, organization type etc.)
- Choose the types of analytics.
- Click the “create" button.
- On the next screen, choose “website” as the platform.
- Add the URL for the website.
- Assign the data stream name (site-name).
- By clicking on the toggle button, enable the enhanced measurements.
- Click on the “create stream”.
  This creates the ID for the property and it starts with “G” **(G-GNX96Q6RGE)**.
- Copy the measurement ID.
- Go to the Google sites editor.
- Click on settings.
- Go to the analytics tab, paste the ID on the text field.and enable analytics. or,
- Click on “get tagging instructions”.
- Copy the code snippet given.
- Go to Google sites editor and embed code in the head section using the “<>” icon
- Republish the site.

```
<!-- Global site tag (gtag.js) - Google Analytics -->
<script async
src="https://www.googletagmanager.com/gtag/js?id=G-GNX96Q6RGE"></scrip
t>
<script>
  window.dataLayer = window.dataLayer || [];
  function gtag(){dataLayer.push(arguments);}
  gtag('js', new Date());

  gtag('config', 'G-GNX96Q6RGE');
</script>
```

1.1.2 Difference between GA4 and Universal Analytics (UA)

	Universal Analytics	**Google Analytics - 4**
Measurement model	Based on sessions (group of user interactions in a given timeframe. It can contain multiple pageviews, events, transactions etc.)	Based on events and parameters (any interaction can be captured as an event)
Monthly hit limits	10 monthly for the free version	Number of hit limit: 500 Volume of the hit limit: unlimited
Large complex data query	Not supported	Supported through the free connection to BigQuery service
Privacy consent mode	Not available	GDPR, DPA compliant
Spam and fake data prevention	Not available	Available

Table 1: Differences between GA4 and UA

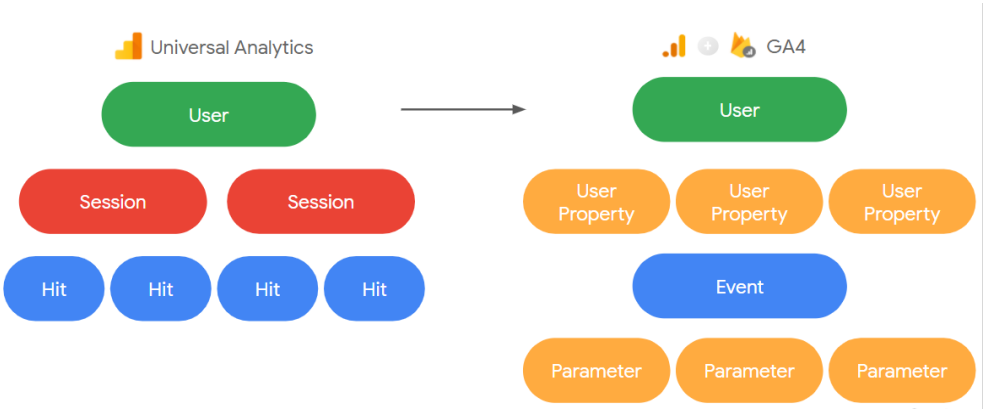


Figure 1: GA4 vs. UA measurement models

1.1.3 Advantages of GA4

- More accuracy due to the built-in rollup report structure.
- Automatic tracking report generation for events.
- Flexible measurement model allows straightforward custom reporting using explorations metrics.
- Improved visualization due to the newly added templates with vital aspects such as funnel analysis and segment overlaps.
- Simplified cross-dimensional metric reporting.

- Allows to connect the same property to more than 1 data stream (up-to 50).

1.2 Data Gathering, GA Reports Generating and Analysis

1.2.1 GA Reports

In order to generate reports using GA4 property, the website was monitored throughout 5 consecutive days from 26th April to 30th April 2022.

1. User Activity Over Time

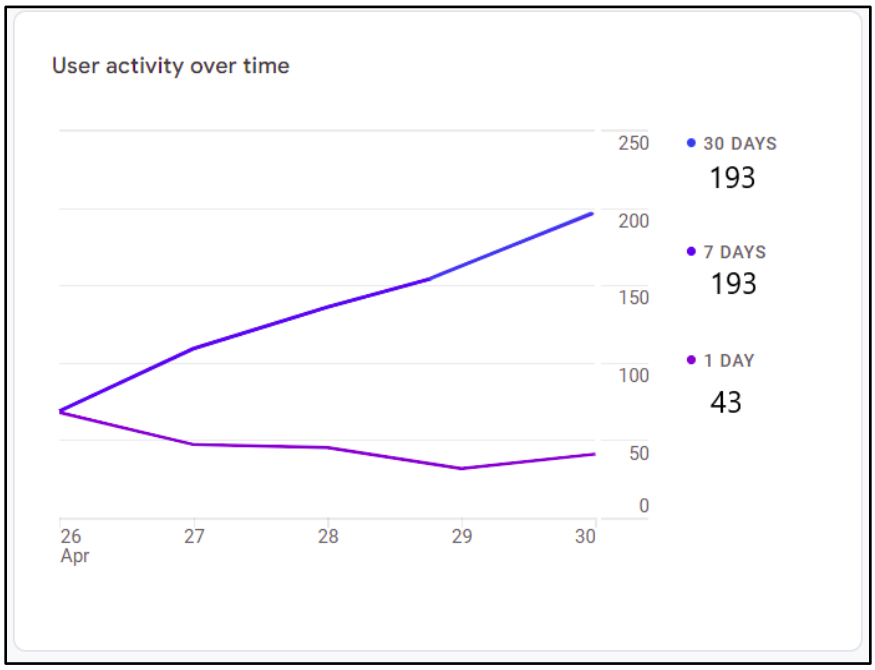
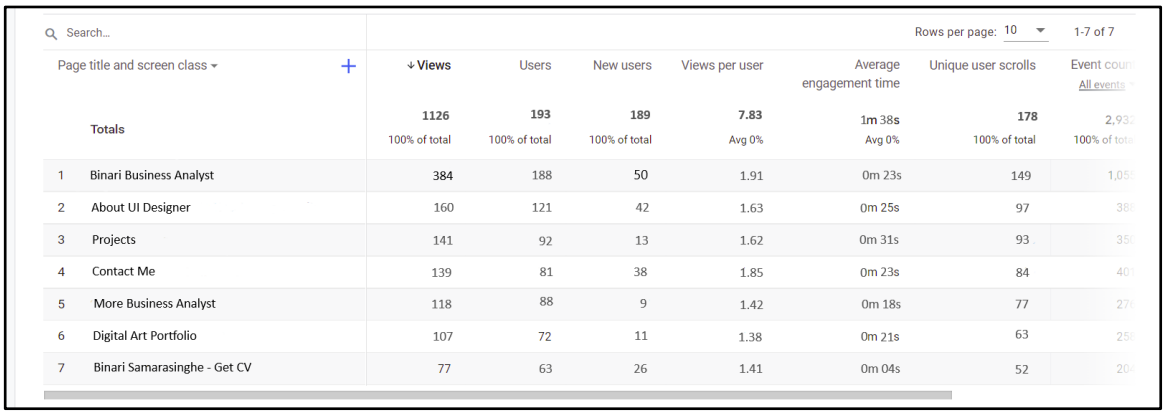


Figure 2: User activity over time

This graph depicts the number of users who were active on the connected website for a few timeframes. Namely, for 1 day, 7 days and 30 days. For each timeframe, the trendline is generated in different colors to denote the information more effectively. However, since my website was monitored in the last week of April including the very last day of the month, both the 7-day timeframe and 30-day timeframe are shown in a singular trendline. The two distinct lines shown in the plot clearly shows how the total number of active users has grown up to date for 7-days and 30-days while the number of active users per day is gradually declining. However, after the 29th of April, it gradually showed a positive trend. 193 refers to the number of total active users reported by 30th of April throughout 5-consecutive days and 43 refers to the number of active users reported on 30th of April.

2. Views by “Page Title and Screen Class”

Figure 3: Views by page title and screen class 1



Search...

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	Page title and screen class	↓ Views	Users	New users	Views per user	Average engagement time	Unique user scrolls	Event count All events
	Totals	1126 100% of total	193 100% of total	189 100% of total	7.83 Avg 0%	1m 38s Avg 0%	178 100% of total	2,93 100% of tota
1	Binari Business Analyst	384	188	50	1.91	0m 23s	149	1,05
2	About UI Designer	160	121	42	1.63	0m 25s	97	38
3	Projects	141	92	13	1.62	0m 31s	93	35
4	Contact Me	139	81	38	1.85	0m 23s	84	40
5	More Business Analyst	118	88	9	1.42	0m 18s	77	27
6	Digital Art Portfolio	107	72	11	1.38	0m 21s	63	25
7	Binari Samarasinghe - Get CV	77	63	26	1.41	0m 04s	52	20

Figure 4: Views by page title and screen class 2

This displays the number of times each screen class has been viewed by users. The screen class is the UIViewController (A component implemented on screens by applications to track information on UI behaviors) or Activity that is now in focus which implies this depicts all of the website's pages, organized by web-page title and developer-supplied screen name (Burton, 2022).

- **Users -** Visitors that have started a single session on your website or app during a certain time frame.
- **Views** – The number of times an event has been recorded. If a user visits the same page numerous times, the number of counts for the relevant page will rise appropriately.
- **New Users -** The total number of persons that visited the website for the first time during the specified time period.
- **Views per User** - The total views divided by total users.
- **Average Engagement Time** - The average amount of time users spent on each page of the website.

- **Unique User Scrolls -** The number of unique users who scrolled down at least 90% of the relevant page.

Analysis:
The homepage was visited the greatest number of times by the greatest number of users, while the 'About UI Designer' page came in second. In the first coursework, those two pages were optimized for two keywords: "Business analyst" and "UI Designer." The page with the highest average engagement duration is the 'Projects' page, which contains several internal links. This allows one to comprehend the website's primary interests and weak areas.

3. Sessions by "Session Default Channel Grouping"

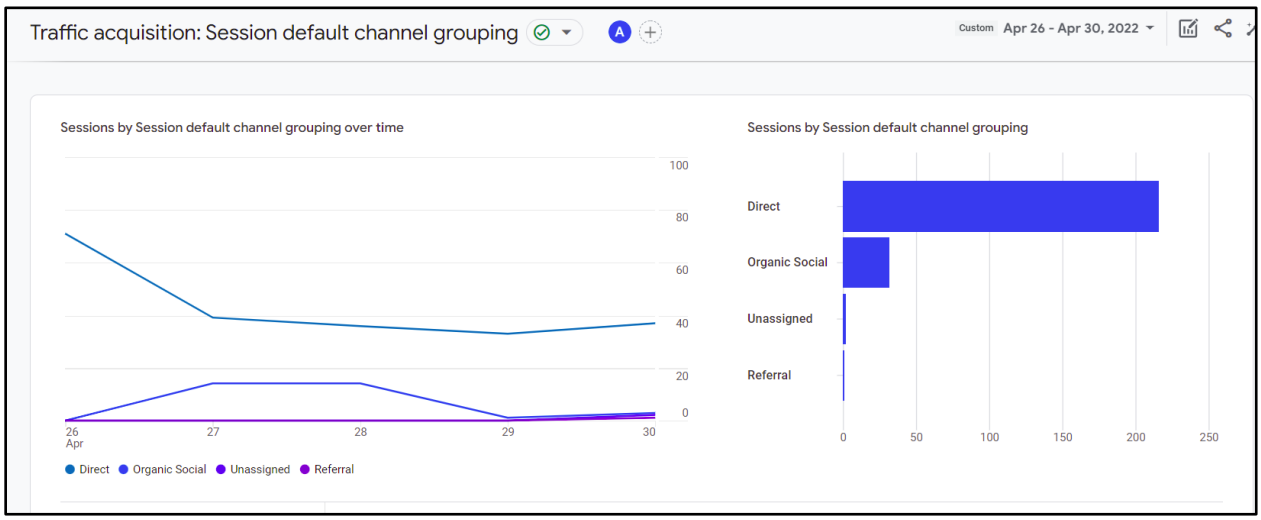
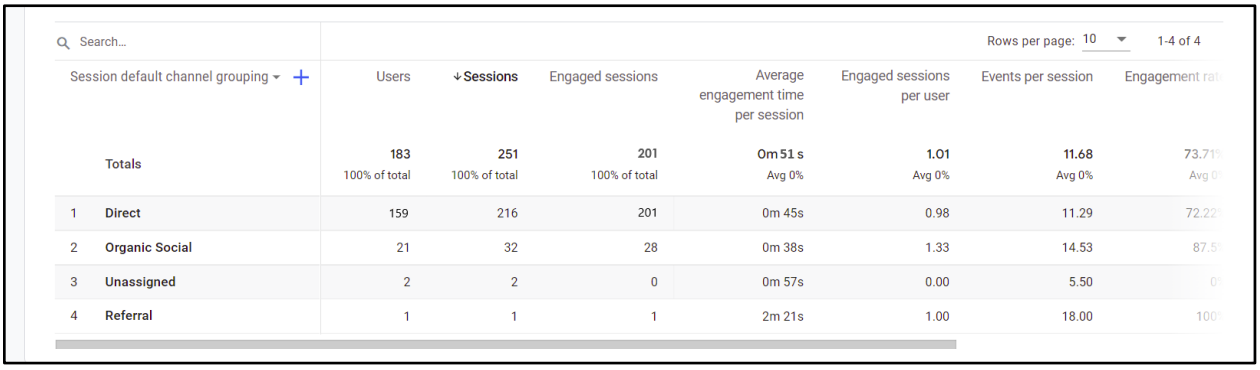


Figure 5: Sessions by session default channel grouping



	Session default channel grouping	Users	↓ Sessions	Engaged sessions	Average engagement time per session	Engaged sessions per user	Events per session	Engagement rate
	Totals	183 100% of total	251 100% of total	201 100% of total	0m 51 s Avg 0%	1.01 Avg 0%	11.68 Avg 0%	73.71% Avg 0%
1	Direct	159	216	201	0m 45s	0.98	11.29	72.22%
2	Organic Social	21	32	28	0m 38s	1.33	14.53	87.5%
3	Unassigned	2	2	0	0m 57s	0.00	5.50	0%
4	Referral	1	1	1	2m 21s	1.00	18.00	100%

Figure 6: Sessions by session default channel grouping in depth

This depicts the various traffic sources that lead to the website based on the sessions. Through this metric meaningful insights can be gained about the channels from which the website receives traffic. Through this data social media, SEO and other online marketing techniques can

be weighed, evaluated and informed decisions can be taken to optimize current practices further in order to meet established goals.

- **Session** - Collection of user interactions (hits) with the website over a set period of time. It collects all of a user's interactions with the website.
  I.e.: A user spent five minutes on a website loading multiple pages, triggering multiple events, and completing a transaction. All these actions would be contained in the same session (Page, 2022).
- **Average Session Duration** - The average duration of a session.
- **Direct** - A User directly types the website's URL into their browser.
- **Organic Social Traffic** - Users arrive at a website via a link posted on a social media platform.
- **Referral** - Originates from a different link or domain.
- **Unassigned** - Unassigned traffic does not comply with other channel regulations.

Analysis:
In this case, the largest traffic is generated through direct links due to the fact that I campaigned through emails and WhatsApp with an embedded link for 5 days. Second largest traffic source is the social media organic searches where users who visit my social profiles get to the website through links posted on my bio. There is one result through referral sites where a user accessed my site through an external site.

4. New Users by "First User Default Channel Grouping"

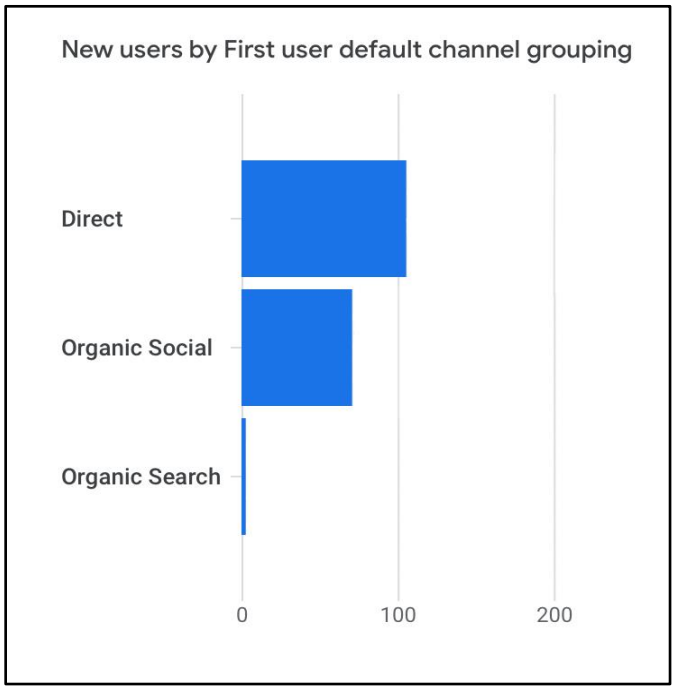


Figure 7: New users by first user default channel grouping

Same as above, this depicts the various traffic sources that lead to the website based on first time users. Through this metric meaningful insights can be gained about the channels from which the website receives traffic which helps to take informed decisions to optimize current practices further in order to meet established goals. All the key terms in these metrics are elaborated in the previous section. According to this, 108 out of 189 first users have gotten to the website through direct links that were shared on emails and WhatsApp. 79 of the users have accessed the website through the links that are published on my social media bios on Facebook, Instagram and DeviantArt profile page. Only 2 people have found the website by typing on Google.

5. User Engagement Overview

Determines how users interact with the website as well as the most frequently visited pages.

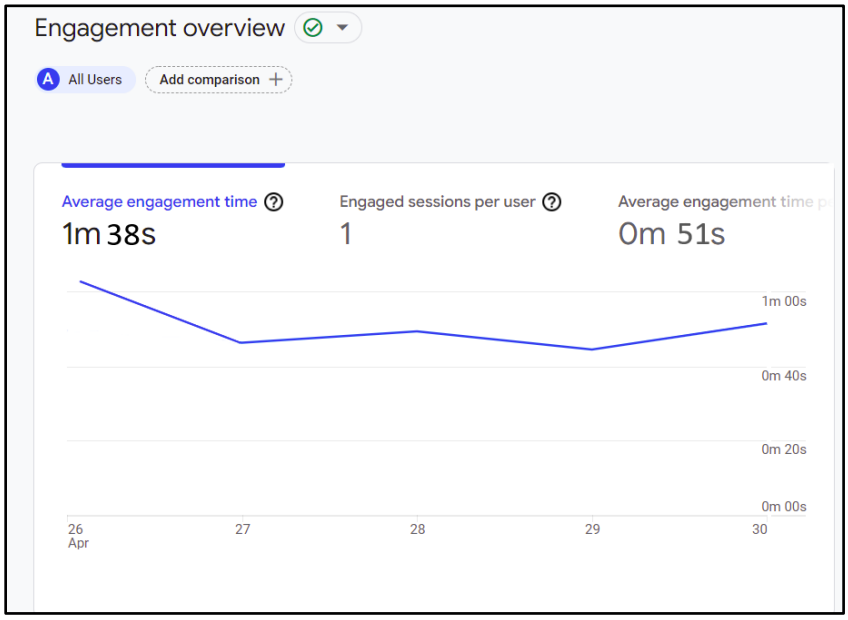


Figure 8: User engagement overview

- **Average Engagement Time** - The amount of time a person spends engaging with the material on the website.
- **Engaged Sessions per User** - The number of engaged sessions divided by the number of users.
- **Average Session Engagement Time** - The average amount of time spent on the website per session.

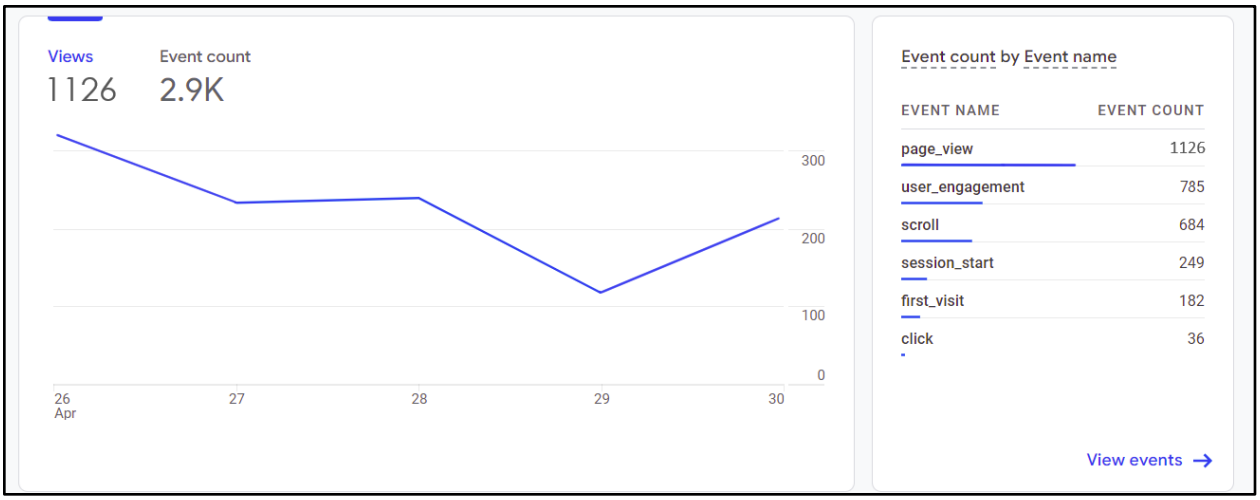


Figure 9: Event count by event name

- **Event -** Any action that visitors do on a website page is referred to as an 'event' or a 'event hit.'
- **Event Count –** The number of events triggered by visits to the website.
- **Event Count by Event Name –** Frequency of events based on each event name

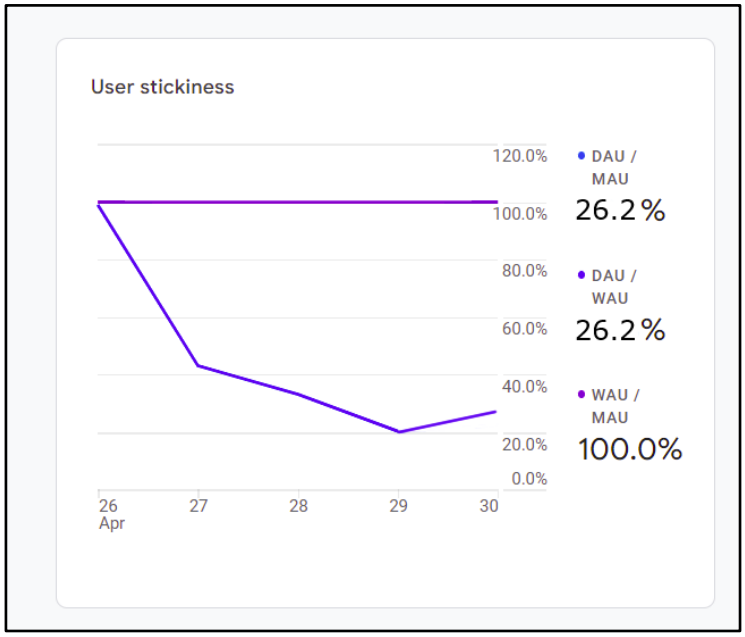


Figure 10: User stickiness

User stickiness is the percentage of users who stay active for at least 30 days. The following ratios are utilized in determining this.

- DAU/MAU - the ratio of daily active users to monthly active users
- DAU/WAU - ratio of daily active users to weekly active users
- WAU/MAU - ratio of weekly active users to monthly active users

Growth in this percentage depicts that the audience is satisfied and entertained by the content and they would stick to the webpage as returning users.

Analysis:
DAU/MAU and DAU/WAU are equal since these considered 5 days in the week are the only days that had traffic for the month of April. As per the trendline, up-to 29th of April user stickiness was declining and started showing a positive trend afterwards possibly due to the changes done to the website according to the feedback given.

6. User Retention Overview

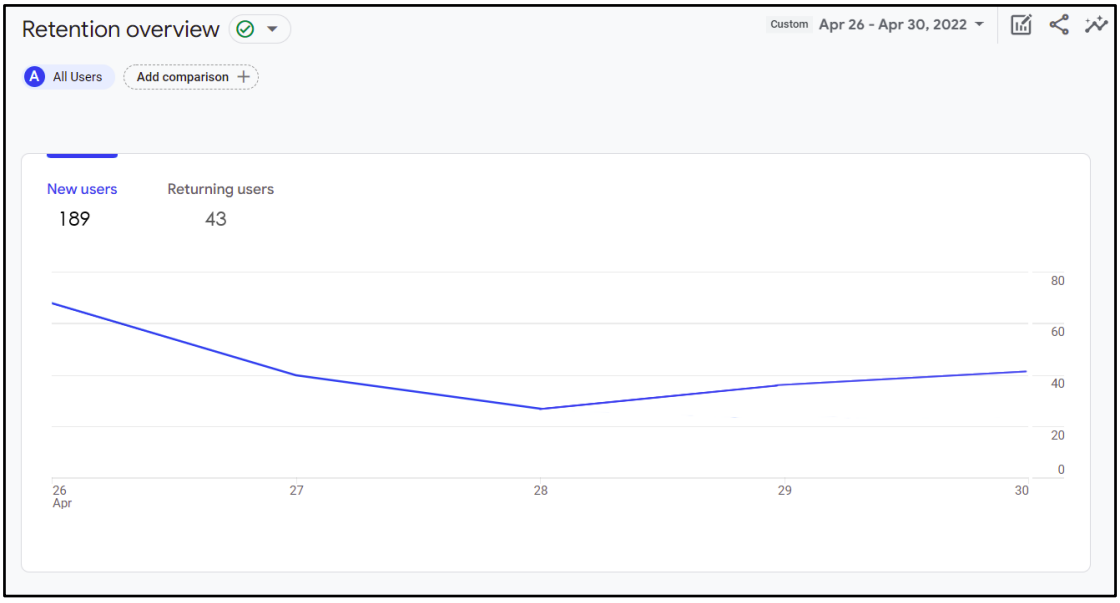


Figure 11: User retention overview

This graph shows how frequently people return to the website. This is a crucial piece of information to comprehend the website's performance as it is vital to determine the ROI.

- **Returning Users** - The number of users who have visited the site more than once.
- **New Users** – The number of new visitors.

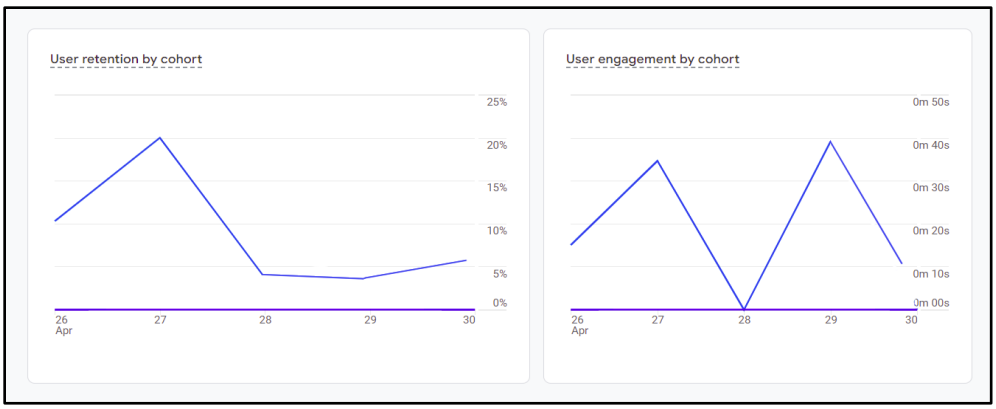


Figure 12: User retention and engagement by cohort

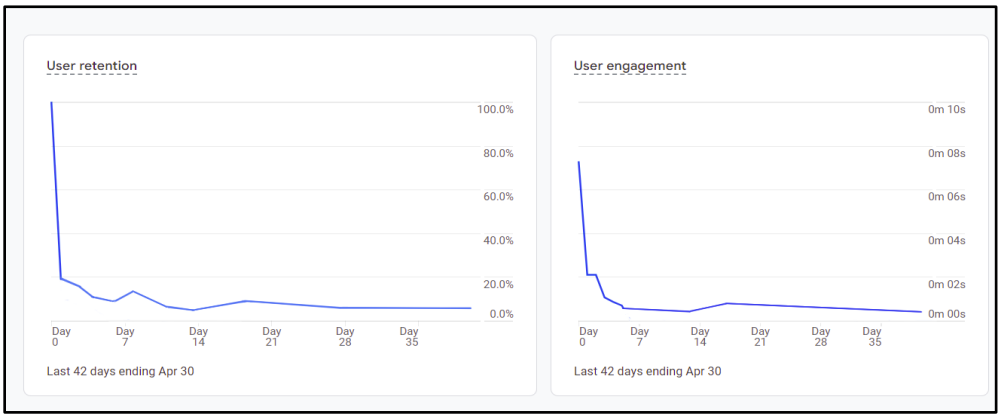


Figure 13: User retention and user engagement

- **Cohort User Retention** - A cohort is a group of users with similar characteristics. Users with the same acquisition date/demography belong to the same cohort. Therefore, this shows the percentage of newly acquired users on a specific date who returned to the website.
- **User Engagement by Cohort** - The average engagement time of newly acquired users on a specific date that returned to the website.
- **User Retention** - The percentage of users who have returned to the website in the recent several days.

This section offers crucial indicators for determining the website's performance and users' perceived value. Customer retention techniques for the website can be optimized using these data by identifying the weak areas that require greater attention.

Analysis:

In this scenario, there are 43 returning users and 189 new users for this website. As a result, the retention rate for the 5-day monitoring period is **43/189 * 100%**, or **22.75%**. According to the

GeckoBoard, the typical healthy retention rate is thought to be around 20%. (Mixpanel, 2017) which has been surpassed in this case.

7. Users by City

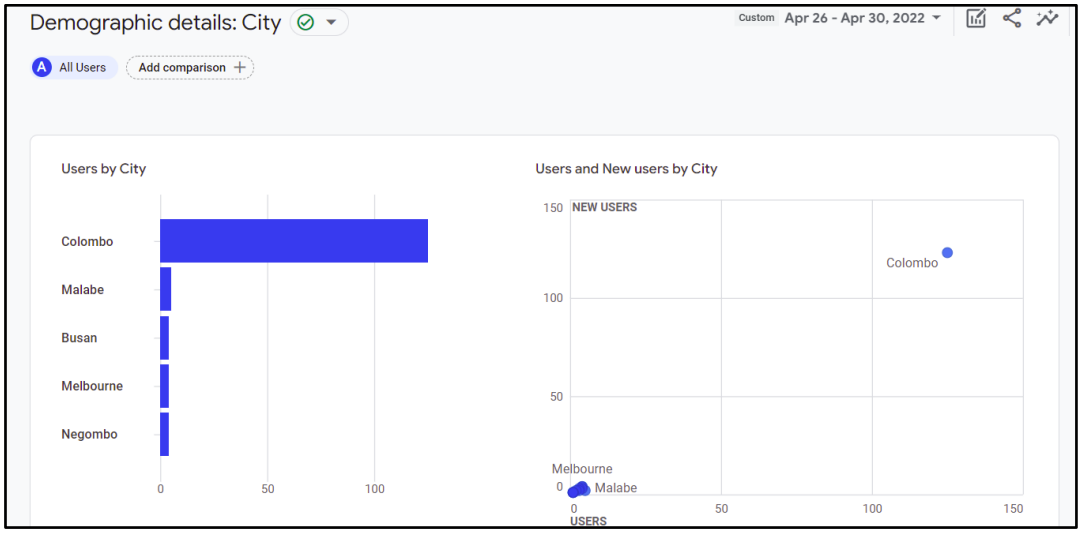
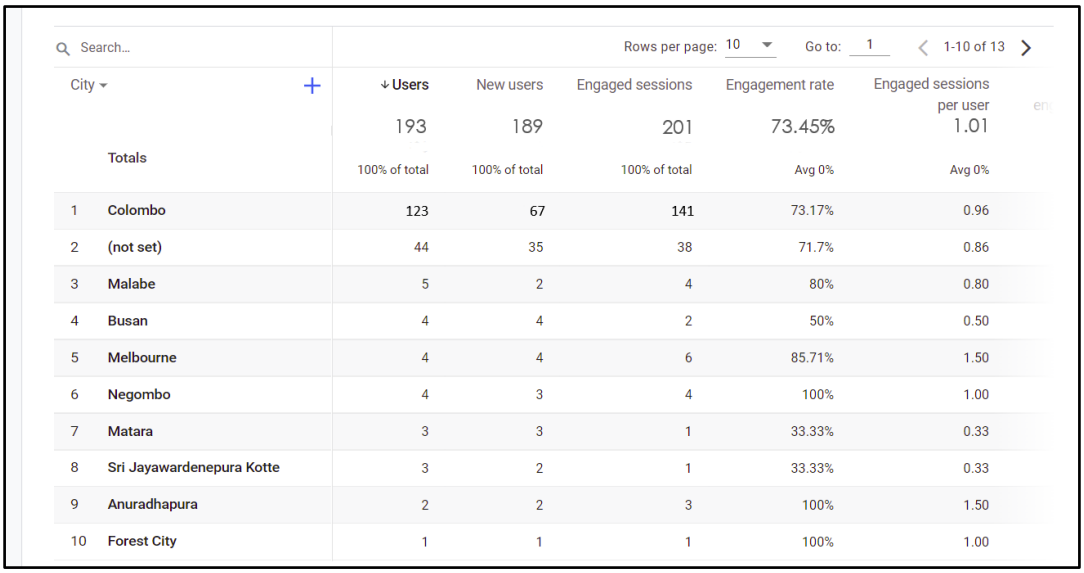


Figure 14: Users and new users by city



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City	Users	New users	Engaged sessions	Engagement rate	Engaged sessions per user
Totals	193 100% of total	189 100% of total	201 100% of total	73.45% Avg 0%	1.01 Avg 0%
1 Colombo	123	67	141	73.17%	0.96
2 (not set)	44	35	38	71.7%	0.86
3 Malabe	5	2	4	80%	0.80
4 Busan	4	4	2	50%	0.50
5 Melbourne	4	4	6	85.71%	1.50
6 Negombo	4	3	4	100%	1.00
7 Matara	3	3	1	33.33%	0.33
8 Sri Jayawardenepura Kotte	3	2	1	33.33%	0.33
9 Anuradhapura	2	2	3	100%	1.50
10 Forest City	1	1	1	100%	1.00

Figure 15: Users by city in depth

This graph shows the cities from which users engaged with the website. Information on engagement sessions, engagement rate, engaged sessions per user, and average engagement time per city are just a few of the things that can be gleaned from this, the majority of which have already been discussed in earlier sections.

- **Average Engagement Time** - The amount of time spent engaging with the content on the website based on the city of the user.

This metric can be used to plan out the marketing and other operational aspects of the strategizing of a business since this data gives a clear picture of the audience spread around a desired area. Furthermore, this data can be used to evaluate the current practices as well.

Analysis:
According to the results, 123 out of 193 users are from Colombo which makes up a 63.73% out of the entire user base. However, this aligns with the objectives of the website since it has been created in order to find job opportunities within the area of Colombo. However, a downside to this analysis is that the usage of VPN in certain time periods in Sri Lanka will end up showing less accurate results about the actual demographics.

8. Returning Users by Device Category

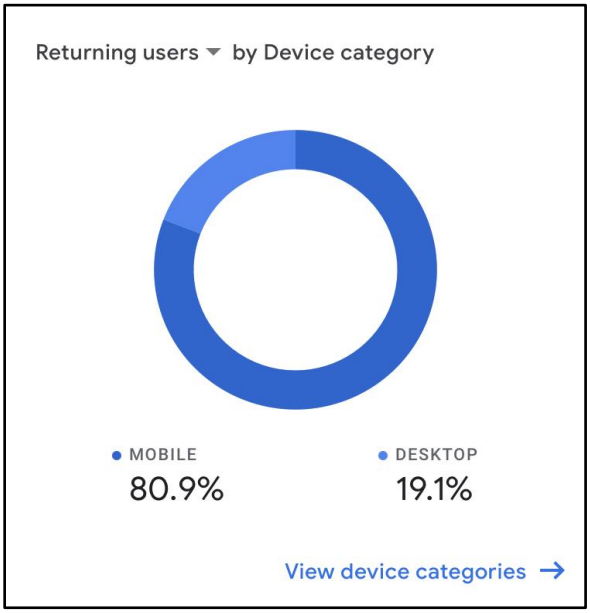

Figure 16: Returning users by device category

Returning users can be viewed by device category to learn more about the devices they use to connect with the website. This data can be used to;

- Understand the audience better
- Strategically place advertisements
- Optimize screens according to the sizes
- Change data and cookie settings and even
- Take executive decisions such as providing mobile application solutions.

In this case, 80.9% of the users have accessed the website through their mobile devices clearly showing where the attention should lie on when it comes to further developing UI/UX of the application. Therefore, moving forward I should accompany good mobile UI/UX practices rather than just focusing on the website development so that my main user base will not get frustrated.

However, there's only a 19% of population who has used desktop devices to access the website implying the target marketing tactics should be implemented and improved since the website is more focused towards people who are working in the IT-industry who will possibly be accessing the website through office laptops and such.

9. New Users by Browser

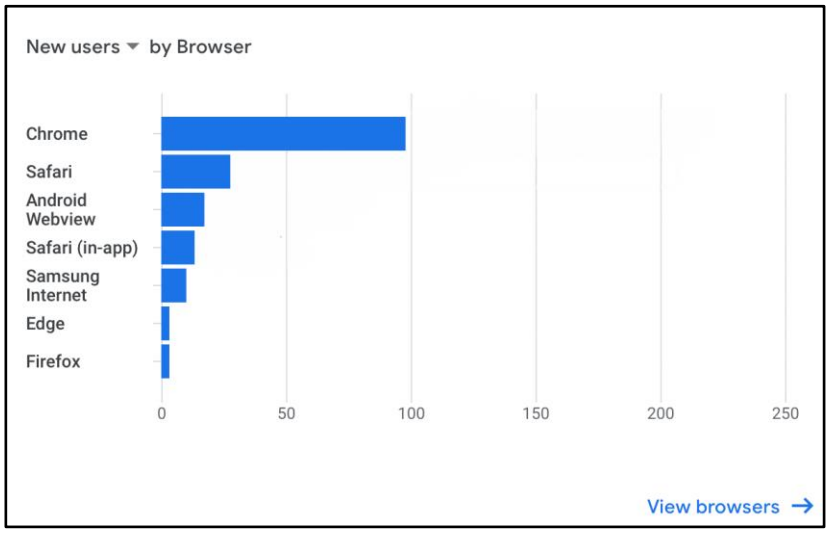

Figure 17: New users by browser

This depicts the delegation of the new users who visited the website among different web browsers they used. Web Pages may look different according to the browser that is used to view them. Therefore, it is vital to analyze your audience's browsing habits so that you can customize the UI/UX accordingly to reduce frustration and improve user experience. Cookies and privacy settings also may differ from browser to browser and it is vital to invest in optimizing in all those aspects for the browsers that are largely used to access your website. If there are tactics that are already implemented, this is a good way to evaluate whether it gives the desired results. In this case, the majority of the new user base (92 out of 189 = 48.68%) has used Google chrome which is ideal since this website is created using Google sites that aligns with all the conditions of the browser. 31 people have used Safari browser which has tougher security options which means I need to invest in better practices in cookie settings etc.

1.2.2 Dimensions and Metrics

Dimensions and metrics are the building blocks that allow to segment, organize, and analyze traffic data (HotJar, 2022). Data attributes are called dimensions. Metrics are measurements that are quantitative. Most Analytics reports have tables that organize dimension values into rows and metrics into columns.

Dimension	Metric_01	Metric_02
City	Pages	Sessions
Galle	4500	2.87
Colombo	6700	5.89

Table 2: Dimensions and metrics example

Basically, metrics are quantitative data measurements and dimensions are the labels that describe them.

1.2.2.1 Dimensions

Data is described, segmented, organized, and sorted using dimensions.

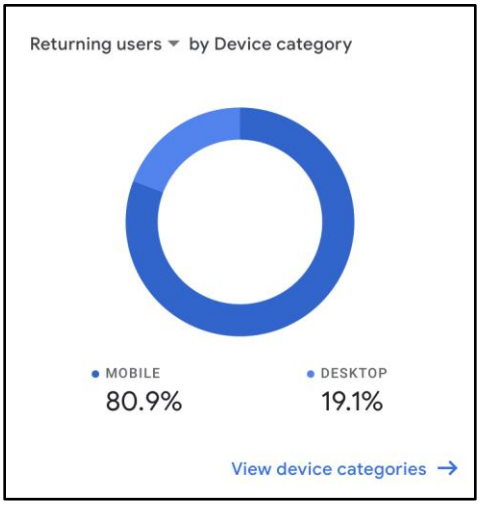

Figure 18: Device category dimension:

Primary and Secondary Dimensions:
Each GA report includes a pre-selected primary dimension that provides high-level insight into the performance of the dimension in respect to a set of metrics. Users can choose the most relevant primary dimensions.

Secondary dimensions can be added to further sort the data.
e.g.: If 'Device Category' is a primary dimension, selecting 'Browser' as the secondary dimension will allow comparing how different browsers perform on each device.

Custom Dimensions:
Dimensions that are not defined by GA can also be added but this has certain technical prerequisites and configurations the user has to set up beforehand.

e.g.: Sync data from another system (ERP) to the website analytics to perform more complex reports.

1.2.2.2 Metrics

Metrics are expressed as numbers (number values, %, $, time): they are quantitative measurements of data that demonstrate how a website performs in respect to a given dimension (Rich, 2022).

e.g.: Number of 'Users', 'Average Session Duration.' for a specific KPI

Search...

Rows per page: 10 1-7 of 7

	Page title and screen class	Views	Users	New users	Views per user	Average engagement time	Unique user scrolls	Event count All events
	Totals	1126 100% of total	193 100% of total	189 100% of total	7.83 Avg 0%	1m 38s Avg 0%	178 100% of total	2,93 100% of tot
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2	About UI Designer	160	121	42	1.63	0m 25s	97	38
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6	Digital Art Portfolio	107	72	11	1.38	0m 21s	63	25
7	Binari Samarasinghe - Get CV	77	63	26	1.41	0m 04s	52	20

Figure 19: Number of users, new users, average engagement time metrics

Types of Metrics:

1. Acquisition related: Users, new user, sessions
2. Behavior related: Bounce rate, exit rate, pages/sessions, session duration
3. Conversion related: Ecommerce conversion rate, transactions, revenue

Advantages:

- Provides a complete bird-eye view of the website ecosystem
- Assess performance across various groups (e.g., desktop vs. mobile users) and overall site
- Determine pages with high potential to affect
- Optimize accordingly by identifying priorities and quantifying their impact.

2. Part B: Analytics and Key Performance Indicators

2.1 What is a KPI?

A key performance indicator (KPI) is a measurable statistic that shows how well a company is accomplishing key business goals. They are used to assess progress toward defined goals. Low-level KPIs may focus on operations across departments such as sales, marketing, HR, or support, whereas high-level KPIs may focus on the overall success of the business. They should be linked to a specific and measurable business objective (Kipfolio, 2019).

When defining a KPI, it is important to follow the up-to-date company vision and business strategy. Any objective that is derived from these are measured through KPIs. Therefore, to have a solid set of KPIs, first the vision and the strategy should be well-defined covering key areas across the business. Well-aligned KPIs will help to determine the progress of strategies and success. Moreover, using KPIs will help to carry out business analysis and gain more knowledge in the domain which helps to keep strategies up-to-date with an evergreen concept. They can also be used to analyze competition and keep the business action focused on strategic goals (BSC Designer, 2012).

2.1.1 Structure of a KPI

- Brief description
- Targets/Expected effect
- Timeframe
- Necessary changes to achieve the target
- Progress monitoring frequency

2.1.2 Defining a KPI

- Define strategic goals and success indicators (CSF)
- Establish measurement period
- Measurement unit
- Result interpretation - should be readable, standardized and relevant

E.g.: To reduce the customer churn rate by 12% within 6 months by implementing secure payment options and reducing load time of each page to 0.001s to gain the competitive advantage. Progress shall be measured weekly throughout the 6-month period as a percentage

2.1.3 Advantages

- Assess company health and progress
- Help identify when to make adjustments
- Recognize and analyze patterns (Investopedia, 2021)

2.2 Identified KPIs

2.2.1 KPI01 - Users by Country

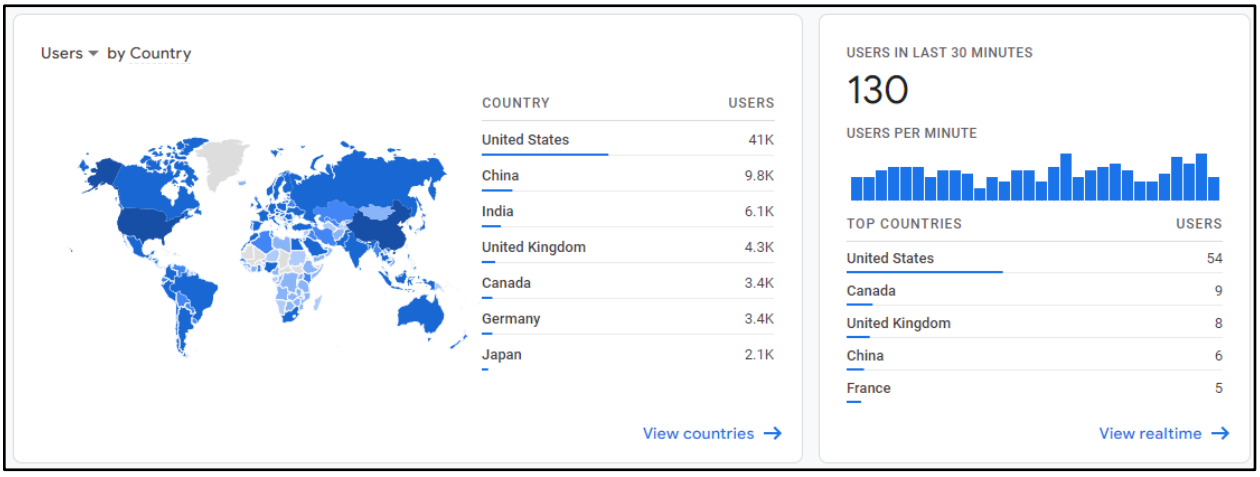

Figure 20: Users by country overview

This shows the majority of the user base is from the US although the users are spread all around the world.

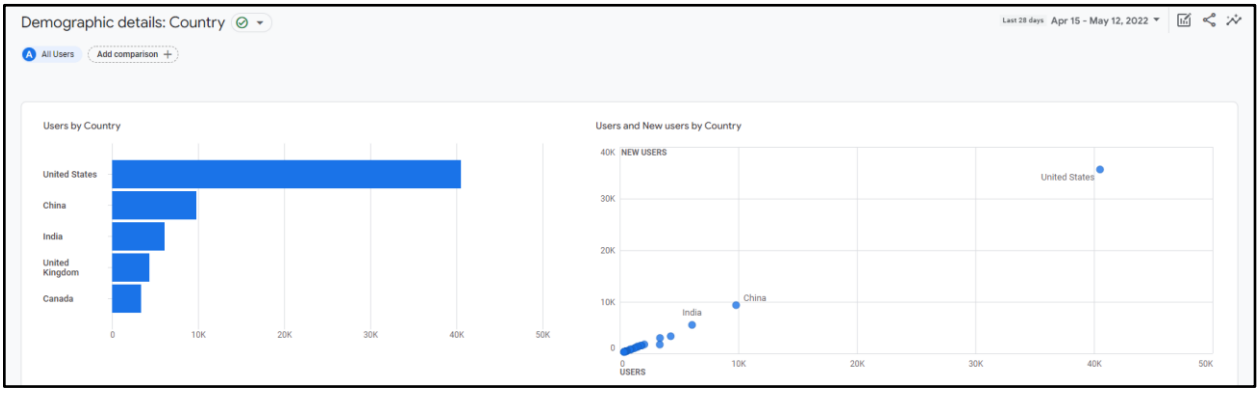

Figure 21: Users by country

Search... Rows per page: 10

	Country	Users	New users	Engaged sessions	Engagement rate	Engaged sessions per user	Average engagement time	Event count All events	Conversions All events	Total revenue
	Totals	93,436 100% of total	82,102 100% of total	78,553 100% of total	58.47% Avg 0%	0.84 Avg 0%	1m 44s Avg 0%	3,147,996 100% of total	90,117.00 100% of total	$269,507.24 100% of total
1	United States	40,507	35,633	35,780	58.37%	0.88	2m 36s	1,744,943	42,022.00	$249,853.80
2	China	9,806	9,369	5,834	56.7%	0.59	0m 09s	68,714	9,372.00	$0.00
3	India	6,094	5,536	4,909	61.18%	0.81	0m 59s	134,534	5,695.00	$143.60
4	United Kingdom	4,294	3,350	4,634	68.84%	1.08	1m 57s	175,900	3,724.00	$7,772.50
5	Canada	3,387	3,008	2,557	55.23%	0.75	1m 42s	106,073	3,207.00	$3,653.40
6	Germany	3,370	1,733	1,312	32.69%	0.39	0m 33s	50,518	1,757.00	$120.80
7	Japan	2,069	1,762	1,579	57.78%	0.76	0m 58s	52,078	1,789.00	$0.00
8	Spain	1,849	1,544	1,667	58.68%	0.90	1m 09s	61,263	1,587.00	$216.80
9	France	1,754	1,520	1,545	58.54%	0.88	1m 07s	49,873	1,633.00	$0.00

Figure 22: Users by country in depth

Out of 93,436 users 40,507 users are recorded from the USA (43.35%). China comes to the second place of the audience but it only holds about 10.49% of the users which shows the impeccable contrast. However, this website is an online shop that can be accessed from anywhere in the world and has the accessibility to ship products to many countries implying that there is a huge market opportunity that has not been tapped. Therefore, in my opinion it is a waste of opportunity not to step up when Google is a reputable company in every corner of the world which gives them a leap at the head start if they are to deploy a marketing campaign targeting other countries. Hence, I would recommend focusing on obtaining more users from other countries using below KPI.

KPI Name	Expanding user base out of USA
Description	Tap the market opportunity by conscious attempts at user acquisition outside of US to step into e-commerce
Expected outcome	Increase active users outside of USA by 15%
Timeframe	Within 3 months
Required changes	Interactive GUI, Mobile screen optimization, demography-based production introduction, social media marketing for the target audience
Monitoring frequency	Weekly
Measuring unit	Monthly and weekly ratio against total users Weekly average percentage out of total users

Table 3: KPI 01 - Expanding user base outside of USA

2.2.2 KPI02 - Purchase-to-View Rate

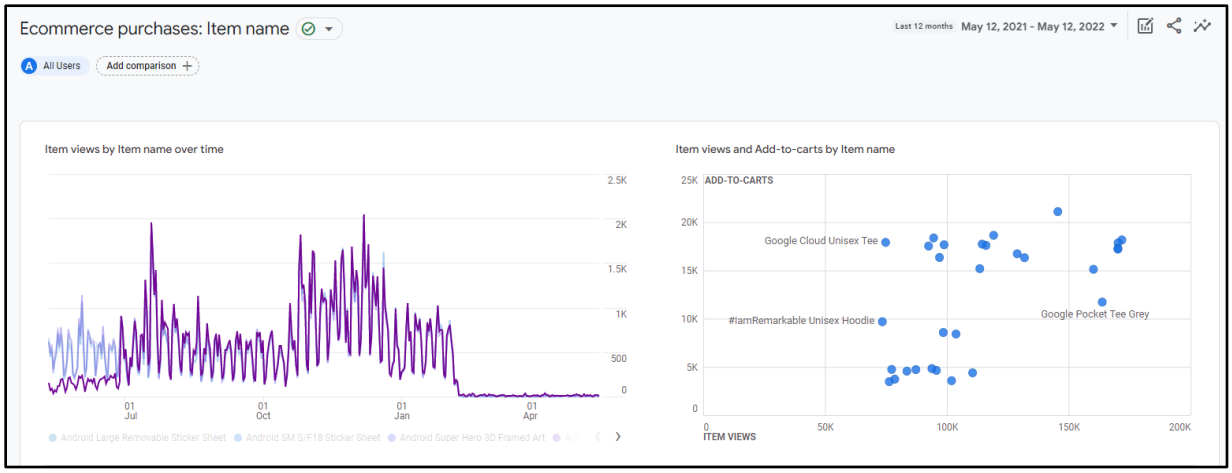

Figure 23: Ecommerce item view trendline

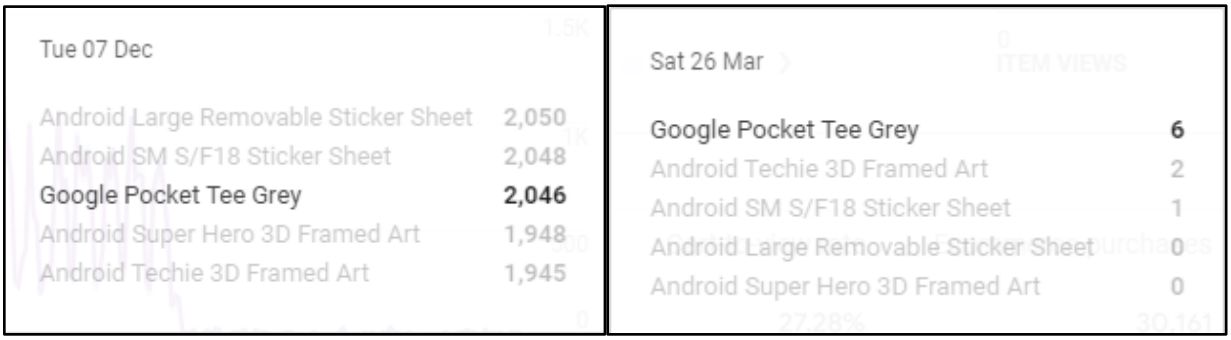

Figure 24: Item view 2021 vs. 2022

According to this graph it is clear how drastically the item views have started to decline in this year compared to the last year. Within the span of 6 months the item views have dropped from an average of 1000-1200 to below 20 - 30 (per item) item views per day. This suggests that either whatever the tactics that were used last year performed better than current practices or the previous techniques are not relevant anymore to the market.

	Item name	↓ Item views	Add-to-carts	Cart-to-view rate	Ecommerce purchases	Purchase-to-view rate	Item purchase quantity	Item revenue
	Totals	1,487,509 100% of total	258,727 100% of total	27.28% Avg 0%	30,161 100% of total	9.38% Avg 0%	188,797 100% of total	$2,738,856.72 100% of total
1	Android Large Removable Sticker Sheet	171,830	18,163	21.29%	320	0.81%	558	$978.18
2	Android SM S/F18 Sticker Sheet	170,253	17,863	21.45%	392	1.1%	995	$1,732.50
3	Android Super Hero 3D Framed Art	170,194	17,292	19.23%	116	0.38%	319	$5,788.00
4	Android Techie 3D Framed Art	170,194	17,214	19.15%	181	0.55%	261	$4,680.00
5	Google Pocket Tee Grey	163,766	11,722	16.68%	0	0%	0	$0.00
6	Google Small Standard Journal Navy	160,175	15,122	18.94%	268	0.8%	942	$5,158.40
7	Google Marine Layer Tee	145,535	21,099	21.55%	499	1.34%	645	$23,787.00

Figure 25: Item view and purchase data 2021

	Item name	↓ Item views	Add-to-carts	Cart-to-view rate	Ecommerce purchases	Purchase-to-view rate	Item purchase quantity	Item revenue
	Totals	20,284 100% of total	4,346 100% of total	24.16% Avg 0%	351 100% of total	5.31% Avg 0%	4,080 100% of total	$47,444.26 100% of total
1	Google Campus Bike	1,427	154	11.82%	56	4.71%	63	$2,120.00
2	Chrome Dino Collectible Figurines	623	71	11.25%	0	0%	0	$0.00
3	Google Classic White Organic F/C Tee	563	134	21.08%	35	5.16%	80	$1,831.20
4	Chrome Dino Dark Mode Collectible	449	54	16.78%	0	0%	0	$0.00
5		432	0	0%	0	0%	0	$0.00
6	For Everyone Google Tee	405	77	19.15%	11	3.34%	19	$486.40
7	Google Eco Tee Black	272	39	18.89%	0	0%	0	$0.00
8	Google Incognito Techpack V2	235	19	9.94%	4	2.34%	4	$299.20
9	Google Emoji Sticker Pack	221	4	2.08%	0	0%	0	$0.00
10	Google Tee F/C Black	186	28	14.19%	6	3.87%	8	$101.64

Figure 26: Item view and purchase data 2022

This shows the extremely low ratios for “cart-to-view rate” and “purchase-to-view” rate. The first table shows results for the previous year whereas the second table shows results for this week. Contrast of two results certifies performance decline of the primary revenue generation activity.

Year	Cart-to-View Rate	Purchase-to-View Rate
2021	27.28%	9.38%
2022	24.16%	5.31%

Table 4: Cart-to-view and purchase-to-view ratios 2021 vs. 2022

Moreover, in 2022 there are several products that have never been purchased nor added to cart.

Recommended KPI:

KPI Name	Increasing the number of purchases
Description	Increase the number of purchases done on the website to meet or/and surpass ROI and revenue objectives set for the year 2022.
Expected outcome	Increase purchase to view ratio up to 10%
Timeframe	Within 4 months
Required changes	Optimize SEO, social media marketing campaigns, introduce new and attractive product ranges, adapt certain techniques used in 2021, utilizing Facebook marketplace feature to gain traffic to the store itself
Monitoring frequency	Bi-weekly

Measuring unit	Cart-to-view, purchase-to-view ratios

Table 5: KPI 02 - Increasing the number of purchases

2.2.3 KPI03 - Users by Device Category

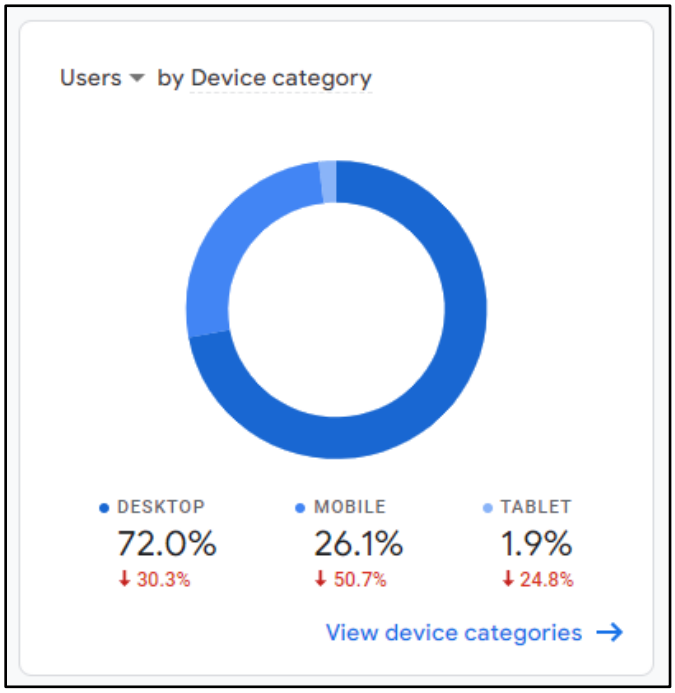

Figure 27: Users by device category 2021 vs. 2022

To analyze this, I have compared 05/05/2021 - 12/05/2021 data with 05/05/2022 - 12/05/2022 data. It shows that a quarter of the user base consists of mobile users. However, the number of users accessing the website from mobile devices have dropped from 50.7% which is a huge churn. All other devices show a significant reduction of the number of users who access the website.

Device category	Users	New users	Engaged sessions	Engagement rate	Engaged sessions per user	Average engagement time	Event count All events	Conversions All events	Total revenue
SHOW ALL ROWS									
Totals	20,865 vs. 32,757 ↓ 36.3%	17,030 vs. 27,496 ↓ 38.06%	0 vs. 24,440 ↓ 100%	0% vs. 56.53% ↓ 100%	0.00 vs. 0.75 ↓ 100%	1m 40s vs. 1m 32s ↑ 8.68%	452,184 vs. 1,007,102 ↓ 55.1%	22,674.00 vs. 29,886.00 ↓ 24.13%	$72,722.16 vs. $81,832.96 ↓ 11.13%

Figure 28: Other metrics by device category 2021 vs. 2022

All metrics other than “average engagement time” have been greatly reduced compared to 2021. Interestingly, “average engagement time” has improved in 2022 solely due to the “average engagement time of the mobile users” despite the huge churn of 50%.

Device category	Users	New users	Engaged sessions	Engagement rate	Engaged sessions per user	Average engagement time
Totals	vs. 32,757 ↓ 36.3%	vs. 27,496 ↓ 38.06%	vs. 24,440 ↓ 100%	vs. 56.53% ↓ 100%	vs. 0.75 ↓ 100%	vs. 1m 32s ↑ 8.68%
1 desktop						
May 5 - May 12, 2021	14,967	11,654	0	0%	0.00	1m 55s
May 5 - May 12, 2022	21,461	16,643	17,058	56.81%	0.79	1m 55s
% change	-30.26%	-29.98%	-100%	-100%	-100%	-0.04%
2 mobile						
May 5 - May 12, 2021	5,430	5,020	0	0%	0.00	1m 05s
May 5 - May 12, 2022	11,004	10,376	7,052	55.98%	0.64	0m 47s
% change	-50.65%	-51.62%	-100%	-100%	-100%	36.78%
3 tablet						
May 5 - May 12, 2021	389	356	0	0%	0.00	0m 37s
May 5 - May 12, 2022	517	474	329	53.76%	0.64	0m 47s
% change	-24.76%	-24.89%	-100%	-100%	-100%	-22.47%
4 smart tv						
May 5 - May 12, 2021	0	0	0	0%	0.00	0m 00s
May 5 - May 12, 2022	3	3	1	33.33%	0.33	1m 05s
% change	-100%	-100%	-100%	-100%	-100%	-100%

Figure 29: Positive average engagement time increase for mobile users

All other devices show a decline in average engagement time while mobile users depict a 36.78% growth. Therefore, the website should focus on their mobile user audience more since it is a more effective way to reach the audience.

Recommended KPI:

KPI Name	Increasing the number mobile users who access the website
Description	GA analysis proves mobile devices are the easiest and the most effective way to get through to the audience which amplifies the need of increasing the customer satisfaction for mobile users.
Expected outcome	Increase mobile users to 35%
Timeframe	Within 6 months
Required changes	Optimize UI/UX to make it more appealing towards mobile users, responsive and interactive design, make the site compliant with popular mobile web browsers, change cookies settings
Monitoring frequency	Monthly

Measuring unit	% Mobile users out of total users, average engagement time

Table 6: KPI 03 - Increasing the number of mobile users

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