

# 2023 INTERNSHIP PROJECT

**REPORTING CYCLE:** Jan – May 2023

**PRESENTED BY:**

- ❖ Michelle Kwarteng (Team Lead)
- ❖ Rotimi Olatunde Fawumi (Ass Team Lead)
- ❖ Tajudeen Yusuf Alabi (Member)
- ❖ Daniel Okechukwu Nwaogwugwu (Member)



# TEAM MEMBERS

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## **Group 1**

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Michelle Kwarteng (Team Lead)

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Rotimi Olatunde Fawumi (Ass Team Lead)

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Tajudeen Yusuf Alabi (Member)

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Daniel Okechukwu Nwaogwugwu (Member)

# DATA COLLECTION AND ANALYTICAL TOOLS



SLACK

ONE DRIVE



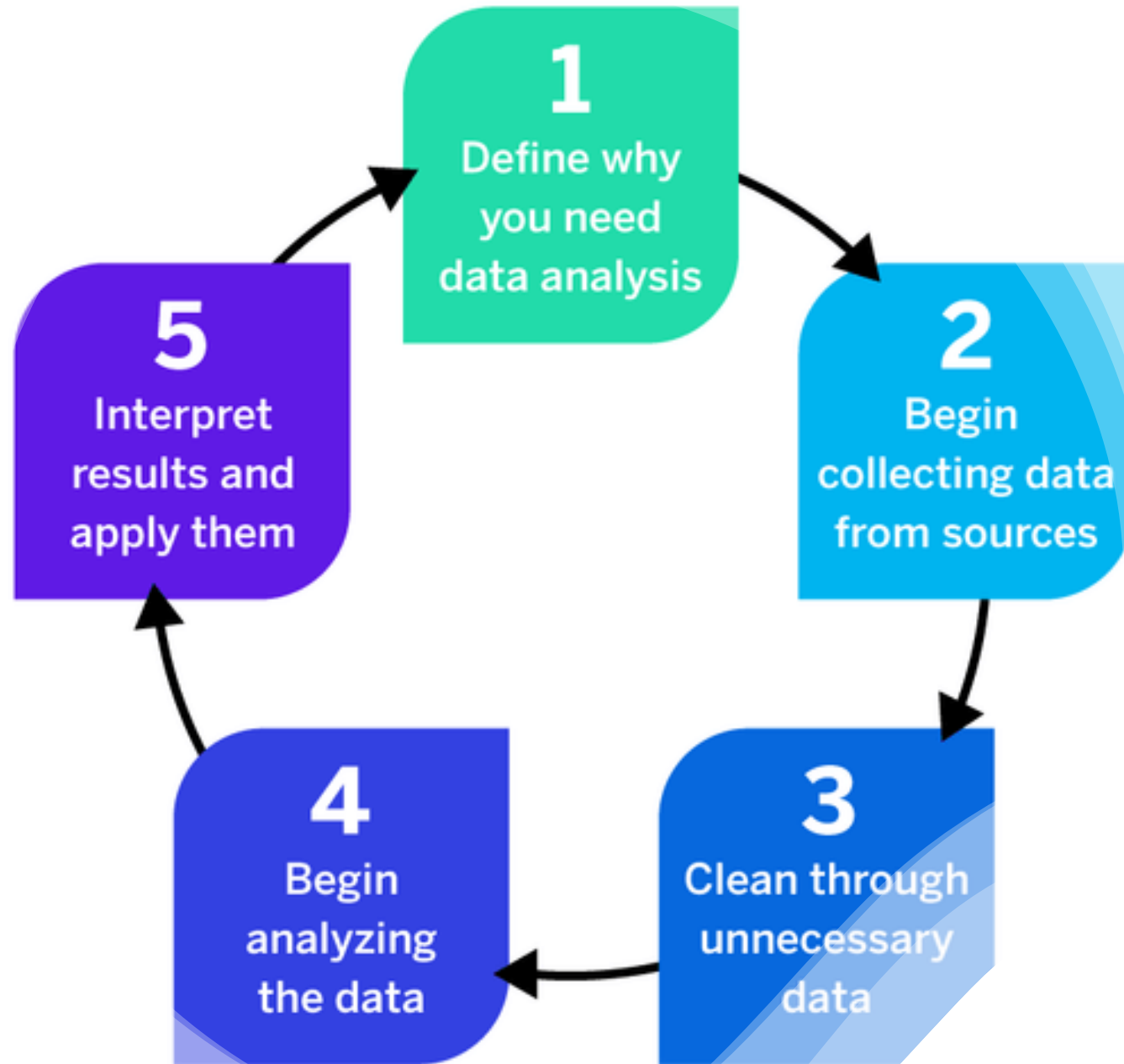
GOOGLE ANALYTICS USER TECHNOLOGY DATASET



1. MICROSOFT EXCEL



2. MICROSOFT POWER BI



TERMINOLOGIES	DEFINITIONS
Browser(Mobile and Desktop)	The browser from which user activity originated. Typical browsers include 'Chrome', 'Edge', 'Firefox', 'Internet Explorer', 'Opera', and 'Safari' which can either be on mobile or pc.
Average Engagement Time	<p>The average time that your website was in focus in a user's browser, or an app was in the foreground of a user's device.</p> <p>Average engagement time = total user engagement durations / number of active users</p>
Conversions	The number of times users triggered a conversion event.
Engaged Sessions	The number of sessions that lasted 10 seconds or longer or had 1 or more conversion events or 2 or more page or screen views.
Event Count	The number of times users triggered an event.
Engaged Session per User	<p>The average number of engaged sessions per user.</p> <p>Engaged sessions is the number of sessions that lasted 10 seconds or longer or had 1 or more conversion events or 2 or more page or screen views.</p>
Engagement Rate	<p>The percentage of sessions that were engaged sessions.</p> <p>Engagement rate = engaged sessions / total sessions</p>
New User	<p>The number of new unique user IDs that logged the first open or first visit event.</p> <p>The metric allows you to measure the number of users who interacted with your site or launched your app for the first time.</p>
User	The number of distinct users who visited your website or application. A user is any user who has an <a href="#">engaged session</a> or when Analytics collects
Conversion Rate	<p>The percentage of conversion events that were triggered out of the event counts.</p> <p>Conversion rate = conversion/event count</p>
Bounce Rate	<p>The percentage of unengaged sessions.</p> <p>Bounce rate = unengaged sessions / total sessions</p>

# KEY PERFORMANCE INDICATORS

1

**TOP 3 BROWSERS  
BY NEW USERS**

2

**TOTAL USERS  
ACCESSING THE  
WEBSITE BY  
BROWSER**

3

**TOP 3 BROWSERS  
WITH THE LEAST  
ENGAGEMENT  
SESSION**

4

**COMPARE THE  
ENGAGEMENT  
RATE BY  
BROWSER**

# Recommended Benchmark



Engagement Rate = minimum of 70% of Desktop and 80% of Mobile users



Average Engagement Time = Minimum engagement time Of 60sec with optimum conversion



Bounce Rate = minimum of 20-30%. it should be introduced for tracking, performance, optimization, and feedback on the webpage.



Conversion Rate = minimum of 10% of desktop and 15% of Mobile users.

# Overview of Digital Echoes' Google Analytics Ads



- Google Analytics collects data from websites and apps to create reports that provide **insights** into business.
- You can use **reports** to monitor **traffic**, **investigate data**, and **understand** users and their **activities**.
- **11 types** of **browsers** were used to visit **Digital Echoes'** website over the course of **5 months(Jan-May)**.
- There are **2 types** of **users**; **existing users** and **new users**.



# Problem Statement

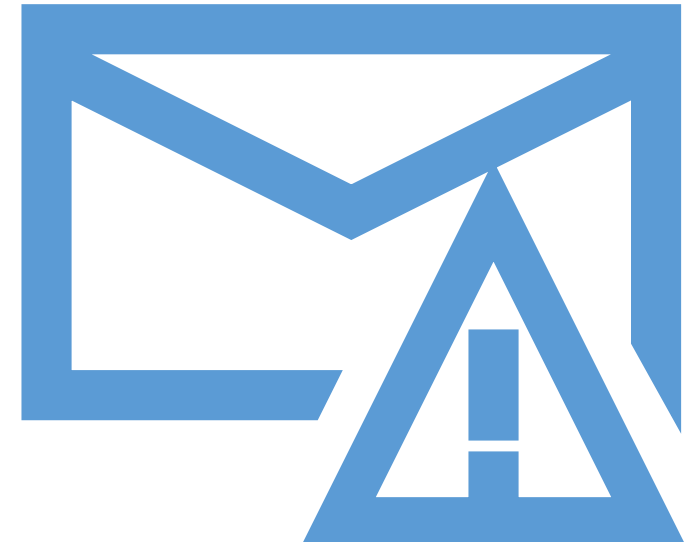
Digital Echoes is currently facing a challenge in understanding the factors influencing the variability in conversion rates. To address this issue, we hypothesise that the effectiveness of our marketing strategy significantly impacts the number of conversions generated. This hypothesis will be tested through a comprehensive analysis of historical data and the implementation of targeted strategies to improve conversion rates. The findings aim to provide actionable insights for enhancing the overall performance of our conversion efforts.

## **Hypothesis:**

"Is the number of conversions generated significantly influenced by the effectiveness of our marketing strategy during the specified time period?"

## **Objective:**

To conduct a thorough analysis of historical data and implement targeted strategies, aiming to uncover insights that will improve overall conversion rates.





# Google Analytics Report For Jan -May 2023

Month

Feb

Jan

Mar

May

Browser

All

Total Browser

11

Total Users

2K

User Margin

12

Engaged session

2K

Total Session

4K

Avg Engagement  
Time

1.61K

Event Count

26K

Conversion

270

Total Revenue

0

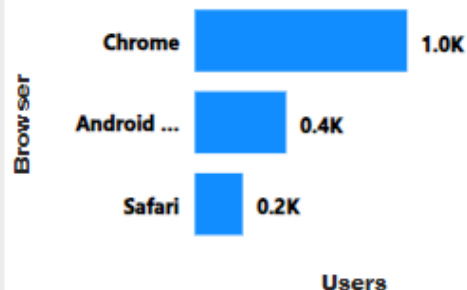
## Total User By Browser

Browser	Sum of Total Users
Amazon Silk	1
Android Webview	431
Chrome	1002
Edge	100
Firefox	100
Opera	27
Others	7
Phoenix Browser	1
Safari	226
Safari (in-app)	208
Samsung Internet	65
Total	2168

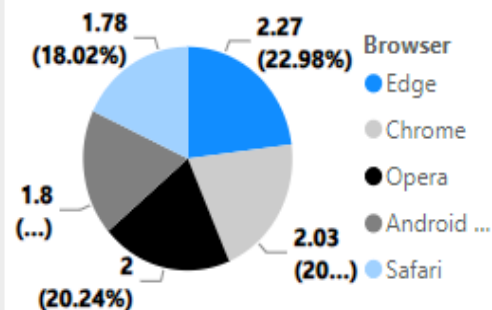
## Total User By Month

Month	Sum of Total Users
Feb	142
Jan	1
Mar	0
May	2025
Total	2168

## Top 3 Users by Browser



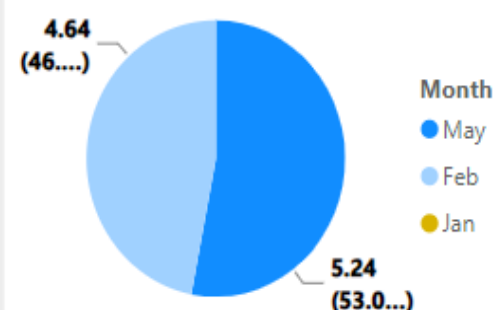
## Top 5 Engaged sessions per user by Browser



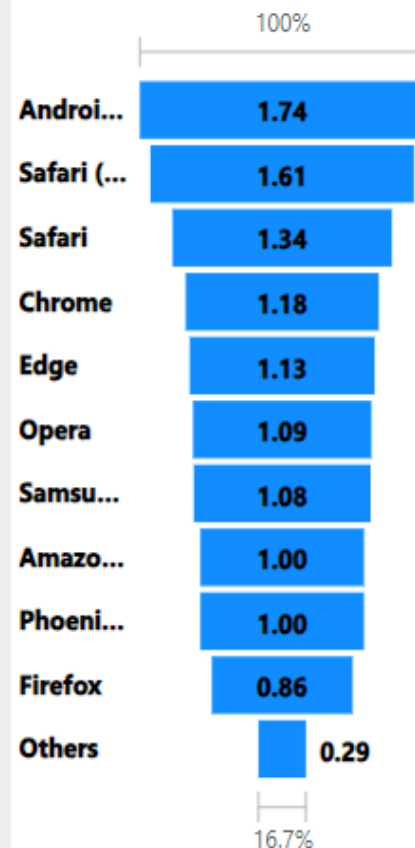
## Least 3 Engaged sessions by Browser



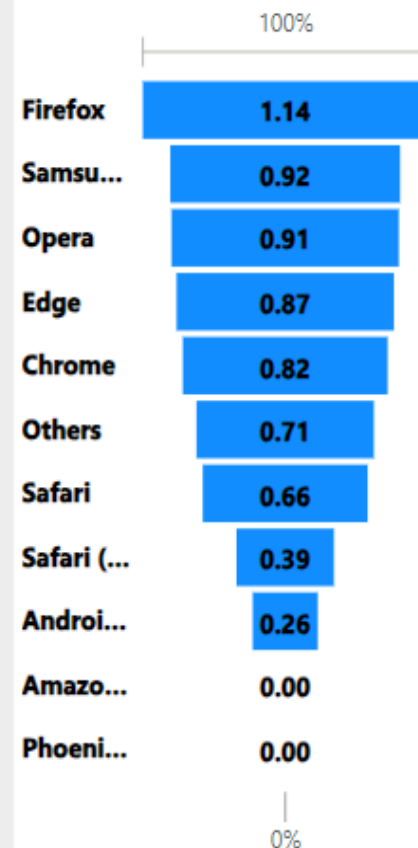
## Engaged sessions per user by Month



## Engagement rate by Browser



## Bounce rate by Browser





# Google Analytics Report Jan - May 2023

Month

Feb

Jan

Mar

May

Browser

All

Total Browser

11

Total Users

2K

User Margin

12

Engaged session

2K

Total Session

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270

Total Revenue

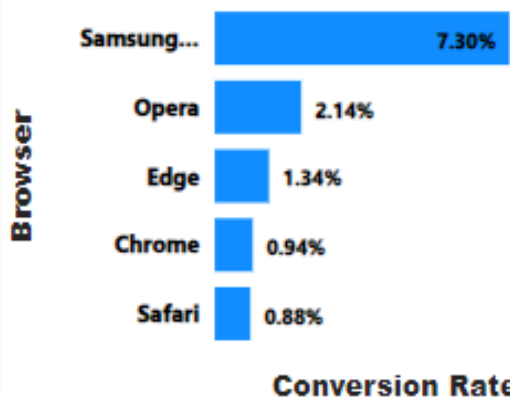
0

## Engagement rate and Conversion by Average engagement time

0.52

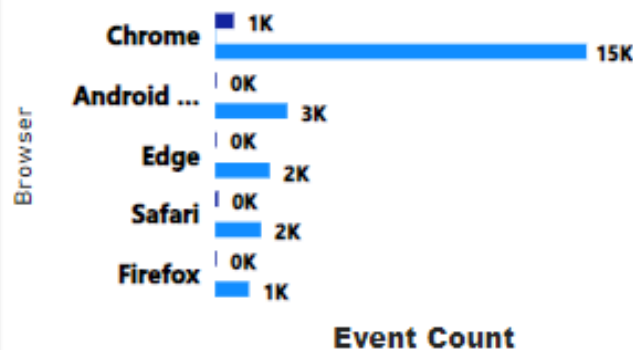
Goal: 138 (-99.62%)

## Top 5 Conversion Rate by Browser



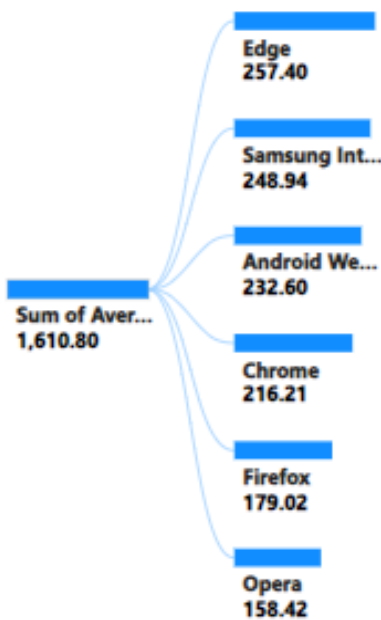
## Top 5 Event count by Browser and Month

Month ● Feb ● Jan ● May



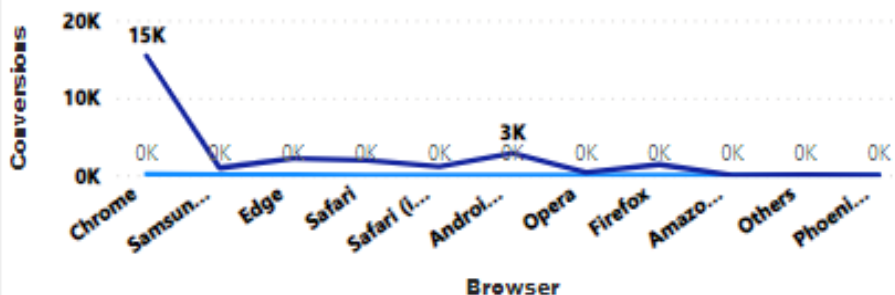
## Avg Engagement Time by Browser

Browser ×



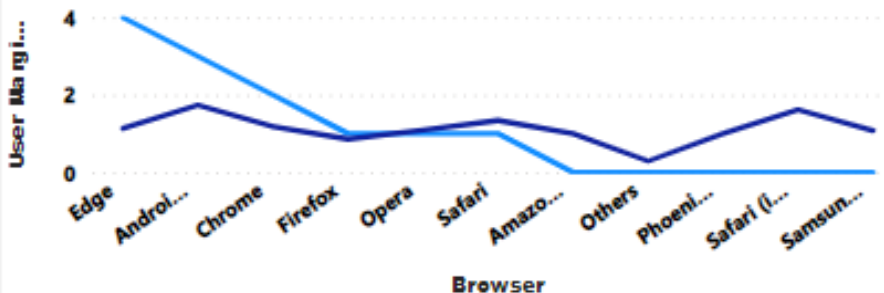
## Conversions and Event count by Browser

● Sum of Conversions ● Sum of Event count



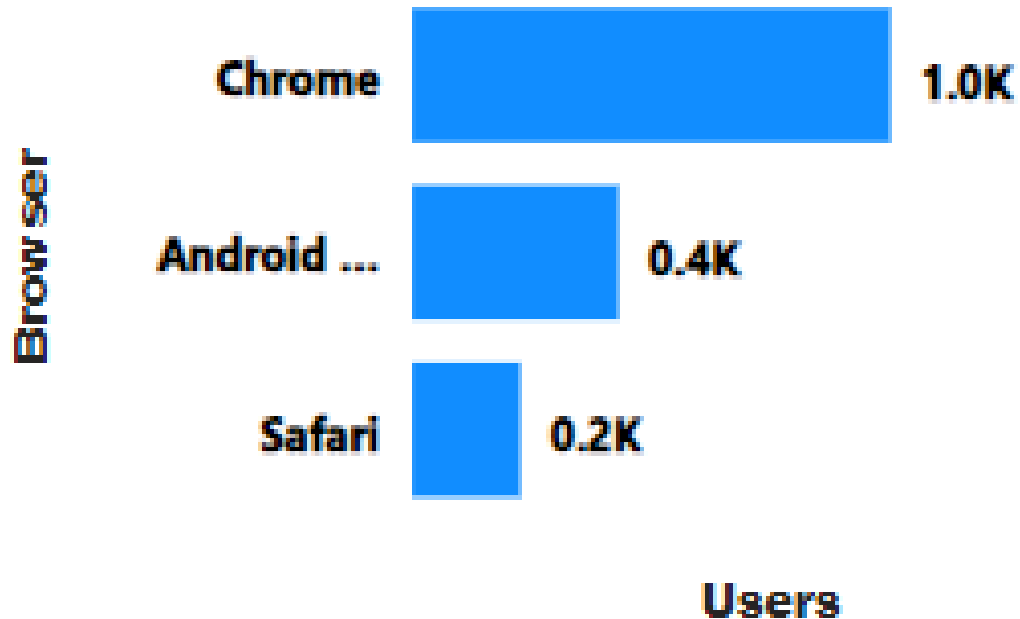
## User Margin and Engagement rate by Browser

● Sum of User Margin ● Sum of Engagement rate



# KPI 1: Top 3 Browser By New User

## Top 3 Users by Browser



From the period under review:

- **Chrome** has the **highest** number of **users**, with a total number of **1002**, followed by **Android** and **Safari** with **431** and **226** respectively.
- **Chrome users** account for about **50%** of total users.

## KPI 2: Total Users By Browser

Total User By Browser	
Browser	Sum of Total Users
Samsung Internet	65
Safari (in-app)	208
Safari	226
Phoenix Browser	1
Others	7
Opera	27
Firefox	100
Edge	100
Chrome	1002
Android Webview	431
Amazon Silk	1
Total	2168

- From the table, the **browsers** with the **top 3** users are **Chrome, Android, and Safari** with **1002, 431** and **226** respectively while the **browsers** with the **least 3** users are **Amazon Silk, Phoenix browser, and others** with **1, 1, and 7** respectively.

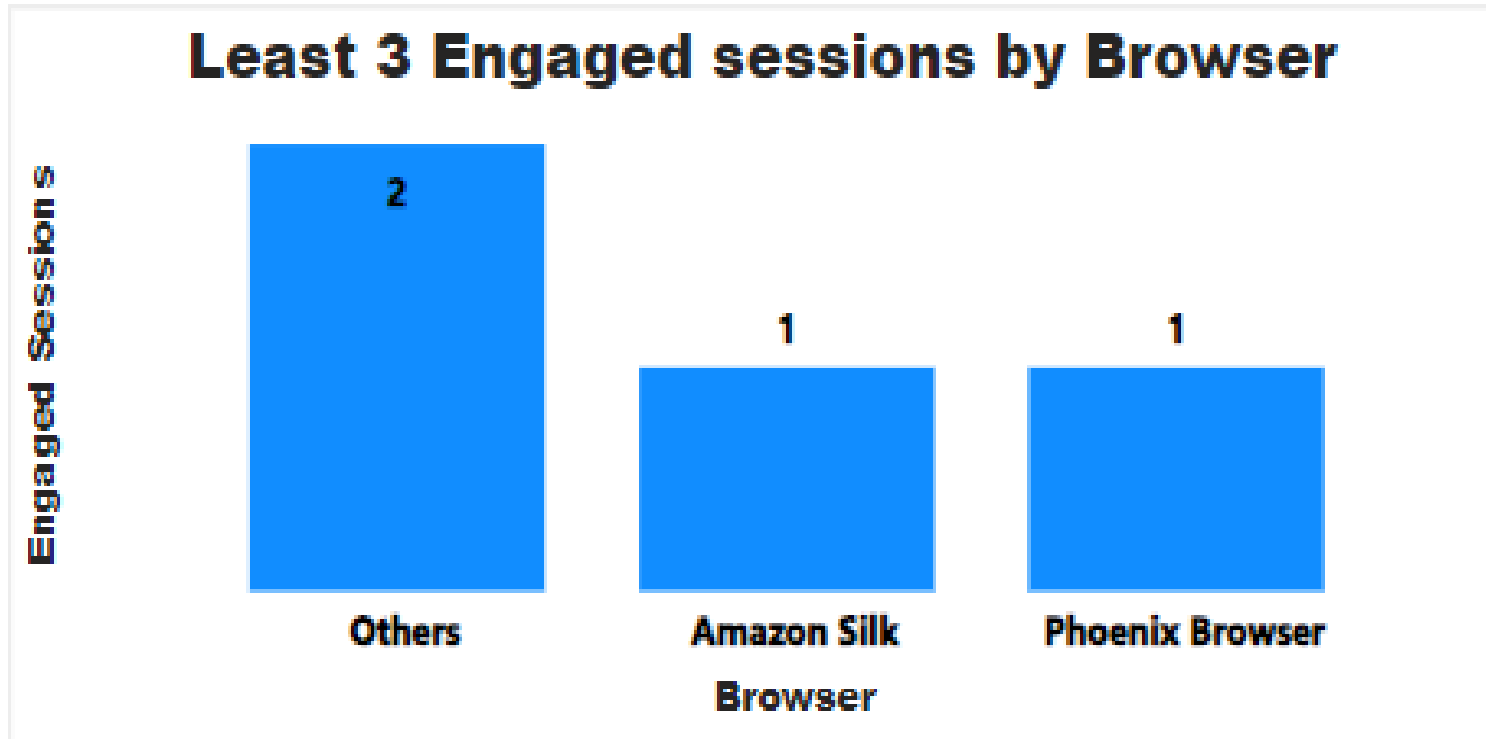
## KPI 3: Total Users By Month

### Total User By Month

Month	Sum of Total Users
Feb	142
Jan	1
Mar	0
May	2025
Total	2168

- The table shows **user** distribution by month, the month of **May** had **93.4% users** while **February** accounted for just **6.5%**.
- **Users** for the month of **January** and **March** were **negligible** while the month of **April** had no **users**.

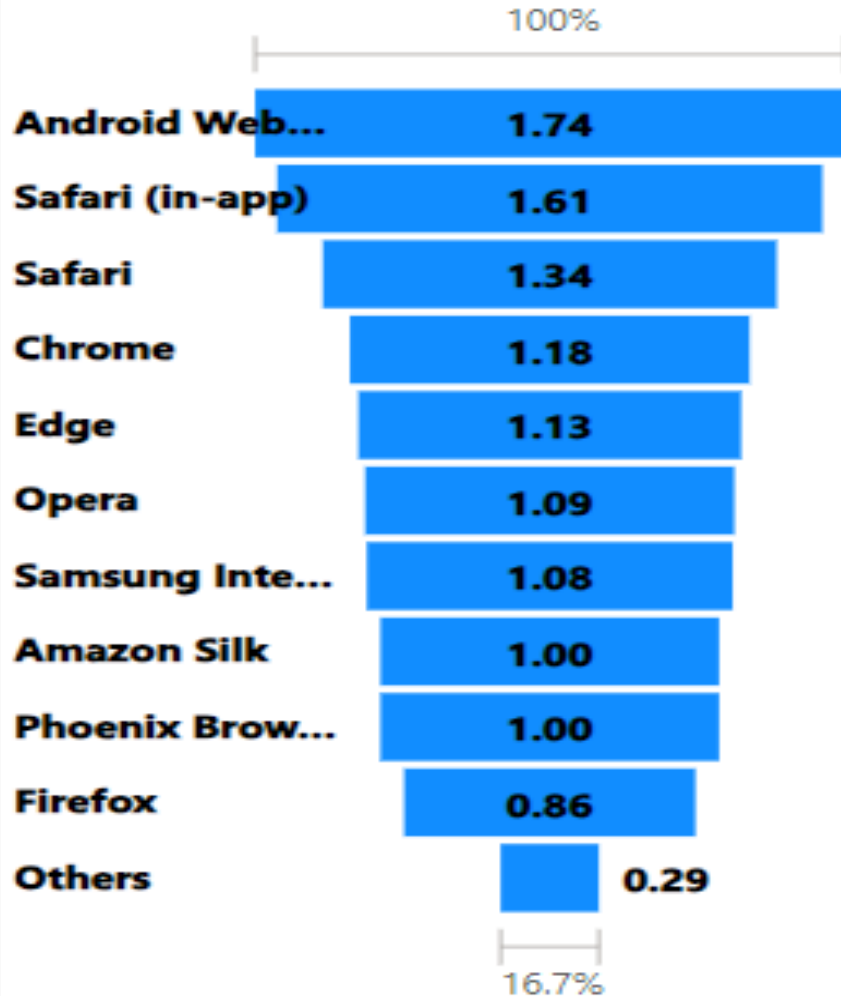
# KPI 4: Top 3 Browser with the Least Engagement Session



From the period under review:

- **Phoenix browser and Amazon Silk** had the **least** number of engagement sessions with just a **unit** engaged session each.

### Engagement rate by Browser

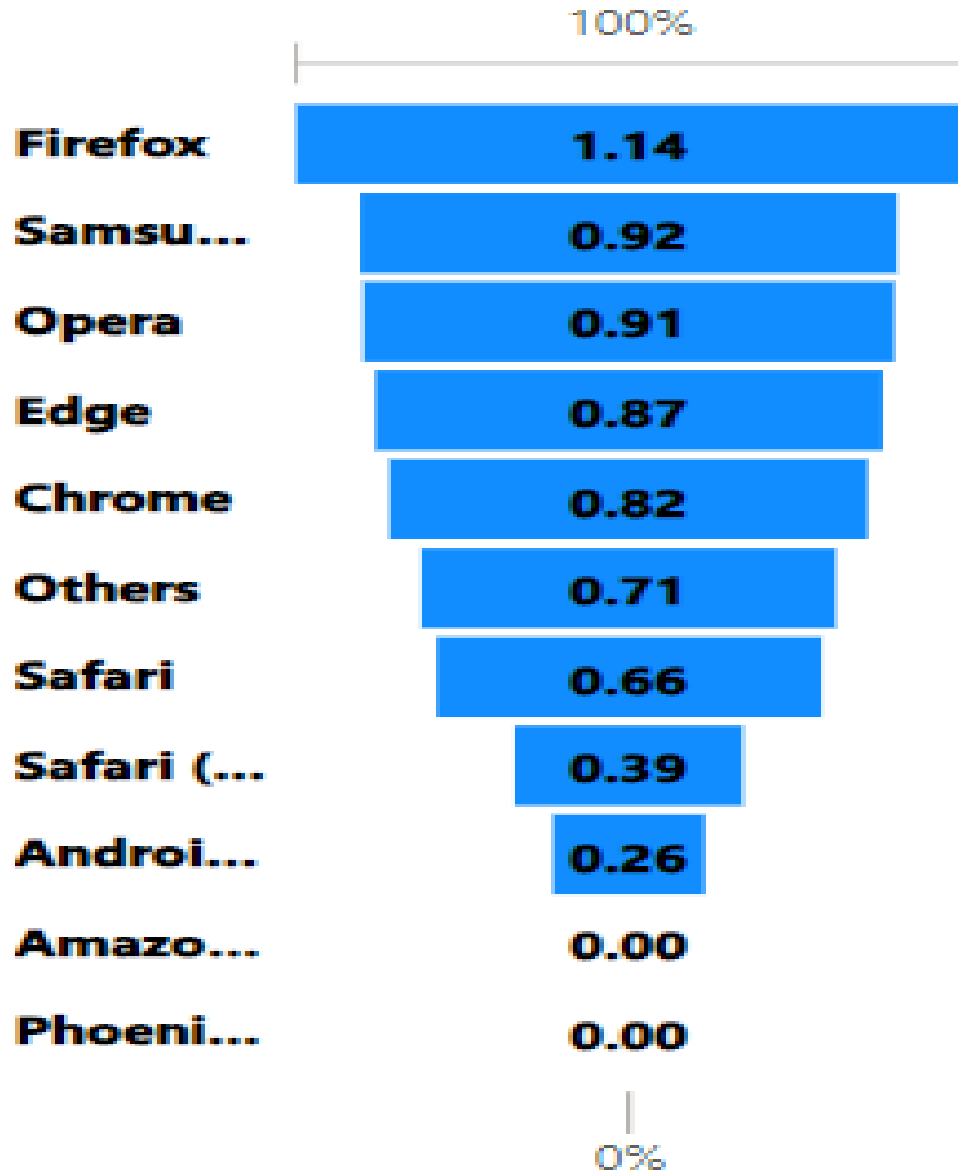


## KPI 5: Engagement Rate by Browser

- From the Jan-May, Android and Safari(in-App) had the **highest engagement rate** which was **1.74** and **1.61** respectively.
- The **browsers** with the **lowest engagement rates** were **firefox** and **others** which were **0.86** and **0.29** respectively.
- It was observed that **mobile browsers users** have a **higher engagement rate** than **desktop browser users** considering the data under review.
- The average **engagement rate** was **1.12**.



## Bounce rate by Browser

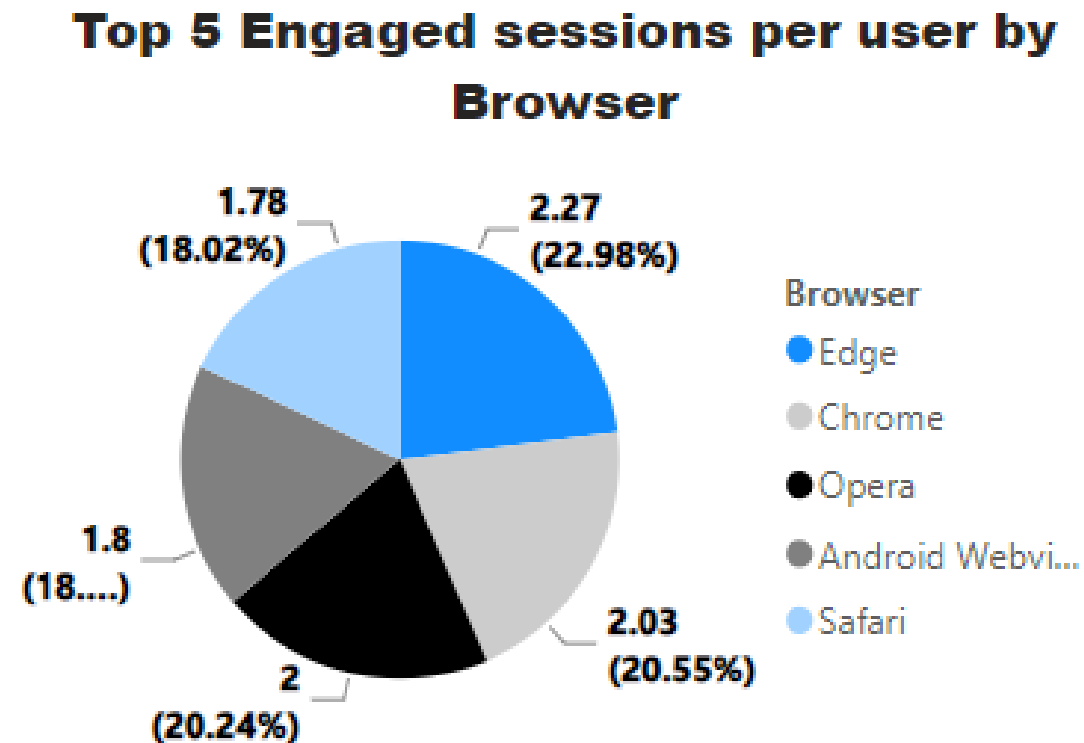


## KPI 6: Estimated Bounce Rate by Browser

- From the **Jan-May**, **Samsung internet** and **Opera** had the **highest Bounce rate** which was **0.92** and **0.91** respectively.
- The **browsers** with the **lowest Bounce rates** were **Chrome** and **Safari** which were **0.82** and **0.66** respectively.
- It was observed that the **browsers** have a **high bounce rate** of an average of **60.7%** considering the data under review.
- The average **estimated rate** was **0.61**.

Source: Power BI

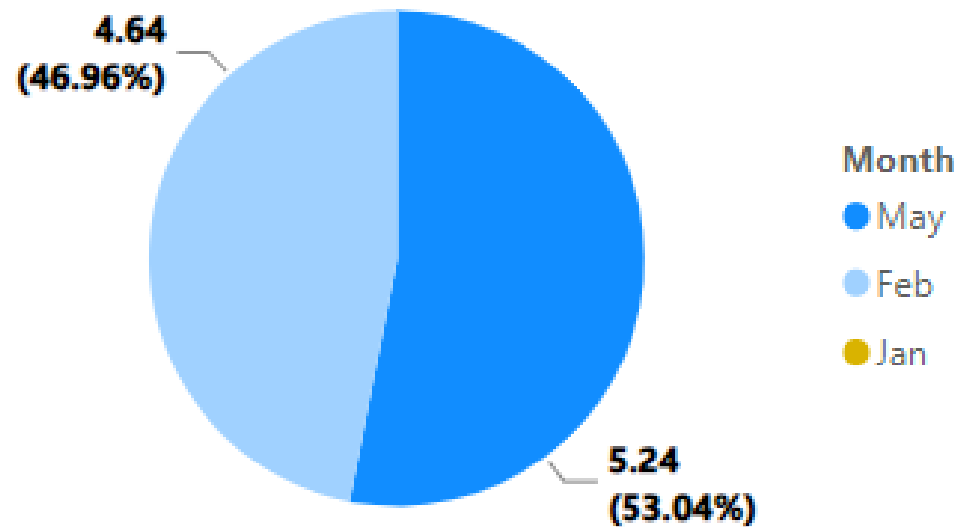
# KPI 7: Total 5 Engaged Sessions per User by Browser



- 3 browsers (Edge, Chrome and Opera) accounted for **65%** of the **total engaged sessions per user**.
- **Safari** is the **least browser** with **18.02%** engagement session per person of the **top 5 browsers**.

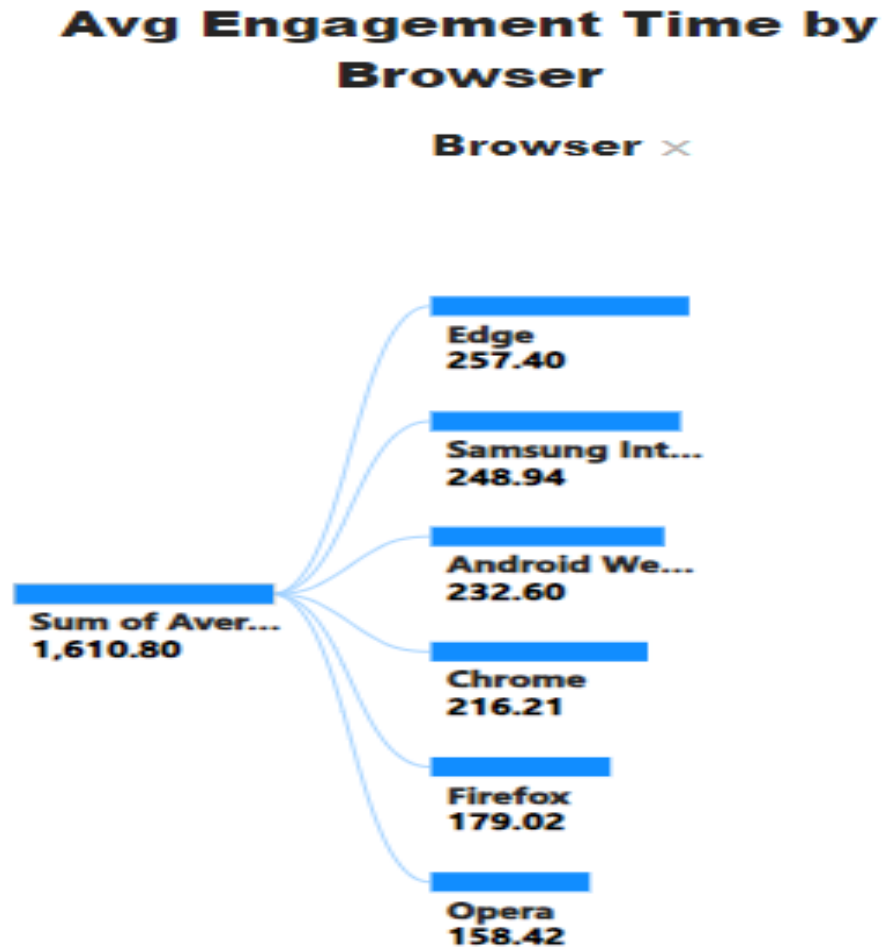
# KPI 8 :Engaged Sessions per User by Month

**Engaged sessions per user by Month**



- **May** account for more than **50%** (specifically **53.04%**) monthly engaged session per user while Feb account for slightly less than **50%** ( precisely **46.96%**)
- The 3 other months ( **Jan, Mar, and Apr**) left are negligible with a combined **percentage of 0%**
- The data was **skewed and** largely dependent on the month of **May as well as Feb data.**

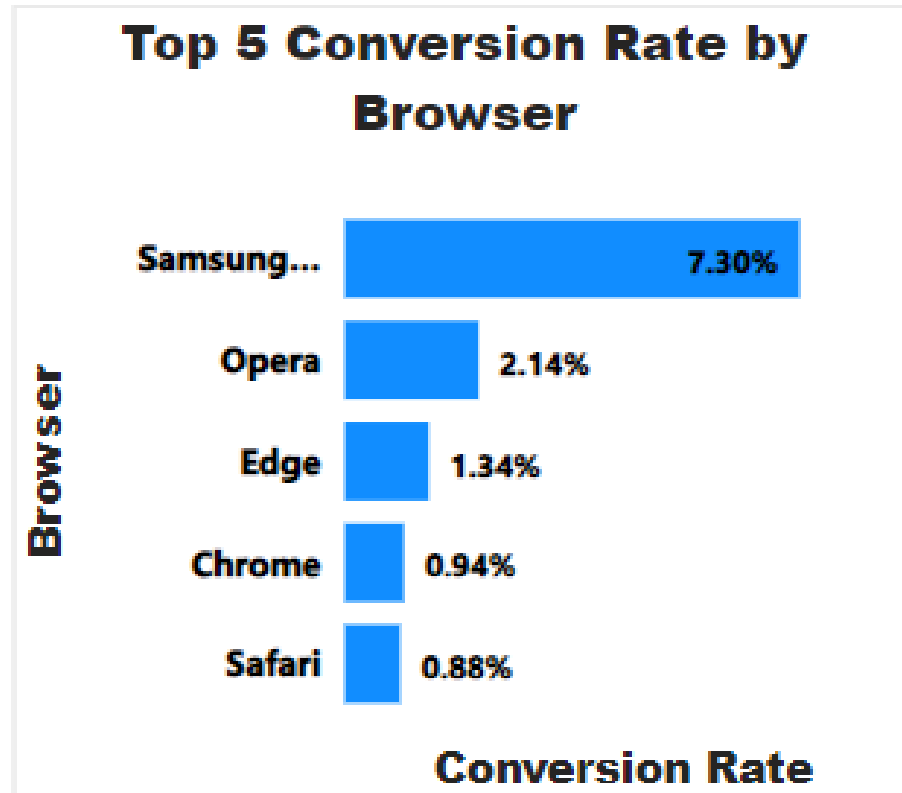
# KPI 9: Average Engagement Time by Browser



From the period under review:

- The **browsers with the highest average engagement time** are **Edge, Samsung Internet, Android Web view, and Chrome** with their respective values of **257.40, 248.94, 232.60, and 216.21 seconds respectively**
- The **browsers with the lowest average engagement time** are **Safari (in-app), others, and Amazon Silk** with **86.11, 4.29, and 3.00 seconds respectively**
- It was **observed that users tend to spend more time on mobile browsers** than on **desktop browsers** which could translate to more **conversions**

# KPI 10: Top 5 Conversion Rate by Browser



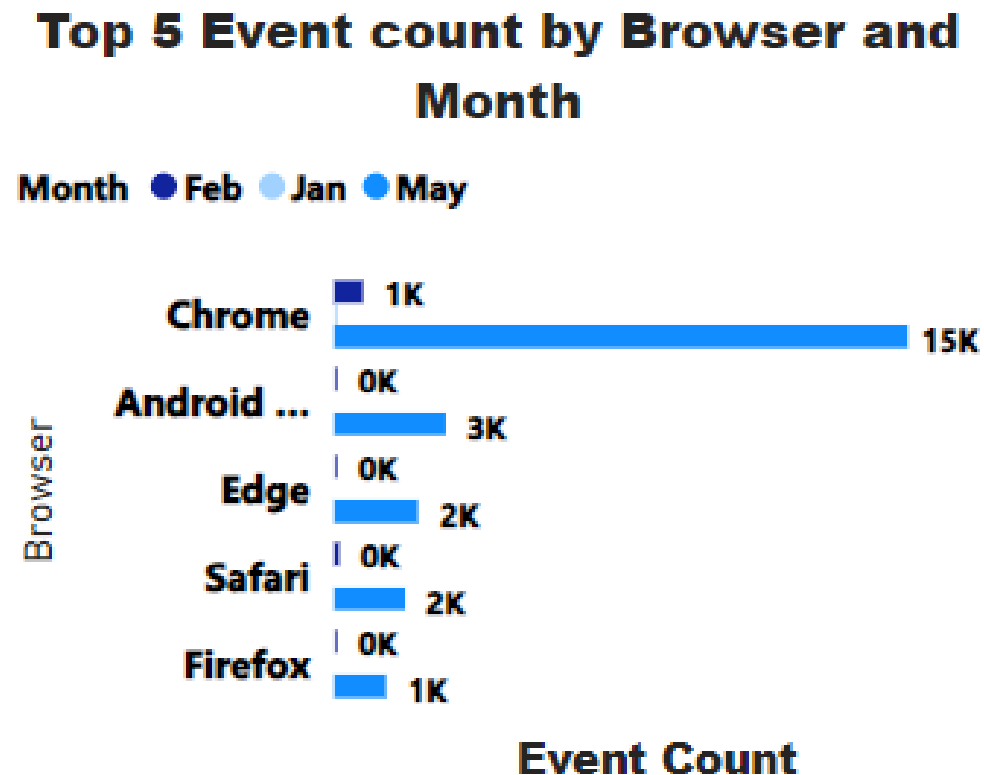
- The chart shows the **rate of conversion** triggered by the **conversion event count**. The data shows that **Samsung** had close to 8%, which is almost **twice** the rest of the **browsers** in the **top 5**.
- It indicates that **more attention** should be given to **mobile users** to have more **conversions**.
- A **higher Event Count** does not guarantee more **conversions**, **bounce rate calculation** could be a suitable metric that could correct the flaws of the **low conversion rate**.

*Bounce rate = ( [total session-engaged session] / Total session ) \* 100%*

*Bounce rate = ([4000-2000] / 4000) \* 100 = 50%*

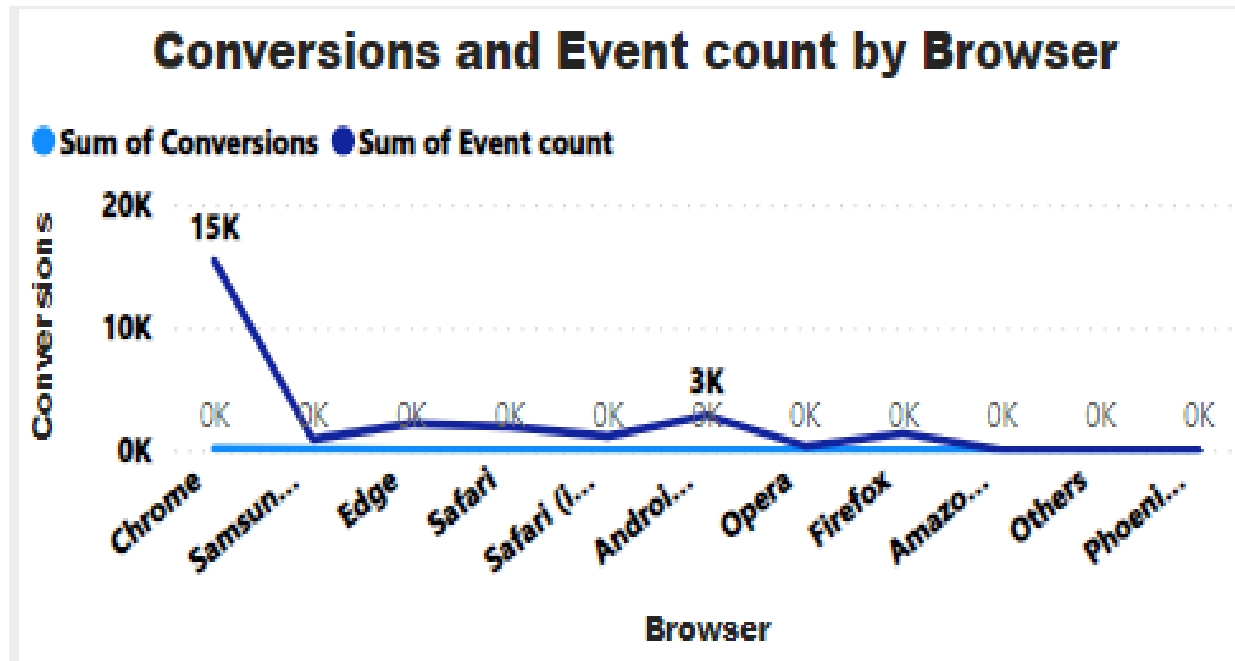
*Calculated bounce rate = 50%*

# KPI 11: Top Event Count by Browser and Month



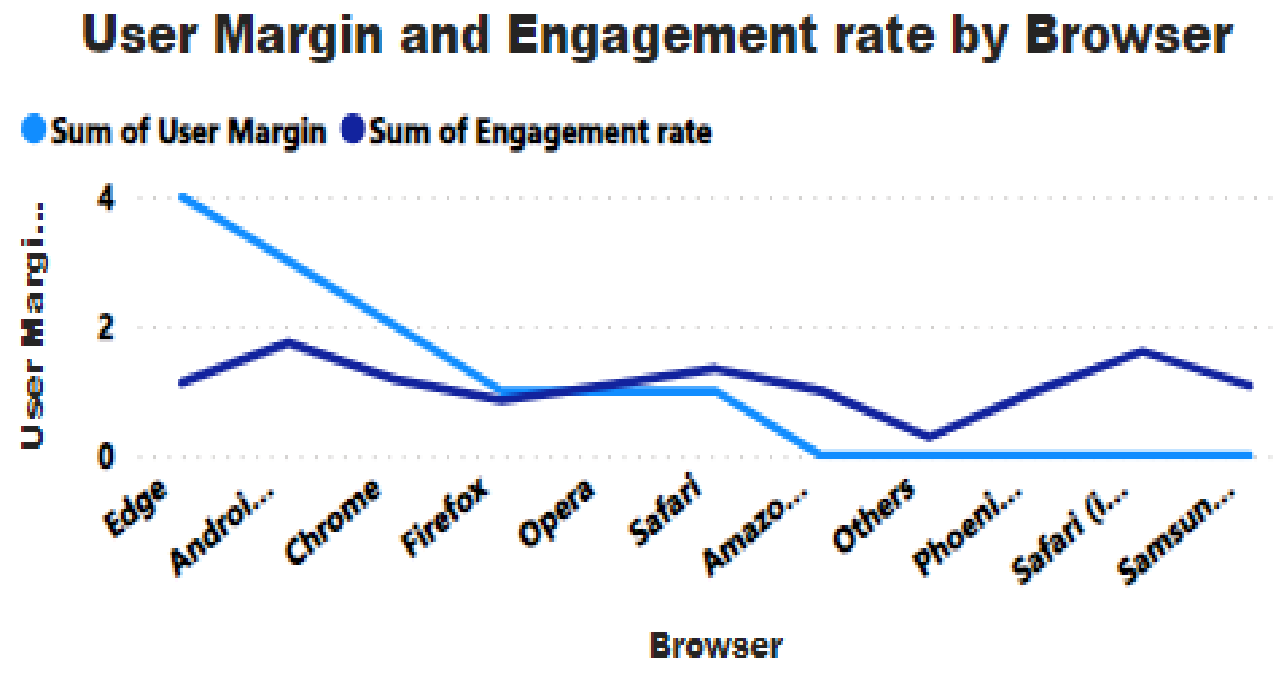
- The chart shows that **Event Counts distribution** was **triggered** mostly in **May** with **Chrome** having **15,000 Event Counts** while others and Amazon Silk are the **lowest** with **4 Event Counts** only.
- Also, the chart shows that **Chrome** had the **highest Event Count** of approximately **1,000** in **Feb**.
- The **relationship between Event Count and Conversion rate** is **inverse**, while the **average engagement time** shows a **direct relationship**.

# KPI 12: Conversions and Event Count by Browser



- There is an **inverse relationship** between the total number of triggered **Event Counts** and **Conversion Rate**.
- **Chrome** and **Android** account for **15,000** and **3,000 Event Counts** respectively compared to the **conversion** that is nearly **zero** across all **browsers**.
- 
- The **negative correlation** between **Event Counts** and **Conversion rate** is likely the cause of **zero Revenue**, though the website may not have been marketized to receive **payment digitally**.

# KPI 13: User Margin and Engagement rate by Browser



- The data shows that the **Engagement Rate** was largely dependent on new users with close margins across all **browsers**.
- The **total existing users** is just **12** out of the **total users of 2168**. This implies a **total of 2156 new users** from **Jan- May**, which is **99.4%**.
- The interpretation of this is that the ads are **generating traffic** to the page regularly, however, the **challenge** was with the **page** itself. It was not properly **optimized** for **conversion and retention**.



## KPI 14: Conversion Target and Goal setting

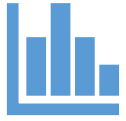
The overall **conversion** is **-99.62%** with an **Engagement rate** of **0.52** while the **average engagement time** trend is tracked to monitor the **conversion** goal targets.

All necessary **KPIs** and **benchmarks** must be set to be able to achieve **positive conversion** goals. KPIs and Benchmarks such as **Bounce Rate**, **Average Engagement Time**, **Engagement rate**, and **Event Counts** with defined relationships to achieve a **positive conversion**.

**Red:** Negative  
**Green:** Positive  
**Yellow:** Neutral

### Engagement rate and Conversion by Average engagement time





# GAP ANALYSIS OVERVIEW

Key Insights:

## 1. Product/Service Type

Essential for proper benchmarking.

## 2. Ads Channels & Metrics

Utilise email, social media (Instagram, Facebook, TikTok), YouTube, Newsletter for market understanding and optimization.

## 3. Browser Distribution

Analyze mobile vs. desktop for customer behavior, ad channels, and landing page optimization.

## 4. User Demography

Target ads based on gender, age, region for optimized conversion growth.

## 5. Landing Page Engagement

Analyze pages vs. Event Counts for effective engagement rate and sessions.

## 6. Bounce Rate Impact

Address bounce rate for improved conversions, site issues, and enhanced Google ranking.

## 7. Revenue Generation Clarity

Determine digital integration or offline collection to assess revenue concerns.

# RECOMMENDATIONS

- **Address Data Gaps**

Immediate resolution for critical analysis and accurate forecasting.

- **Integrated Marketing Campaign**

Recommend new campaign aligning ads and webpage management for effective lead conversion and retainment.

- **Optimize Webpage for User Experience**

Ensure responsive design for seamless user experience on mobile and desktop.

- **Bounce-Off Analysis**

Properly analyze bounce off points for content, user experience, layout, or copywriting issues resolution.

- **Implement Feedback Systems**

Introduce questionnaires, surveys, and feedback reviews for customized webpage enhancements.

- **Landing Page Optimization**

Ensure a catchy, engaging, and user-friendly landing page catering to all demographics.

- **Streamlined Conversion Process**

Simplify call to action to minimise event hop count and prevent users' disengagement.



# CONCLUSION

The webpage exhibits a notably high overall bounce rate, estimated at 50-60.7%, indicating a substantial portion of sessions lacking engagement. This elevated bounce rate poses a significant hurdle to addressing the conversion rate challenge.

In summary, the webpage appears insufficiently optimized for conversion, despite boasting an impressive overall engagement rate of 112%. The concerning bounce rate range, particularly at 60.7%, strongly correlates with lower conversion rates.

Although lead traffic stands at a commendable 99.4%, the nearly non-existent conversion and retention highlight a critical issue. To effectively resolve this, bridging the identified gaps with precise data is essential for in-depth analysis and problem resolution.

# QUESTIONS?



# APPENDIX



# Google Analytics Report For Jan -May 2023

Month

Feb

Jan

Mar

May

Browser

All

Total Browser

1

Total Users

1

User Margin

1

Engaged session

0

Total Session

--

Avg Engagement Time

1.00

Event Count

4

Conversion

0

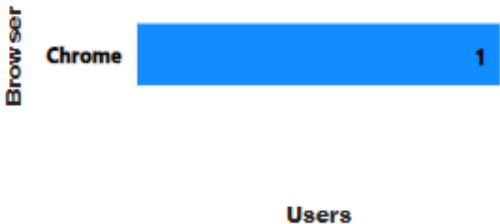
Total Revenue

0

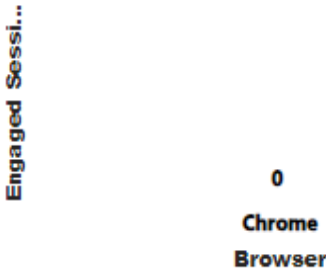
## Total User By Browser

Browser	Sum of Total Users
Chrome	1
Total	1

## Top 3 Users by Browser



## Least 3 Engaged sessions by Browser



## Engagement rate by Browser

Chrome 0.00

## Bounce rate by Browser

## Total User By Month

Month	Sum of Total Users
Jan	1
Total	1

## Top 5 Engaged sessions per user by Browser

Browser  
● Chrome

## Engaged sessions per user by Month

Month  
● Jan



# Google Analytics Report For Jan -May 2023

Month

Feb

Jan

Mar

May

Browser

All

Total Browser

8

Total Users

142

User Margin

0

Engaged session

125

Total Session

188

Avg Engagement Time

555....

Event Count

1K

Conversion

0

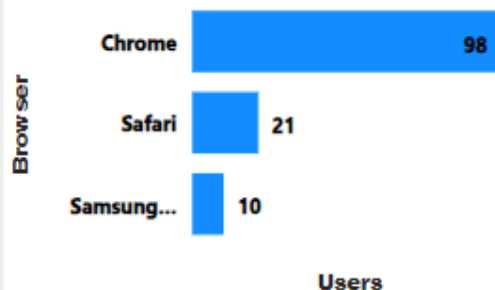
Total Revenue

0

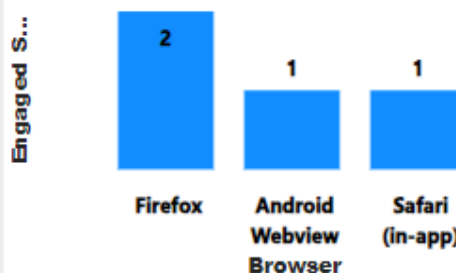
## Total User By Browser

Browser	Sum of Total Users
Android Webview	1
Chrome	98
Edge	4
Firefox	4
Opera	3
Safari	21
Safari (in-app)	1
Samsung Internet	10
Total	142

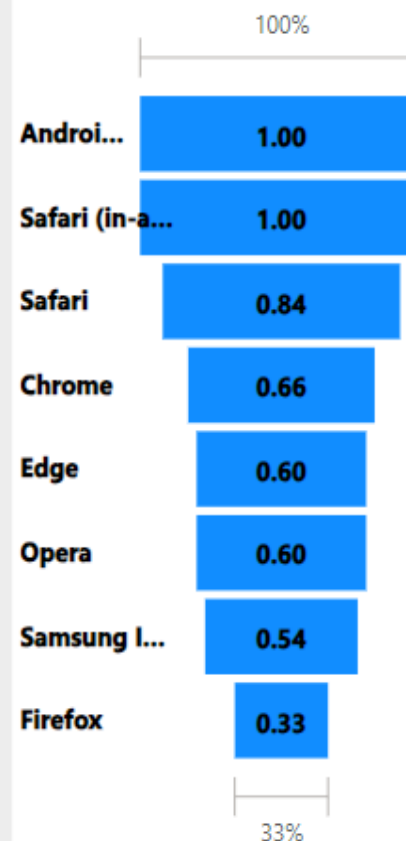
## Top 3 Users by Browser



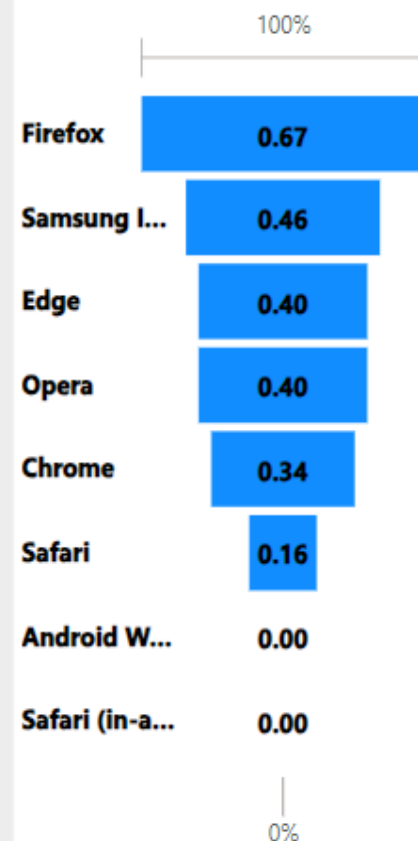
## Least 3 Engaged sessions by Browser



## Engagement rate by Browser



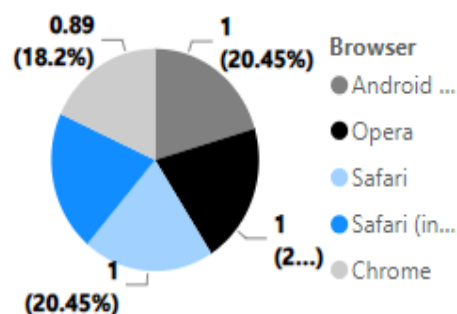
## Bounce rate by Browser



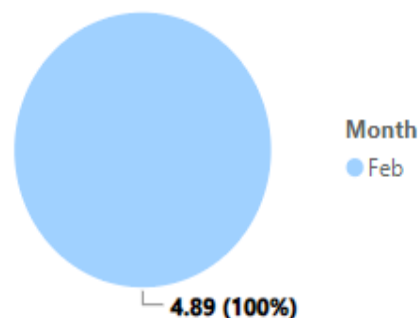
## Total User By Month

Month	Sum of Total Users
Feb	142
Total	142

## Top 5 Engaged sessions per user by Browser



## Engaged sessions per user by Month







# Google Analytics Report For Jan -May 2023

Month

Feb

Jan

Mar

May

Browser

All

Total Browser

1

Total Users

0

User Margin

0

Engaged session

0

Total Session

--

Avg Engagement Time

0.00

Event Count

10

Conversion

0

Total Revenue

0

## Total User By Browser

Browser	Sum of Total Users
Samsung Internet	0
Total	0

## Top 3 Users by Browser

Browser

Samsung... 0

Users

## Least 3 Engaged sessions by Browser

Engaged S...

0

Samsung  
Internet  
Browser

## Engagement rate by Browser

Samsu...

0.00

## Bounce rate by Browser

## Total User By Month

Month	Sum of Total Users
Mar	0
Total	0

## Top 5 Engaged sessions per user by Browser

Browser

● Samsung...

## Engaged sessions per user by Month

Month

● Mar



# Google Analytics Report For Jan -May 2023

Month

Feb

Jan

Mar

May

Browser

All

Total Browser

11

Total Users

2K

User Margin

11

Engaged session

2K

Total Session

4K

Avg Engagement Time

1.05K

Event Count

25K

Conversion

270

Total Revenue

0

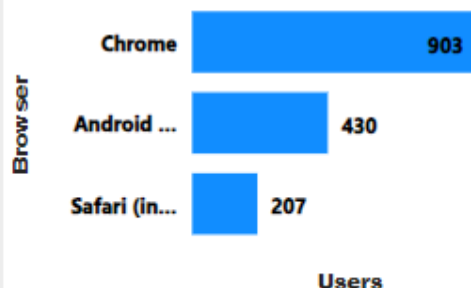
## Total User By Browser

Browser	Sum of Total Users
Amazon Silk	1
Android Webview	430
Chrome	903
Edge	96
Firefox	96
Opera	24
Others	7
Phoenix Browser	1
Safari	205
Safari (in-app)	207
Samsung Internet	55
Total	2025

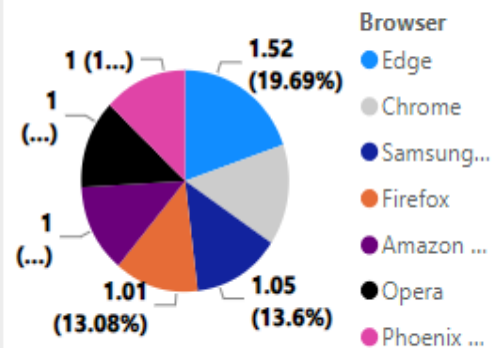
## Total User By Month

Month	Sum of Total Users
May	2025
Total	2025

## Top 3 Users by Browser



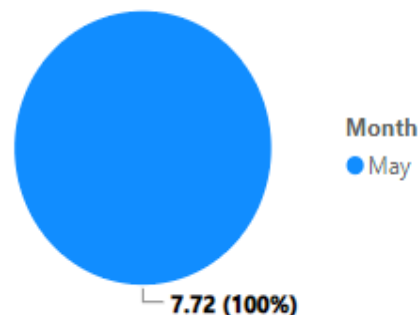
## Top 5 Engaged sessions per user by Browser



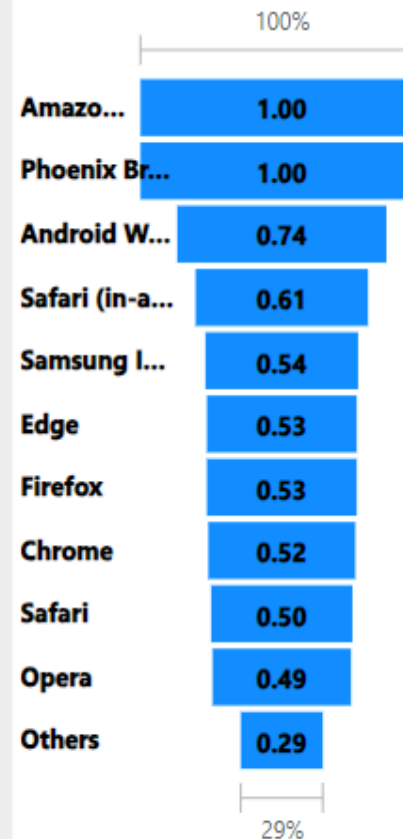
## Least 3 Engaged sessions by Browser



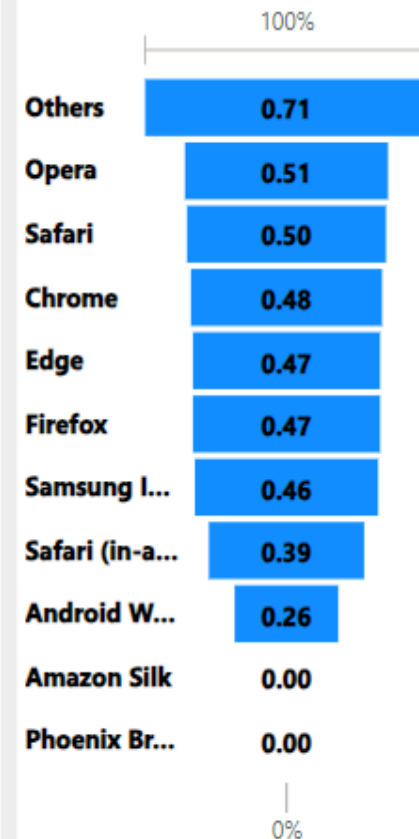
## Engaged sessions per user by Month



## Engagement rate by Browser



## Bounce rate by Browser





# Google Analytics Report Jan - May 2023

Month

Feb

Jan

Mar

May

Browser

All

Total Browser

1

Total Users

1

User Margin

1

Engaged session

0

Total Session

--

Avg Engagement Time

1.00

Event Count

4

Conversion

0

Total Revenue

0

Engagement rate and Conversion by Average engagement time

0.00✓

Goal: 0

Top 5 Conversion Rate by Browser

Browser

Chrome 0.00%

Conversion Rate

Top 5 Event count by Browser and Month

Month Jan

Browser

Chrome

4

Event Count

Avg Engagement Time by Browser

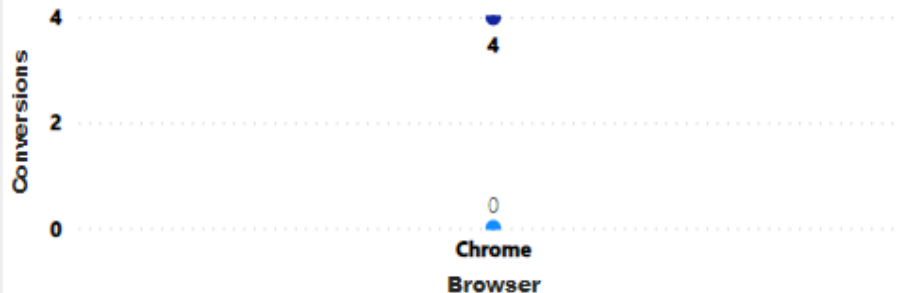
Browser ×

Sum of Aver...  
1.00

Chrome  
1.00

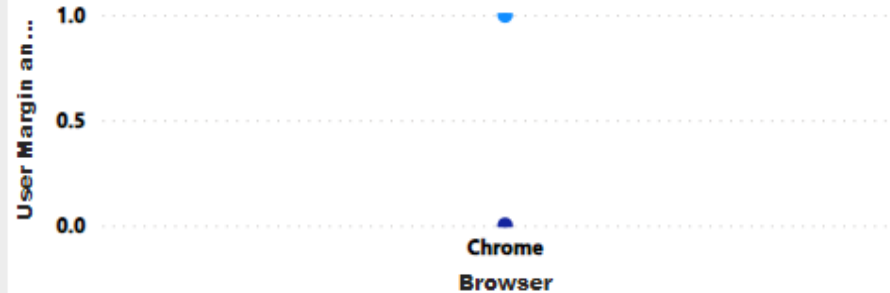
Conversions and Event count by Browser

Sum of Conversions Sum of Event count



User Margin and Engagement rate by Browser

Sum of User Margin Sum of Engagement rate





# Google Analytics Report Jan - May 2023

Month

Feb

Jan

Mar

May

Browser

All

Total Browser

8

Total Users

142

User Margin

0

Engaged session

125

Total Session

188

Avg Engagement Time

555....

Event Count

1K

Conversion

0

Total Revenue

0

Engagement rate and Conversion by Average engagement time

0.54✓

Goal: 0

Top 5 Conversion Rate by Browser

Android ...	0.00%
Chrome	0.00%
Edge	0.00%
Firefox	0.00%
Opera	0.00%
Safari	0.00%
Safari (in...	0.00%
Samsung...	0.00%

Conversion Rate

Top 5 Event count by Browser and Month

Month ● Feb

Chrome	737
Safari	122
Samsung...	65
Firefox	47
Opera	26

Event Count

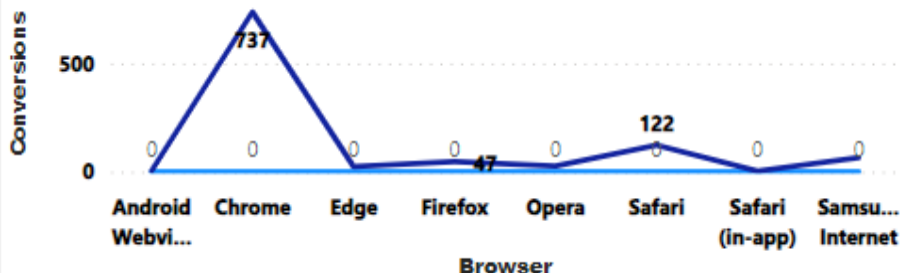
Avg Engagement Time by Browser

Browser ×

Sum of Aver... 555.98	Samsung Int... 127.50
	Android We... 115.00
	Edge 106.75
	Firefox 81.75
	Chrome 63.46
	Safari 28.52

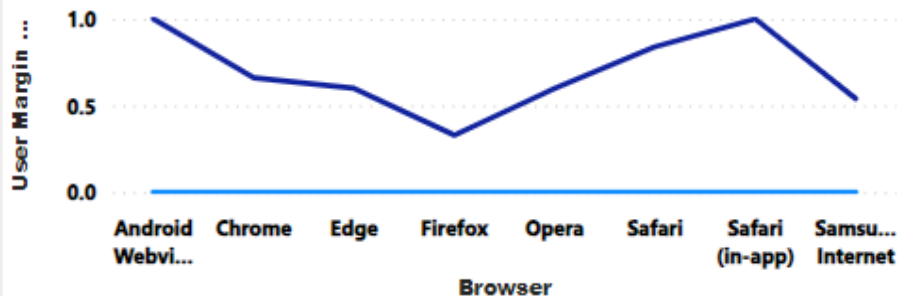
Conversions and Event count by Browser

● Sum of Conversions ● Sum of Event count



User Margin and Engagement rate by Browser

● Sum of User Margin ● Sum of Engagement rate





# Google Analytics Report Jan - May 2023

Month

Feb

Jan

Mar

May

Browser

All

Total Browser

1

Total Users

0

User Margin

0

Engaged session

0

Total Session

--

Avg Engagement Time

0.00

Event Count

10

Conversion

0

Total Revenue

0

Engagement rate and Conversion by Average engagement time

0.00✓

Goal: 0

Top 5 Conversion Rate by Browser

Browser

Samsung... 0.00%

Conversion Rate

Top 5 Event count by Browser and Month

Month ● Mar

Browser

Samsung...

10

Event Count

Avg Engagement Time by Browser

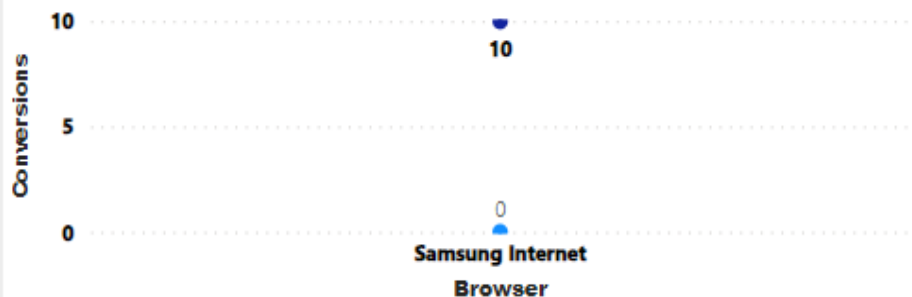
Browser ×

Sum of Aver...  
0.00

Samsung Int...  
0.00

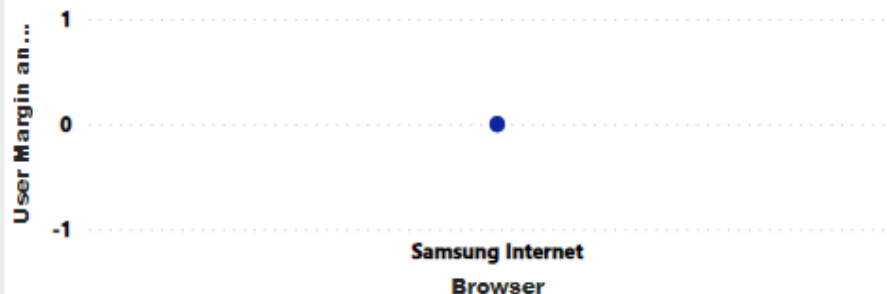
Conversions and Event count by Browser

● Sum of Conversions ● Sum of Event count



User Margin and Engagement rate by Browser

● Sum of User Margin ● Sum of Engagement rate





# Google Analytics Report Jan - May 2023

Month

Feb

Jan

Mar

May

Browser

All

Total Browser

11

Total Users

2K

User Margin

11

Engaged session

2K

Total Session

4K

Avg Engagement Time

1.05K

Event Count

25K

Conversion

270

Total Revenue

0

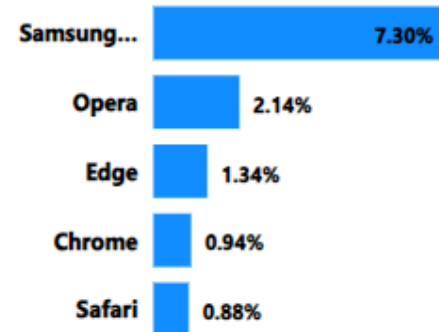
Engagement rate and Conversion by Average engagement time

0.52

Goal: 138 (-99.62%)

Top 5 Conversion Rate by Browser

Browser

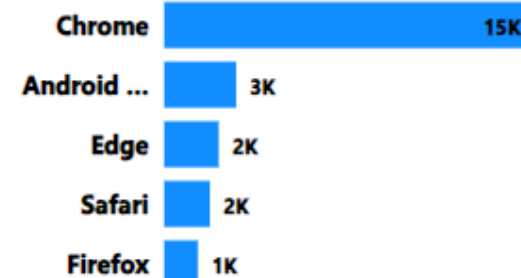


Conversion Rate

Top 5 Event count by Browser and Month

Month ● May

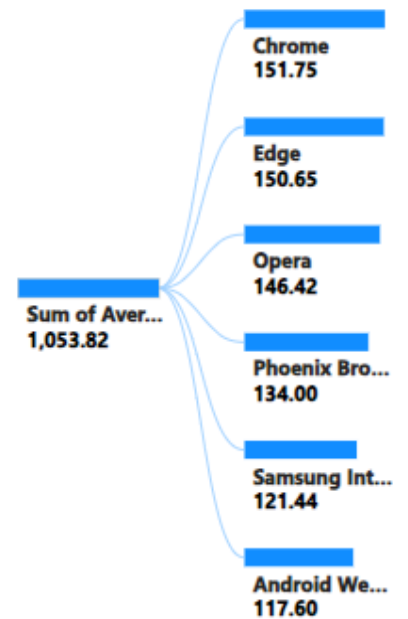
Browser



Event Count

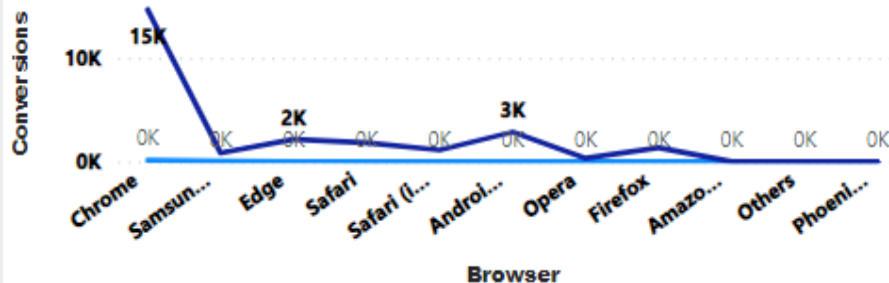
Avg Engagement Time by Browser

Browser ×



Conversions and Event count by Browser

● Sum of Conversions ● Sum of Event count



User Margin and Engagement rate by Browser

● Sum of User Margin ● Sum of Engagement rate

