Project Documentation - User Analytics

Title: Business Analysis – Fitness App Data

Context / Application: Analysis of user growth, retention, and engagement metrics.

Fitness Tracker App period: Q1 2023 – Q4 2025

1-Executive summary

• Purpose: Understand user behavior, analyze growth and retention, identify areas for improvement for the product.

Key Results:

• Total users: 10,000

• New users (last 30 days): 379

• Active users: 372

• Retention rate: 4.41%

Recommendations

• Increase retention through more effective onboarding

• Identify reasons why users leave the product

• Target new users to maximize activation
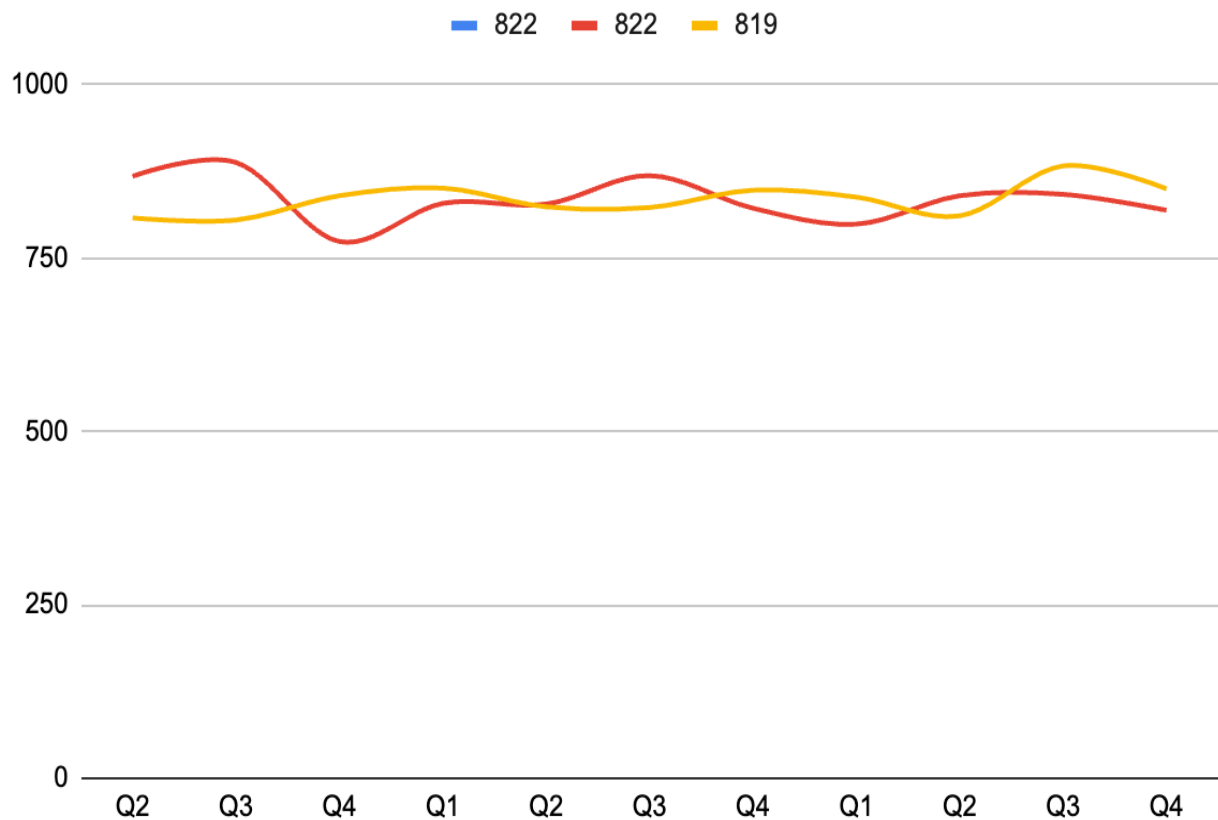
Chart Interpretation

What the chart shows

The line chart illustrates **active user trends over time**, highlighting fluctuations rather than steady growth.

Insight from visualization

Despite steady acquisition, **active user levels plateau**, confirming that new users are not consistently retained long enough to drive sustained growth.
 The chart visually reinforces the conclusions from the table.

User Growth & Retention Analysis (Quarterly)

Description

This table presents quarterly user performance metrics between Q1 2023 and Q4 2025, including new users, active users, churned users, and growth rate. The accompanying line chart visualizes changes in active users over time.

2023	Q1	1/1/2023	3/31/2023	822	819	N/A	N/A
2023	Q2	4/1/2023	6/30/2023	868	808	69	-1.34%
2023	Q3	7/1/2023	9/30/2023	888	805	54	-0.37%
2023	Q4	10/1/2023	12/31/2023	774	840	63	4.35%
2024	Q1	1/1/2024	3/31/2024	829	851	60	1.31%
2024	Q2	4/1/2024	6/30/2024	828	824	72	-3.17%
2024	Q3	7/1/2024	9/30/2024	869	823	73	-0.12%
2024	Q4	10/1/2024	12/31/2024	822	848	79	3.04%
2025	Q1	1/1/2025	3/31/2025	799	838	71	-1.18%

2025	Q2	4/1/2025	6/30/2025	840	811	64	-3.22%
2025	Q3	7/1/2025	9/30/2025	842	883	71	8.88%
2025	Q4	10/1/2025	12/31/2025	819	850	82	-3.74%

Key Insights

User acquisition is relatively stable
Across all quarters, the number of **new users remains consistent** (approximately 800–880 users per quarter).
This indicates that **marketing and acquisition efforts are functioning**, and the product continues to attract new users.

Active users do not grow proportionally with new users

In many quarters, **active users are equal to or lower than new users**, suggesting that a large portion of users become inactive shortly after joining.
Examples:

- 2023 Q2: 868 new users → only 808 active users

- 2024 Q2: 828 new users → 824 active users

- 2025 Q2: 840 new users → 811 active users

Interpretation: **short-term engagement exists, but long-term retention is weak**.

Growth rate volatility indicates retention issues

Growth rate fluctuates significantly, including **negative values in multiple quarters**, such as:

- 2023 Q2: **-1.34%**

- 2024 Q2: **-3.17%**

- 2025 Q2: **-3.22%**

Positive growth appears sporadically (e.g. 2023 Q4, 2025 Q3), but is **not sustained**.

Churn remains a recurring problem

Churned users appear **every quarter**, ranging from **54 to 82 users**, indicating ongoing user drop-off.

This suggests structural issues in:

- onboarding

- value realization

- habit formation

Recommendations

1. Improve onboarding experience to ensure users reach their first "success moment" faster.
2. Analyze early user behavior (first 7–14 days) to identify drop-off points.
3. Introduce engagement mechanics such as reminders, goals, or streaks to encourage repeat usage.
4. Segment users by activity level to personalize engagement strategies.