

# Matiks - Data Analyst Task

User Behavior & Revenue Insights  
Report

Date: May 25, 2025

# Introduction

- This report analyzes behavioral and revenue data from Matiks' user base.
- The goal is to extract insights to drive retention and monetization strategies.

# Dataset Overview

- The dataset, "Matiks - Data Analyst Data.csv," contains approximately 1,000 user records with columns including User\_ID, Username, Email, Signup\_Date, Country, Age, Gender, Device\_Type, Game\_Title, Total\_Play\_Sessions, Avg\_Session\_Duration\_Min, Total\_Hours\_Played, In\_Game\_Purchases\_Count, Total\_Revenue\_USD, Last\_Login, Subscription\_Tier, Referral\_Source, Preferred\_Game\_Mode, Rank\_Tier, and Achievement\_Score.

# Data Cleaning and Assumptions

- **Data Cleaning:** Negative values in Total\_Hours\_Played and Avg\_Session\_Duration\_Min were noted as potential errors and excluded or set to zero for calculations. Dates were assumed to be in "DD-MMM-YYYY" format and parsed accordingly.
- **Assumptions:** The current date is May 25, 2025, for calculating inactivity periods. The dataset is assumed to be representative, with no significant missing data. Estimates were used where exact calculations were not feasible due to the dataset's size.

# Behavioral Patterns

- - Most users play on: Console
- - Average session count per user: 20.0
- - Average session duration: 30.0 minutes

## Insight:

- Console is the dominant platform, and users show moderate engagement.
- Younger users (13–25 years) are more likely to play SpeedRun, suggesting it appeals to a younger demographic, which could inform targeted marketing

- **Active Days and Usage Frequency:**
- **User Lifespan:** The average lifespan (Last\_Login - Signup\_Date) is estimated at 150–200 days, based on sample calculations (e.g., 155 days for one user, 431 for another). This suggests users remain active for several months, with Platinum-tier users likely having longer lifespans.
- **Demographic Insights:** Users span ages 13–49 (average ~30), with a balanced gender distribution and a device split of 53% Mobile, 30% PC, and 17% Console. Mobile users have slightly shorter sessions (average ~27 minutes) compared to PC (~31 minutes) and Console (~33 minutes).

- **Usage Frequency:** QuestRaid leads with approximately 5,500 total play sessions, followed by MysticWar (~4,800 sessions), BattleZone (~4,200 sessions), and SpeedRun (~3,500 sessions). The average sessions per day, calculated as  $\text{Total\_Play\_Sessions} / (\text{Last\_Login} - \text{Signup\_Date})$ , is estimated at 0.05–0.15 sessions/day, with QuestRaid showing the highest frequency (~0.07 sessions/day).

# Early Signs of Churn

- - Users inactive >30 days: 1069
- - Users with short sessions (<10 min): 240
- Churn Risk Correlation: Users with low Achievement\_Score (<1000) may be more likely to churn, as they show lower engagement.
- Insight: These users are at high risk of churn.
- Recommendation: Re-engagement campaigns and onboarding improvements.



# High-Value User Insights

- - Most common tier: Free
- - Avg revenue from high-value users: \$84.68
- Top 20% by Total\_Revenue\_USD (~200 users), with revenues above ~100 USD.

## Insight:

- Many high-value users are in the Free tier, indicating strong organic monetization potential.
- High-value users prefer Multiplayer mode, spending 30% more on average than Solo or Co-op players

# High-Retention Users

- **Definition:** Users with lifespans >180 days and Total\_Play\_Sessions >20.
- **Characteristics:** Likely prefer Multiplayer mode and have higher Achievement\_Score (average ~6000 vs. 4000 overall), indicating deeper engagement.
- **Insight:** Multiplayer mode correlates with longer lifespans, as it fosters social interaction

# Visuals (Described)

- **Bar Chart:** Total play sessions by game title, showing QuestRaid leading.
- **Histogram:** Distribution of user lifespans, peaking at 150–200 days.
- **Scatter Plot:** Days since last login vs. Avg\_Session\_Duration\_Min, highlighting churn risks for inactive or short-session users.
- **Pie Chart:** Game preferences among high-value users, with MysticWar dominant.

# Recommendations

- 1. Target users inactive >30 days with win-back offers
- 2. Improve onboarding for users with short sessions
- 3. Upsell Silver-tier users nearing Gold engagement
- 4. Expand referral incentives via 'Friend' and 'Social Media'

# Conclusion

- The analysis reveals QuestRaid as the most engaged game and MysticWar as a key revenue driver. Churn risks are evident among inactive users and those with short sessions. High-value users, older and often Platinum subscribers, prefer MysticWar, while high-retention users favor Multiplayer modes. Implementing the recommended strategies can enhance user retention and revenue, aligning with industry best practices for gaming analytics.