Waze User Churn Project

Exploratory Data Analysis

OVERVIEW

This is a summary of the findings and implications from Milestone 3 of the data analytics project that the Waze data team is working on. The goal of this project is to reduce monthly user churn on the Waze app and increase overall growth by using exploratory data analysis (EDA) to identify and target users at risk of churning. **The report provides more details and key insights from the EDA that inform the next steps of the project development.**

PROJECT STATUS

The EDA provides valuable insights into user churn and its relationship with various factors. To further investigate, machine learning models can be applied to predict churn and implement targeted retention strategies.

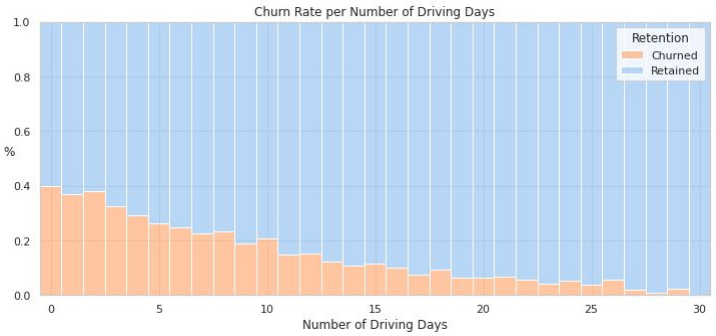
For the full EDA report and additional analysis, please refer to the detailed documentation.

NEXT STEPS

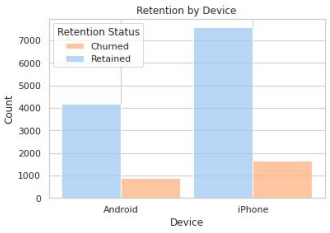
1. Look into the causes of the mismatch among sessions, driving_days, and activity_days.
2. Collaborate with the Waze team to examine user profiles and understand why long distance drivers are leaving.
3. Conduct more advanced statistical tests on the data variables to measure their influence on user churn.

KEY INSIGHTS

- **App usage was inversely related to churn.** No app users in the last month had a 40% churn rate, while daily app users had zero churn.
- **Distance per driving day was positively related to churn.** Users who drove longer distances each day were more likely to churn.
- **Number of driving days was negatively related to churn.** Users who drove more frequently in the last month were less likely to churn.
- **User tenure was evenly distributed in the data**. Users from new to 10 years old were similarly represented.
- **Most variables had either very skewed or uniform distributions.** Skewed variables had most users in the lower end, while uniform variables had users spread across the range.
- **Some variables had outliers that seemed implausible or impossible**, such as: driven_km_drives, activity_days and driving_days.



A high churn rate is observed for users who had low engagement with Waze in the previous month.



The ratio of churned to retained users is similar across different devices.