

Hypothesis Testing for Waze's Retention Data

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Overview

Your team is nearing the midpoint of their **user churn project at Waze**. A new requirement from the team has arisen in order to understand better the data: Analyze the relationship between mean amount of rides and device type.

Problem

The problem is to **identify** if there is a **statistically significant difference in mean amount of rides between iPhone® and Android™ users**. The research question of the project can be: Is the mean amount of rides between iPhone users and Android users statistically different?

Solution

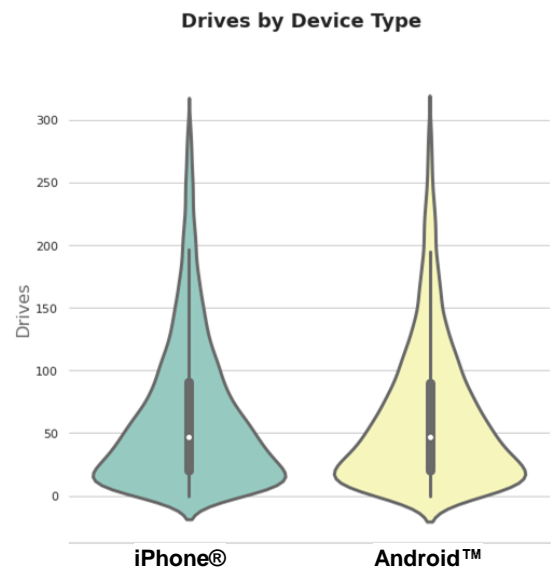
Conduct a two-sample hypothesis test (t-test) to analyze the difference in the mean amount of rides between iPhone® users and Android™ users, and share the findings with the team.

Details

Four steps were done in order to perform the analysis: Calculate the difference in mean drives between users, formulate hypothesis, do the hypothesis testing and analyze the findings.

The **difference** between average drives between iPhone and Android users is **1.63 drives**, being **iPhone** users more active using the app (with an average of **67.9 drives**)

Based on the two sample t-test done, we conclude that this **difference** between average drives is **not statistically significant**, at 0.05 level of significance (and even at a 0.1 level of significance), because its **p-value is 0.14**.



Next Steps

The analysis suggest that the **device type is an irrelevant feature for future analysis**, and will not be an important factor to consider in future Churn Analysis (result consistent with the previous EDA done).