# Waze User Churn Project

Two sample hypothesis testing

## Overview

The data analytics team at Waze has been asked to create an accurate machine learning model to predict user churn and factors that lead to such. The end goal is to reduce user churn, improve customer experience and business growth.

## Objective

The objective of this project was to conduct a two sample hypothesis test to determine if there is a statistically significant difference between the mean drives of iphone users and android users.

## Results

A two sample t - test was performed for this project using Python. The null and alternative hypotheses were:

- Null hypothesis ($H_0$): There is no difference between the mean number of drives between iPhone users and Android users.
- Alternative hypothesis ($H_a$): There is a difference between the mean number of drives between iPhone users and Android users.

A significance level of 5% was used. A test statistic value of 1.46 and p-value of 14.34% (0.1443) was calculated. The p-value is greater than the significance level. Therefore, we fail to reject the null hypothesis.

## Next Steps

There is no statistically significant difference between the mean drives of iphone users and android users. The type of device that users own does not contribute to the number of drives they make, suggesting that the user experience is identical on both platforms. Consider identifying other variables that could potentially contribute to user churn and conduct further research on these variables.