### Executive Summary

#### ****Project Objective****

The primary goal of this project was to analyze and compare the usage behavior between iPhone and Android users, particularly in the context of the Waze app. The analysis focused on determining whether there are significant differences in the number of drives made by users of these two devices. This analysis is crucial for understanding potential factors contributing to user churn rates.

#### ****Methodology****

The project employed a hypothesis testing approach, specifically using a two-sample t-test, to compare the average number of drives between iPhone and Android users. The following hypotheses were formulated:

* **Null Hypothesis (H₀):** The population mean number of drives for iPhone users is equal to that of Android users.
* **Alternative Hypothesis (H₁):** The population mean number of drives for iPhone users is not equal to that of Android users.

Descriptive statistics were computed to gain an initial understanding of the data, followed by the hypothesis test to draw more rigorous conclusions.

#### ****Key Findings****

* **Descriptive Analysis:** Initial descriptive statistics provided insights into the general distribution and central tendency of drives for both iPhone and Android users.
* **Hypothesis Testing:** The p-value obtained from the two-sample t-test was 0.143, which is greater than the significance level of 0.05. Consequently, we failed to reject the null hypothesis. This indicates that there is no statistically significant difference in the average number of drives between iPhone and Android users.

#### ****Business Implications****

The findings suggest that the device type (iPhone vs. Android) does not significantly influence the number of drives made by users. This implies that differences in user interface or device design are unlikely to be the primary factors driving user behavior in terms of the number of drives. Therefore, other potential factors contributing to user churn should be explored further.

#### ****Recommendations****

* **Further Investigation:** Since the device type does not significantly affect user behavior, the next step should involve exploring other variables or factors that could be influencing user churn. This may include examining app-specific features, user demographics, or external factors such as changes in traffic patterns or road conditions.
* **Additional Testing:** Conduct additional A/B testing or user studies focusing on other aspects of the app experience to identify areas that may impact user retention and engagement.