



## Waze User Churn Prediction Case Study

# PROBLEM OVERVIEW

Waze is a free navigation application that makes it easier for drivers to get where they need to go safely. The Waze app is powered and used by drivers all over the world. As a community-based traffic and navigation app, and was created as a social navigation tool for cars

Churn is the business term that describes how many customers stop using a product or service, or stop doing business with a company altogether and at what rate this occurs

Typically, high retention rates indicate satisfied users who repeatedly use Waze app over time.

Developing a churn prediction model will help prevent churn, improve user retention, and grow Waze's business. An accurate model can also help identify specific factors that contribute to churn



# OBJECTIVE

Our objective for this case study is to apply Machine Learning and Predictive analytics to ;

- Develop a churn prediction model will help prevent churn, improve user retention, and grow Waze's business.
- Empower the Waze leadership to make data-driven decision making by offering key insights and data-informed recommendations.
- Analyze and interpret data, generate actionable insights, and help leadership make informed business decisions.
- Proactively identify factors that will engage high-risk churn users to retain them.

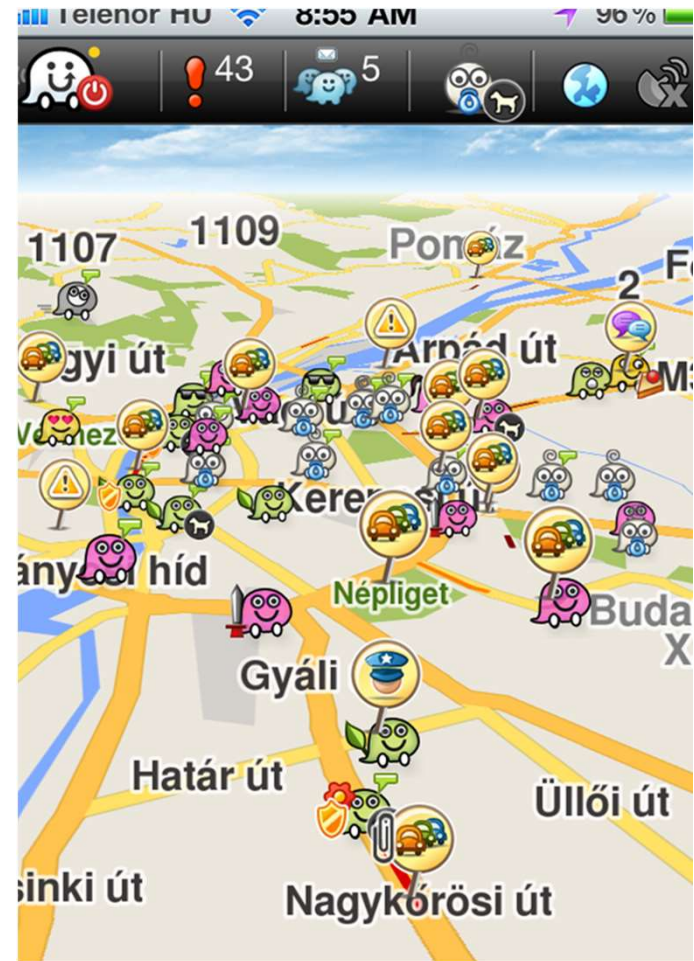
User churn is measured by the number of users who have either uninstalled the app or stopped using the app.

# Data Dictionary

Column name	Type	Description
label	obj	Binary target variable (“retained” vs “churned”) for if a user has churned anytime during the course of the month
sessions	int	The number of occurrence of a user opening the app during the month
drives	int	An occurrence of driving at least 1 km during the month
device	obj	The type of device a user starts a session with
total_sessions	float	A model estimate of the total number of sessions since a user has onboarded
n_days_after_onboarding	int	The number of days since a user signed up for the app
total_navigations_fav1	int	Total navigations since onboarding to the user’s favorite place 1
total_navigations_fav2	int	Total navigations since onboarding to the user’s favorite place 2
driven_km_drives	float	Total kilometers driven during the month
duration_minutes_drives	float	Total duration driven in minutes during the month
activity_days	int	Number of days the user opens the app during the month
driving_days	int	Number of days the user drives (at least 1 km) during the month

This dataset is supplied by Google. According to Google, this dataset contains synthetic data created in partnership with Waze. For educational purposes and uses.

Data Source:





**Create a detailed  
analysis and upload  
on your Github.**

**(Tag @10Alytics)**