

Course 1 PACE Strategy Document

1 Project Overview

This project aims to develop a machine learning model to predict user churn for the Waze app. The insights generated will help improve user retention and optimize business growth.

2 Data Project Questions & Considerations

2.1 Who is your audience for this project?

The Waze data team and cross-functional team members.

2.2 What are you trying to solve or accomplish?

Build a machine learning model to predict user churn.

2.3 What questions need to be asked or answered?

- What is the condition of the provided dataset?
- What variables will be the most useful?
- Are there trends within the data that can provide insight?
- What steps can I take to reduce the impact of bias?

2.4 What resources are required to complete this project?

The project dataset, Python notebook, and input from stakeholders.

2.5 What are the deliverables for this project?

The deliverables include a dataset scrubbed for exploratory data analysis, visualizations, statistical model, regression analysis and/or machine learning model.

3 Project tasks

Task	PACE Stage	Reason
Write project proposal	Plan	Outlines tasks, goals, and milestones before starting.
Establish project workflow structure	Plan	Defines the organization of tasks and responsibilities.
Compile summary information about the data	Analyze	Helps understand the dataset before modeling.
Begin exploring the data	Analyze	Initial data exploration helps detect patterns and inconsistencies.
Data exploration and cleaning	Plan & Analyze	Planning determines the methods; cleaning occurs during analysis.
Compute descriptive statistics	Analyze	Provides summary insights into dataset distribution.
Conduct hypothesis testing	Analyze & Construct	Determines relationships between variables influencing churn.
Build a regression model	Analyze & Construct	Model examined during analysis and built in the construct stage.
Build machine learning model	Construct	Model training occurs in this phase.
Evaluate the model	Execute	Measures model performance against project goals.
Visualization building	Analyze & Construct	Visualization starts during analysis and is created in the construct stage.
Communicate final insights with stakeholders	Execute	Ensures leadership receives actionable insights.