Dataset + Project Proposal

Analysis of Ride Patterns and Fare Dynamics in New York City TLC Trips

Problem Definition:

This project aims to analyze trip patterns and fare dynamics in New York City from 2014 to 2022. We will:

Identify popular locations and passenger behaviors.

Evaluate how factors like distance, time, rate codes, and payment methods influence fare trends.

Compare fare and distance metrics between green and yellow taxis to assess pricing efficiency.

Analyze temporal trends to understand fluctuations, peak periods, and the impact of external factors.

Develop predictive models to forecast fare amounts and trip demand, enabling better strategy adjustments during peak periods.

Data Source:

Taxi Trip and Fare Data: New York City Taxi and Limousine Commission (TLC) - [Link]

Contains detailed trip records including pickup and dropoff locations, trip distances, fare amounts, tip amounts, rate codes, timestamps, and payment types.

Weather Data: Open-Meteo Historical Weather API [Link]

Provides historical weather data to analyze its impact on taxi trip patterns and surge pricing.

Motivation: Surge pricing can be frustrating for taxi users, and we are driven to address this issue by combining insights from both passenger ride patterns and fare analysis. We will uncover valuable information that can help improve pricing strategies, optimize operational efficiency, and design strategic campaigns to enhance user experience.