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Course Content

Problem Statement - Uber Case Study

Context

Ridesharing is a service that arranges transportation on short notice. It is a very volatile market and its demand fluctuates wildly with time, place, weather, local events, etc. The key to being successful in this business is to be able to detect patterns in these fluctuations and cater to the demand at any given time.

Objective

Uber Technologies, Inc. is an American multinational transportation network company based in San Francisco and has operations in over 785 metropolitan areas with over 110 million users worldwide. As a newly hired Data Scientist in Uber's New York Office, you have been given the task of extracting actionable insights from data that will help in the growth of the business.

Key Questions

. What are the different variables that influence the number of pickups?
. Which factor affects the number of pickups the most? What could be the possible reasons for that?
. What are your recommendations to Uber management to capitalize on fluctuating demand?

Guidelines

. Perform univariate analysis on the data to better understand the variables at your disposal
. Perform bivariate analysis to better understand the correlation between different variables
. Create visualizations to explore data and extract the insights
. Create a presentation for Uber Management, detailing all the insights along with supporting data.

Data

The data contains the details for the Uber rides across various boroughs (subdivisions) of New York City at an hourly level and attributes associated with weather conditions at that time.

- **pickup_dt**: Date and time of the pick-up.
- **borough**: NYC's borough.
- **pickups**: Number of pickups for the period (hourly).
- **spd**: Wind speed in miles/hour.
- **vsb**: Visibility in miles to the nearest tenth.
- **temp**: Temperature in Fahrenheit.
- **dewp**: Dew point in Fahrenheit.
- **slp**: Sea level pressure.
- **pcp01**: 1-hour liquid precipitation.
- **pcp06**: 6-hour liquid precipitation.
- **pcp24**: 24-hour liquid precipitation.
- **sd**: Snow depth in inches.
- **hday**: Being a holiday (Y) or not (N).

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