Alaska Airlines Operations Analytics

Business Intelligence Analyst: In-Person Interview Project

Instructions

Please prepare a 15-20 minute presentation on the below assignment. Your presentation should include your approach to the problem as well as any conclusions or recommendations. As part of the presentation or in an appendix, include detailed supporting evidence of your work (e.g. code, notebooks, visualizations, statistical outputs, etc.). You are welcome to use resources and data sources beyond what is provided. **Please save your final presentation as a PDF and send to the HR recruiter prior to your in-person interview.**

Note: The assignment is open-ended with no right or wrong answer. We want to give you the opportunity to showcase your technical abilities, presentation skills, and approach to analytical problems.

Assignment

Your task is to conduct an analysis of the taxi out times at San Diego International Airport (SAN). You may use the following prompts for guidance, but your analysis does not need to be limited to them.

Taxi out time is defined as the time between departure (leaving the gate) and takeoff (wheels up).

Prompts
- Look for trends and patterns in the taxi out times
- Forecast taxi out times for the first 3 months of 2019

About the Dataset

The data provided contains every departure from San Diego International Airport between 1/1/2017 and 12/31/2018. Each row represents a flight. The below table provides details on each column of the data:

Name	Description
airline	Airline IATA code
flightno	Flight number
origin	Originating airport code
dest	Destination airport code
totalseatcount	Total seats available on the flight
generalacft	Aircraft type
depgate	Departure (originating) airport gate
arrgate	Arrival (destination) airport gate
scheduled_departure_dttm	Scheduled local date and time of departure
scheduled_arrival_dttm	Scheduled local date and time of arrival
actual_departure_dttm	Actual local date and time of departure
actual_arrival_dttm	Actual local date and time of arrival
airtime	En route flight time in minutes
taxiout	Taxi out time in minutes
taxiin	Taxi in time in minutes
depvariance	Variance (in minutes) between actual and scheduled departure time
arrvariance	Variance (in minutes) between actual and scheduled arrival time
internationalflag	1 = international flight, 0 = domestic flight