Capstone Project Proposal: Lounge Utilization

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Background

- Airline XX notices its Lounges are under utilized, and would like to investigate solutions to utilize the Lounges better – e.g. sell Lounge access to Economy class passengers in periods of low usage.

- Lounges are typically open from 05:00 – 22:00

- Lounge access is not sold currently

- Only First and Business class passengers can use the Lounge today

MVP

- Scope is restricted to Lounges at London Heathrow for the airline XX.

- Build models to predict the Lounge utilization, keeping in mind airline flights from Heathrow, passengers bookings and actual lounge utilization data.

- Use Airline dataset from last 2 years to train, validate and test the model(s).

- Prove the accuracy of the predictions of the model(s) by running in Production for a period of 3 months

- Feedback loop to improve predictions by regular comparison with actual data

- Present the predictions of Lounge utilization vs actual Lounge utilization to Airline, for the 3 month period

MVP: Model Lounge utilization at London Heathrow
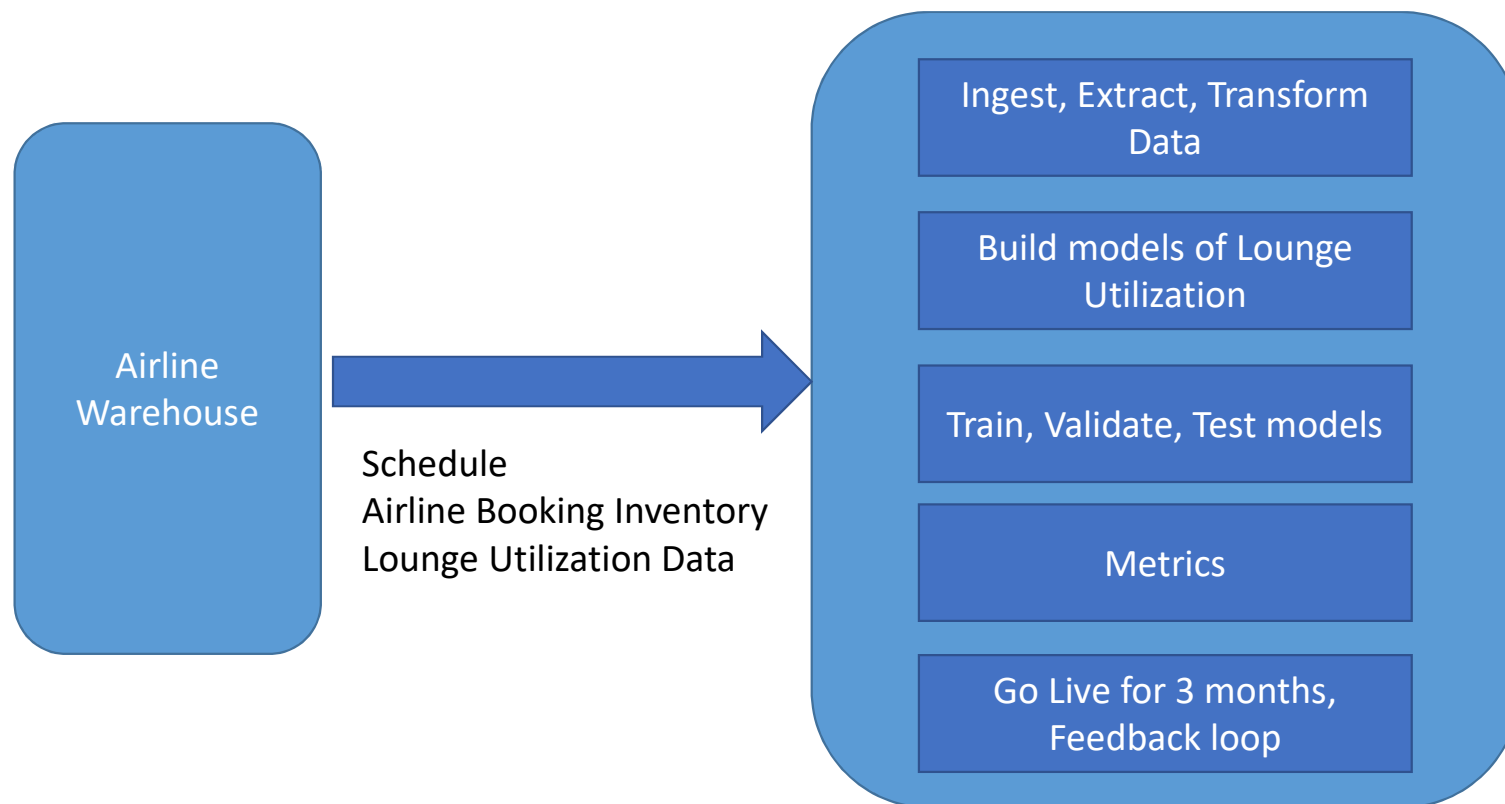
Future – post Airline approval of MVP

- Integrate query to Lounge utilization prediction, in passenger check-in flow for Economy passengers

- If Lounge predicted to be under utilized, send the passenger an offer to purchase Lounge access when he checks in for his flight.

- Allow Airline to monitor revenue

- Finally, extend full solution worldwide to other airport Lounges for Airline,by integrating more datasets and retraining model on them.

Post MVP: Check-in flow integration

* Earlier infrastructure still stays to constantly evaluate, train and keep getting new data as bookings are made daily, and flight schedules can change daily

Passenger Check-in flows (WEB/ Mobile/ Kiosk)

Query Lounge Utilization Prediction at Passenger check in

Live model and Feedback loop

Lounge Utilization predictions

Send Passenger offer to purchase discounted Lounge access, if Lounge is under utilized around his time at the airport