Airways Analysis

Project Title: Global Airways Analytics Dashboard and Predictive Insights

Website: https://www.airlinequality.com/review-pages/a-z-airline-reviews/

Statement

This project aims to use the airline review data to create a visual analytics and develop predictive models. The visualization will enable company to understand airline performance metrics and trends, while the model will predict customer satisfaction and sentiments, and thus to get potential business outcome or early waring by using machine learning and natural language processing techniques.

Research Questions

1. What are the key performance indicators or factors for airlines based on the review?

2. How do these performance indicators vary by either geographic regions and the scale of the airlines?

3. Can the satisfaction and ratings be predicted?

4. How do airline company leverage insights from data to improve service and operational efficiency.

5. What value can review content brings if the satisfaction and rating already there?

Process Steps:

☐ Part I: Data Collection and Preprocessing

    ☐ Web Scraping

    ☐ Cleaning and Preparation

- [ ] Data Storage
- [ ] Part II: Exploratory Data Analysis
  - [ ] Visualization
  - [ ] Statistic Testing
- [ ] Part III: Predictive Modeling Comparison
  - [ ] Traditional NLP with Machine Learning
  - [ ] Simple RNN
  - [ ] LSTM
  - [ ] GRU
  - [ ] BERT LSTM
  - [ ] GPT2 Classification
  - [ ] Insight Reporting