**Power BI Lab 6**

**Problem Statement:**

Records for **5,000,000+ commercial airline flights** in 2015, compiled for the U.S. DOT Air Travel Consumer Report. Each record represents a single flight, including the airline name, flight number, origin/destination airport and flight distance, as well as scheduled/actual departure and arrival times.

## **Recommended Analysis:**

1. How does the overall flight volume vary by month? By day of week?

2. What percentage of flights experienced a departure delay in 2015? Among those flights, what was the average delay time, in minutes?

3. How does the % of delayed flights vary throughout the year? What about for flights leaving from Boston (BOS) specifically?

4. How many flights were cancelled in 2015? What % of cancellations were due to weather? What % were due to the Airline/Carrier?

5. Which airlines seem to be the most and least reliable, in terms of on-time departure?

# Approach:

Analyzed **5.82Mn rows data** across **40 fields** to determine flight volume variations, departure delay percentages and times, cancellations causes and flight reliability of airlines from **ETL (Extract, Transform & Load) to Visualization** from Kaggle.

# Outcome:

Improved understanding of flight volume and delays through **data-driven analysis and recommendations**, enhancing operational efficiency and informed decision-making as the following:

* Data should be clean, and able to refresh the report to get any file added to Kaggle website.
* Four Pages on the same report to show the following:
  + Summary Dashboard
  + Delay by Airline Company
  + Detailed Delay Time
  + Delay by Airport

**Data Source:** https://www.kaggle.com/datasets/usdot/flight-delays