**Airline Data Analysis**

**Context:** Your client is a well-known airline provider across the United States. They are looking to leverage third party data to understand trends and possible causes of the recent decline in revenue over the previous year. We are looking to do some initial data exploration and analysis to understand and validate the data. After uncovering some valuable insights, we can provide the client with recommendations to gain a competitive advantage over their competitors.

**Directions:** We have provided you with a zip folder with 12 months of airline data along with lookup tables for carriers and airports. Please create a well-structured presentation answering the questions below and providing recommendations. Feel free to use the provided datasets, along with any other data to support your answers and recommendations.

**Questions:**

1. What is the 15th most flown route?
   1. Route between airports:
      1. Case A->B <> B->A: Atlanta, GA: Hartsfield-Jackson Atlanta International TO New York, NY: LaGuardia: 8503 flights
      2. Case A->B = B->A: BETWEEN San Francisco, CA: San Francisco International AND Chicago, IL: Chicago O'Hare International: 15992 flights
   2. Route between cities:
      1. Case A->B <> B->A: Atlanta, GA TO Washington, DC: 10445 flights
      2. Case A->B = B->A: BETWEEN Honolulu, HI AND Kahului, HI: 19419 flights
2. What carrier has flown the 3rd most number of flights? How many?
   1. 686021 flights from ExpressJetAirlines AND Atlantic southeast Airlines
3. What airport has the 10th most delays?
   1. Delays in number: Chicago, IL: Chicago Midway International: 53809 delays
   2. Delays in time (accumulated): Newark, NJ: Newark Liberty International: 1817894 minutes
4. What is the second most popular day of the week to travel? Why?
   1. Wednesday, 864033 flights

5. What other actionable insights can we gain by leveraging the TranStats dataset?

**Dataset Details:**

Dataset name: [On-Time Performance](http://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=236&DB_Short_Name=On-Time)

Lookup Table: [Carrier Lookup](http://www.transtats.bts.gov/Download_Lookup.asp?Lookup=L_CARRIER_HISTORY)

Lookup Table: [Airport Lookup](http://www.transtats.bts.gov/Download_Lookup.asp?Lookup=L_AIRPORT_ID)