RyanAir

NavBlue

Challenges

- datasets were missing column headers
- datasets were fetched from Kaggle

Kaggle

- Didn't work
- Missing fields
    - Type
    - Source

Schema Approach

- Datasets were amended
- include column headers

Problem Statement

- Connections
    - Number
- Airports
    - Number
    - Percentage
- Routes
    - Number
   - Shared
    - Exclusive

Routing Visualizations

- Duplicate Airports Dataframe
    - Source Airport Dataframe
    - Destination Airport Dataframe
- Merge source to routes dataframe based on IATA codes
- Merge destination to routes dataframe based on IATA codes
- LineString's to connect
    - source_(longitude, latitude)
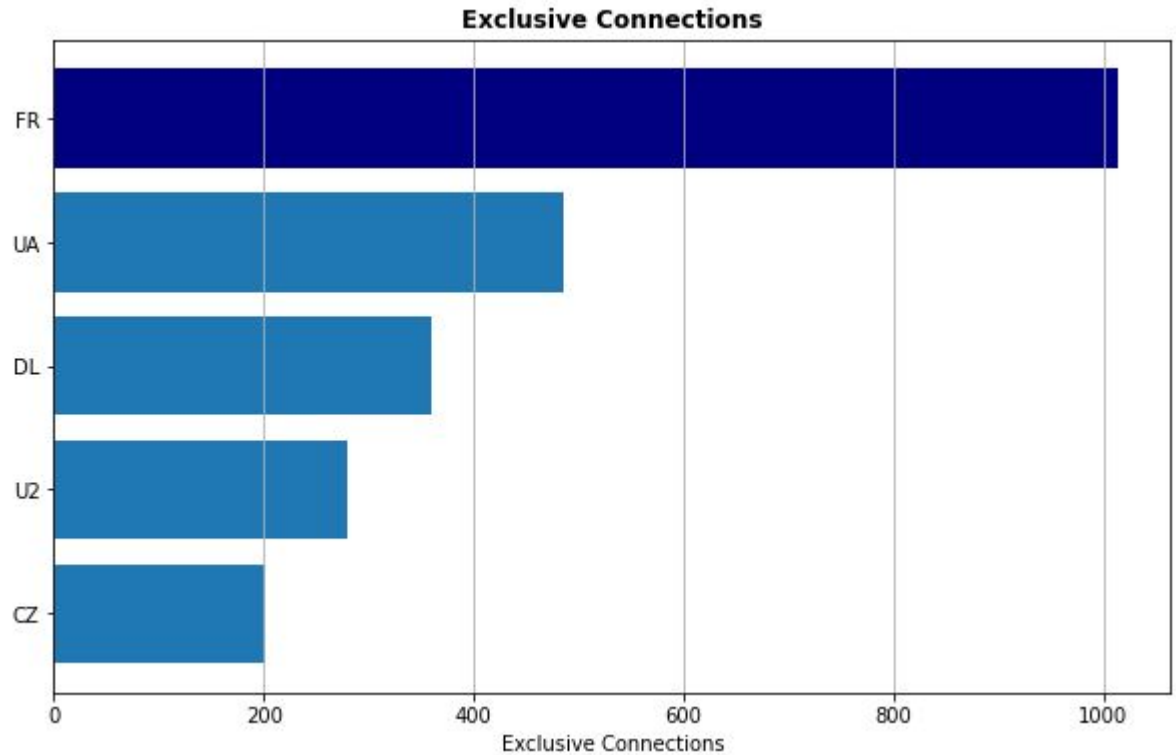   - destination_(longitude, latitude)
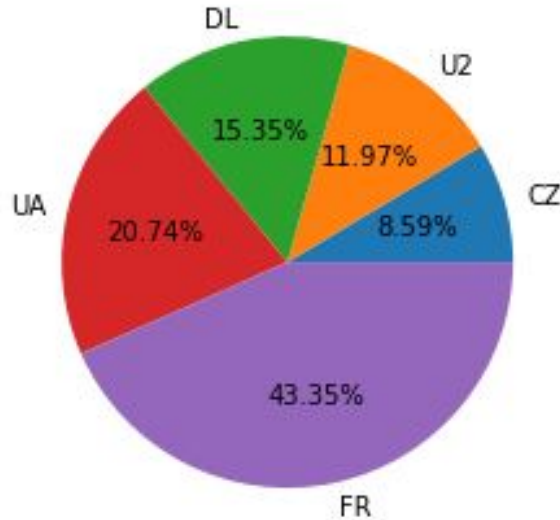
Routes

Unique Connections

Unique Connections

Exclusive Connections
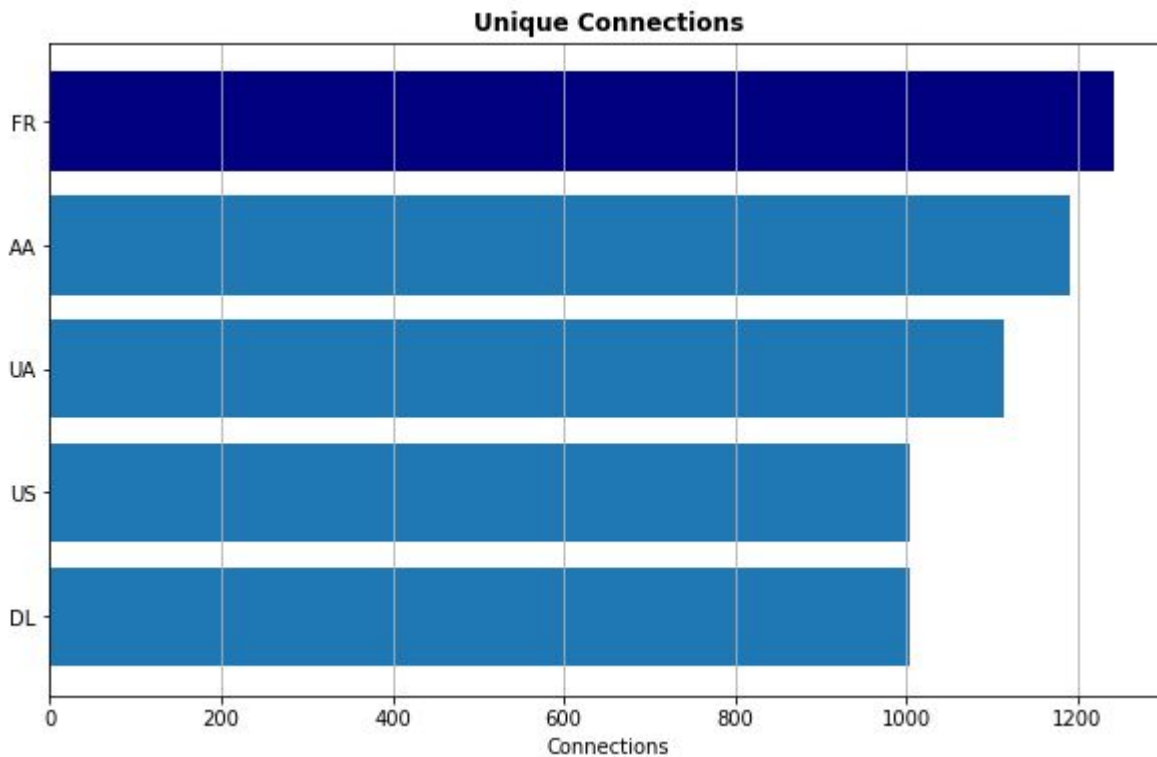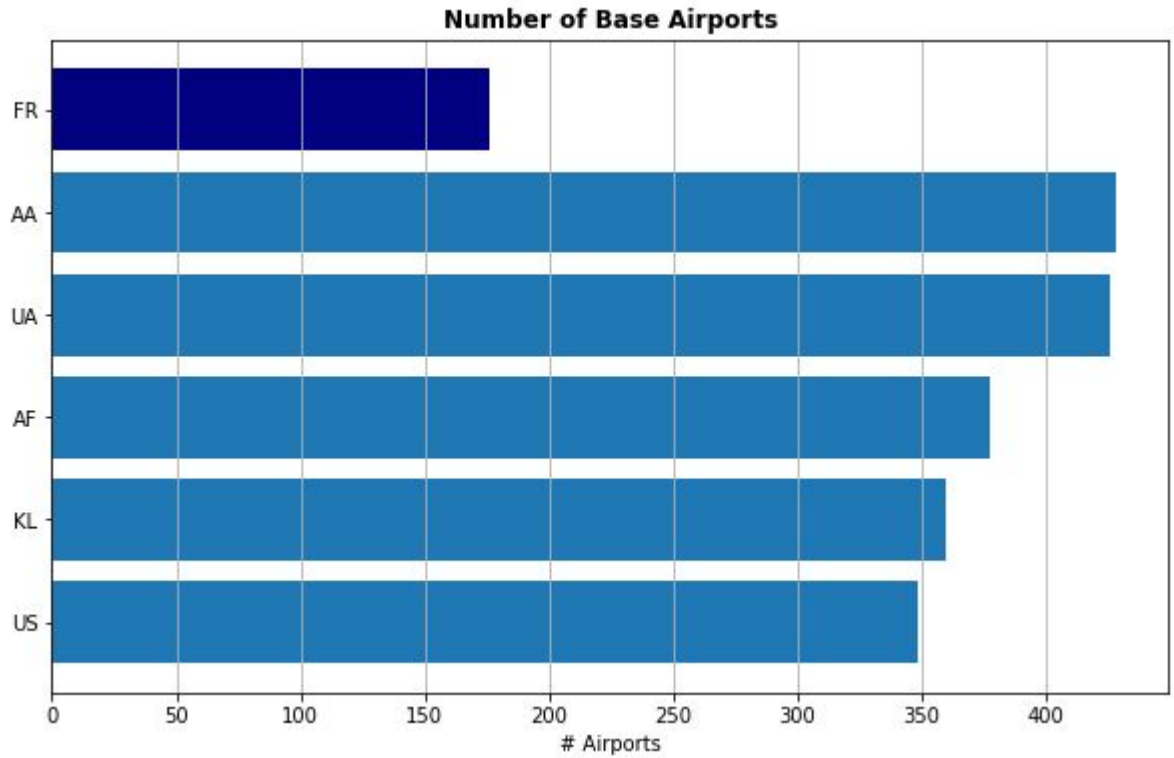

Exclusive Connections

Percent Exclusive Connections

Percent of Exclusive Connections (Top 5 Airlines)

Base Airports

Base Countries

Number of Base Countries
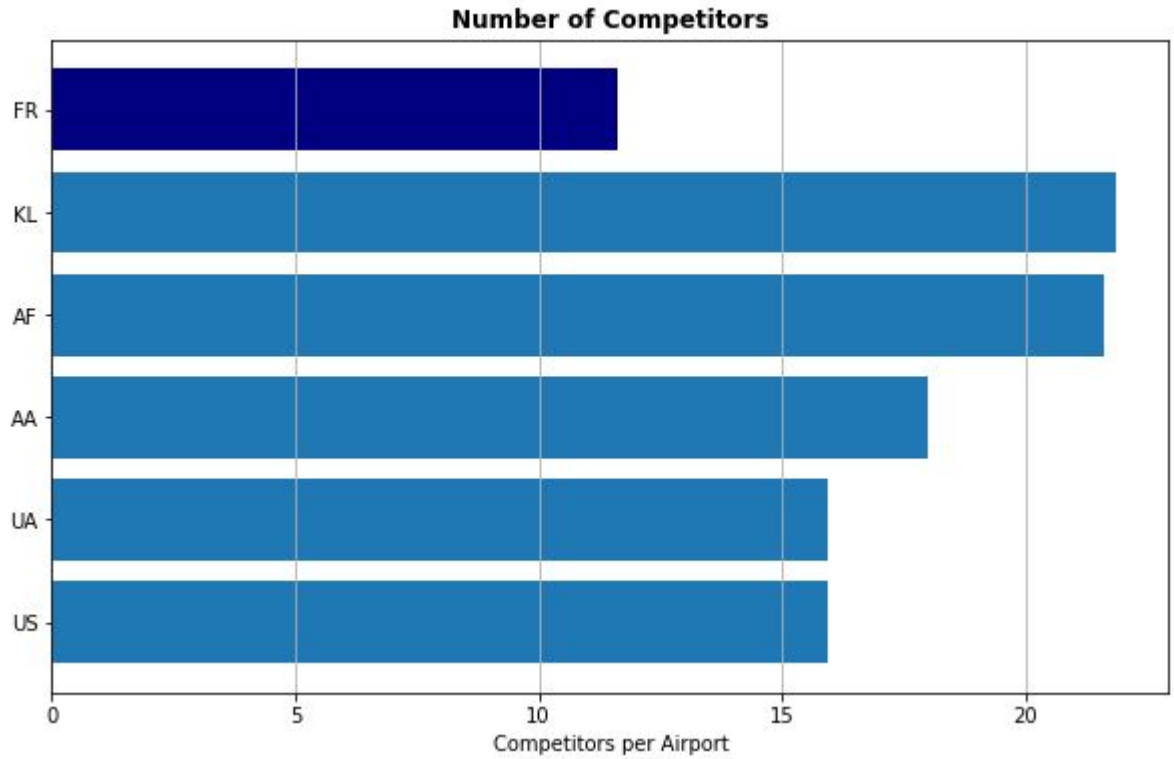
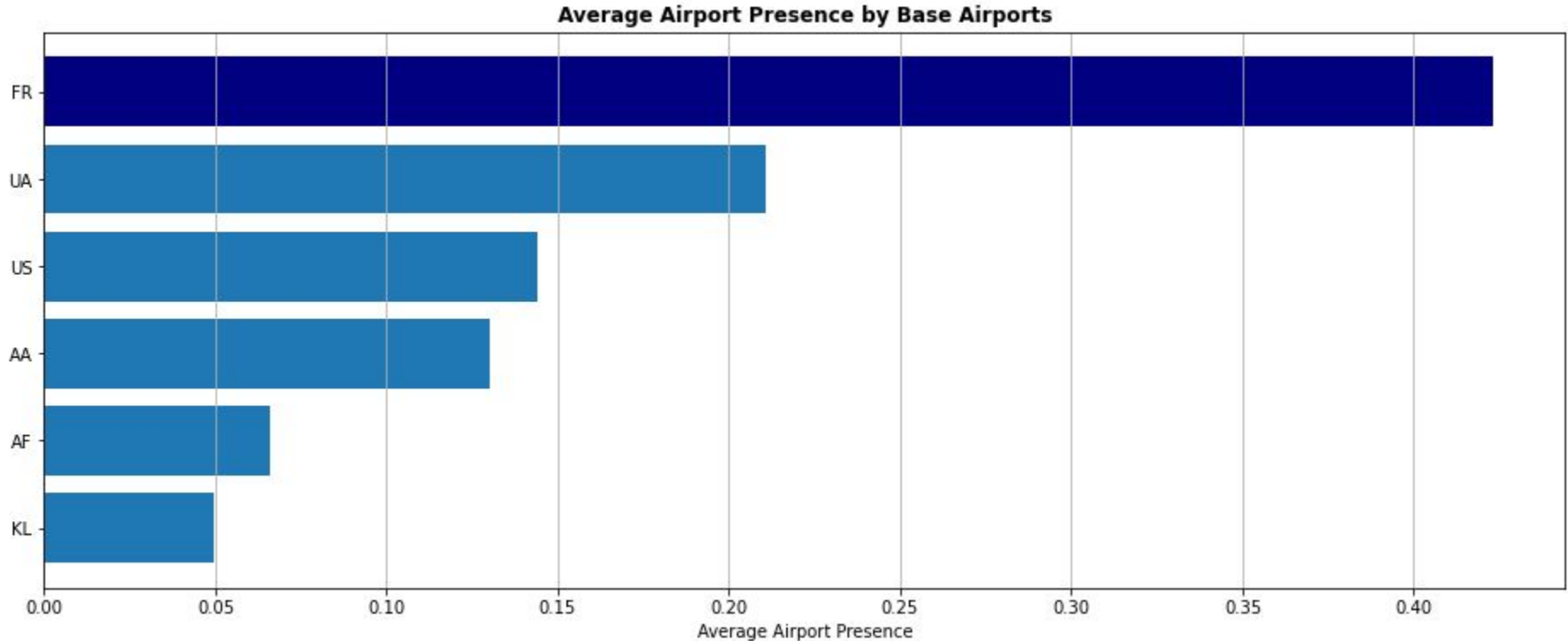# Competitors
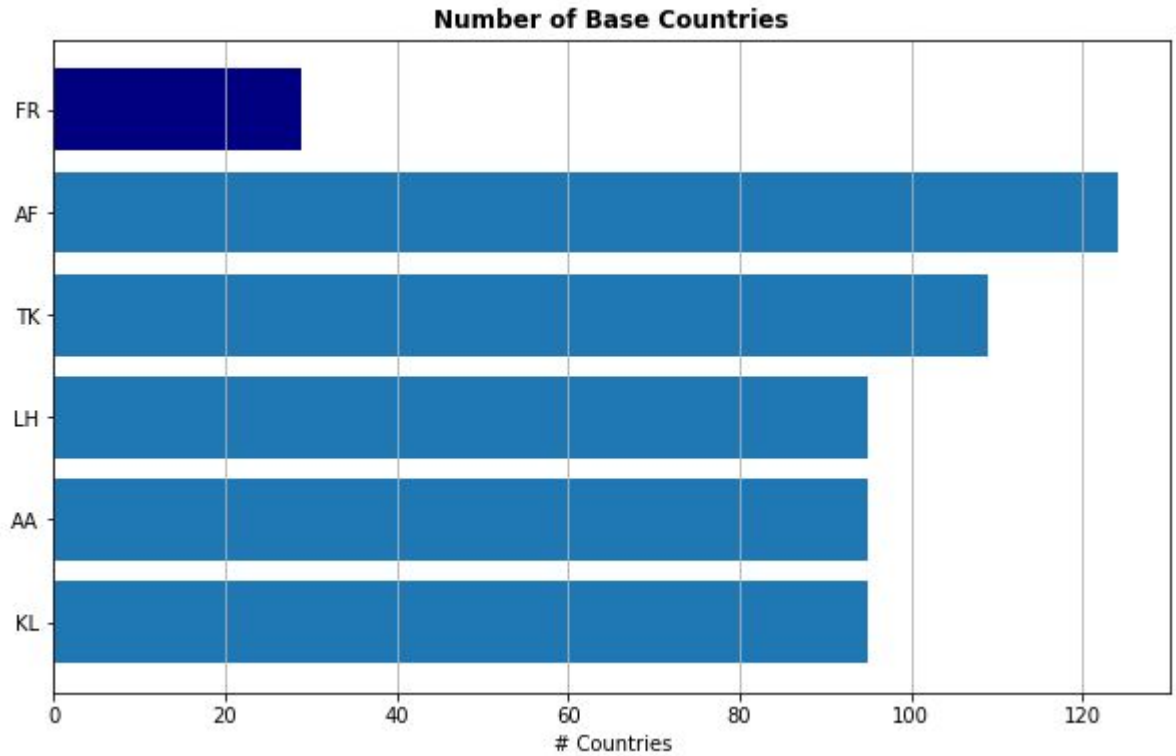
Number of Competitors

Average Airport Presence by Number of Base Airports

Average Airport Presence by Base Airports

Conclusion

RyanAir has the highest number of:

- Unique Connections
- Exclusive Connections (43%)
- Average Airport Presence by Number of Base Airports (42%)

Conclusion

RyanAir has the least number of:

- Competitors
    - Routing Advantage
- Base Countries
    - Reduced operational expenditures

Conclusion

- Ryanair has a competitive advantage within Europe as well as globally.
- base airports in fewer countries to reduce operating overhead
- higher competitive advantage with most unique and exclusive connections

Takeaway

We hope this will support Ryanair's profit margin sufficiently so they are not pressured to charge passengers for using onboard restrooms (nice try team).