**Business Intelligence**

**1. Reducing Environmental Impact for Airlines**

To analyze environmental impact, we can look at distances traveled and identify the longest routes and those with multiple stopovers, which tend to increase emissions.

there are around 43551 flights with stopovers > 0 OR distance(km) > 1000

**Like these flights**

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lists airlines with long routes and multiple stopovers, helping identify where more efficient routing could reduce fuel usage.

**Recommendation**

* **Fuel Efficiency**: Airlines can invest in fuel-efficient aircraft, such as newer models from Airbus or Boeing, which consume less fuel per mile
* **Sustainable Aviation Fuel** : are derived from renewable resources and can reduce carbon emissions by up to 80% over their lifecycle
* **Carbon Offsetting and Reduction**: Airlines can participate in carbon offset programs or fund reforestation projects to mitigate their carbon footprint.

**2. Opportunities for a New Airline Venture**

To assess areas where a new airline could succeed, we can identify underserved routes or regions with few existing connections by filtering routes with lower competition.

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finds routes with fewer airlines operating, indicating potential opportunities for new airlines to enter less competitive routes.

**Recommendation**

* Target budget-conscious travelers, especially in regions like the Middle East and Africa with limited low-cost options.
* Focus on short-haul routes in regions with underdeveloped transport networks, such as Southeast Asia and Latin America

**3. Reducing Operational Costs for an Underperforming Airline**

For underperforming airlines, it’s helpful to identify routes with low passenger volumes, high stopovers, or long distances (which increase costs).

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helps pinpoint costly routes for an underperforming airline that may be candidates for adjustment or termination to cut costs.

**Recommendation**

* Phase out older aircraft and lease newer, fuel-efficient models to reduce maintenance and fuel expenses.
* Focus on profitable hubs and eliminate unprofitable routes to improve resource allocation.

**4. Improving Positioning for an Underperforming Airport**

We can identify airports with low flight volume, which may benefit from increased connectivity and marketing to attract airlines.

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lists airports with fewer routes, indicating they may be underutilized and could benefit from attracting more airlines or partnerships to increase their positioning.

**Recommendation**

* Use technology to reduce wait times and improve amenities, making the airport a destination itself.
* Attract low-cost carriers and incentivize new routes to increase traffic.
* Expand cargo facilities to capture e-commerce-driven freight traffic, providing a lucrative revenue source