Aviation Data Analysis to inform the Head of Aviation Department on Low-Risk Aircraft to Purchase.

Business Understanding

A company wants to purchase and operate airplanes for commercial and private enterprises. I seek to determine which aircraft are the lowest risk for the company to start this new business endeavor. This will assist the head of the new aviation division decide on which aircraft to purchase.

Data Understanding

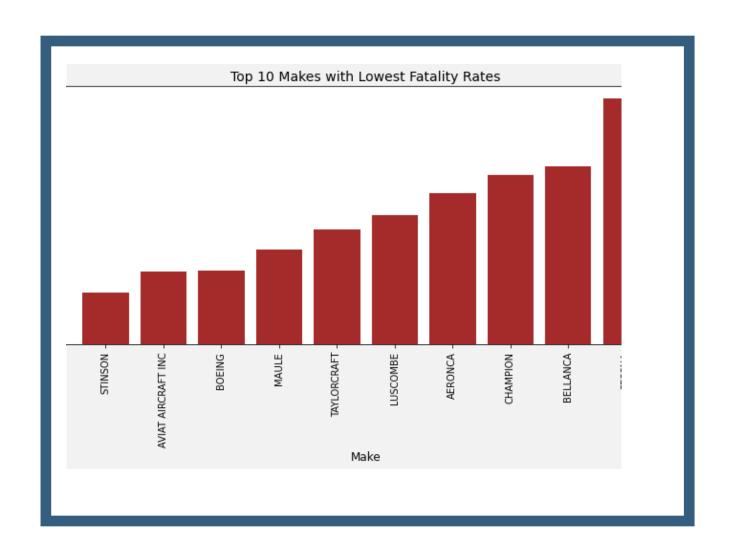
The dataset I am using for analysis is from Kaggle, from the National Transportation Safety Board that includes aviation accident data from 1962 to 2023 about civil aviation accidents and selected incidents in the United States and international waters.

Data Analysis

I am using a tool called pandas to analyze the data. The data has information about airplanes of different makes and models, number of accidents recorded between 1962 -2023, the fatalities, locations, the damage done to the aircraft involved in an accident and the weather conditions during the period under review.

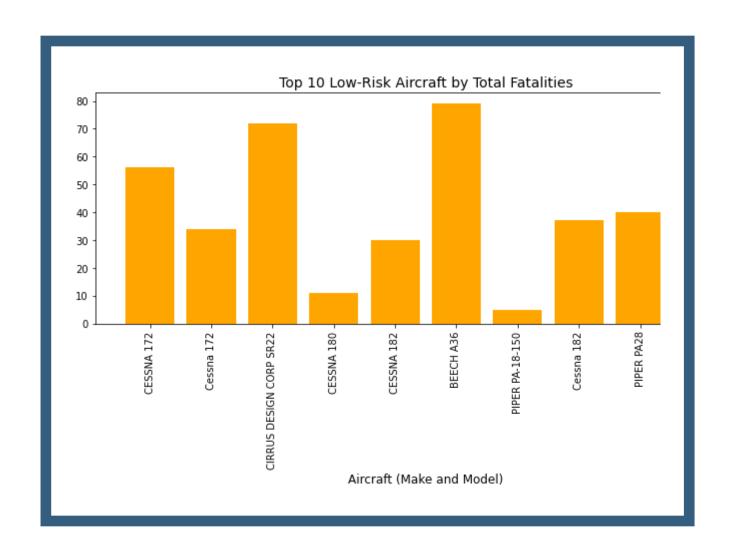
Data Analysis cont'

I narrowed down on the aircraft Make, Model, Fatal injuries, Aircraft Category, Weather condition, Purpose of flight and Aircraft Damage. Some of the aircraft makes include CESSNA, PIPER, BEECH and BOEING. The models include Cessna 172, Beech A36 and PIPER PA -18-150



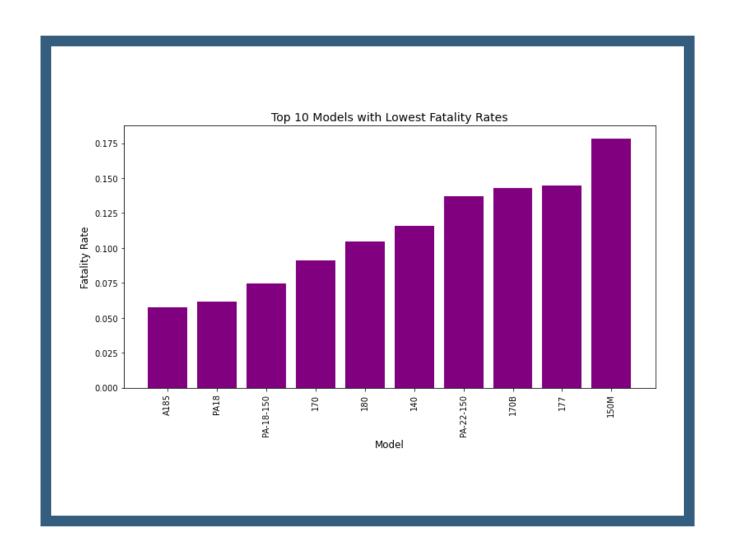
Findings

These are the top 10 makes with the lowest fatality rates.



Findings

These are the aircraft models with the least total fatalities.



Top Ten Models

These are the aircraft models with the least total fatalities.

Recommendations

From our analysis, CESSNA and PIPER 'makes' recorded the least number of fatalities.

- 1. I recommend you purchase Cessna and Piper models because their fatality rates are low.
- 2. Piper Pa -18 -150 and Cessna 172 are the models to go for because of their low fatalities recorded.
- 3. Cessna 180 model has the second lowest fatality rate. I recommend purchase of the model.

Thank You for your time.

Time for Questions.

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