AIRCRAFT RISK ANALYSIS PRESENTATION

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SUMMARY

- I'm working on this project for my company. They're thinking about getting into the aviation business, like buying planes for commercial and private use. But they don't know much about the risks, like which planes have the most accidents or are the safest. My job is to look at this data from the National Transportation Safety Board and figure out which aircraft have the lowest risk.

OUTLINE

- Business Problem
- Data
- Methods
- Results
- Conclusion

BUSINESS PROBLEM

- My goal is to figure out which aircraft are the safest for the company to buy. I am looking at accident data to find the lowest risk options.

DATA

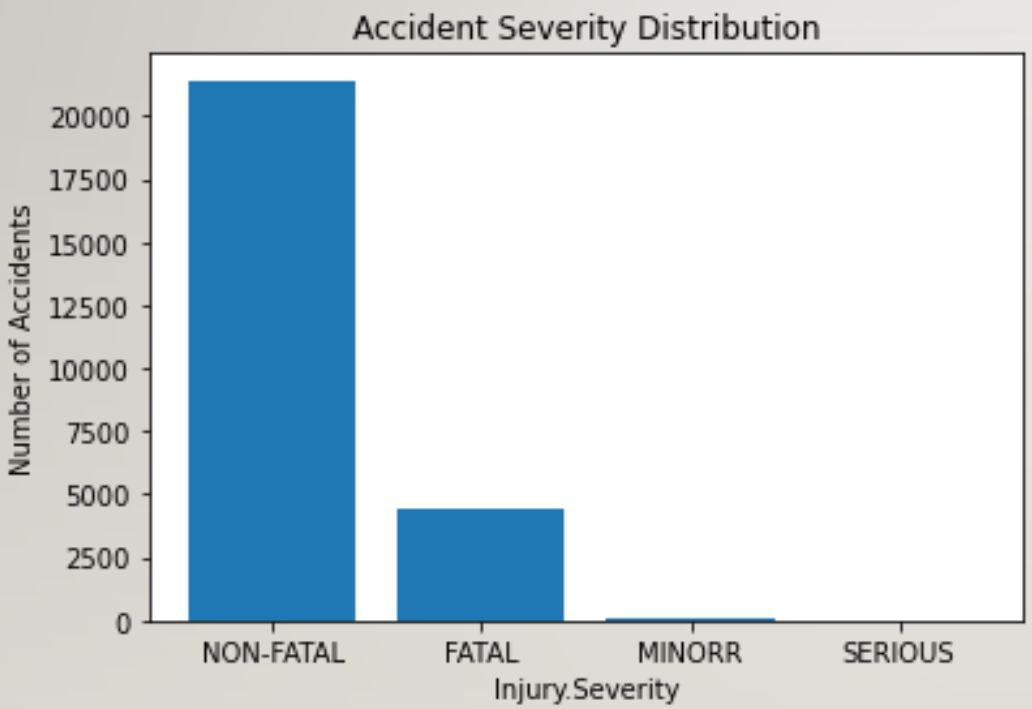
- I loaded the required dataset which was **Aviation.Data_csv**.
- I cleaned the dataset for easier analysis

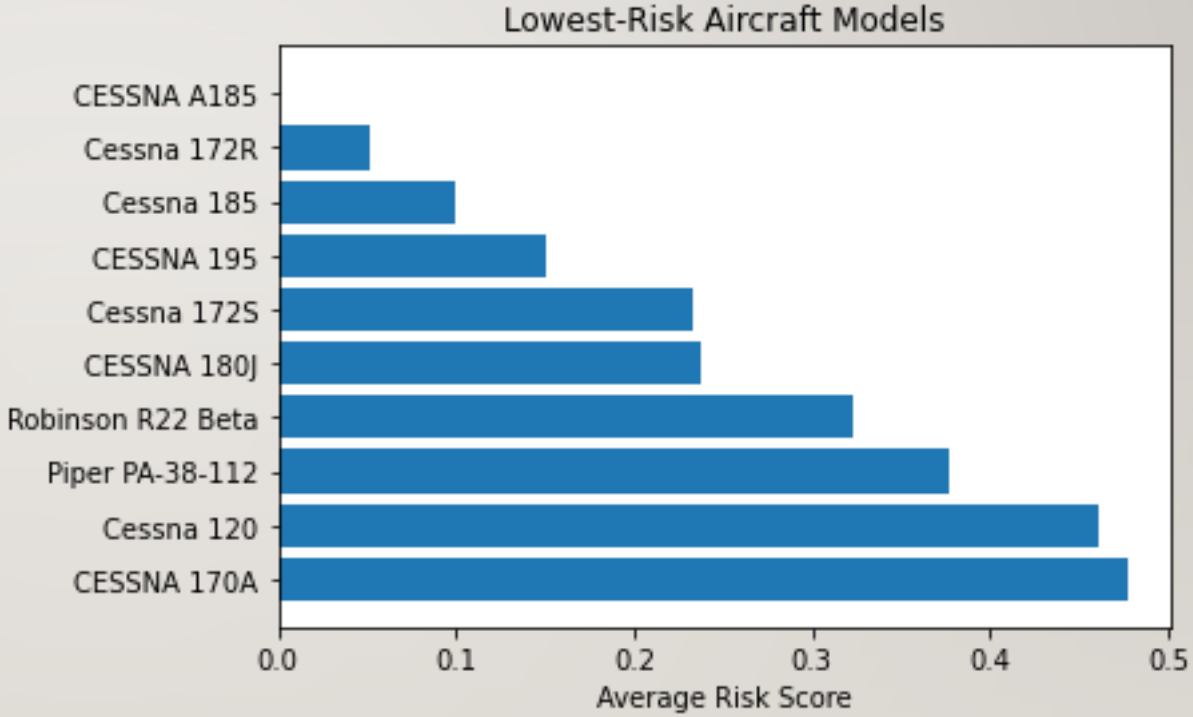
METHODS

- I used two methods to analyze the cleaned dataset:

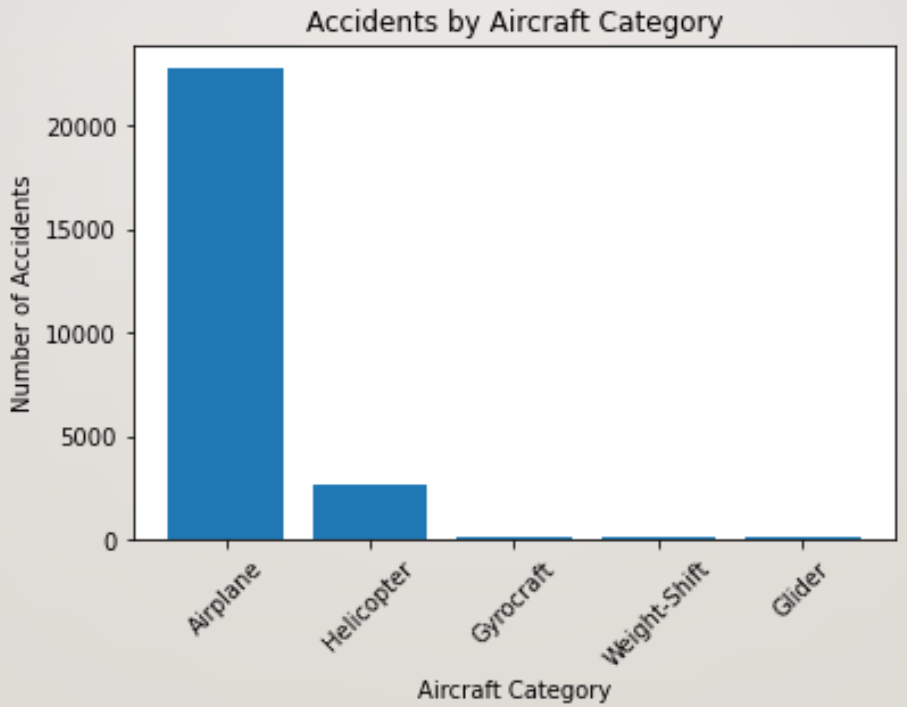
1. Descriptive analysis
2. Visual analysis

RESULTS


Accident Severity Distribution
Number of Accidents
20000
17500
15000
12500
10000
7500
5000
2500
0
NON-FATAL
FATAL
MINORR
SERIOUS
Injury.Severity


Lowest-Risk Aircraft Models
CESSNA A185
Cessna 172R
Cessna 185
CESSNA 195
Cessna 172S
CESSNA 180J
Robinson R22 Beta
Piper PA-38-112
Cessna 120
CESSNA 170A
0.0
0.1
0.2
0.3
0.4
0.5
Average Risk Score

RESULTS


Accidents by Aircraft Category
Number of Accidents
20000
15000
10000
5000
0
Airplane
Helicopter
Gyrocraft
Weight-Shift
Glider
Aircraft Category

CONCLUSION

- After all the results I can advice the company to:

1. Prioritize aircraft and operations with low fatality exposure
2. Prioritize the top-ranked aircraft for initial purchase
3. Avoid Aircraft with High Severity-to-Accident Ratios

Thank you !

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