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JoeyBarlia Expanded Overview and fixed spelling

2af0237 · 45 minutes ago

Presentations	Improved wording, adde...	16 hours ago
data	Improved wording, adde...	16 hours ago
images	Improved wording, adde...	16 hours ago
.DS_Store	Improved wording, adde...	16 hours ago
.gitignore	Created gitignore with ...	last week
README.md	Update README.md	13 hours ago
aviation analysis ...	Expanded Overview and...	45 minutes ago

About

Created for the August 2024 Flatiron Data Science Cohort. A collection of insights for a company looking to break into the public and private aviation buisness.

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README

Aviation-Risk-Analysis

Created for the August 2024 Flatiron Data Science Cohort. A collection of insights for a company looking to break into the public and private aviation buisness, focusing on determining which models had the least injuries and fatalities in event of a crash.

Authors

Miles Cumiskey: https://github.com/mcumiskey

Joey Barilla: https://github.com/JoeyBarlia

Overview

Presentation: https://github.com/mcumiskey/Aviation-Risk-Analysis/blob/main/Presentations/Phase%201_%20Aviation%20Project.pdf

Tableau: https://public.tableau.com/views/Aviation_Project_17242489618110/Dashboard1?:language=en-US&publish=yes&:sid=&:redirect=auth&:display_count=n&:origin=viz_share_link

Project Structure

```
├── Presentations
│   └── Phase_1_Aviation Project.pdf
├── data
```

Contributors 2

mcumiskey Miles

JoeyBarlia

Languages

- **Jupyter Notebook** 100.0%

```
│   ├── AviationData.csv
│   └── USState_Codes.csv
├── images
│   ├── airplane-isolated-on-transparent-background-3d-rendering-aircraft-
png-2455088391.png
│   ├── horizontal_div_left.png
│   └── horizontal_div_right.png
├── .DS_Store
├── .gitignore
├── README.md
└── aviation analysis conclusion.ipynb
```

Business Understanding

A company is interested in purchasing and operating airplanes for commercial and private enterprises, but they do not know anything about the potential risks of aircraft.

Our goal is to determine which aircraft are the lowest risk for the company through analysis of the aeroplane's fatality and injury rates in event of a crash.

Data Understanding and Analysis

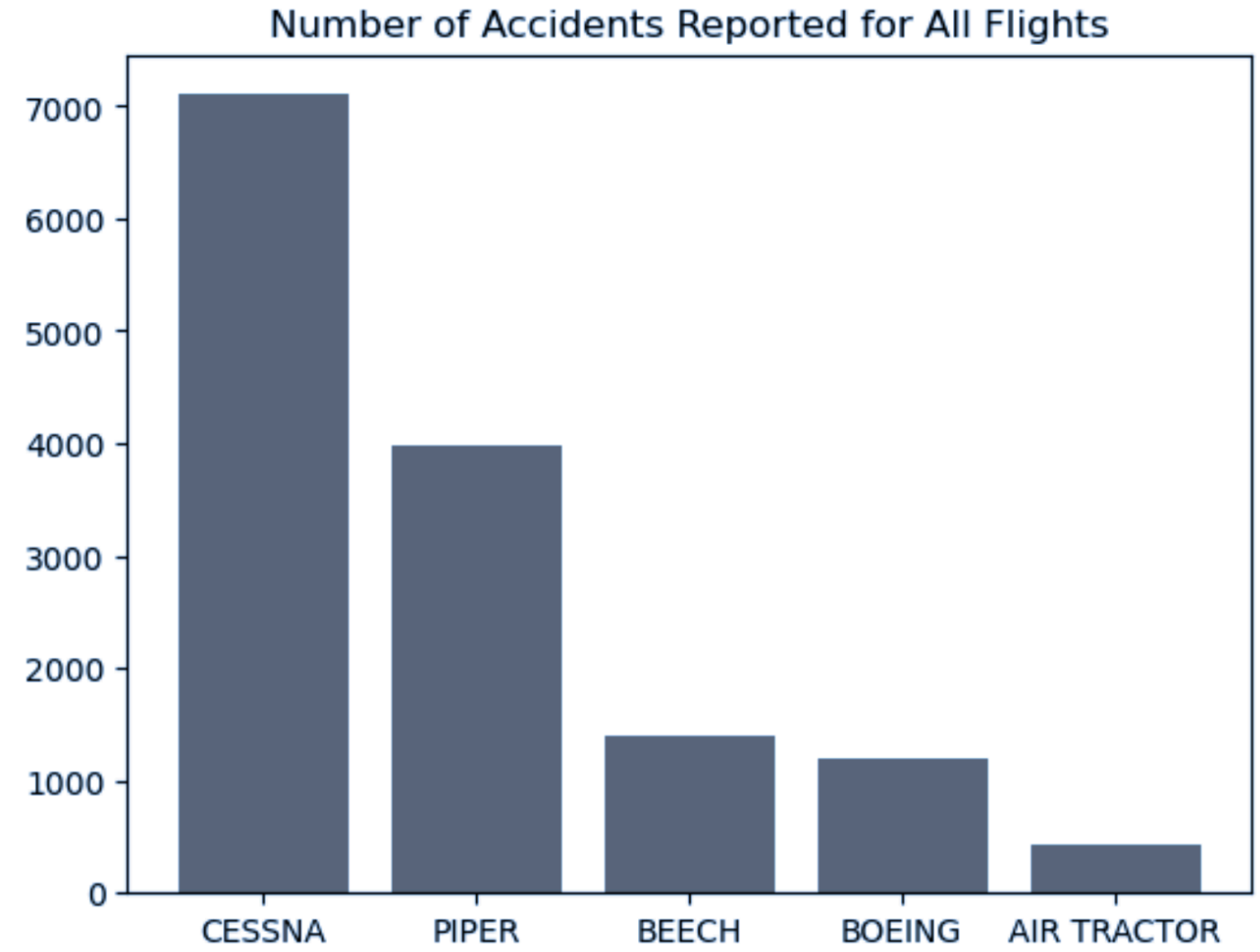
(https://www.kaggle.com/datasets/khsamaha/aviation-accident-database-synopses?resource=download)

The data is from the National Transportation Safety Board. It includes aviation accident data from 1962 to 2023 about civil aviation accidents and incidents in the United States and international waters.

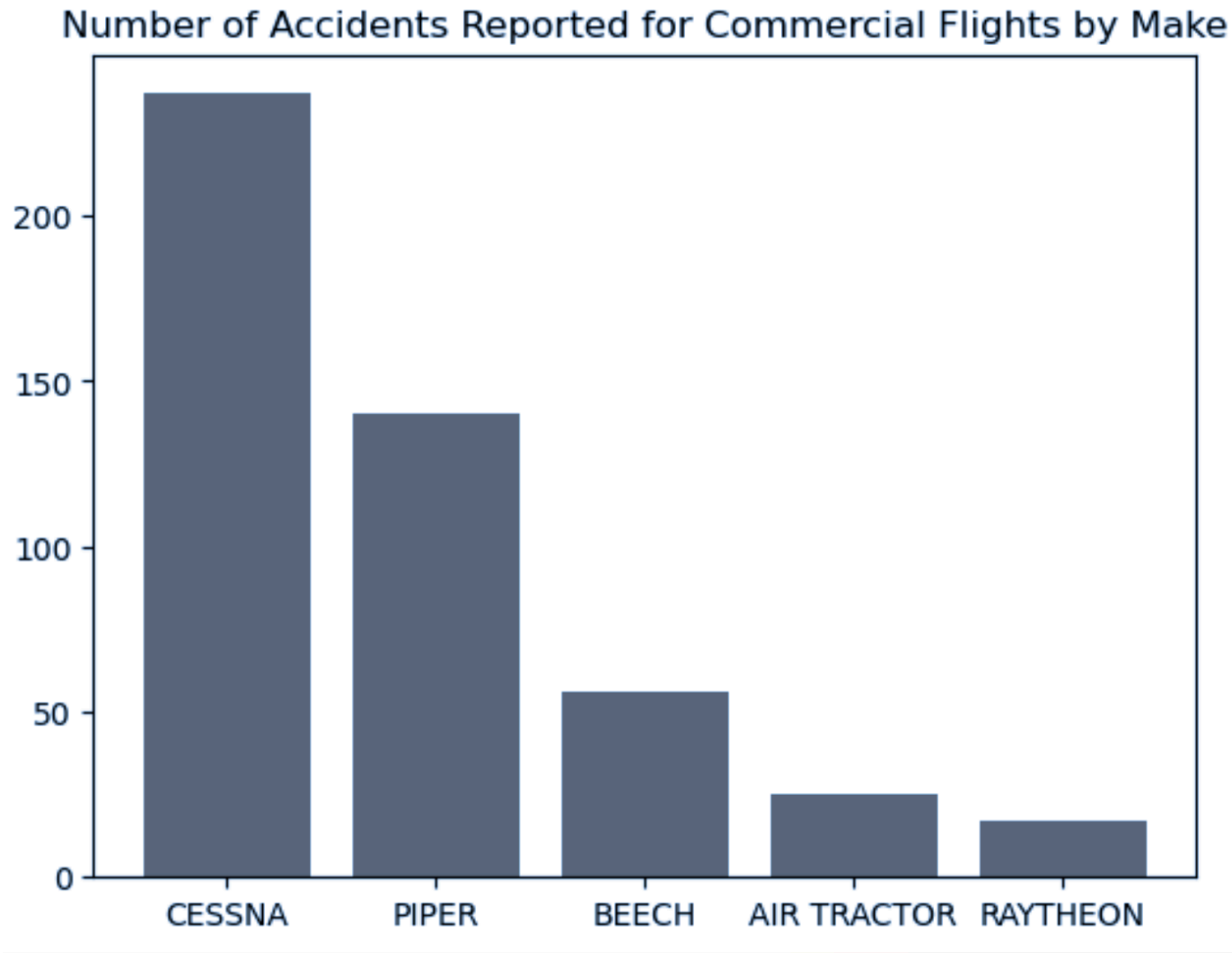
It includes the Make and Model of aircraft involved in incidents, location, weather conditions, and a reported number of fatal and non-fatal injuries.

Visualizations

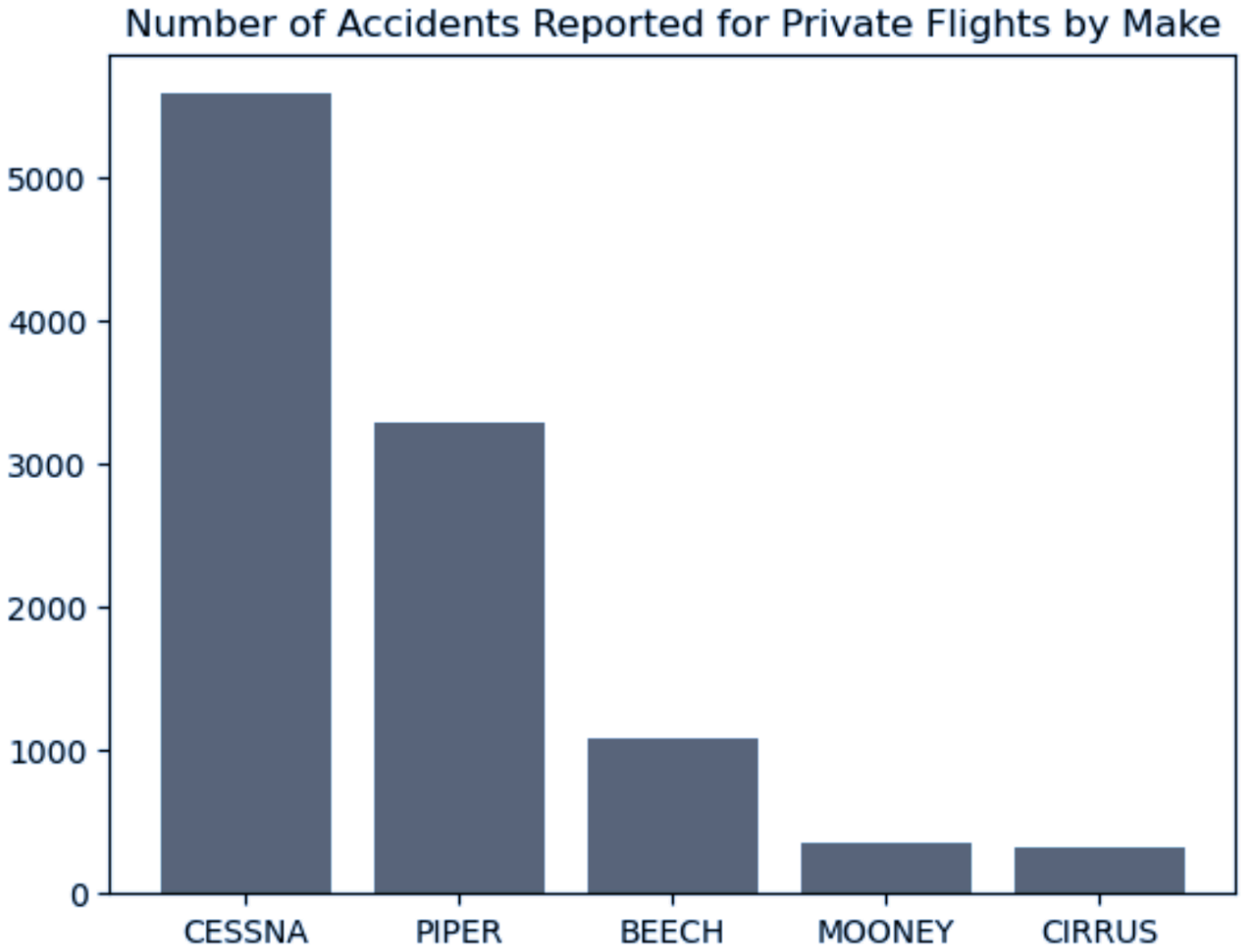
Overall Makes with Most Accidents Reported



Commercial Flights with Most Accidents Reported



Private Flights with Most Accidents Reported



Conclusion

Our top three reccomendations were:

- Boeing 757251 (**0% fatality rate** and a **1.3% injury rate**)
- Cessna 152 (**9.6% fatality rate** and a **15.4% injury rate**)

- Cessna 172-N (**11.3% fatality rate** and a **19.7% injury rate**)