



STEVE MOTUBWA

AVIATION ACCIDENT ANALYSIS

CONTENT

- 01** BUSINESS UNDERSTANDING
- 02** DATA PREPARATION
- 03** ANALYSIS
- 04** CONCLUSION
- 05** RECOMMENDATIONS



1. BUSINESS UNDERSTANDING

PROBLEM STATEMENT

A company is expanding in to new industries to diversify its portfolio. They are interested in purchasing and operating airplanes for commercial and private enterprises, but do not know anything about the potential risks of aircraft.

The task is determining which aircrafts are the lowest risk for the company to start this new business endeavor. The findings should then be translated into actionable insights to help decide which aircraft to purchase.

PROJECT AIM

The goal of this project is to use data cleaning, imputation, analysis, and visualization to generate insights for a business stakeholder who is interested in purchasing and operating airplanes for commercial and private enterprises.

The aim is therefore to translate the findings into actionable insights that the head of the new aviation division can use to help decide which aircraft to purchase.

OBJECTIVES

Main Objective

To identify the aircrafts that are less prone to be involved in an aviation accident. This will help the head of the new aviation division to decide which aircraft to purchase and operate for commercial and private enterprises.

Specific Objectives

1. To understand the problem statement, the goal and dataset used in the project.
2. To use various data cleaning techniques in order to make actionable insights.
3. To analyse the data by both univariate and bivariate analysis for the various variables.

2. DATA PREPARATION

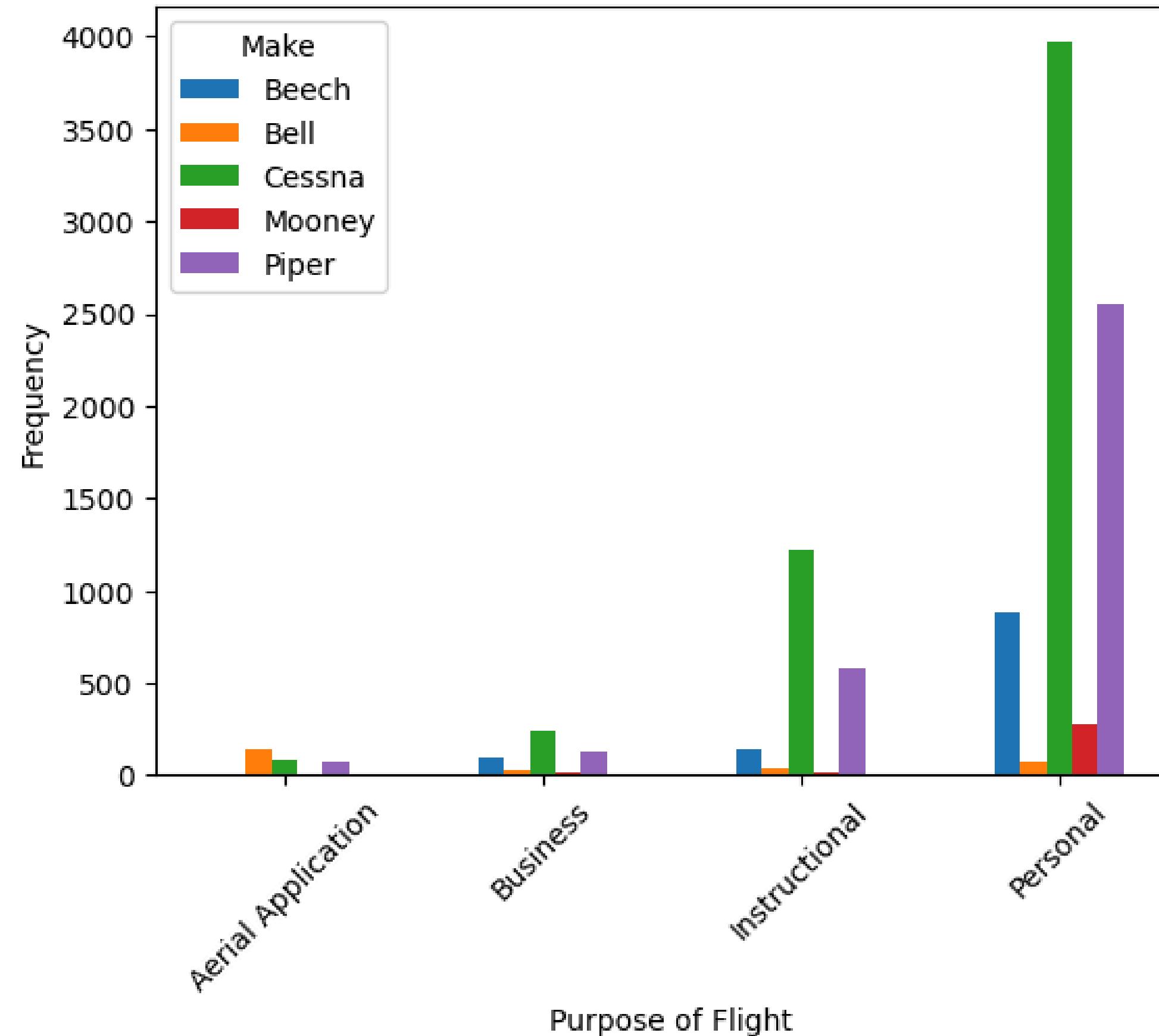
DATA CLEANING

1. Uniformity - Ensures Consistent Data Representation
2. Consistency - Eliminates Discrepancies
3. Completeness - Ensure the dataset has no missing values

3. ANALYSIS

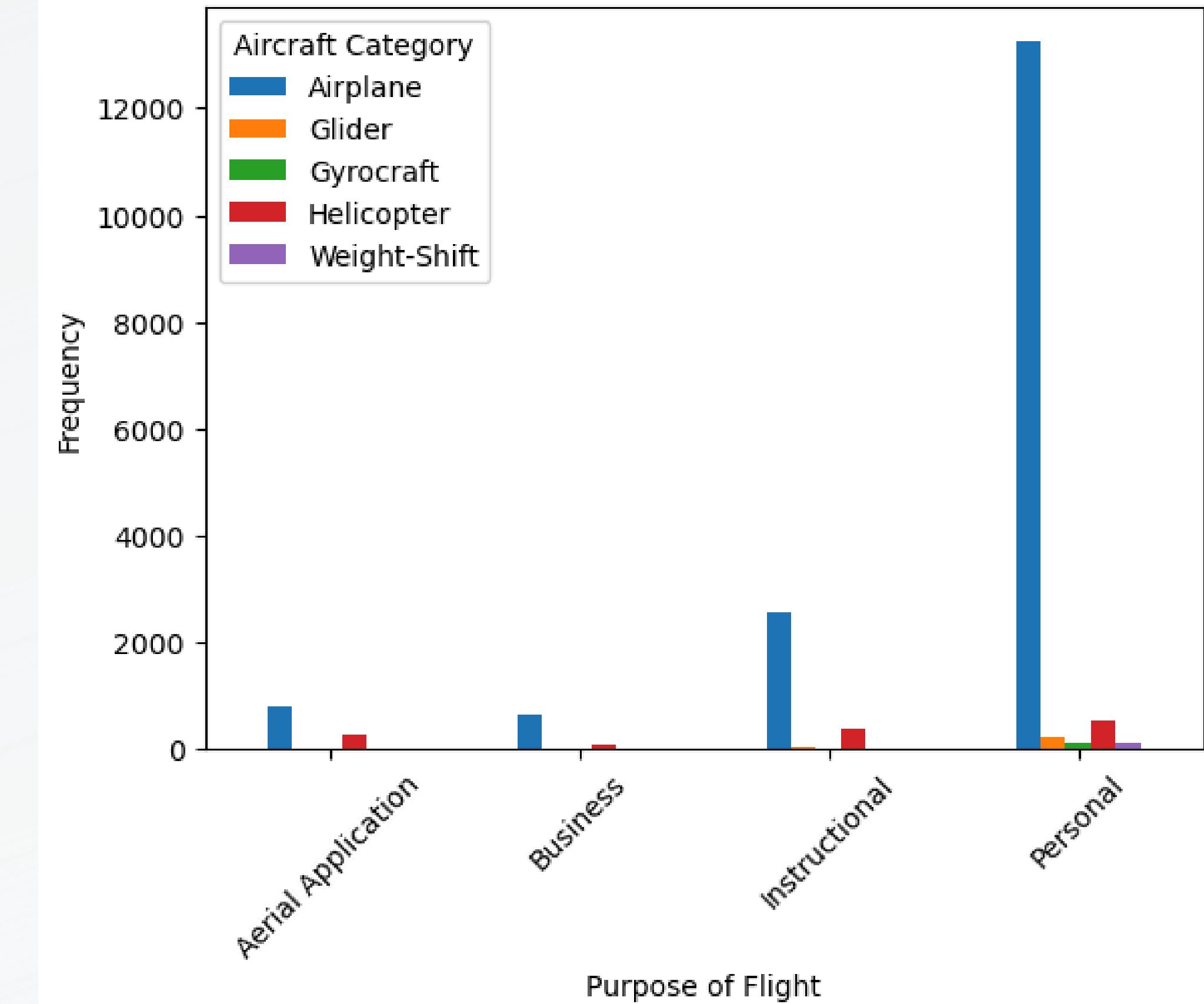
PURPOSE AND MAKE

Aircrafts of the make Bell or Mooney are less prone to accidents.



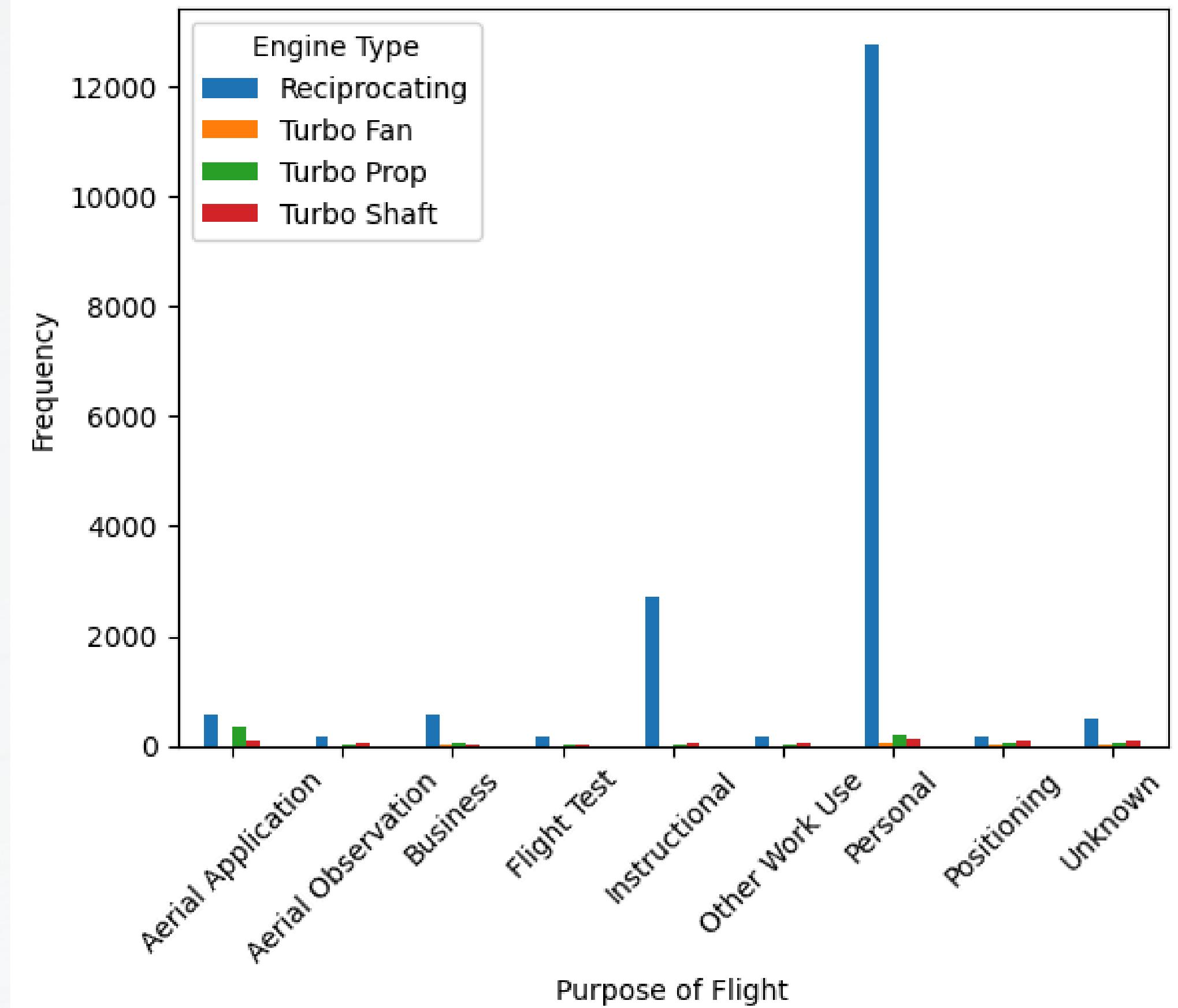
PURPOSE AND CATEGORY

A helicopter instead of an airplane is less risky.



PURPOSE AND ENGINE TYPE

Aircrafts with engine type of Turbo Shaft, Turbo Fan, Turbo Prop are not as prone to accidents as the reciprocating engine.



4. CONCLUSION

CONCLUSION

For data cleaning, missing values were handled, duplicates were removed, type conversion was done and data consistency has also been ensured by making the strings in some of the columns to have similar format.

Top five flight purposes for the aircrafts that were involved in accidents was personal, instructional, aerial application, business and positioning. This was the main variable used in the bivariate analysis.



5. RECOMMENDATIONS

RECOMMENDATIONS

01

Purchase
aircrafts of the
make Bell or
Mooney

02

Purchase a
helicopter
instead of an
Airplane

03

Purchase aircrafts
with engine type
of Turbo Shaft,
Turbo Fan, Turbo
Prop

**THANK YOU.
ANY
QUESTIONS?**



STEVE MOTUBWA