AVIATION COMPANY RISK ANALYSIS

OVERVIEW

- This project analyzes the risks involved in the running of an aircraft business.

- This is essential as the company is planning on expanding its portfolio by getting into that sector.

- In this notebook, we analyze a dataset that entails the logs of aircraft accidents that runs from 1948 to 2022.

- The company will utilize this analysis in the allocation of resources machine procurement, operation and risk mitigation so as to achieve highest profitability and human safety in the sector.

BUSINESS PROBLEM

- Accident risk mitigation

- Business growth.

- Find out what type of aircrafts to purchase.

- Discover which maintenance is vital.

DATA

- The aviation data that has been selected to be used in this analysis project has a list of recorded accidents that run from 1948.

- Every entry has a unique ID that distinguishes them from the rest.

- The aviation data provides information about the plane involved in the accidents (e.g. make, number of engines), as well as the situation surrounding the aircraft at the time of occurrence of the accident.

METHODS

- This project uses descriptive analysis, including the description of trends over time.

- This provides a useful overview of aviation accidents to identify accident risks.
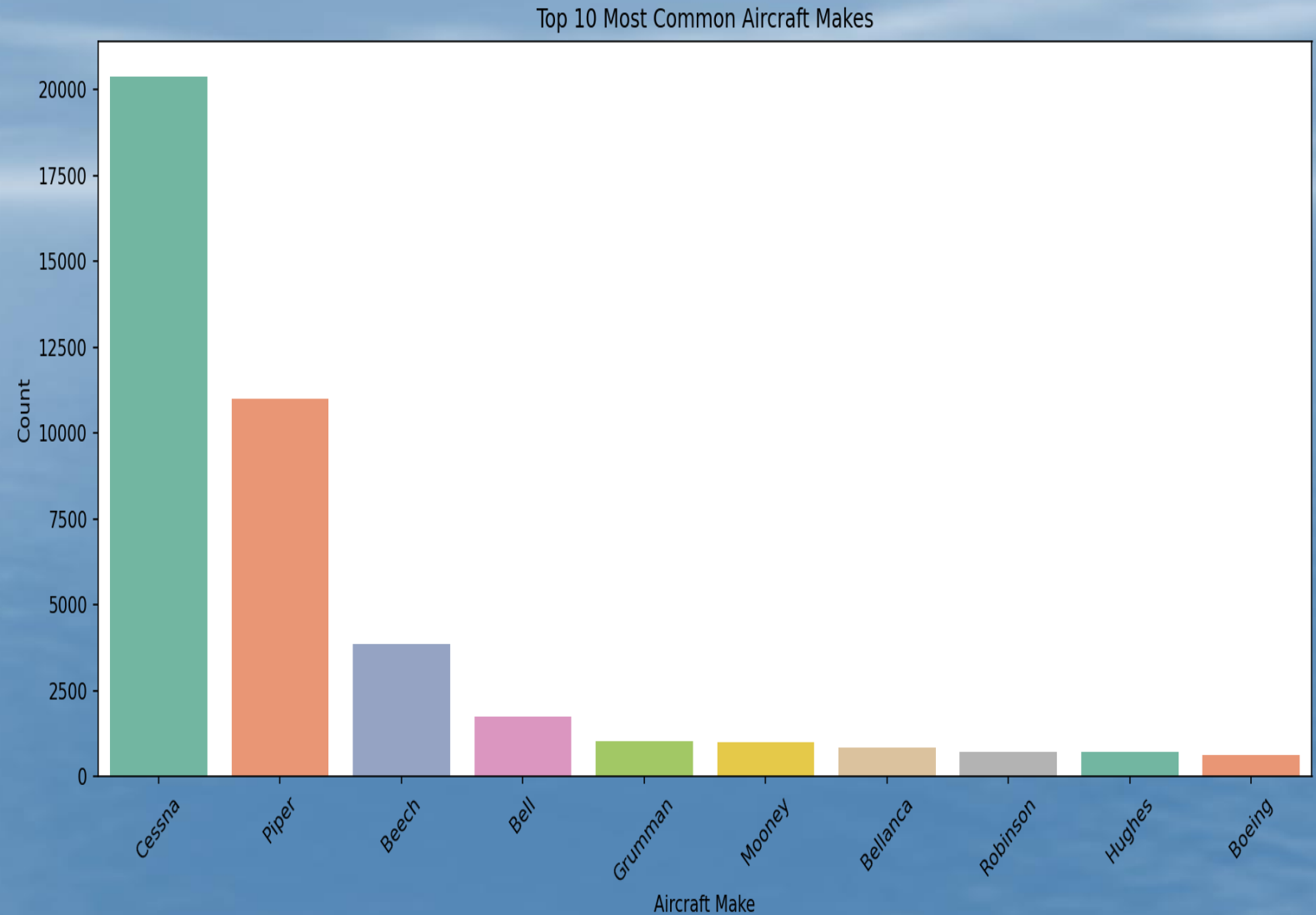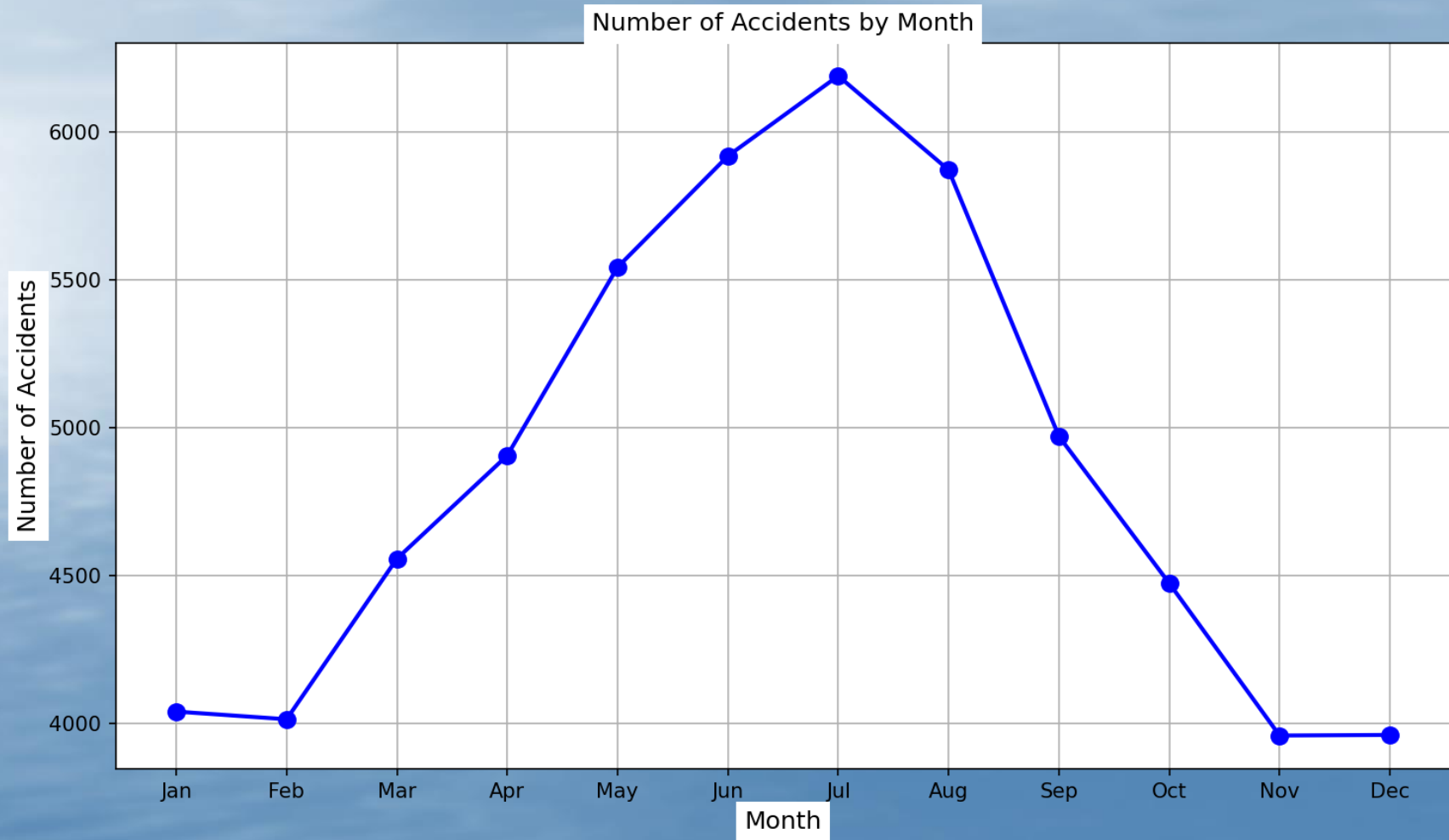
RESULTS
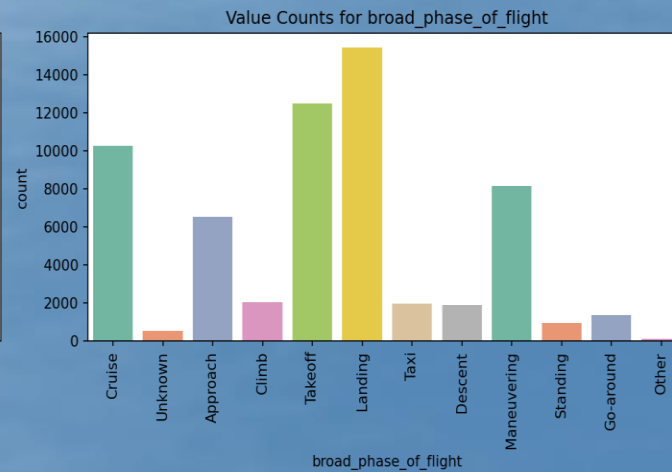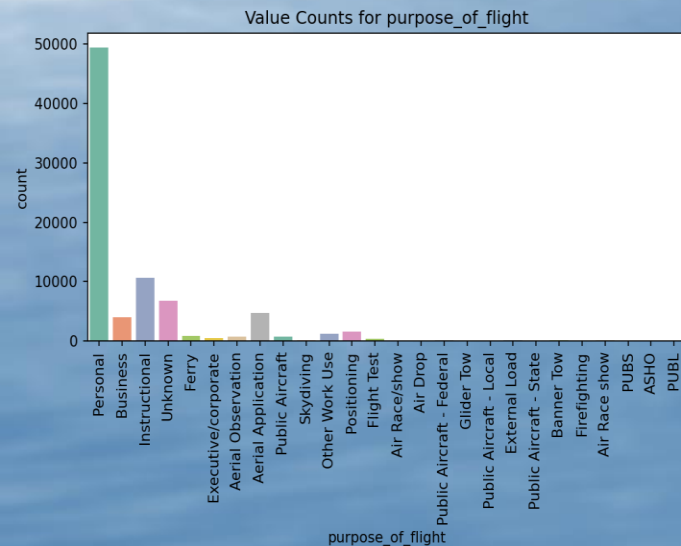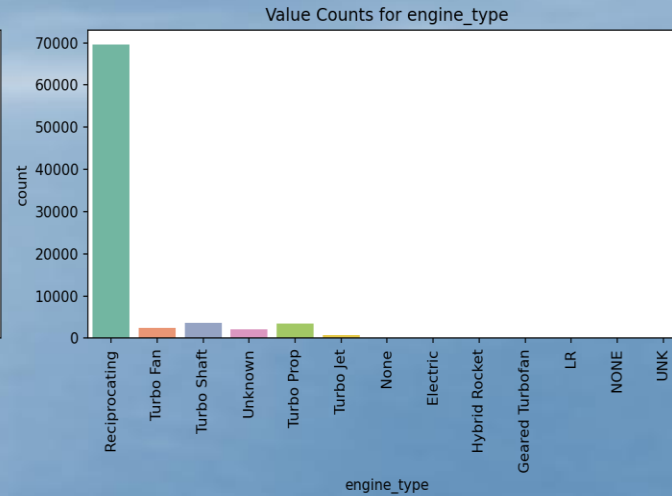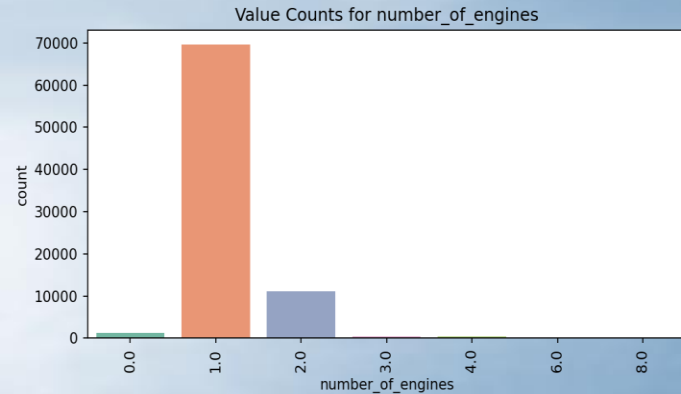
The following factors are the most prominent in accidents; having a single engine, a reciprocating engine type, traveling for personal purposes, as well as being in the landing phase of flight.

RESULTS

- The most common aircraft make involved in accidents is the Cessna.

Top 10 Most Common Aircraft Makes

RESULTS

Number of Accidents by Month

- The data has a single peak in July with this having the highest number of recorded aircraft accidents.

CONCLUSIONS

- Take up aircrafts with more than one engine.

- Take up the Cessna model.

- Make sure maintenance is regularly done especially on the landing gear and instruments.

- Picking aircrafts which do not utilize the reciprocating engine type.

NEXT STEPS

- Maintenance methods.

- Pilot selection.

- Weather data analysis.

THANK YOU!

E-MAIL: clement.wanderi@student.moringaschool.com

GITHUB: @Cwanderi