

DATA SCIENCE

PRESENTATION ABOUT AVIATION DATA

Overview

The company is new in the industry and they are interested in purchasing and operating airplanes for commercial and private enterprise but they are not familiar with any potential risks.

Business Understanding

Problem statement: The company is new in the industry and they are interested in purchasing and operating airplanes for commercial and private enterprise but they are not familiar with any potential risks.

Stakeholders; This are the business investors who are up tp start to start the business. This include the relevant authorities such as the government, policy makers and airline business management.

Objective: To identify aircrafts that are more safer, that are likely to cause accidents and whether private or commercial

Success Criteria: Ensuring efficiency in operations in terms of time management and other terms and conditions of airline.

Data Understanding

Our dataset is obtained from the ****The national Transportation Safety Board**** that includes aviation accidents data from the year 1962 upto the year 2023.

Our dataset has 90,348 entries(rows) and 31 columns.

It contains both categorical and continuous data whereby our dtypes are float64(5) and object(26).Some of the available data include:

Categorical Data: "Location", "Country", "Event.Type", "Engine.Type", "Model", "Make", "Aircraft.Category", "Weather.Condition" amongst others.

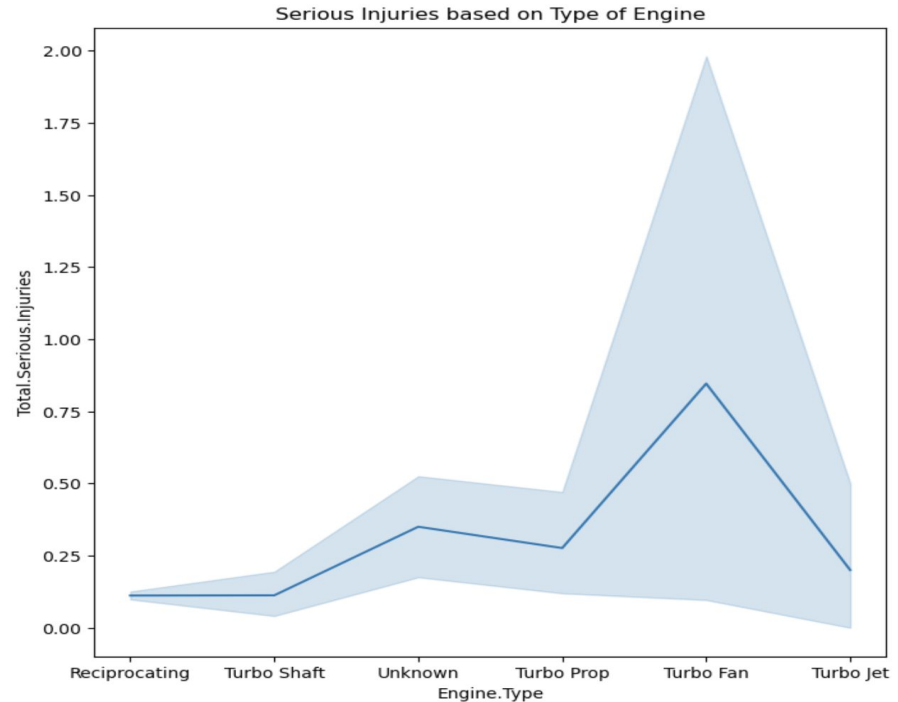
Continuous Data: "Number.Engines", "Total.Fatal.Injuries", "Total.Serious.Injuries", "Total.Minor.Injuries", "Total.Uninjured"

Data Analysis

After further analysis and making comparison of the different categories of data we could tell causes of certain incidents for example; Certain engines are associated with high risks i.e -Turbo engine are likely to cause accidents as compared to reciprocating engines.

-IMC weather condition is also associated with high risks of fatality.

-In conclusion fatalities are associated with different factors such as weather,number of engines,aircraft category among others.



Recommendation

- IMC weather is risky for flights
- Airplanes with turbo fan engines are not safe instead the company should consider investing in airplanes with turbo shaft engine.
- Airplanes are not good meant for skydiving but rather for personal travel reasons' for skydiving gyrocraft would be better.
- Airplanes with four engines are much safer as compared to two engine planes.
- In general for better growth of the company should comply with regulations of both local and international authorities for better growth of the company.

Thank you note

A big thank you to the organizers for their flawless coordination in making this event a success. The smooth flow of today's presentation is a testament to your hard work and dedication.

To my colleagues and team members, I'm grateful for your continuous support throughout the preparation of this presentation. Your insights and assistance played a key role in shaping the content we shared today

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