

Aviation Dataset Analysis



Overview

The aim of this project is to identify low risk aircraft for the company's expansion into commercial and private aviation, helping the company make informed decisions.



Business Problem



01 The company is seeking to diversify its investment portfolio by expanding into the aviation industry.

02 The company lacks aviation specific expertise, increasing the risk of aircraft selection and operational decisions.

03 The company must determine which aircraft types and manufacturers present the lowest risk for initial market entry.



Data Understanding



This dataset is a record of global aviation safety, typically focusing on commercial and civil aircraft accidents. It generally captures critical attributes such as date, geographical location, make and model and many more factors.

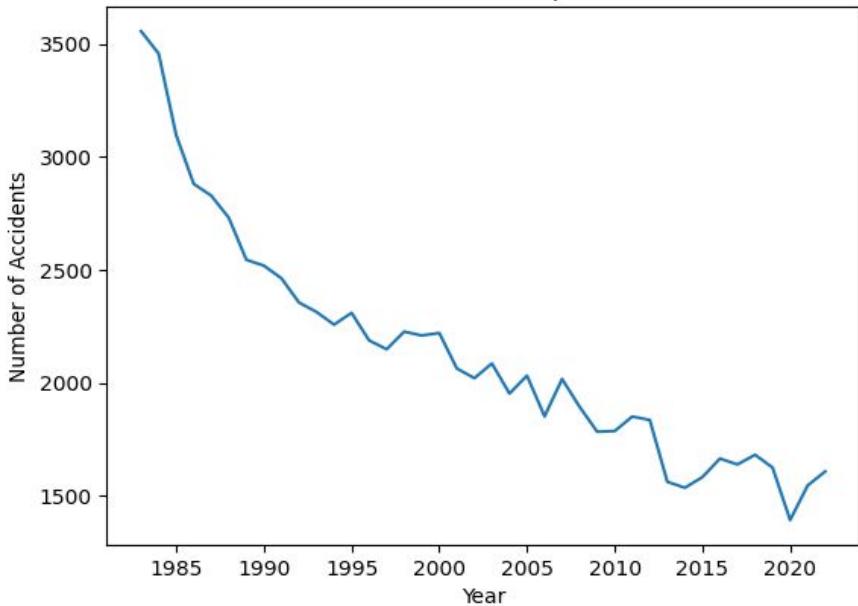


Data Analysis

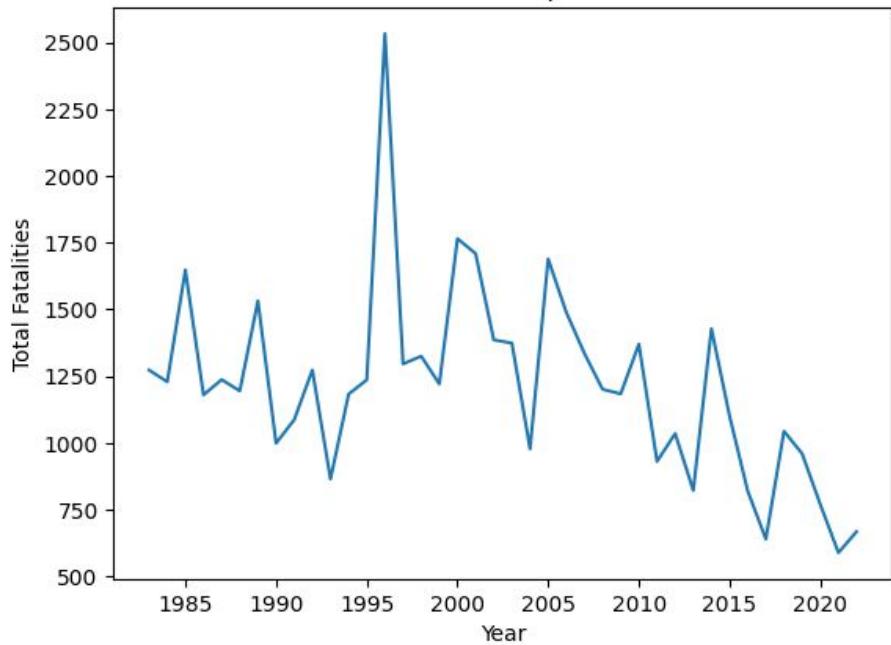
The analysis of the aviation dataset provides critical insights into the risk profile of aircraft operations, enabling the company to make informed, data-driven decisions as it considers entry into the aviation industry.



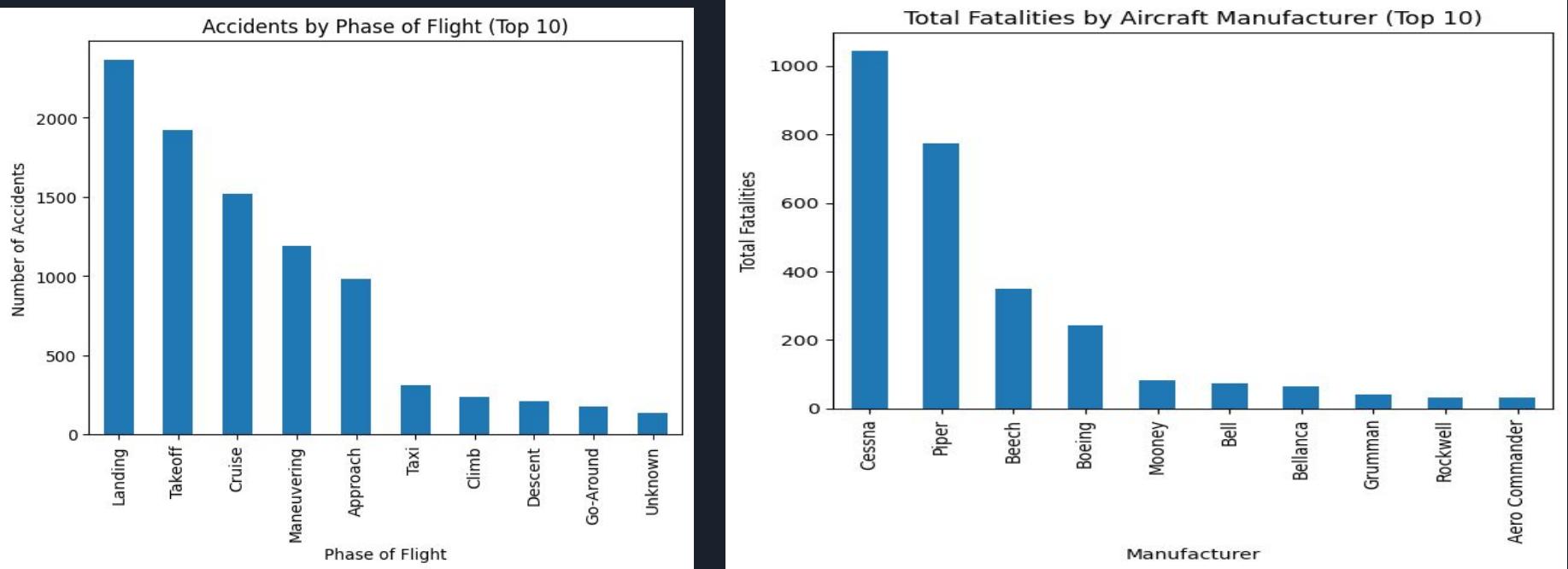
Aviation Accidents per Year



Total Fatalities per Year



1. Aviation Safety improves over time.
2. Total aviation fatalities peak in the mid to late 1990's, from 1995-2000's

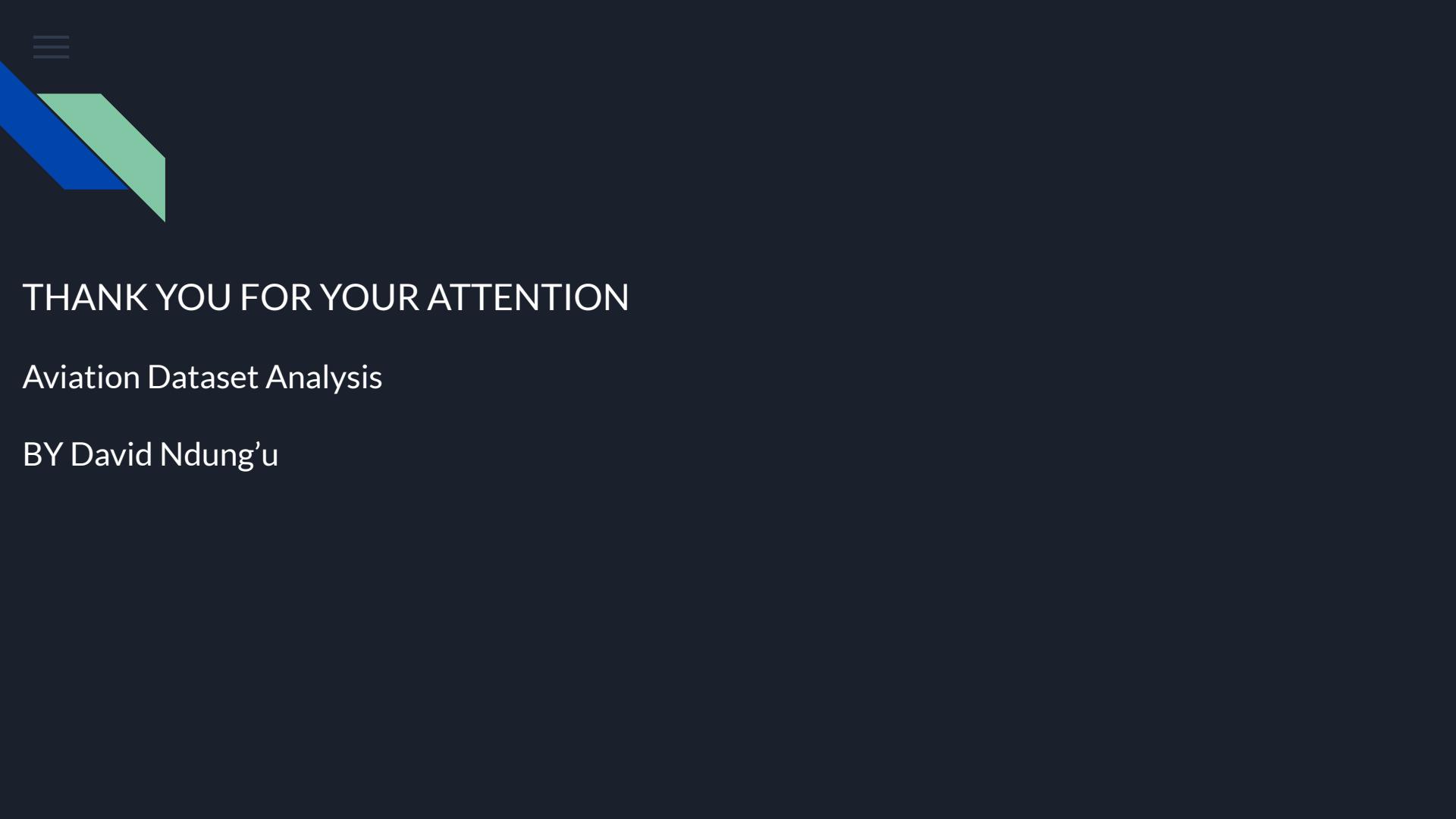


1. Landing, takeoff and approach dominate.
2. Cessna single engine planes are responsible for 30% of all the accidents.



Recommendations

1. Accidents counts have generally declined over time, indicating improved industry safety and regulations.
2. Purchase aircraft known for stable low-speed handling and stable landing performance.
3. Avoid high-capacity and high-speed aircraft in early operations.
4. Invest heavily in pilot training, standard operating procedures and human factor controls.
5. Purchase aircraft from widely used makes with strong global support networks.



THANK YOU FOR YOUR ATTENTION

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