

AVIATION INDUSTRY BUSINESS ANALYSIS



Analysis Overview

Overview

This project provides a data-driven analysis of aviation accidents to help stakeholders determine which aircraft are low risk and viable investment to purchase for commercial and private enterprises diversifying the company's portfolio expanding to the aviation industry.

Business Understanding

- Frequency occurrence of accidents
- Key factors affecting accident rates
- Level of aircraft damage in relevance to Purpose.of.flight
- Severity of accident(fatality and survival)
- Least involved make in accidents

Data understanding

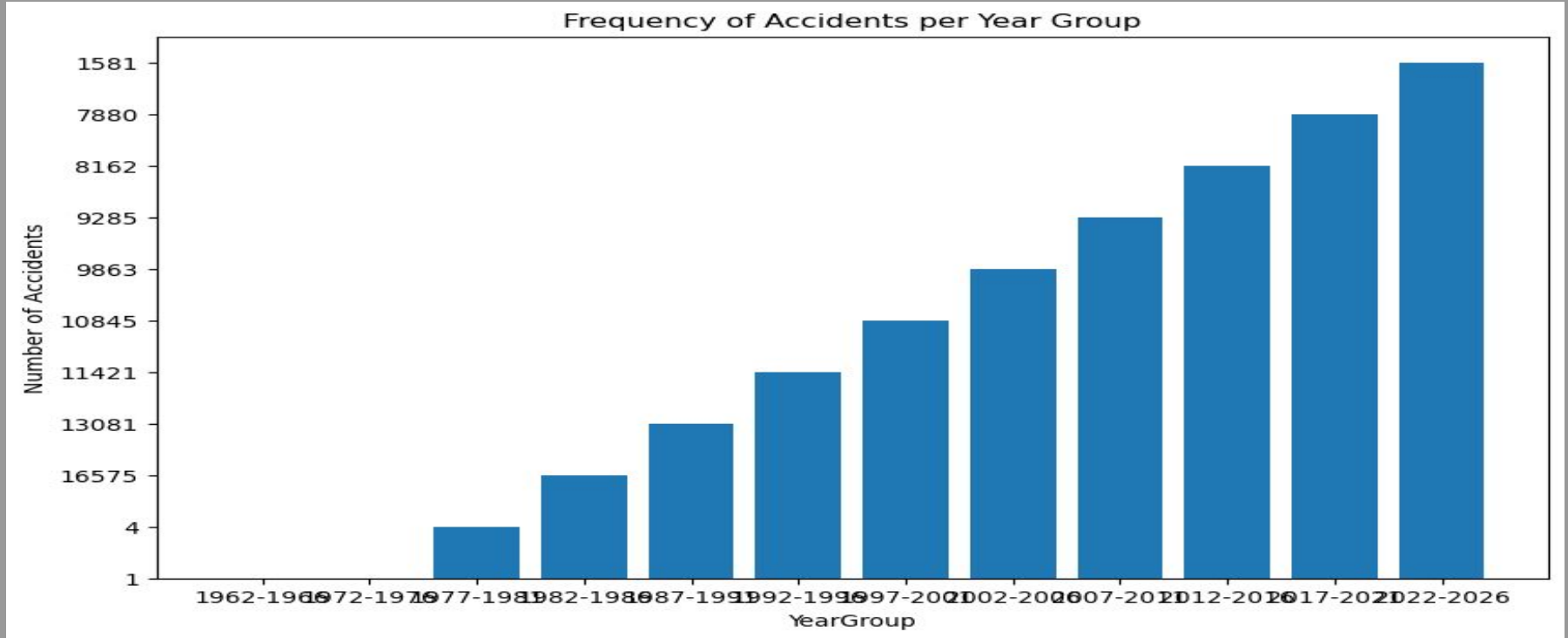
Data understanding

Analysis sourced from [Aviation_Data.csv] dataset provided by the National Transportation Safety Board containing aviation accidents data from 1962-2023 in the United States and international waters.

Key data fields

- Accident.Number
- Event.Date
- Amateur.Built
- Weather.Condition
- Aircraft.damage
- Purpose.of.flight
- Total.Fatal.Injuries
- Total.Serious.Injuries
- Total.Minor.Injuries
- Make

Frequency of accidents per year_group



Factors affecting accident rate

Weather.Condition

VMC 69061

IMC 5830

UNK 1043

Key

VMC - Visual
Meteorological
Conditions

IMC - Instrumental
Meteorological
Conditions

UNK - Unknown

Aircraft Damage per Flight Purpose

Purpose.of.flight	Business	Executive/corporate	Personal
Aircraft.damage			
Destroyed	1184	158	10543
Minor	106	32	493
Substantial	2628	330	37989
Unknown	3	2	32

Least Accident involved Makes

Make	Model	Accident_Count	total_injuries
CESSNA	421	1	0
New Piper Aircraft, Inc.	PA-46-350P	1	0
COLUMBIA	LC41	1	0
STARDUSTER II	SA-300	1	0
Cessna	337D	1	0
Cessna	A150L	1	0

Recommendation

Would definitely recommend purchase of

- New Piper Aircraft, Inc. model: PA-46-350P**
- COLUMBIA. model: LC41**
- STARDUSTER II. model: SA-300**

.For startup venture into the aviation industry.

Questions???

Presentation by:

Sylvester Nyachioo

Email:

sylvester.sylvester1@student.moringa-school.com

A spiral-bound notebook with a white cover and a black spiral binding on the left side. The words "THANK YOU" are written in large, black, hand-drawn capital letters on the front cover. To the right of the notebook is a black pen with a silver clip and a silver band.

THANK
YOU