PROJECT PRESENTATION

PROJECT TITLE: AVIATION DATA UNDERSTANDING
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OVERVIEW

This is a study of aviation dataset containing aviation accidents from 1962 to 2023 provided by National Transportation board.

The project aims at knowing which aircraft is good for the business and with less risks before venturing into the aviation sector. It also help in knowing and familiarizing with aircraft safety. This done by analyzing historical aviation accident data of 1962 to 2023 provided to us by national transportation board. the project aims how to identify the risk and how to improve them to win the passengers trust when using the aircraft.

DATA CLEANING PROCESS

After getting the data i cleaned the by first checking all the missing data for better visualization. I had to drop some missing values and others to replaces them as they related to my project and what i wanted to achieve. There was no duplicate values in the dataset.

One of the problems i faced during data cleaning is that the data contained a lot of missing values . I used mean to resolve missing numerical data since the distribution of the data was relatively normal.

EXPLANATORY DATA ANALYSES

One of the things i noticed from the data was that there was a lot of missing values.

Most of the accident that happened over the years involved the personal purpose of flight.

Another observation is that most accident happened in Cessna

I used bar chart, heatmap , and scatter map for my data visualization

FINDINGS

My findings include:

1. Most of the accidents happened in the 80s and 90s due to undeveloped technology and also inadequate proper training of pilot but due to technology improvement these accident have dropped significantly and good for business
2. Most accident happens between the month of may and month of october

ANALYSES

One of the columns that gave us much information was purpose of flight because it gives all the details and shows which purpose that was mostly involved in accident. Another column that was of great help was the engine type and model because through these columns i was able to see the aircraft that are least involved in accidents

In the scatter plot chart where it shows number of fatal injuries against engine type we can clearly see that turbo fan engine type was one of the engines that caused major injuries compared to other engine type.

RISK FACTORS

Make of the aircraft is one of the risk which have significantly contributed to accident over the years if we look at the bar graph i have plotted you will notice that Cessna make leads in the number of accident involved. In that graph i have plotted the top 10 makes involved in accident .

CONCLUSION

In my conclusion i would say that aviation business is worth venturing, although it has a lot of risks but as the technology is advanced and the training of pilot is also been advanced the accident will drop significantly and the business will be having profits.

Although aircraft is a good business it also has some implication on our environment due to emission of harmful gases , and also building of airport or airstrip will use the land that would have been used for food production

QUESTIONS

THANK YOU FOR YOUR TIME