ADANI GROUP

ABOUT SERVICE CONTACT

Flying High: Choosing Safe Aircraft for Growth

PRESENTATION

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INTRODUCTION

Welcome to the world of aviation, where success isn’t about bold leaps, but strategic decisions driven by data. Together, let’s dive into how data empowers us to maximize profits while minimizing risks. Join me on this journey to explore the insights shaping the industry.

WELCOME TO PRESENTATION

I’m Maureen, and I'll be sharing with you my beautiful ideas.

BUSINESS UNDERSTANDING

The company is expanding into the aviation sector and aims to support its new aviation division by identifying risks in aircraft operations. The goal is to provide data-driven insights to help the division make informed, safe decisions for both commercial and private aircraft.

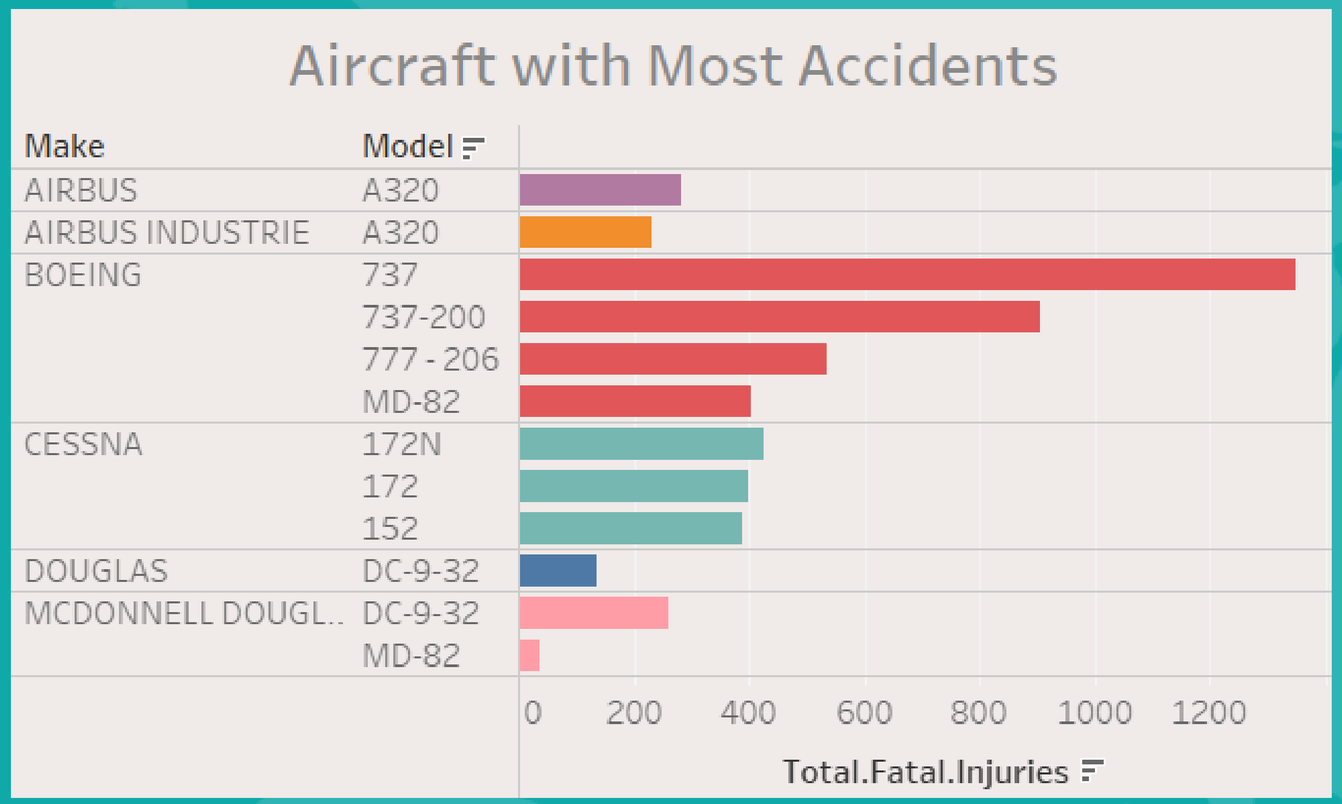
A dataset was obtained from the Kaggle Repository.
With five objectives in mind, the following process was obtained to achieve the desired results;

- Data Cleaning
- Descriptive Analysis of the Data
- Visualization
- Conclusion and Recommendations

OBJECTIVES

- Identifying the safest aircrafts and their Characteristics
- Identifying the major cause of accidents
- Identifying the effect of weather on accidents
- Does the type of build affect the number of fatalities
- Which year had the most casualties

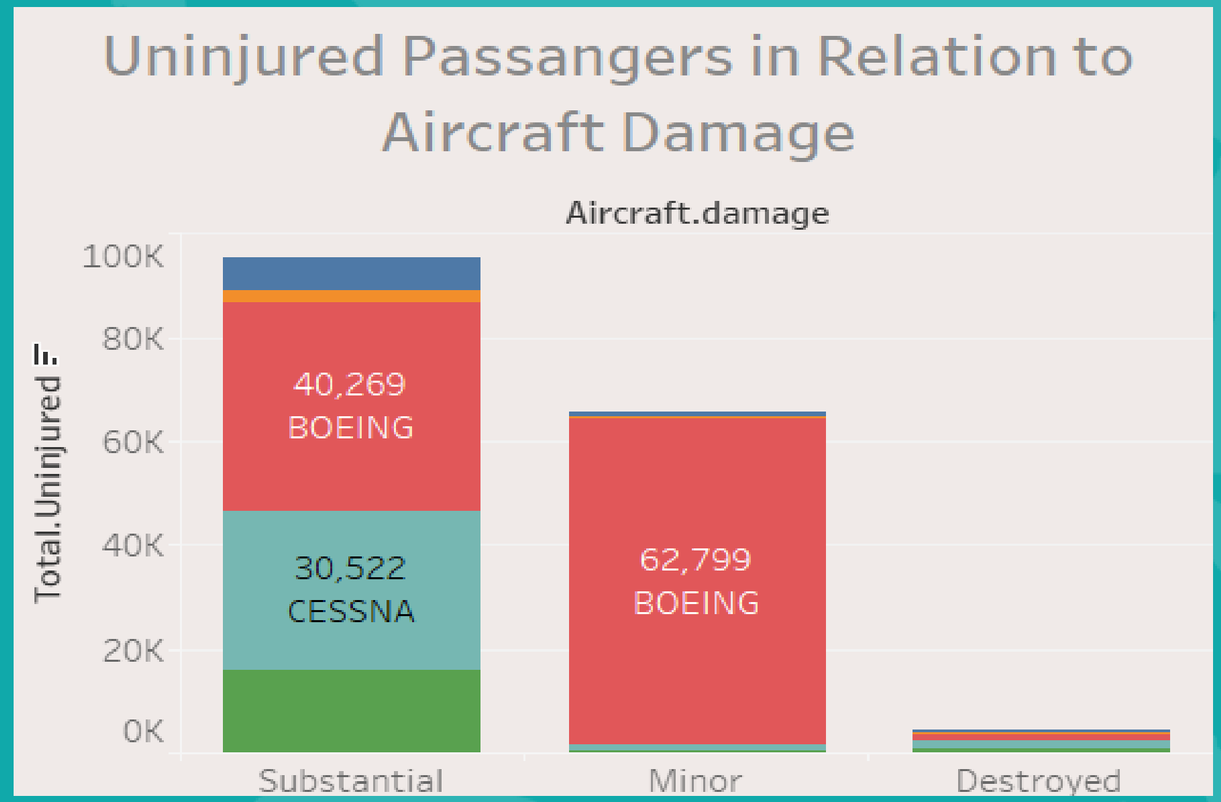
DATA UNDERSTANDING



Most Accidents per Aircraft Make and Model

Boeing 737 aircrafts have the highest number of casualties - Boeing typically has more passengers and therefore it is expected to have more causalities

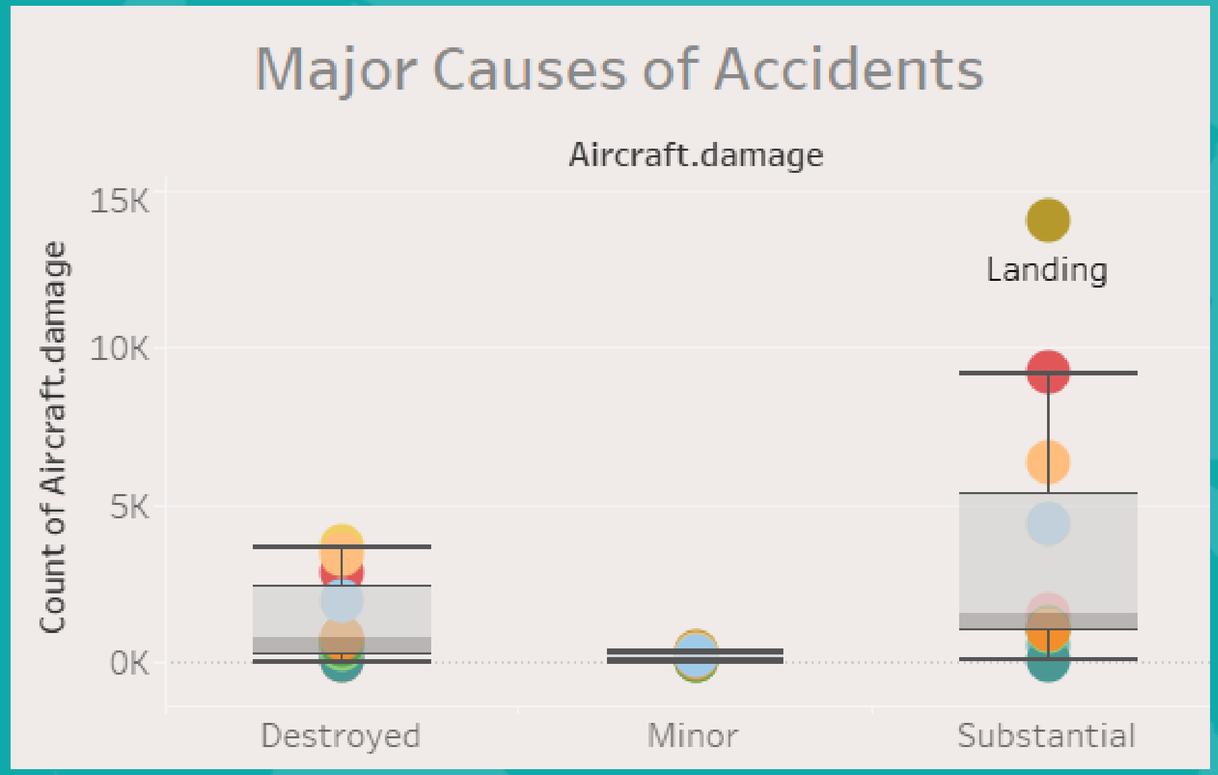
DATA UNDERSTANDING



Damage vs Uninjured Passengers

BOEING followed by BEECH have the highest number of uninjured passengers relative to the aircraft damage

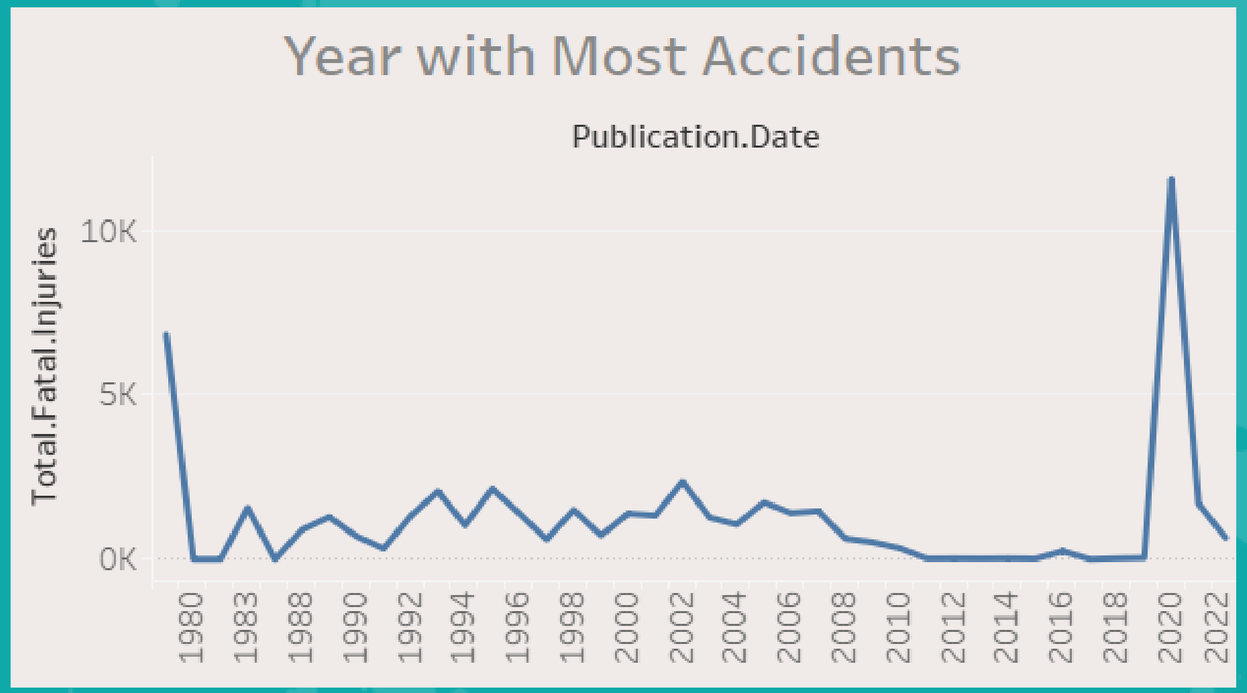
DATA UNDERSTANDING



At what phase of the flight did most accidents happen?

Landing is the highest cause of accidents in relation to aircraft damage

DATA UNDERSTANDING



Which year experienced the most accidents

Year 2020 had the highest number of fatalities. This could be due to the world-wide lockdown in relation to Covid19 and therefore a high increase in recreational activities to reduce boredom

CONCLUSION

The following insights were obtained;

1. The safest aircraft is the Boeing series, followed by Beech. Why;

- It had the highest number of uninjured passengers. This is attributed to its number of engines(2 and 4). This means that in the event of a loss of 1 engine the other would take over.
- Since it is a huge carrier, and a public carrier, there are more stringent rules on training of the pilots to reduce the fatalities.

2. The unsafe aircraft is the Cessna series. Why;

- The Cessna series is a small aircraft that is most used for training and personal purposes such as recreation. Due to its small number of passengers, it has less stringent rules and therefore more probability to have large number of fatalities
- Its engine number and type being small may not be able to reduce casualties

3. The reason for most accidents;

- This has been found to be landing of the plane
- The purpose of flight is personal - highly likely being recreational

RECOMMENDATIONS

A

AIRCRAFTS

1. Aircrafts with larger carrying capacity for commercial flights and more engines - greater than 2 are less risky. The recommended aircraft being **Boeing** and **Beech**.
2. The **Piper** aircraft is safer for private flights as it is the same size as the Cessna but with fewer casualties

F

FOCUS

Focus on aircrafts for training as opposed to recreation to reduce fatalities and avoid the risk of brand reputation and potentially impact the bottom line.

T

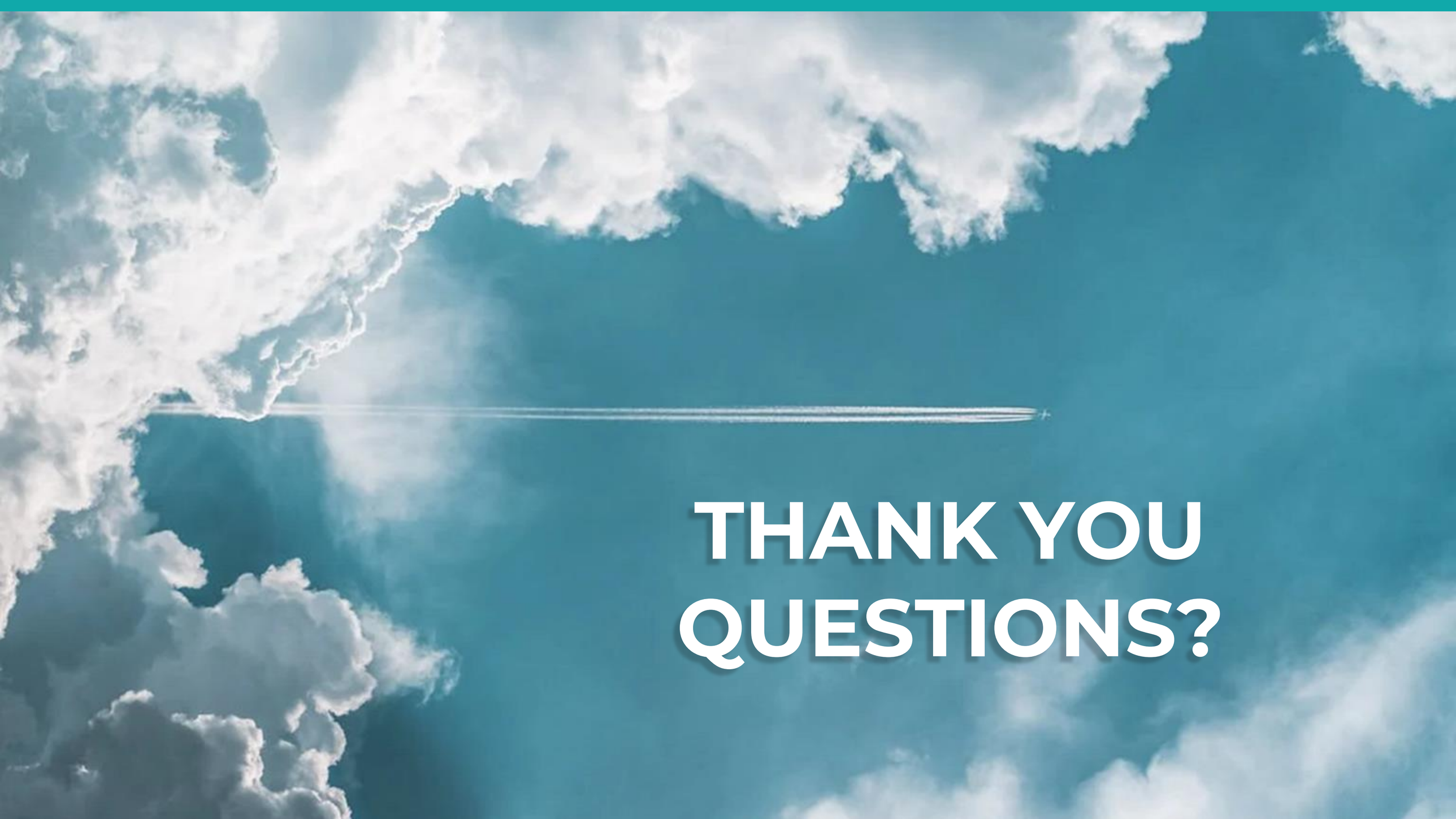
TRAINING

Pilots should have enhanced training on landing aircrafts

YOUR
LOGO

‘Without big data, you are blind and deaf in the middle of a freeway’

— Geoffrey Moore


THANK YOU
QUESTIONS?

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