README.md

# Project Title

Data Driven Recommendations; aviation project

# Overview

In this project, an analysis of historical aviation data from the National Transportation and Safety Board is done to determine the aircraft that are of less risk to an organization which wants to enter into the aviation business.

# Business understanding

-We want to identify the aircraft that is associated with the lowest accident rates and has the highest safety record.

-In order to do that we need to assess factors like make, category, Engine types by the number of accidents. we will come up with actionable insights for the company to select the safest aircraft and give effective risk management.

# Data understanding

- The data used in this analysis is from the National Transportation and Safety Board. The data contains Number of injuries per aircraft category, make Engine type and model which are critical for this analysis

## Data analysis

- In this section, analysis is carried out in various ways;

    1. Loading the data set and getting the required information. that is, data types, descriptive statistics, retrieving head and tail.

    2. Cleaning the data for analysis. This involves, dropping unnecessary columns, filling the nun-values and removing outliers.

    3. EDA (exploratory data analysis) - performing visualizations, Univariate analysis, bivariate analysis and multivariate analysis.

## conclusions

-LR(Long range) Engine type carries the least number of injuries.

-The least aircraft category involved in injury incidences is the powerd-Lift.

- The Airbus Make is the one which is less involved in accidents.

## lastly is the recommendations on what should be considered before getting into business.

• Multi- engine aircrafts should be prioritized. As observed, aircrafts with fewer engines tend to cause most accidents and injury incidences as well

• LR(Long Range) engines should also be considered into the fleet. LR engines have shown to have caused the least number of injury incidences probably due to their reliability

• Power- Lift, Boeing 369D, and Cessna 206B should also be given the first priority as they have shown to cause less injury incidences

• If the company plans to include Cessna, safety measures and training of pilots on handling Cessna aircraft should be prioritized.

• The company should consider including amateur built planes in its fleet.

## Tablue Public link

find my Tableau dashboard visuals in the below link
https://public.tableau.com/views/FinalTableauproject_17256239739540/Dashboard1?:language=en-US&:sid=&:redirect=auth&:display_count=n&:origin=viz_share_link