



**LARANA, INC.**

# **AIRCRAFT RISK ANALYSIS**



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# DATA OVERVIEW

First, we import the necessary tools to run our code, then load the required files to start working on them.

## First Problem

From the Information, we realize several columns have missing values, which may require cleaning or Handling before analysis.

## Solution

To handle missing values in key columns like Aircraft Category, Injury Severity, and injury counts, we can start by filling missing values using appropriate strategies

# ACCIDENT SEVERITY

- In particular, Boeing shows a balanced profile when it comes to injuries, accidents, and damage, indicating it may be a safer choice overall.
- The data highlights that while Cessna and Piper have higher accident rates, Boeing aircraft seem to maintain better safety records, making them potentially more favorable for operations focused on minimizing risks.

# STATISTICAL ANALYSIS

Here i Check the mean mode and median of top ten aircraft with their injury type injuries

## Findings

- Cessna 172P and Piper PA-28-161 show the highest potential for fatalities, while Piper PA-28-140 sees more serious and minor injuries.

# RECOMENDATION

- Opt for Boeing and Grumman models due to their superior safety, reliability, and cost-efficiency. These aircraft have lower accident rates and better survival outcomes, making them ideal for a low-risk aviation business.
- Avoid Cessna and Piper aircraft to minimize operational and financial risks for your aviation business.