

# Aircraft Risk Analysis



# Project Overview

- To identify low-risk aircraft models for the company's entry into commercial and private aviation

# Business Problem

- The company is venturing into the aviation industry. However, they lack insight into the historical safety performance of different aircraft

# Data Description

- This analysis reviews aviation accidents reported by the National Transportation Safety Board (NTSB) between 1962 to 2023

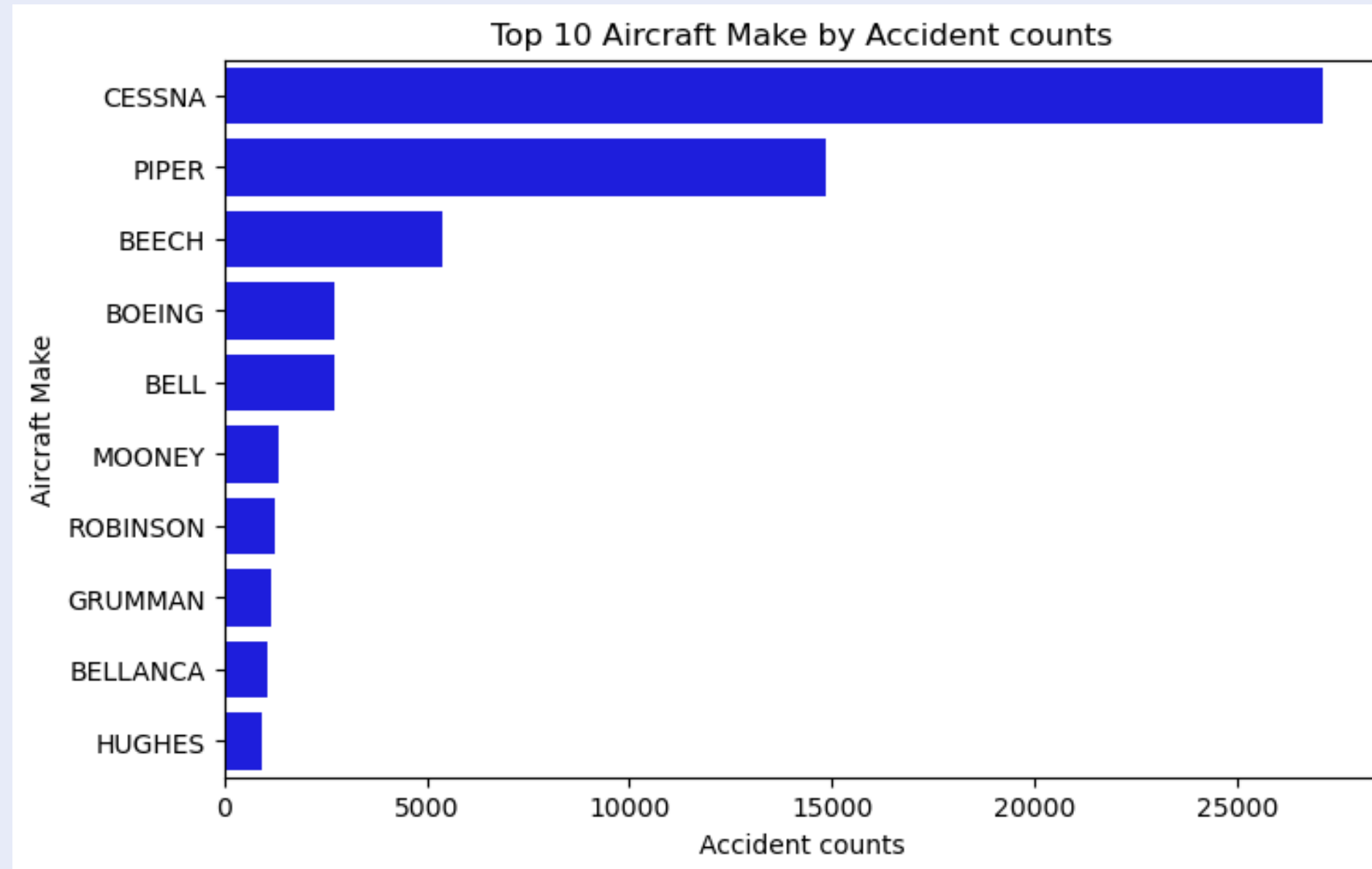
# Methodology

- This analysis uses descriptive analysis and predictions to show insight into aircraft risks

# Results

## Aircraft Make by Accident frequency

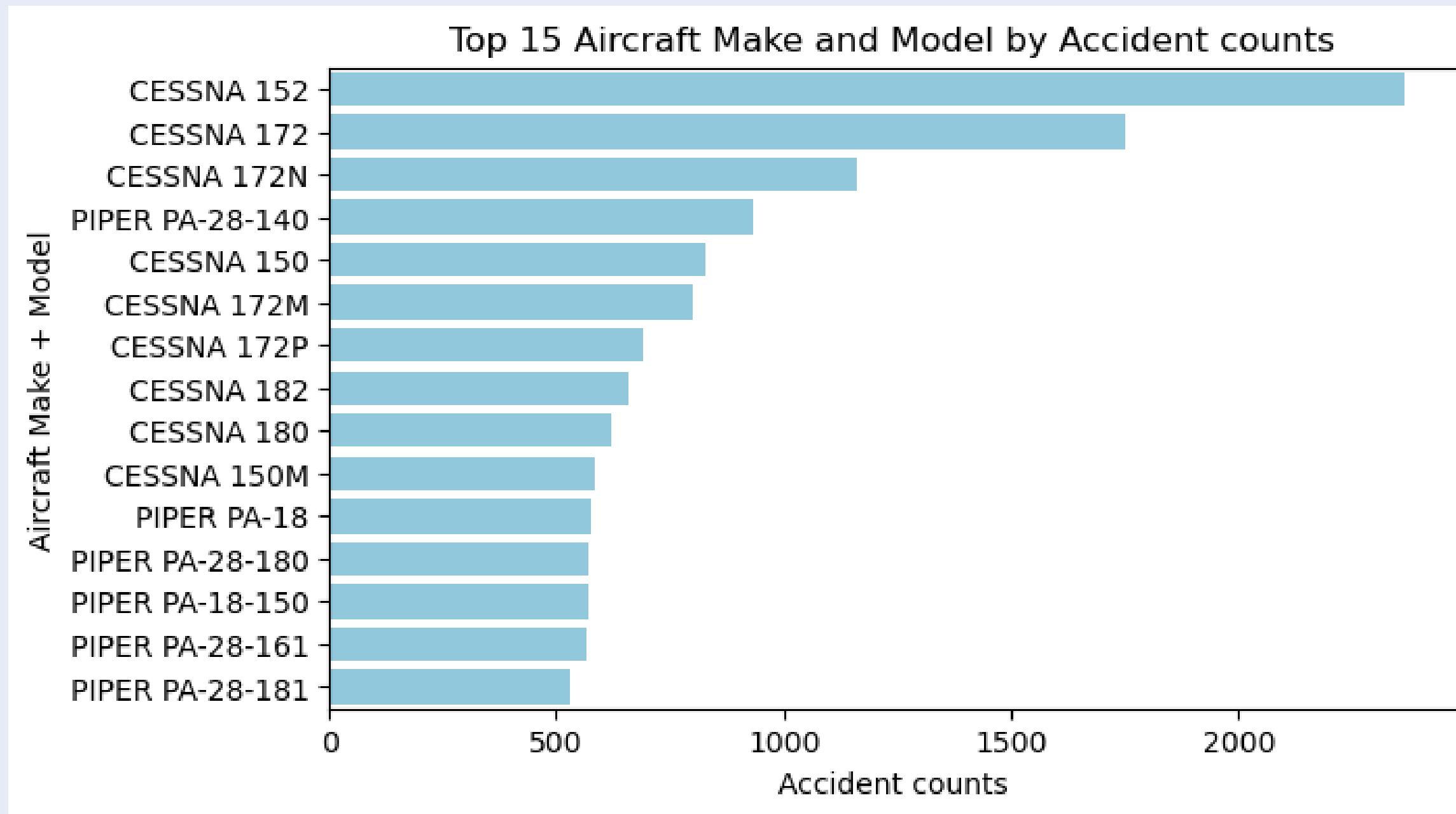
- Cessna displayed the highest accident counts followed by Piper



# Results

## Aircraft Make and Model by Accident counts

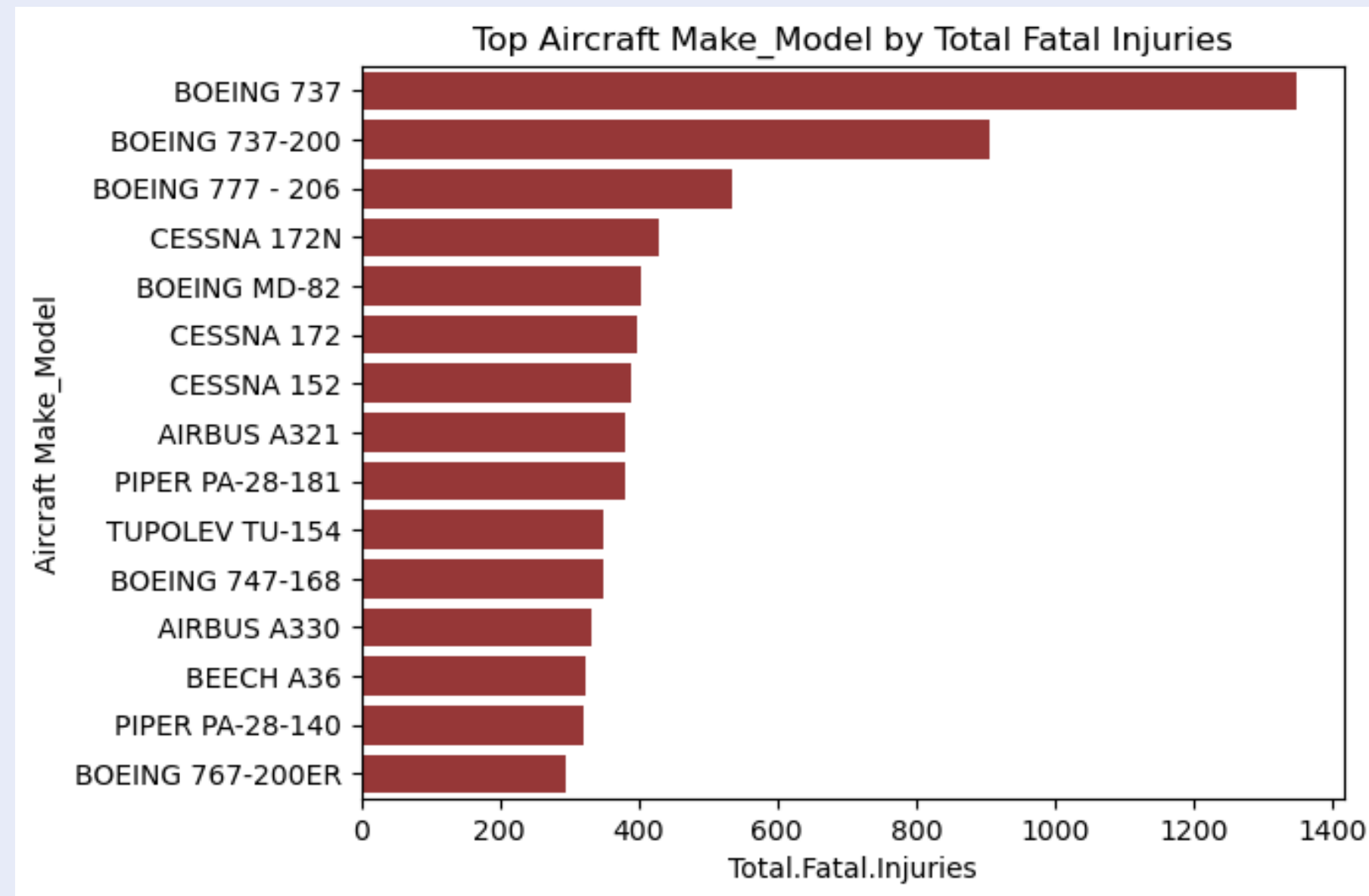
- Cessna 152 Model have the highest accident counts followed by Cessna 172, 172N Models



# Results

## Fatality rate by Make and Model

- Boeing 737 displayed the highest fatality rate followed by Boeing 737-200 Model

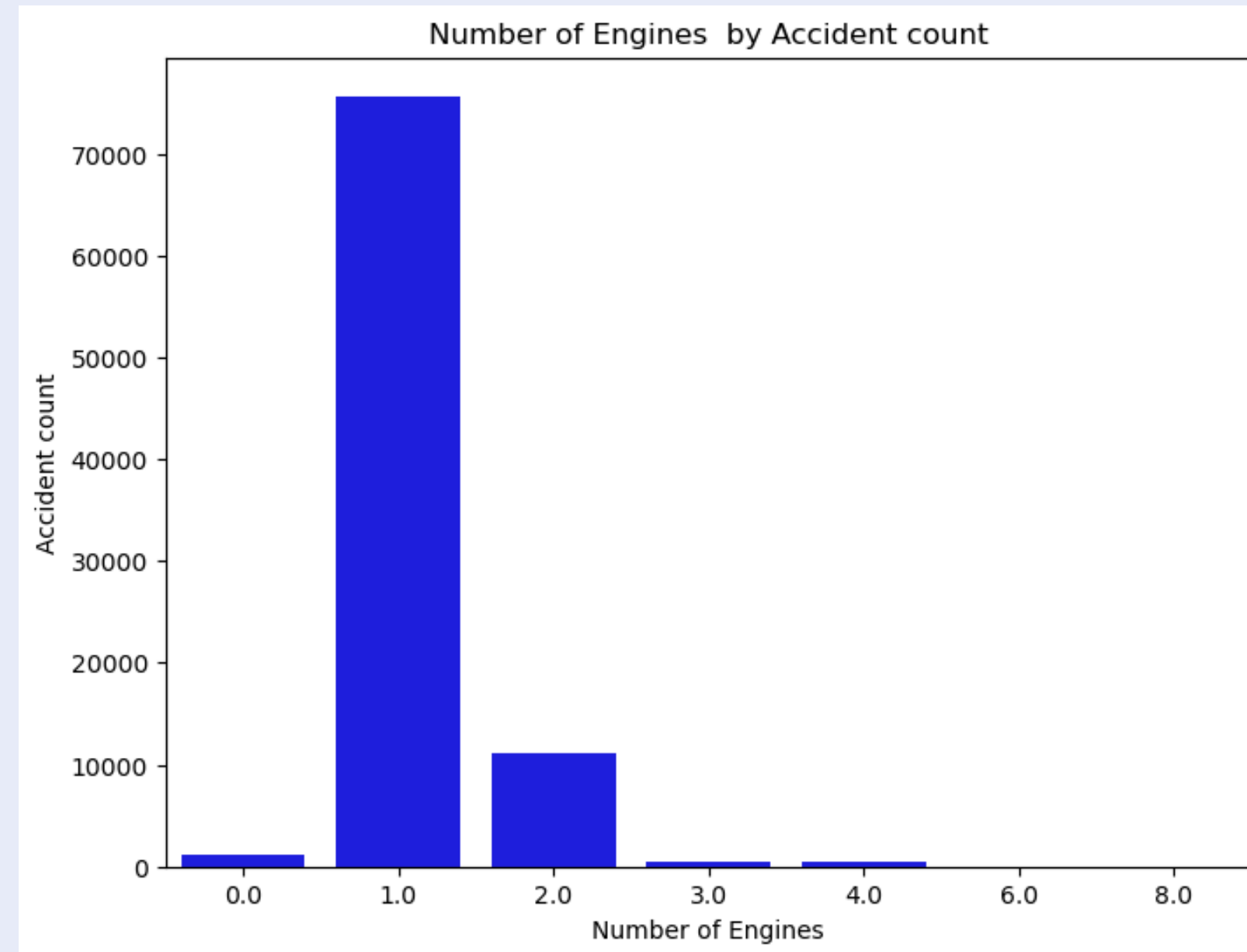




# Results

## Number of Engines by Accident Counts

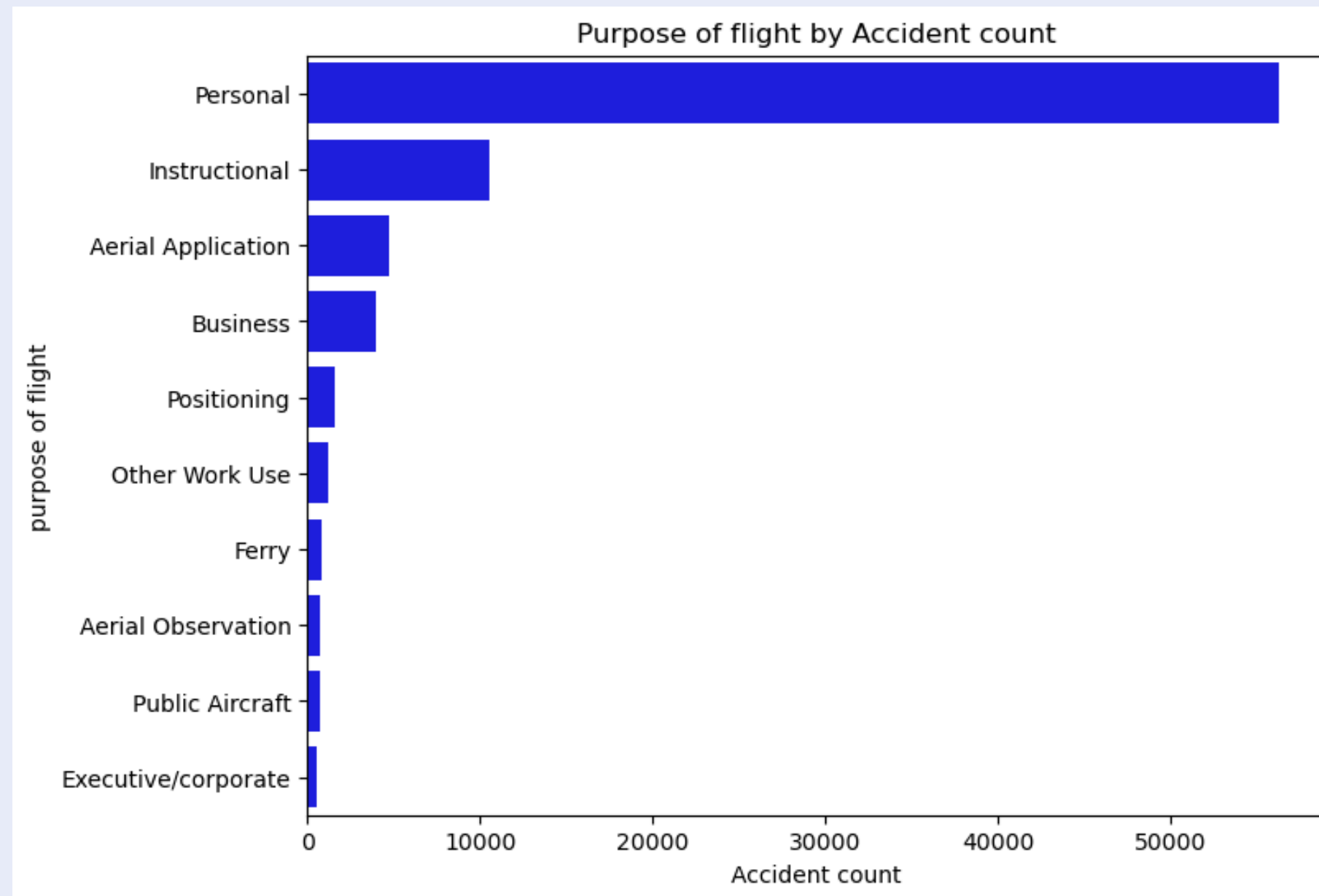
- Aircrafts with 1 engine showed the highest accident counts



# Results

## Purpose of flight by Accident counts

- Personal aircraft showed the highest accident counts followed by Instructional aircraftst



# RECOMMENDATIONS

- **For Commercial airlines:** The company should take note of Boeing 737 and 737-200 model high fatalitlity rate and consider other Boeing models, or invest in other commercial airlines like Airbus that displayed reduced fatality rate.
- **Purpose of Flight:** The company can consider investing in commercial aircrafts because they are generally safer than the personal airlines.
- **For Personal airlines:** The company should take note of Cessna 152 model that displayed the highest accident counts and instead consider other Cessna models.
- **Number of Engines:**The company should invest in aircrafts with multi engines.

# Thank you

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## Any Questions?