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
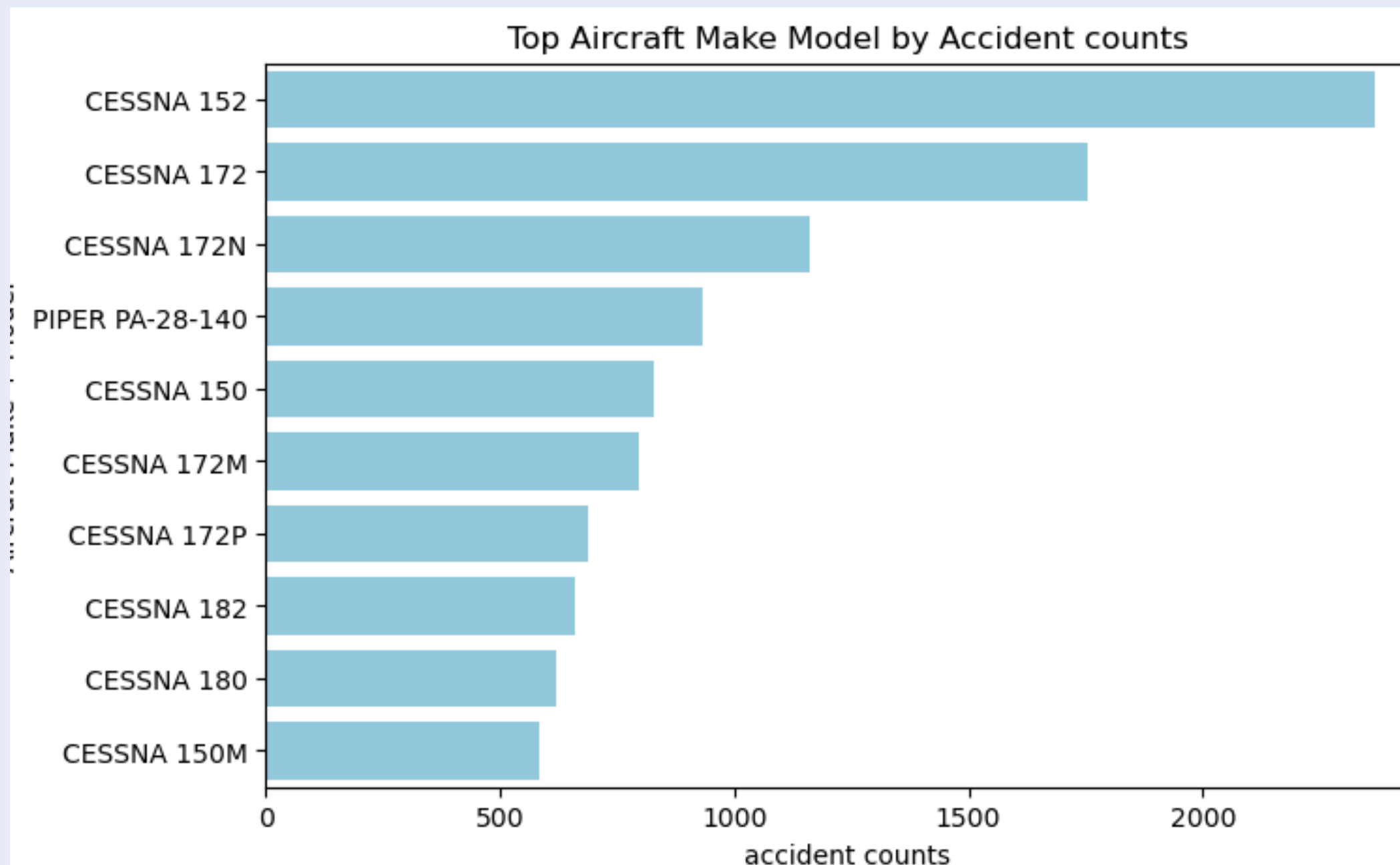
Methodology

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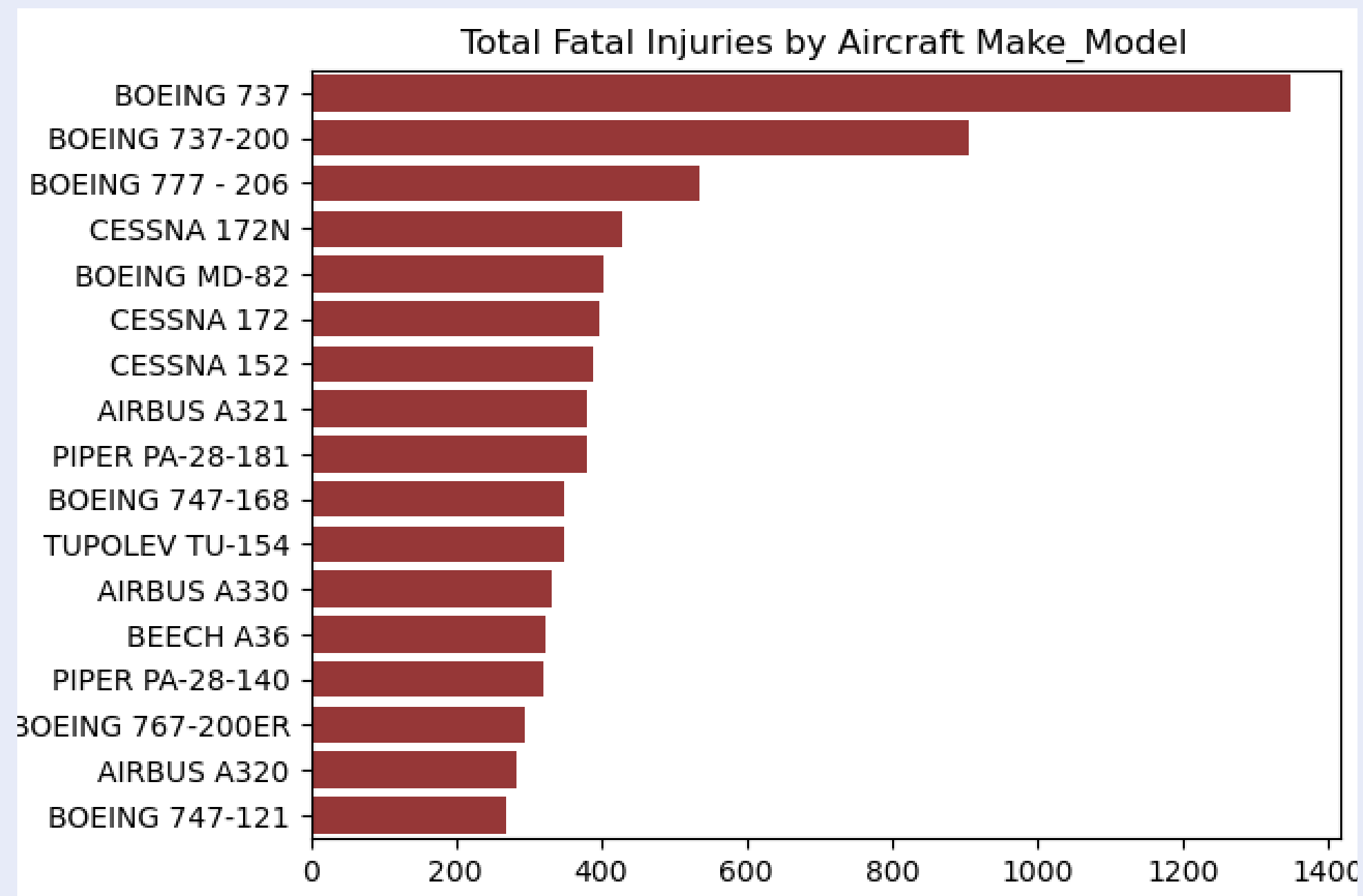
Result

Aircraft Model by frequency of accident

- Cessna 152 model have the highest total accident counts followed by Cessna 172 then Cessna 172N models

Top Aircraft Make Model by Accident counts
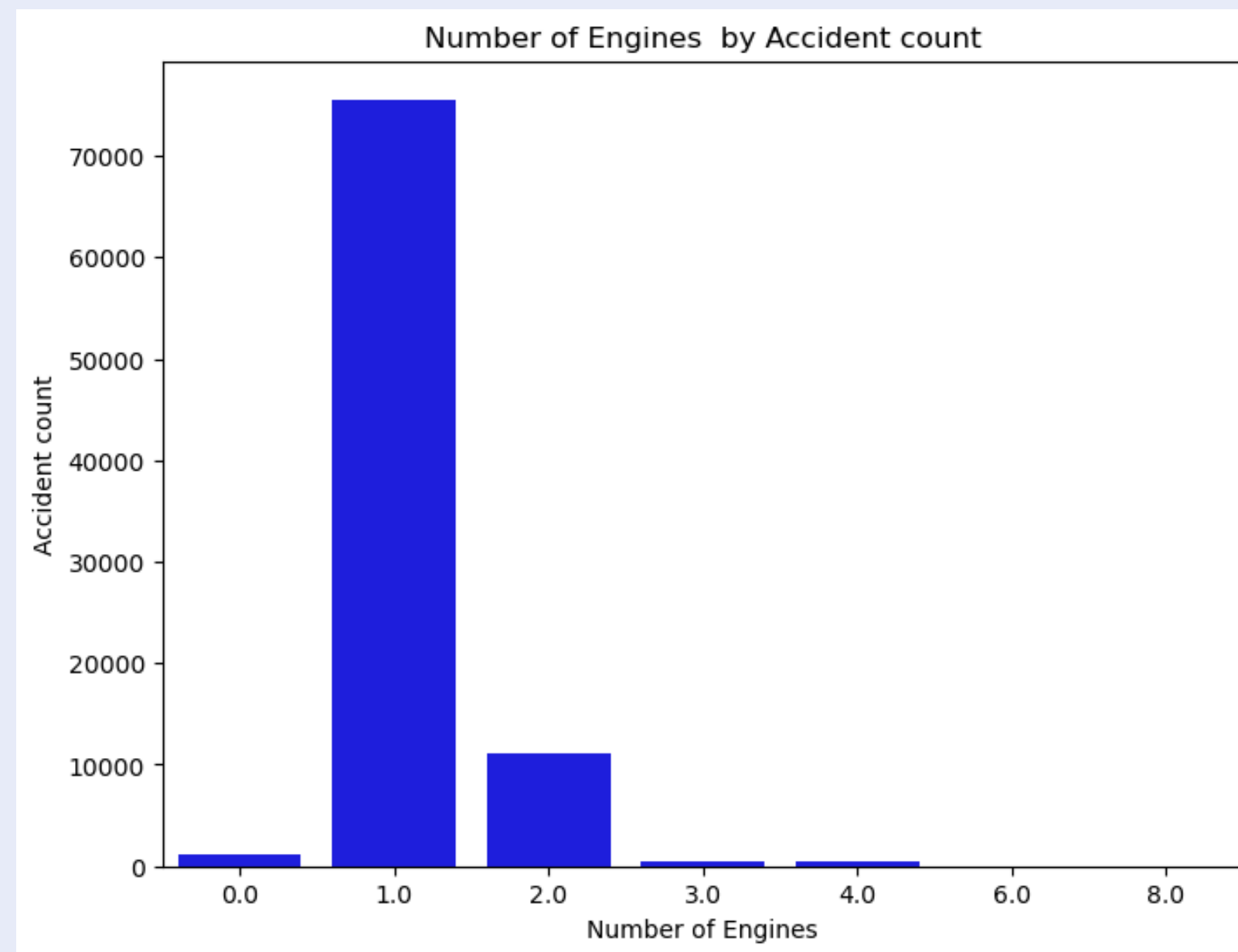
Result

Fatality rate by Make and Model

- Boeing 737 displayed the highest fatalities, followed closely by Boeing 737-200 model

Total Fatal Injuries by Aircraft Make_Model

Result

Number of Engines by Accident Counts

- Aircrafts with 1 engine showed the highest accident counts

RECOMMENDATIONS

1 **For commercial airlines**: The company should take note of Boeing 737 and 737-200 model and consider other Boeing models with fewer fatalities like the 767 model

2 **For personal airlines**: The company should take note of Cessna 152 model and instead consider other Cessna models

3 **Number of Engines**:The company should invest in aircrafts with multi engines.

Thank you

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Any Questions?