Project 1:

Aircraft Risk Assessment for Diversification

Team:
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Airplanes For Commercial & Private Enterprise Use

The Problem

- Finding which airplane manufacturer provides highest safety to passengers & lowest risk of investment

Solution

- Filtering data provided based on specific values

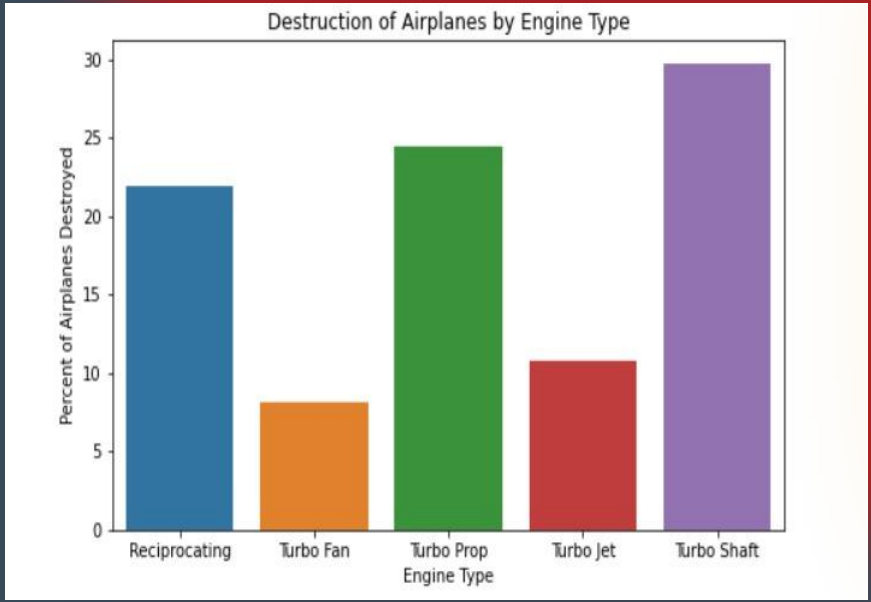
Data Used

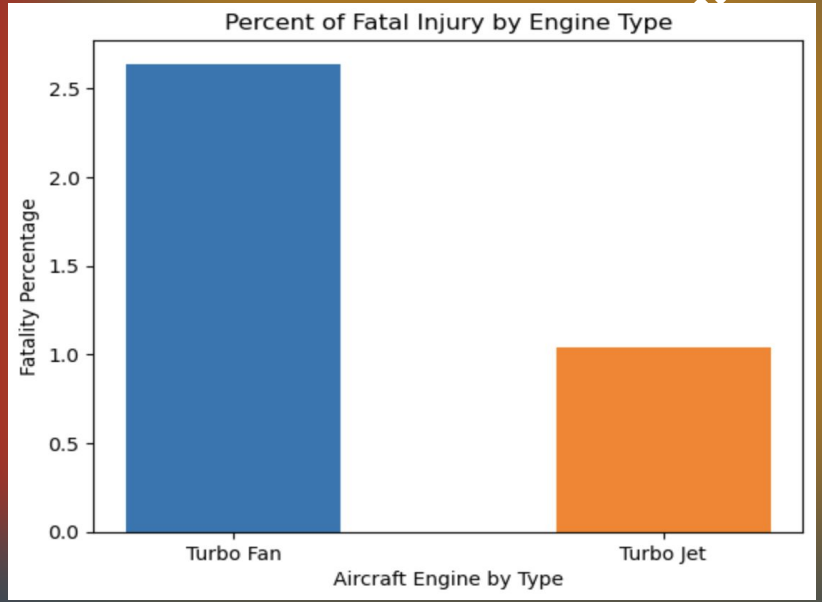
- NTSB Aviation Accident Data in the US & Int. Waters
- ~56K data records

Tools Utilized

- Python
- Tableau
- Jupyter Notebook

Engine Types

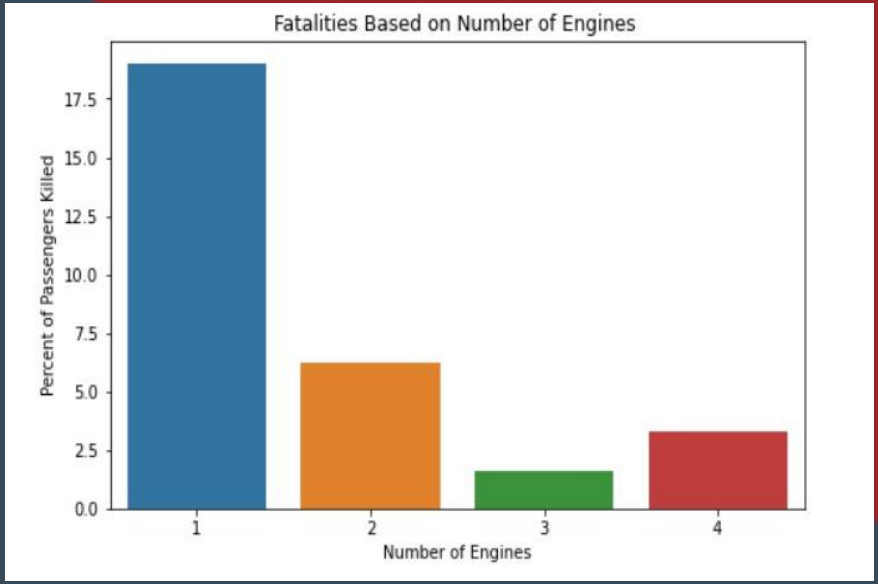


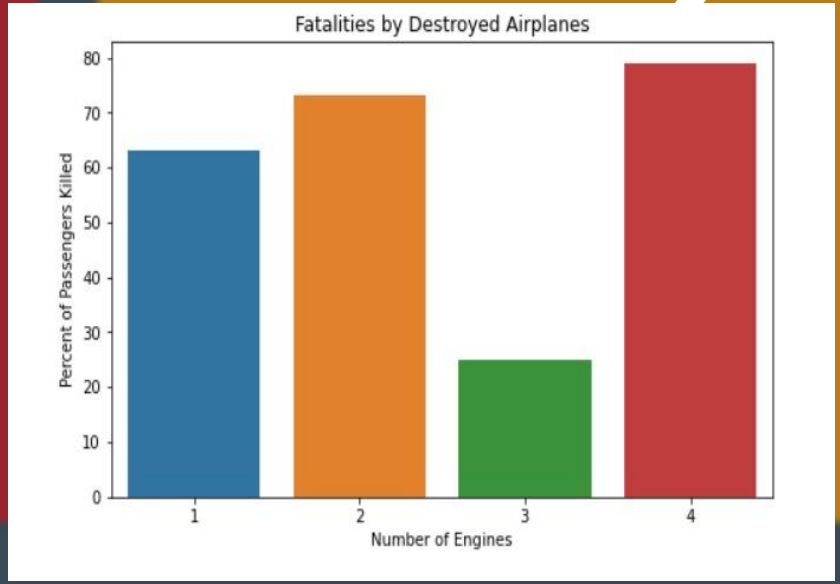


Metrics used showing Fatalities vs Aircraft Damages ---------->

Results indicate these engines had the lowest fatalities against all others

Number Of Engines

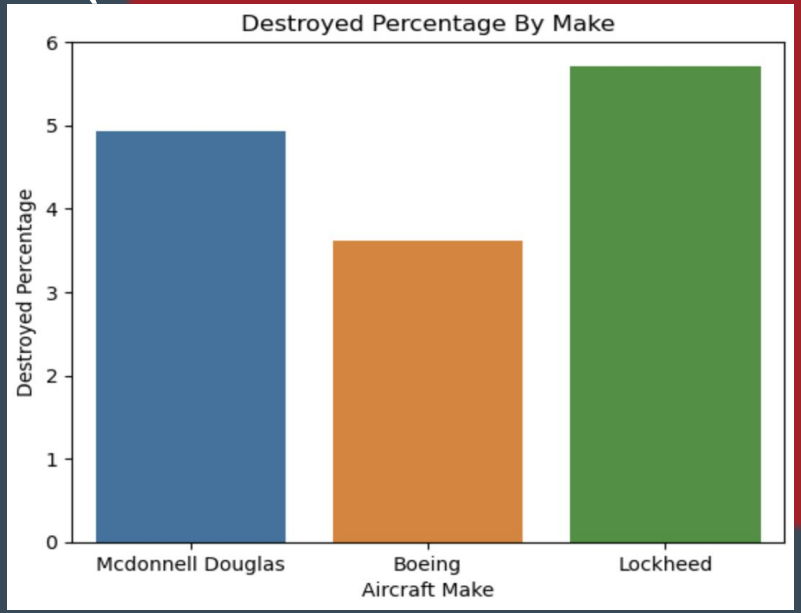


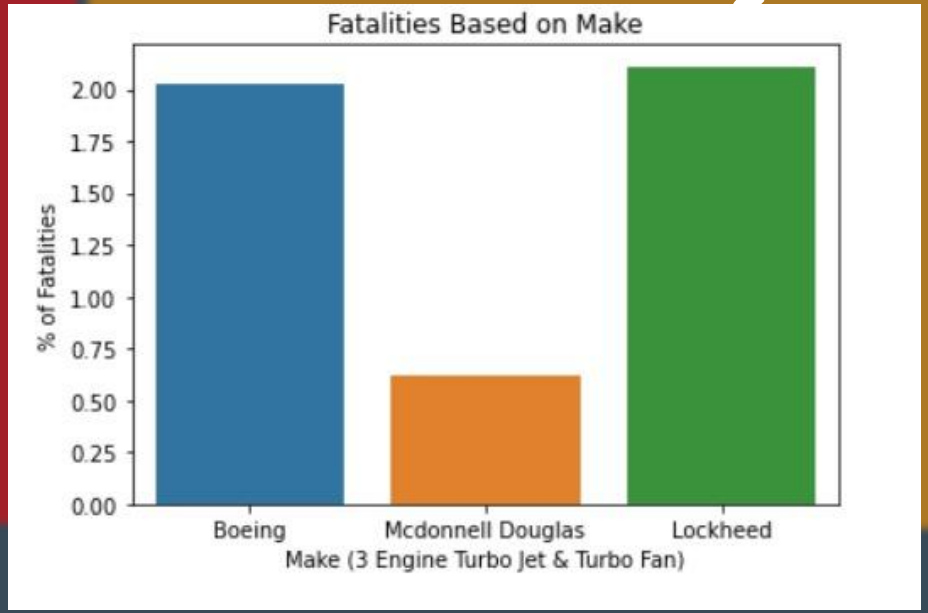


Turbo Fan & Turbo Jet data ---------->

3 engine **aircrafts yield best overall in safety for passengers even when airplanes are completely destroyed**

Top Makes & Manufacturer

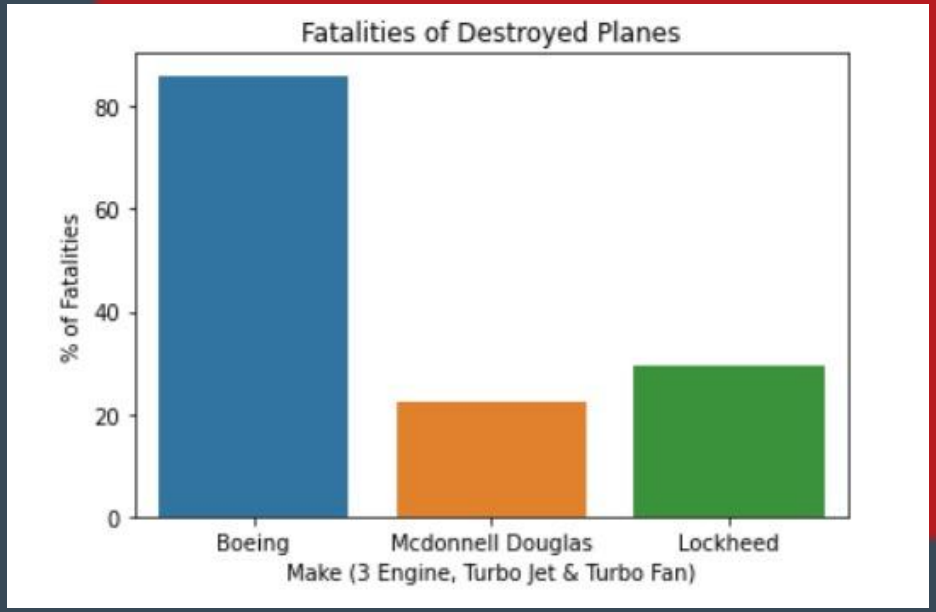


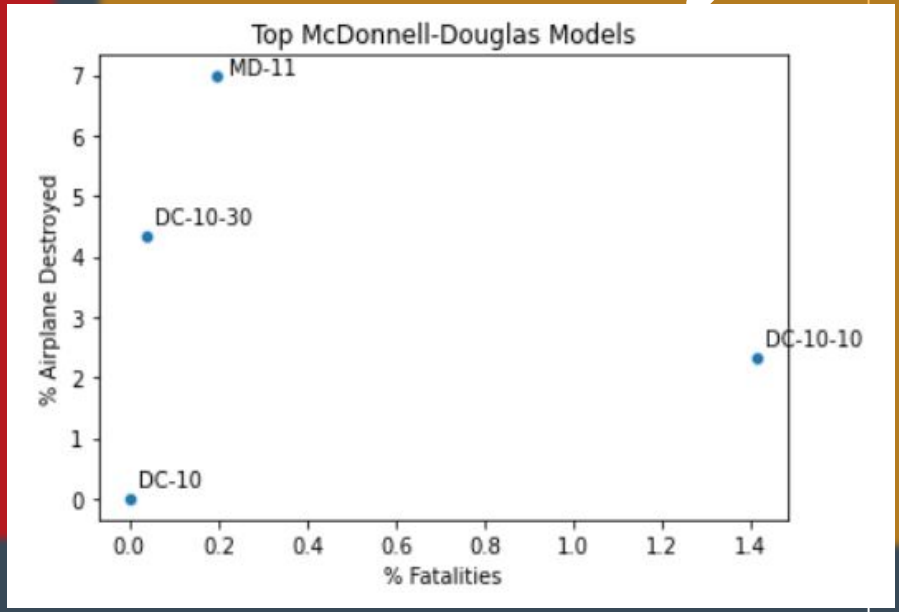


Top 3 Makes based on all safety and reliability metrics ---------->

Douglas scored the best in safety with under 1% of passenger fatalities.

Make & Model: 3 Engines





McDonnell-Douglas models with the desired specifications ---------->

DC-10-30 has a low fatality % even with some destroyed airplanes.

Drum Roll Please

McDonnell Douglas

Professional Recommendation

McDonnell Douglas

Model: DC 10 series

Engine Type: Turbo Fan

# of Engines: 3

Next Steps

- Include more data with modern engines
- Predict airplane safety based on airplane specs

Thank You