Phase 1 project

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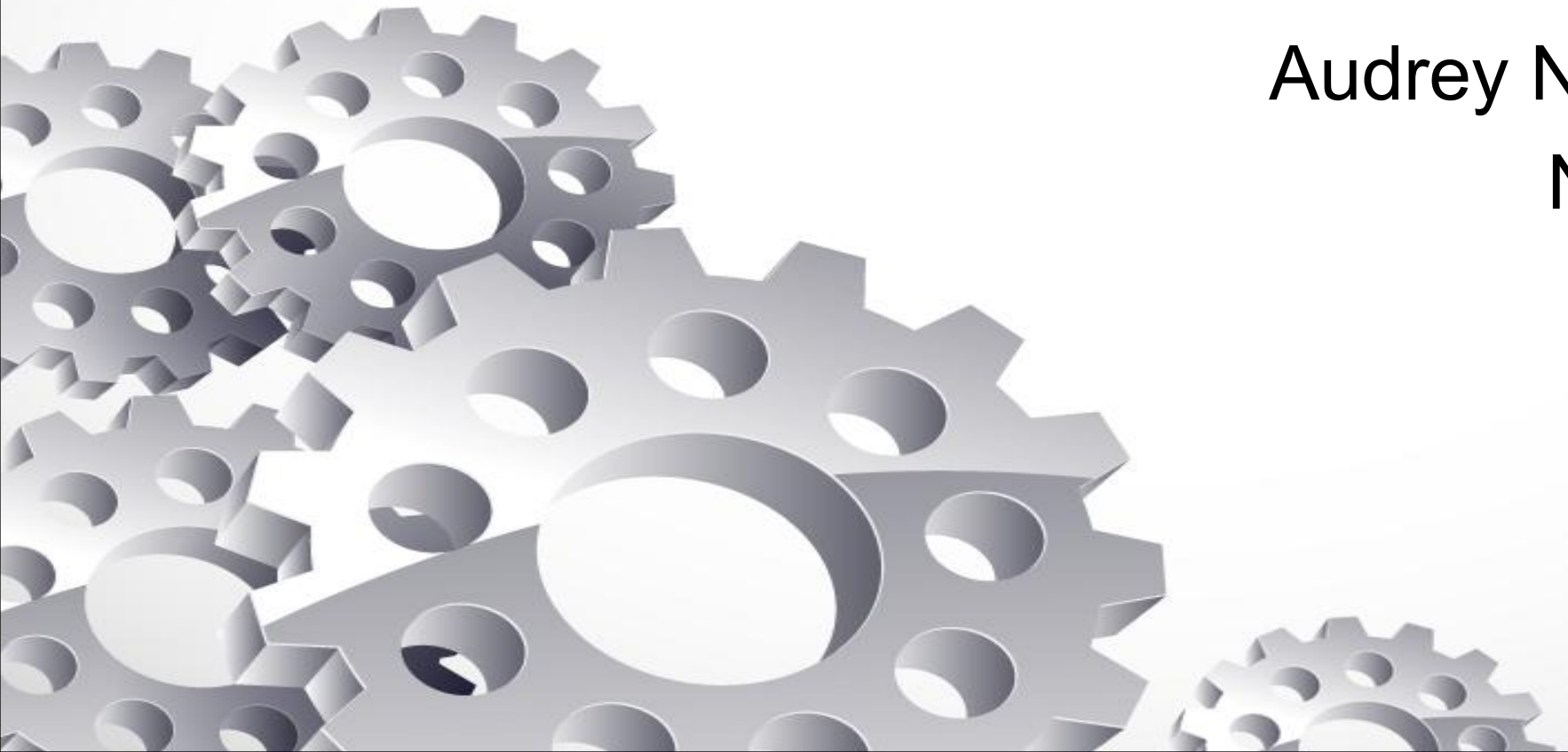


Summary

This project analyzes historical aircraft data to identify low-risk models for a company's aviation expansion.

It examines accident frequency, weather impacts, and seasonal risks to guide aircraft selection, operational planning, and safety enhancements.

Recommendations focus on acquiring durable models, mitigating seasonal risks, and improving safety in adverse weather.

Outline

- Business Problem
- Data and Methods
- Results
- Conclusion

Business Problem

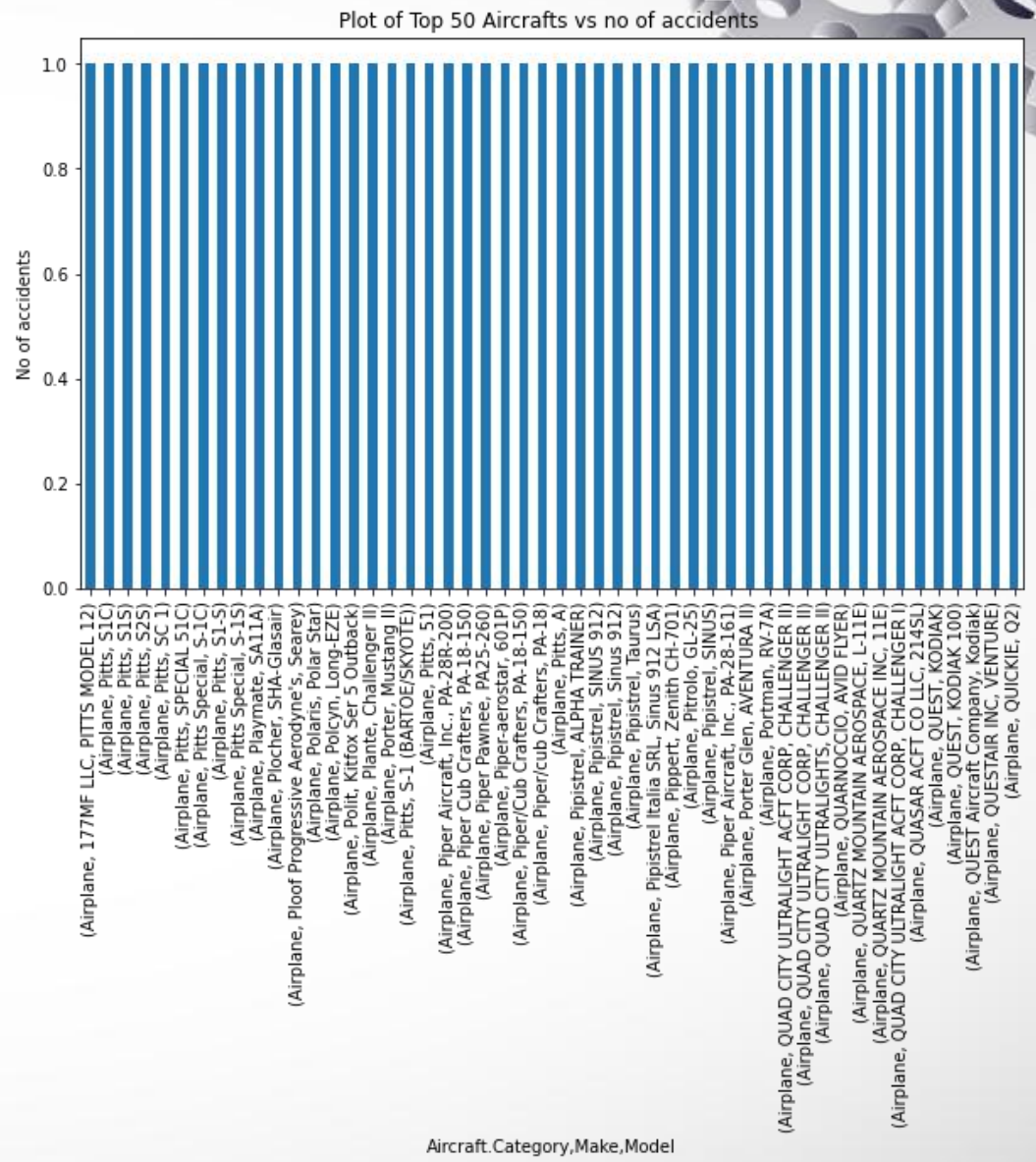
- New business Venture
- Safety Concerns
- Informed Decision-Making

Data and Methods

- Civil Aviation Accidents since 1962 to 2022
- Uses descriptive analysis, including description of trends over time.

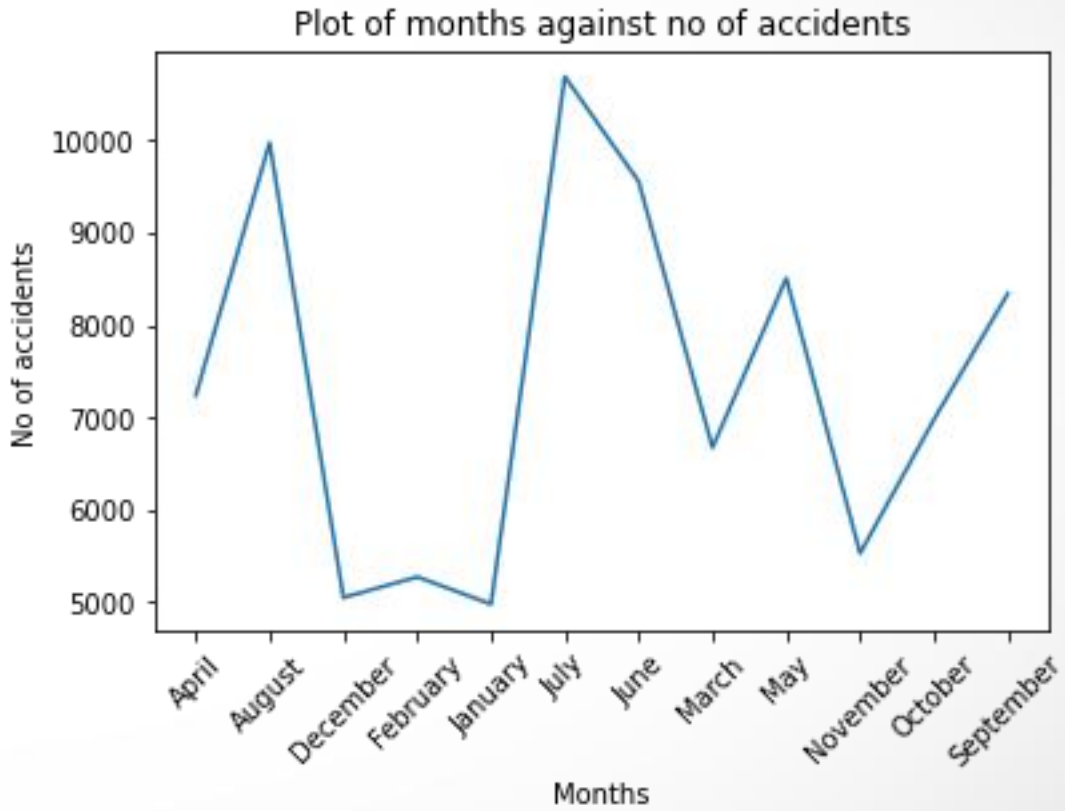
Results

- Most aircrafts have experienced one accident
- These aircrafts have a low accident frequency



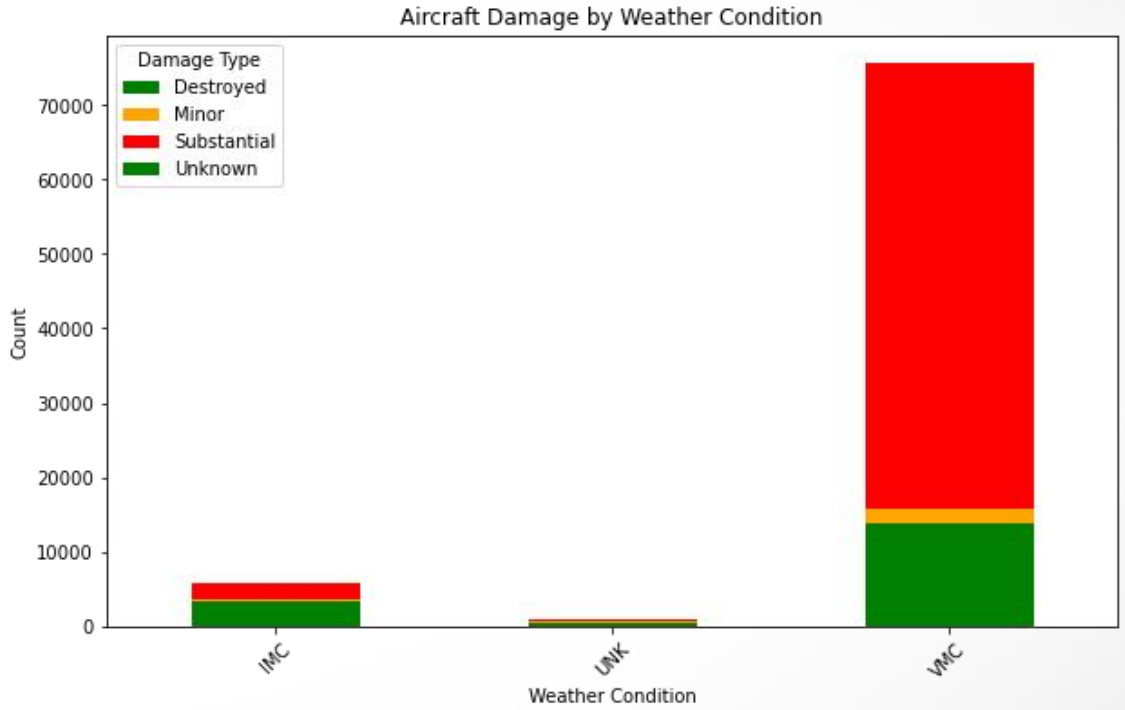
Results

- No of accidents peak at July, hits lowest point in Jan



Results

- Substantial aircraft damage is the most common
- Most accidents happen at VMC (Visual Meteorological Conditions) weather



Conclusion

- Acquire durable, low-risk aircraft models.
- Address seasonal risks with strategic scheduling and training.
- Strengthen safety measures for adverse weather conditions.

Next Steps:

- Predict risks using machine learning.
- Compare costs to identify safe, cost-effective aircraft.
- Simulate seasonal risks to guide mitigation strategies.

Thank You

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