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# Taking Flight

## — JZ Flight School Analysis —

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# Summary

Key findings:

- **Cessna, Bell,** and **Piper** aircrafts are the safest airplanes.
  - Cessna 172, Cessna 158, or Piper PA-28
- Most dangerous flight phases: **initial climb, cruise,** and **maneuvering**
- Most dangerous time of year to fly: **winter**

# Outline

- Business Problem
- Data & Methods
- Results
- Conclusions

# Business Problem

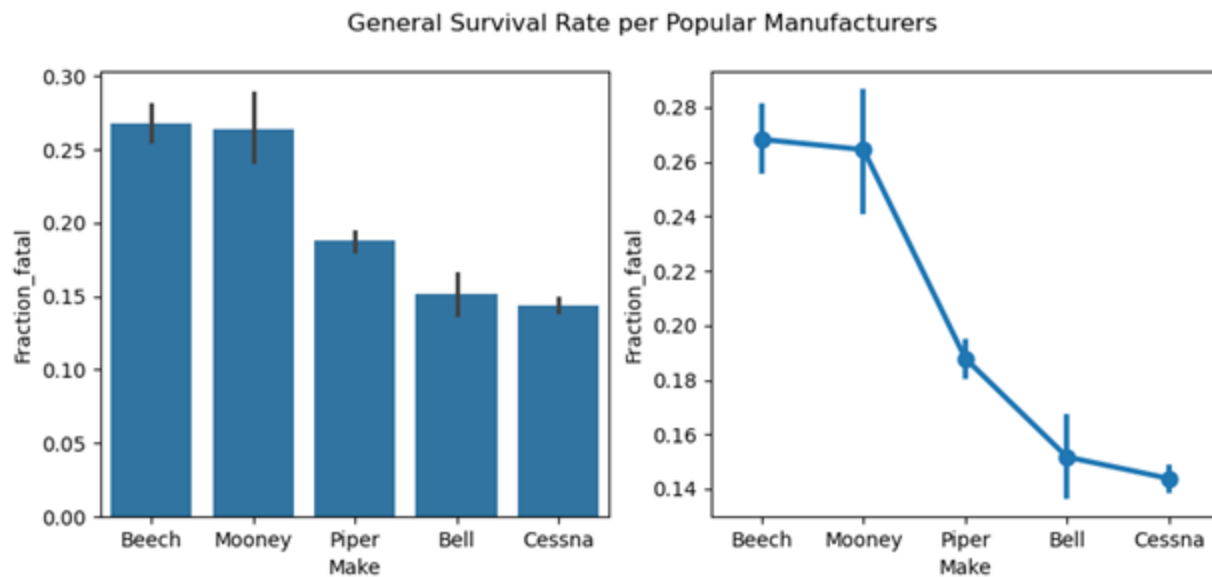
- Determine the safest plane models to purchase for instruction.
- Determine the most dangerous flight phases.
- Determine the most dangerous seasons for flying.

# Data & Methods

- Safety Metric: Protecting passengers during an accident
  - Fraction of passengers killed during an accident.
  - Fraction of passengers injured during an accident.
- Focused on smaller aircraft

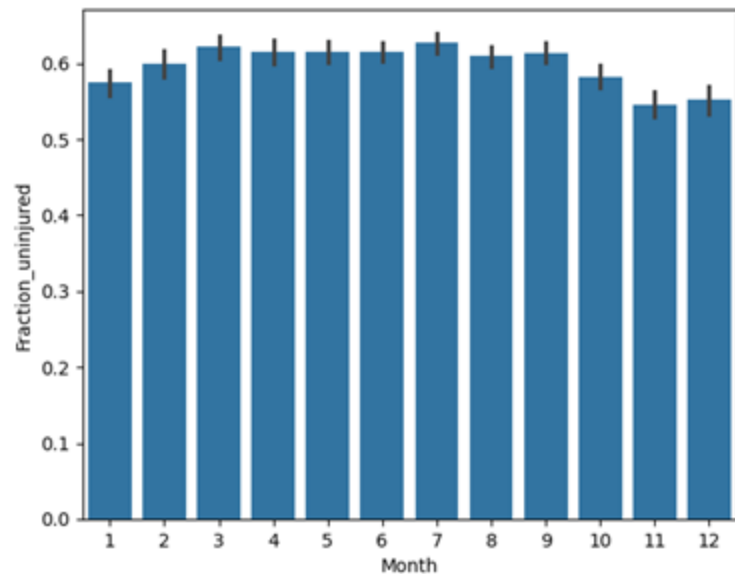
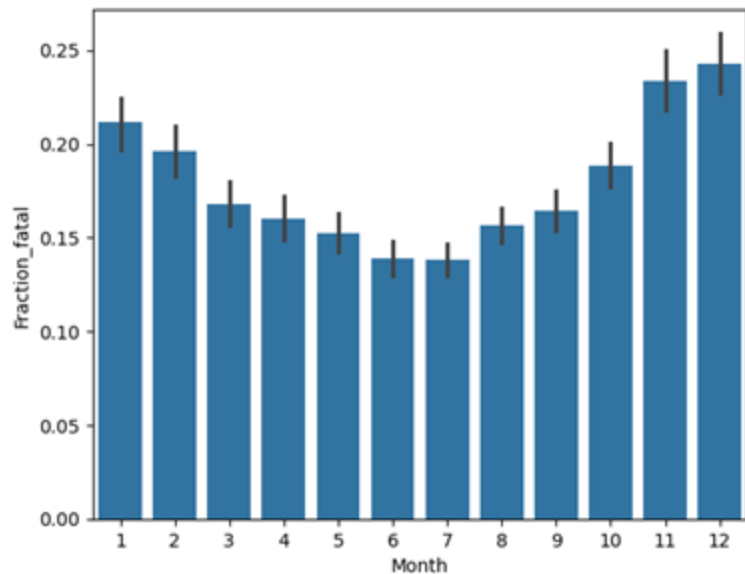
# Results

Cessna and Piper have the best safety metrics.



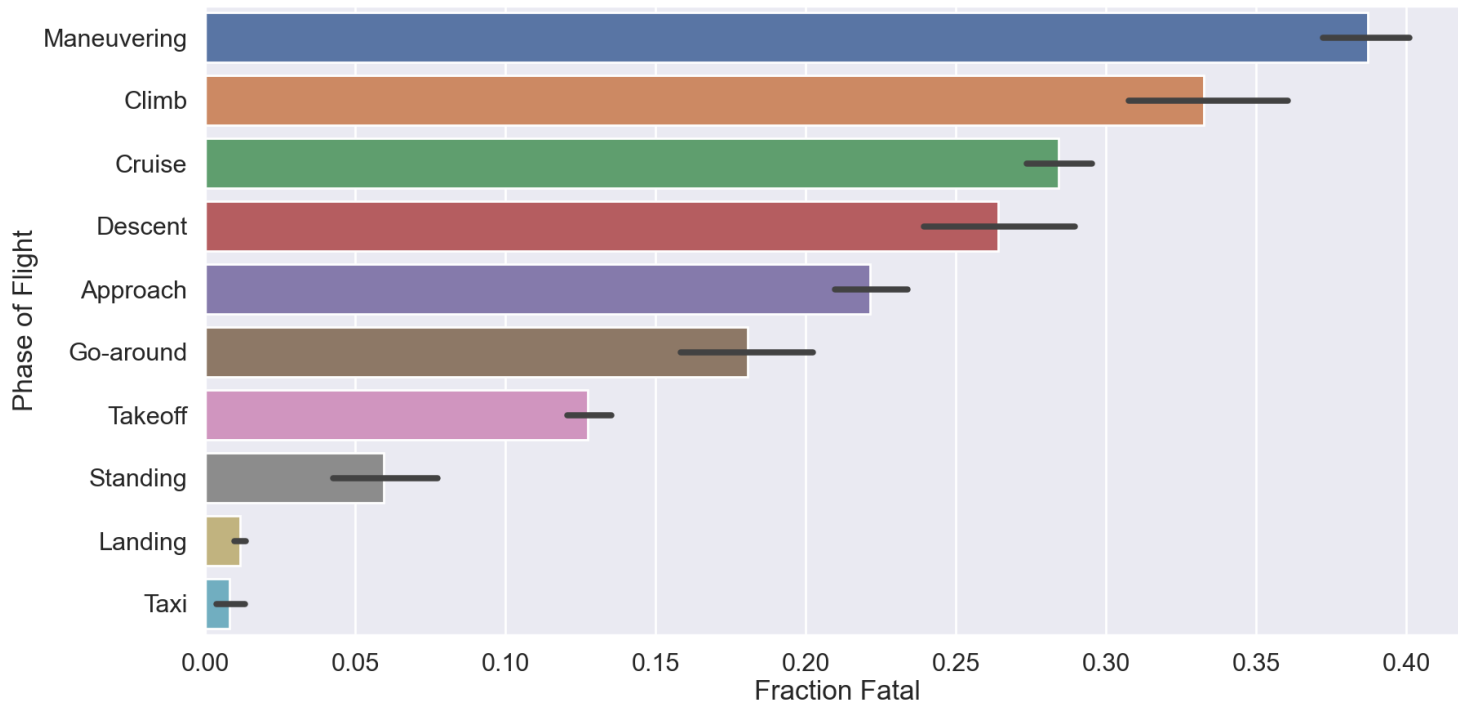
# Results

The winter months are the most dangerous for flying.



# Results

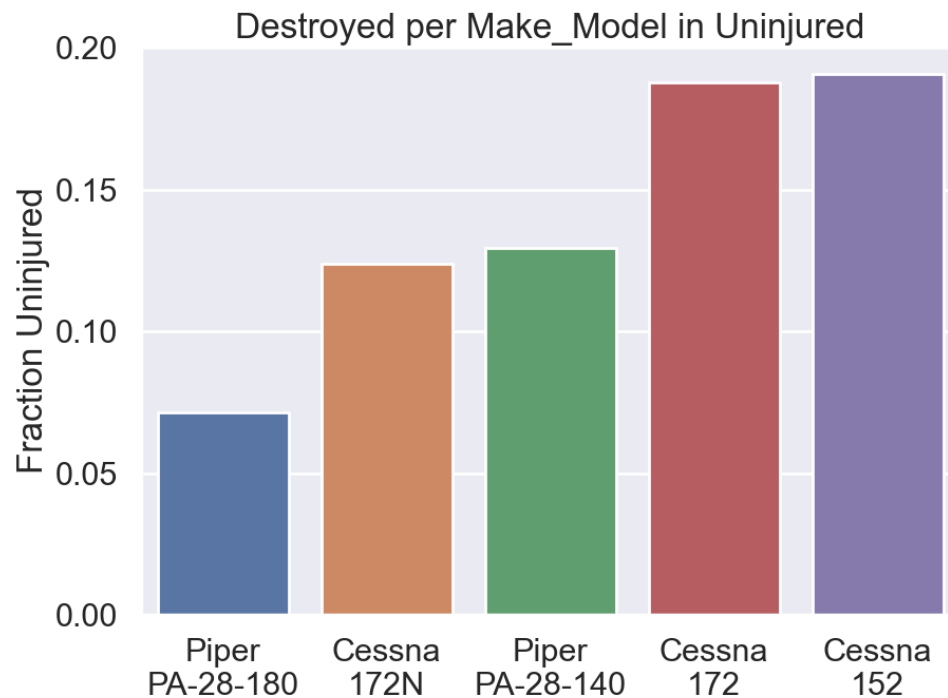
The initial climb, maneuvering, and cruise phases are the most dangerous.





# Results

The Cessna 152, 172 and the Piper PA-28 are the safest models.



# Conclusion

- Consider **Cessna** or **Piper** makes (Cessna 172, 158, or Piper PA-28).
- Focus on safety during **climb**, **cruise**, and **maneuvering** phases of flight.
- Focus on safety during **winter** flying.

## Next Steps:

- Investigate the geographical locations of accidents to gain insight.
- Investigate weather conditions.

# Thank You!

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