Aircraft Safety Analysis and Business Recommendations

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Project Objective

- ✓ Support safe aircraft acquisition.

- ✓ Reduce operational risk.

- ✓ Use 60+ years of real accident data.

Data Overview

✓ NTSB accident records (1962–2023).

✓ Focused on Injury Severity and Aircraft Model.

✓ Cleaned and filtered missing or irrelevant data.

Key Findings

✓ Top aircraft models have **zero fatal accidents**.

✓ General aviation aircraft = **lower fatality rates**.

✓ Human factors (pilot errors) significant during **takeof.f/landing**

Top 10 Safest Aircraft

Insert Bar Chart:

- Aircraft Models vs. Number of Fatal Accidents (from Step 5.4)

Business Recommendations

✓ Acquire safest aircraft models (Top 3).

✓ Focus on general aviation operations first.

✓ Enforce strict pilot training & pre-flight checks.

Expected Business Impact

✓ Minimize risks.

✓ Improve safety reputation.

✓ Reduce insurance and legal exposure.

Closing