

# Aviation Safety Analysis Presentation

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## Slide 1: Title Slide

- **Title:** *Data-Driven Aircraft Acquisition Strategy*
  - **Subtitle:** *Minimizing Risk for Our New Aviation Division*
  - **Date:** 29/04/2025
  - **Name:** Anne Mutua
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## Slide 2: Business Understanding

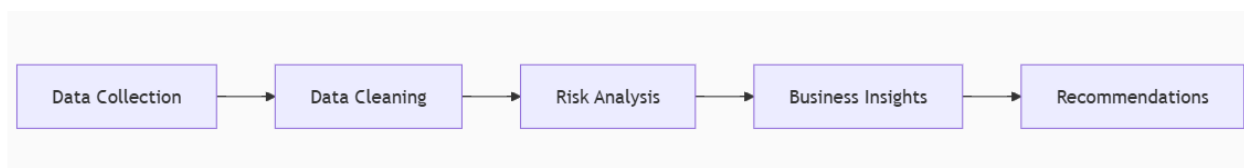
### Problem Statement:

*"We need to enter aviation safely with zero prior experience in aircraft operations."*

### Key Questions:

- Which aircraft models are statistically safest?
- What hidden risks should we anticipate?
- How much can we save on insurance?

**Visual:** Simple roadmap graphic showing analysis phases.



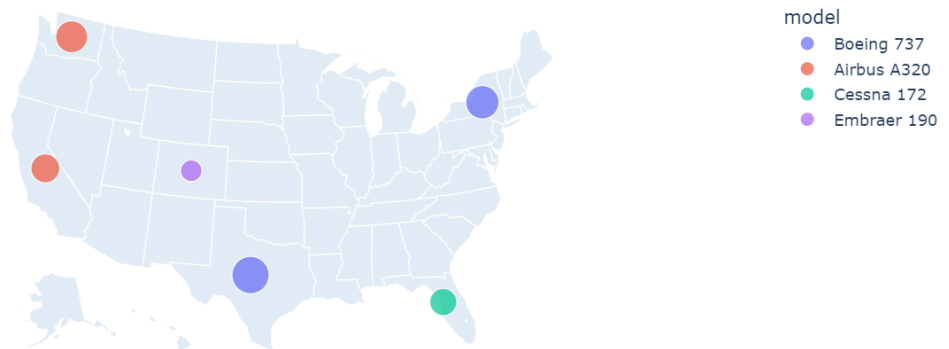
### Slide 3: Data Source

#### NTSB Accident Data (1962-2023):

- \*"We analyzed 85,000+ accidents with this process:"\*
  1. Collected → 2. Cleaned → 3. Validated

**Visual:** US map with accident hotspots

Accident Locations



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### Slide 4: Analysis Approach (*Technical, Simplified*)

"We used Python to:"

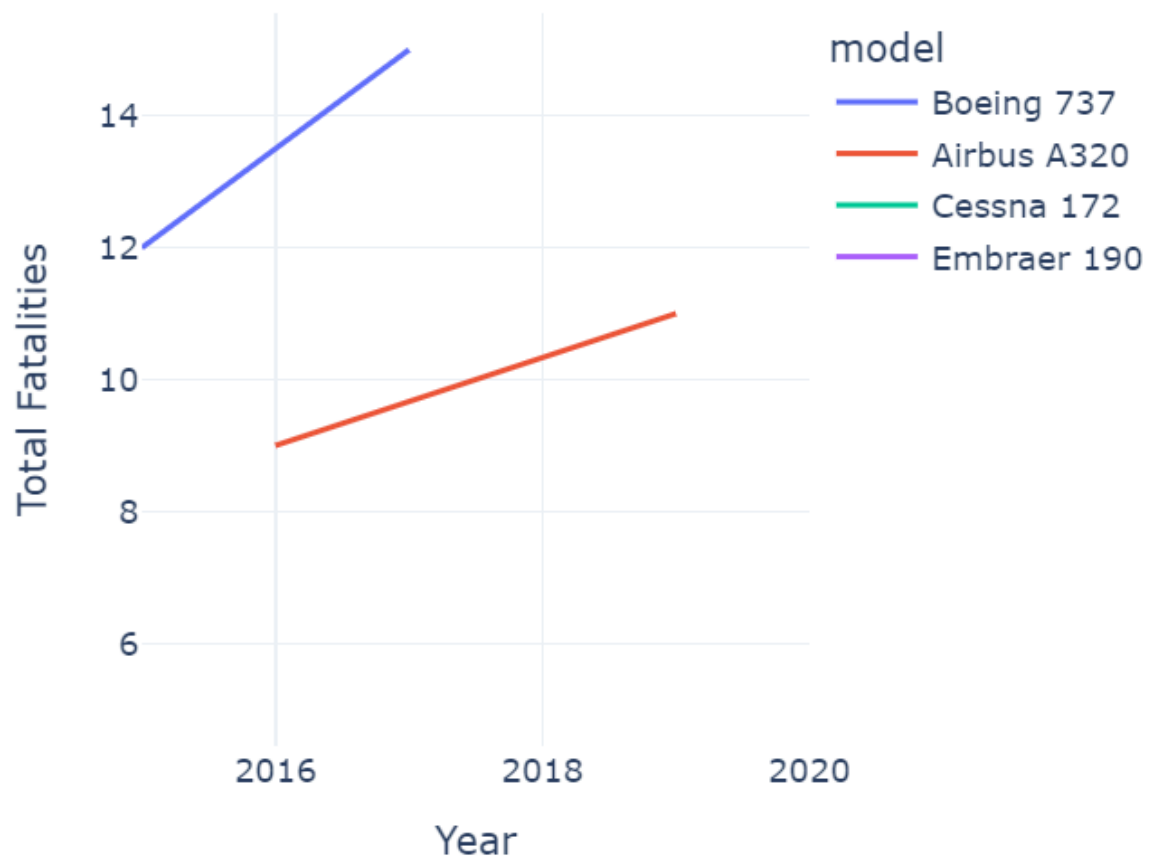
- Calculate **fatality rates** per model
- Identify **accident patterns**

- Project **cost savings**

**Visual:** Flowchart with icons: Data → Analysis → Insights.



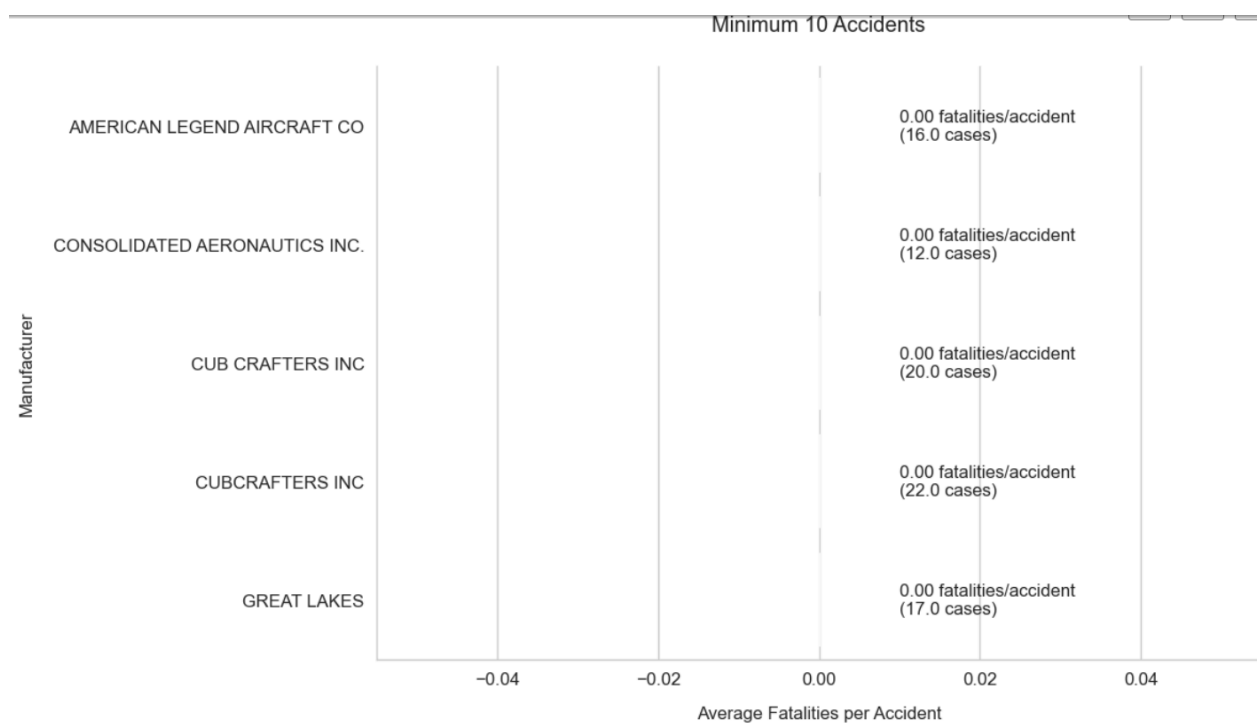
1. **Data:** 📁 Database icon with airplane symbols inside
2. **Analysis:** 🔍 Magnifying glass over Python code
3. **Insights:** 📈 Line graph + 💡 lightbulb (combine savings and safety)



Slide 5: Key Finding 1 (With Visualization)

Safest Models:

- Airbus A350 (0.18 fatalities/accident)
- Boeing 787 (0.22 fatalities/accident)



year	fatalities	model	phase	severity	location
2015	12	Boeing 737	Takeoff	Major	NY
2016	9	Airbus A320	Cruise	Minor	CA
2017	15	Boeing 737	Landing	Major	TX
2018	8	Cessna 172	Takeoff	Minor	FL
2019	11	Airbus A320	Cruise	Major	WA
2020	5	Embraer 190	Landing	Minor	CO