

AVIATION ACCIDENTS VISUALIZATION PROJECT

GROUP 3 MEMBERS:

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AVIATION ACCIDENTS' VISUALIZATION

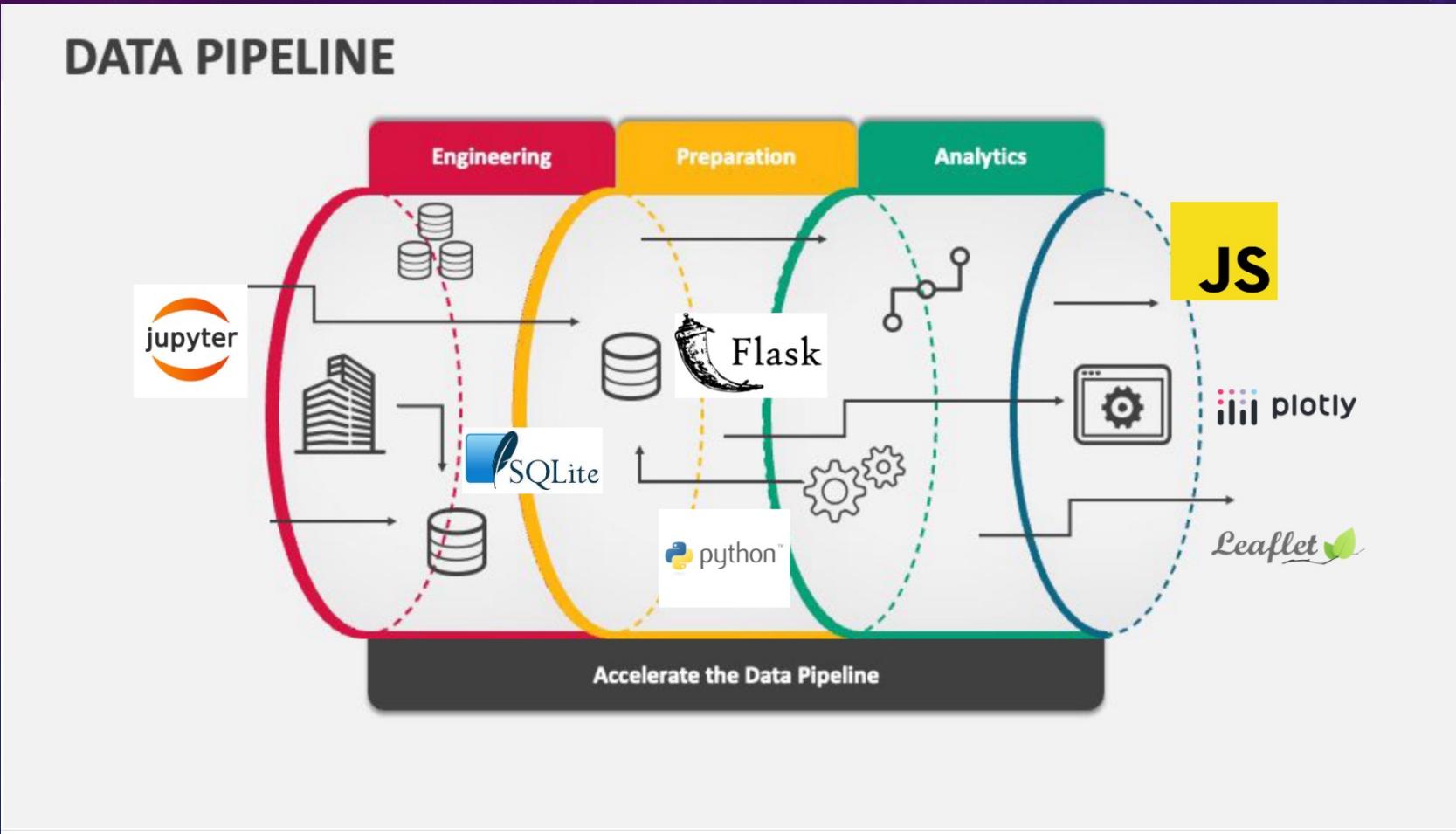
Introduction:

QUESTIONS TO BE CONSIDERED:

1. Can we accurately predict where plane crashes are about to occur?
2. Are there certain airlines that have more crashes than others?
3. Are there possible outside factors affecting these trends?

AVIATION ACCIDENTS VISUALIZATION

Extraction +
Transformation:



AVIATION ACCIDENTS VISUALIZATION

Extraction +
Transformation:

Data Extraction

- Web Scraping
- Text Parsing
- Modules/APIs

Data Transformation

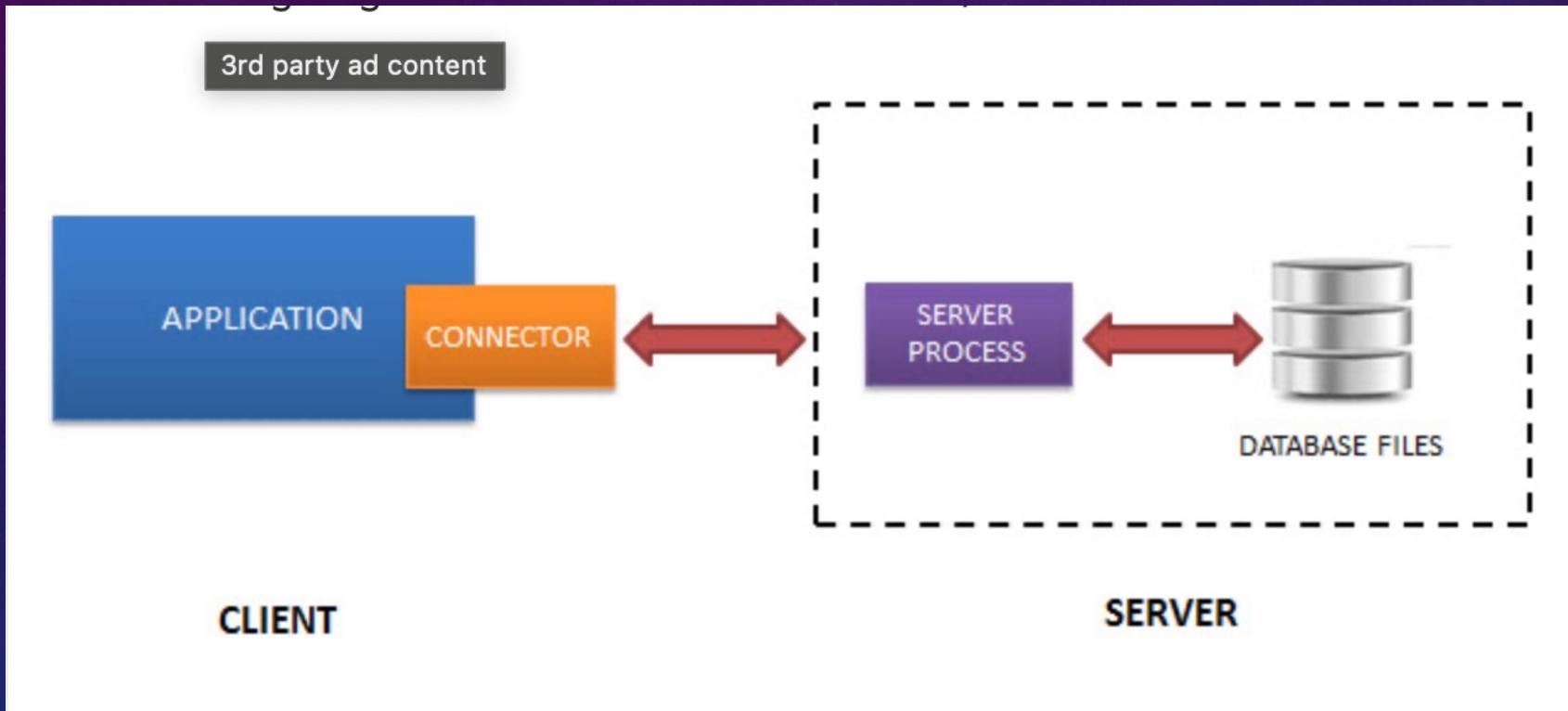
- Removal of Unwanted Information
- Old/New Names
- Standardization



AVIATION ACCIDENTS VISUALIZATION

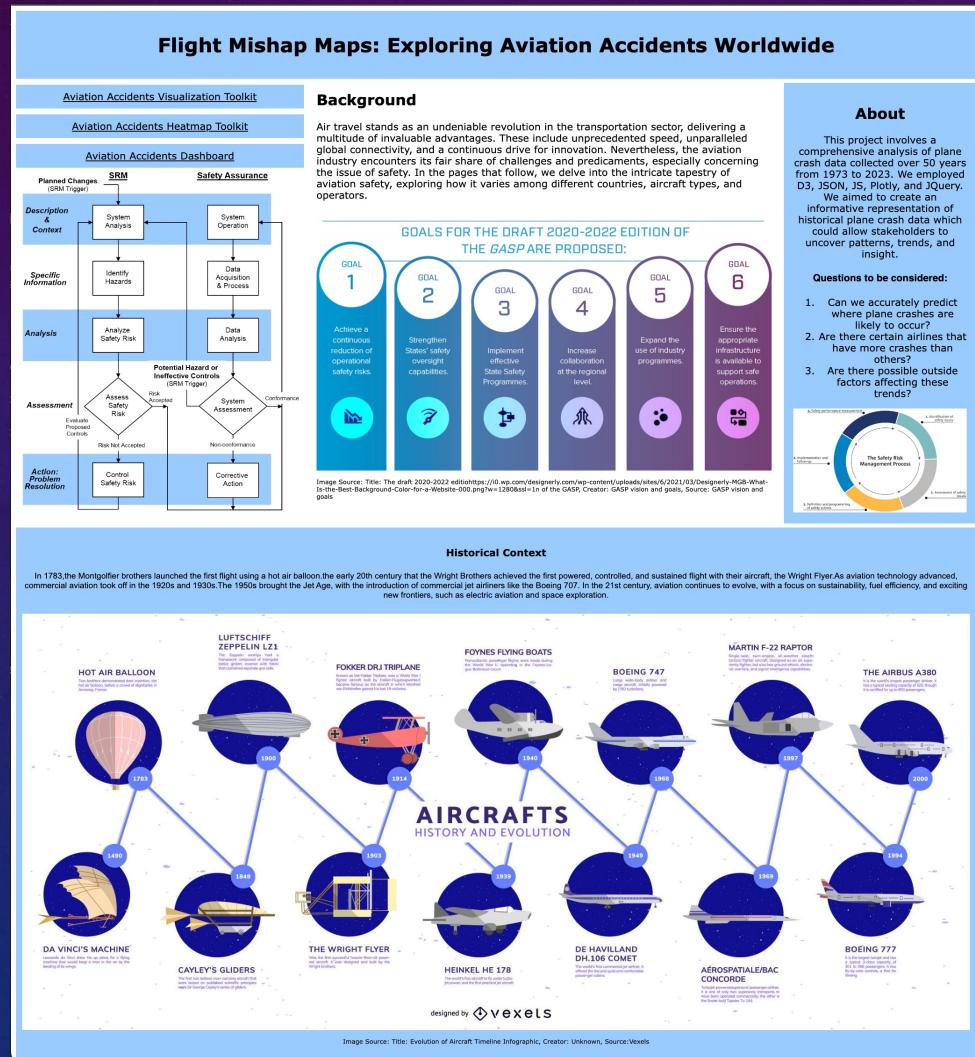
Flask API / SQLite

Database
Loading:



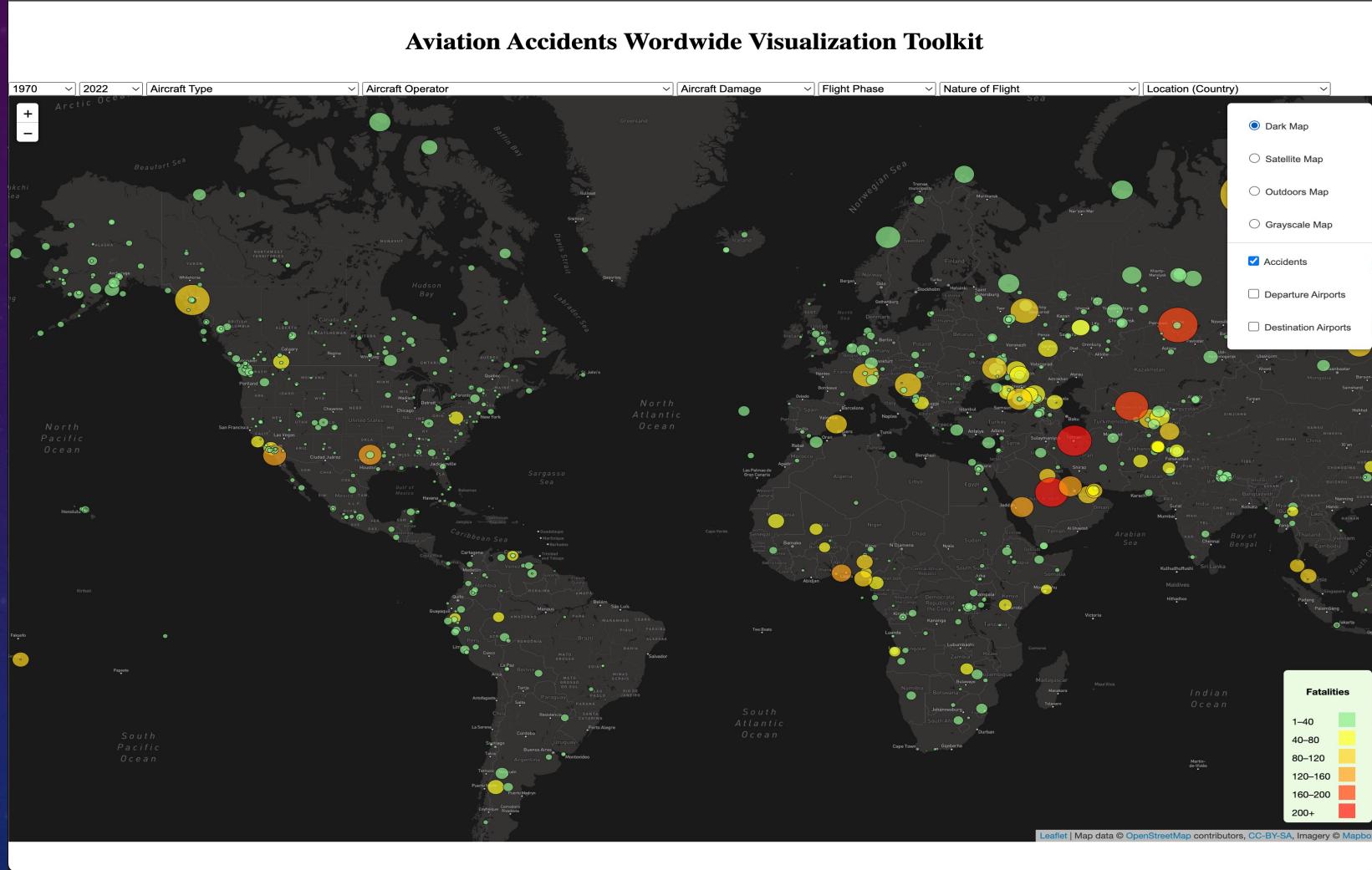
AVIATION ACCIDENTS VISUALIZATION

Landing Page:



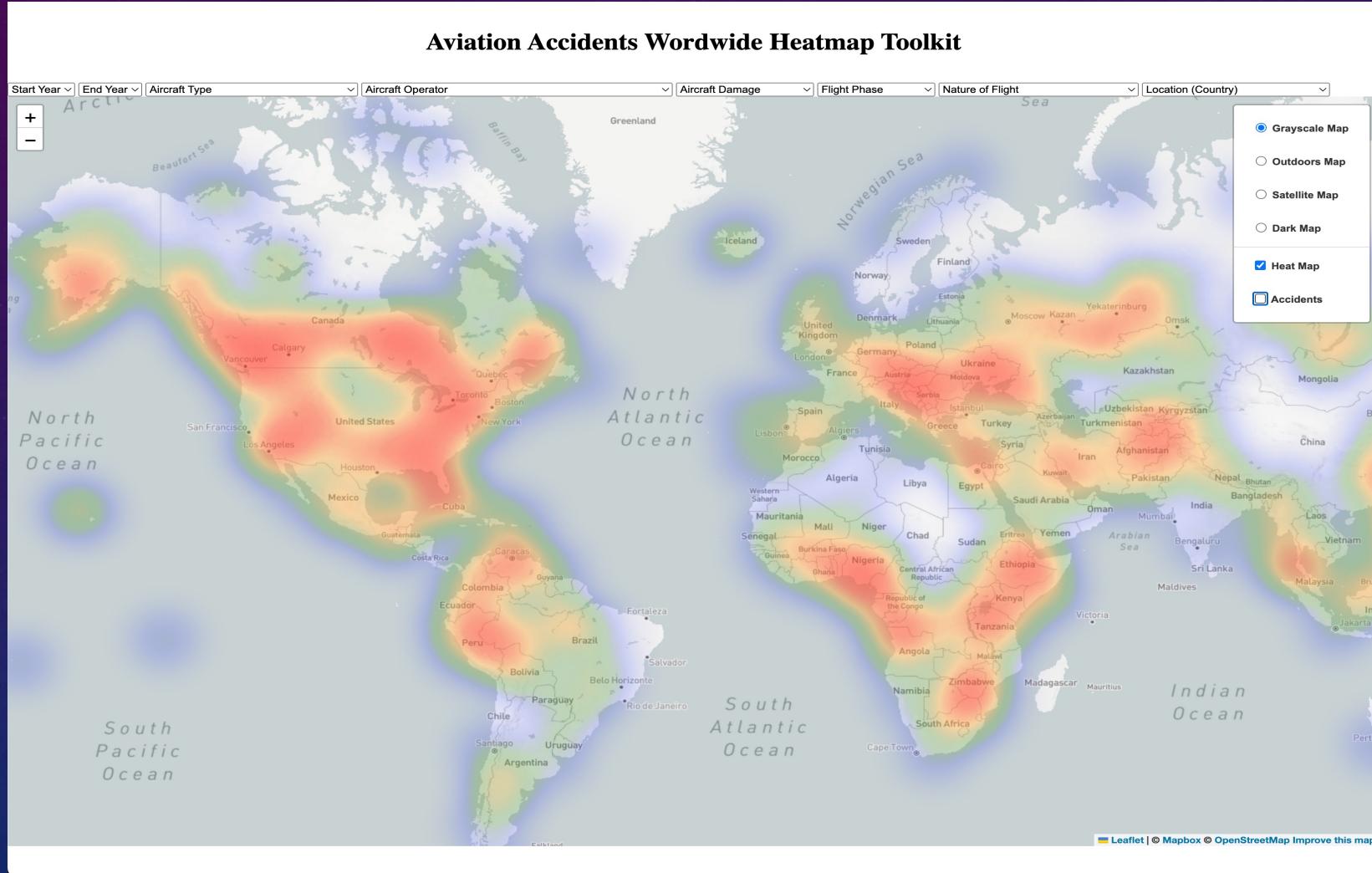
AVIATION ACCIDENTS VISUALIZATION

Visualization:



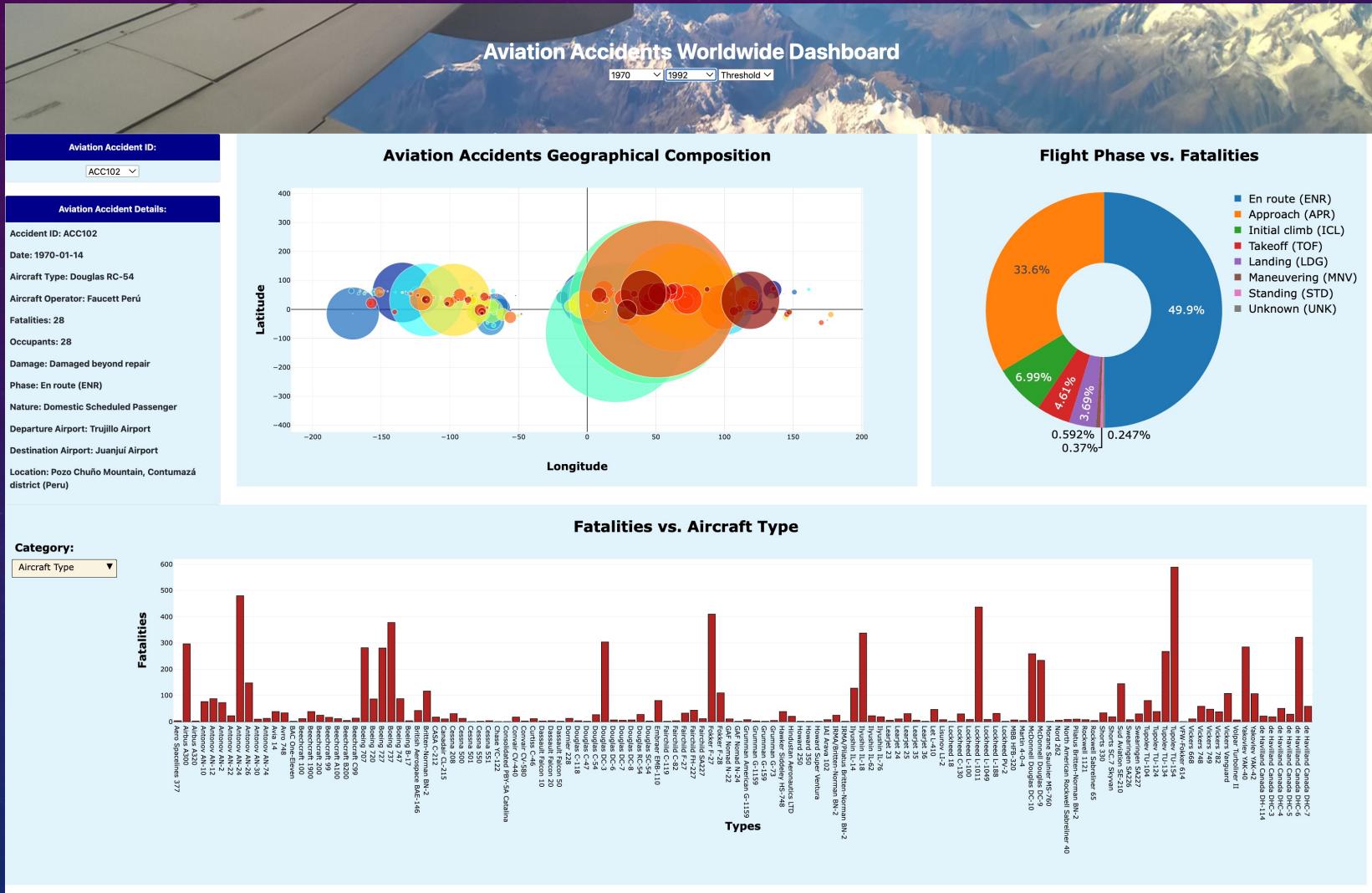
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Heatmap:



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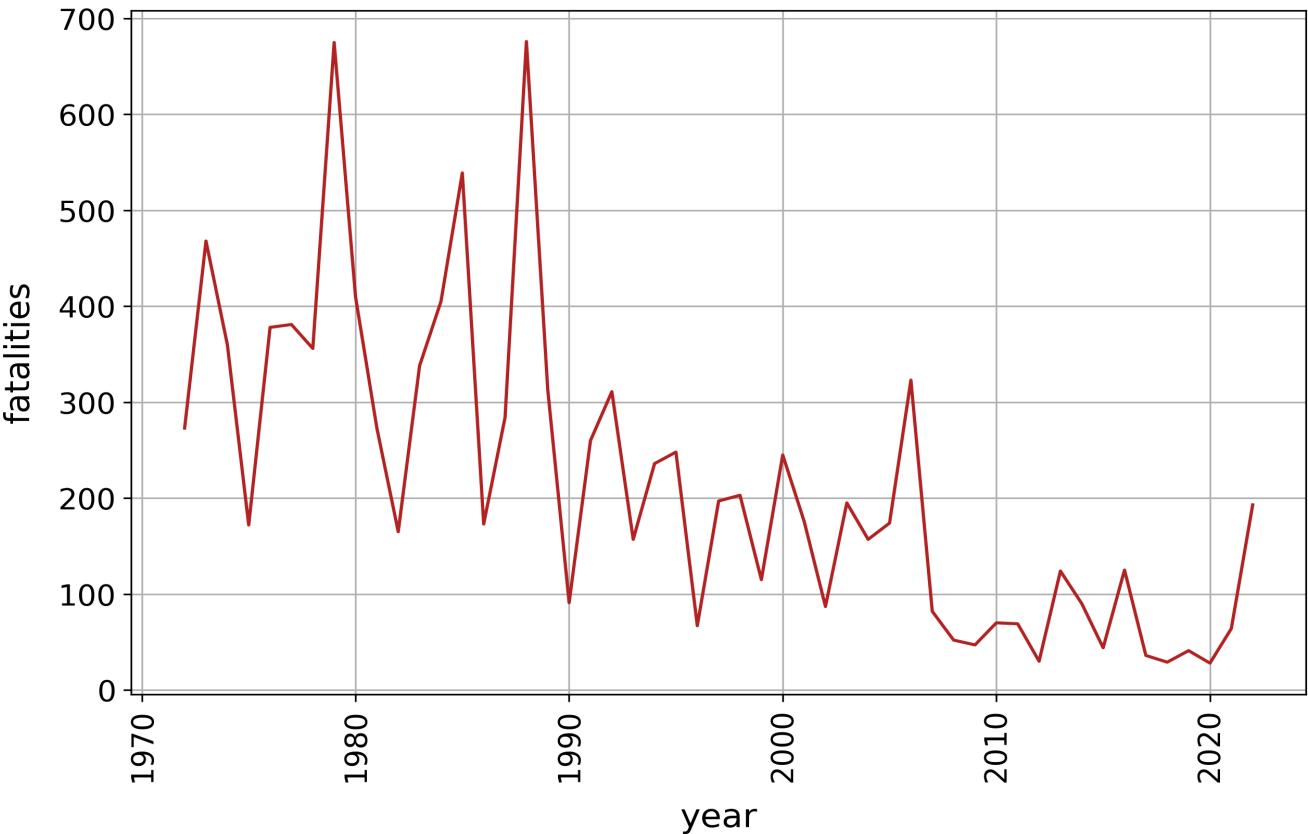
Dashboard:



AVIATION ACCIDENTS VISUALIZATION

Analysis:

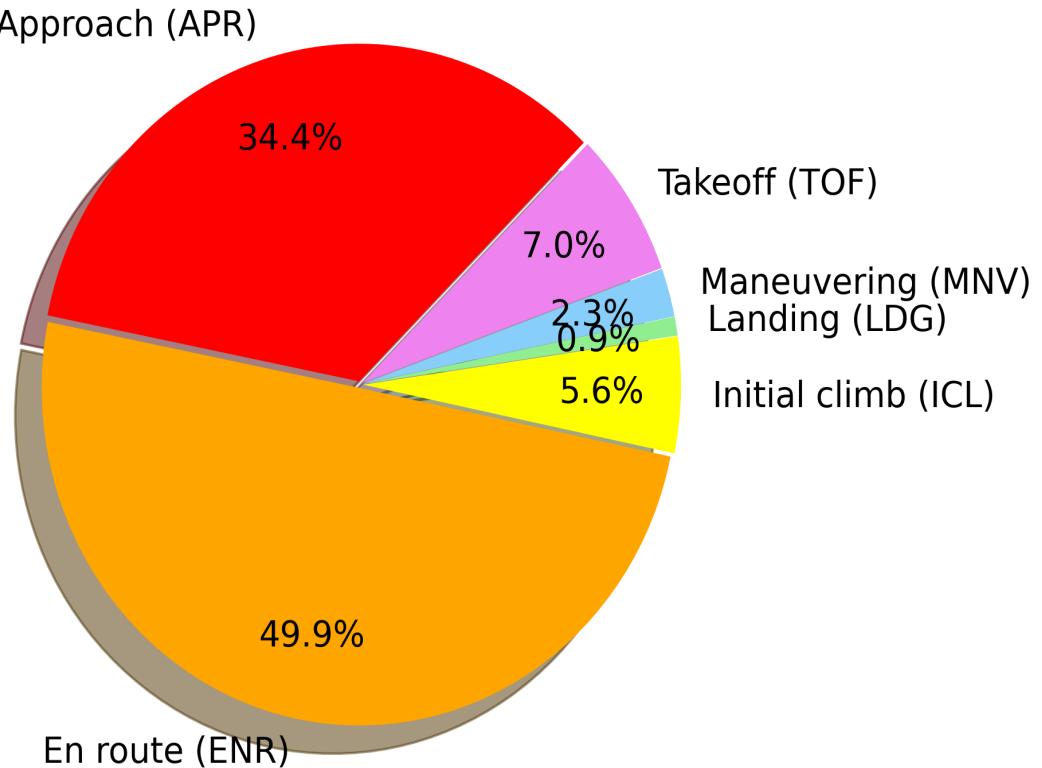
Total Aviation Fatalities per Year (1972-2022)



AVIATION ACCIDENTS VISUALIZATION

Analysis:

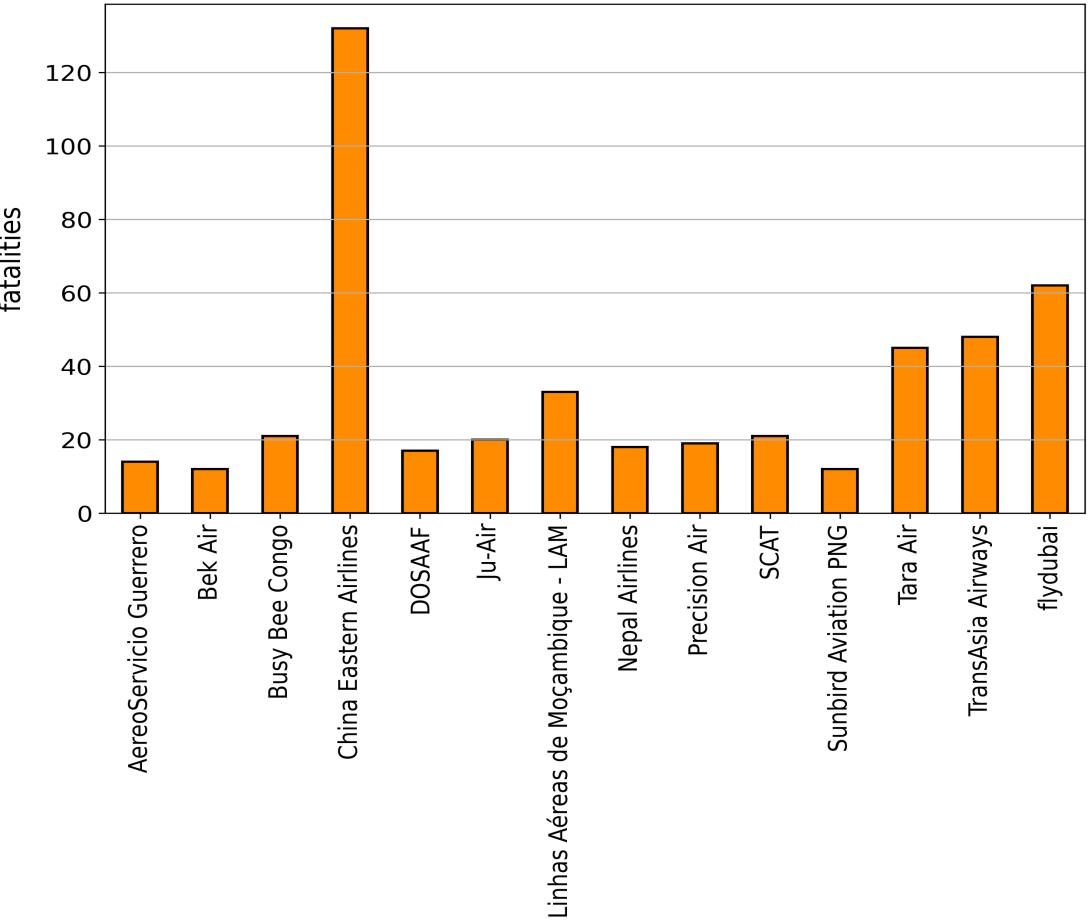
Aviation Fatalities (%) per Flight Phase (>10 Fatalities) (2012-2022)



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Analysis:

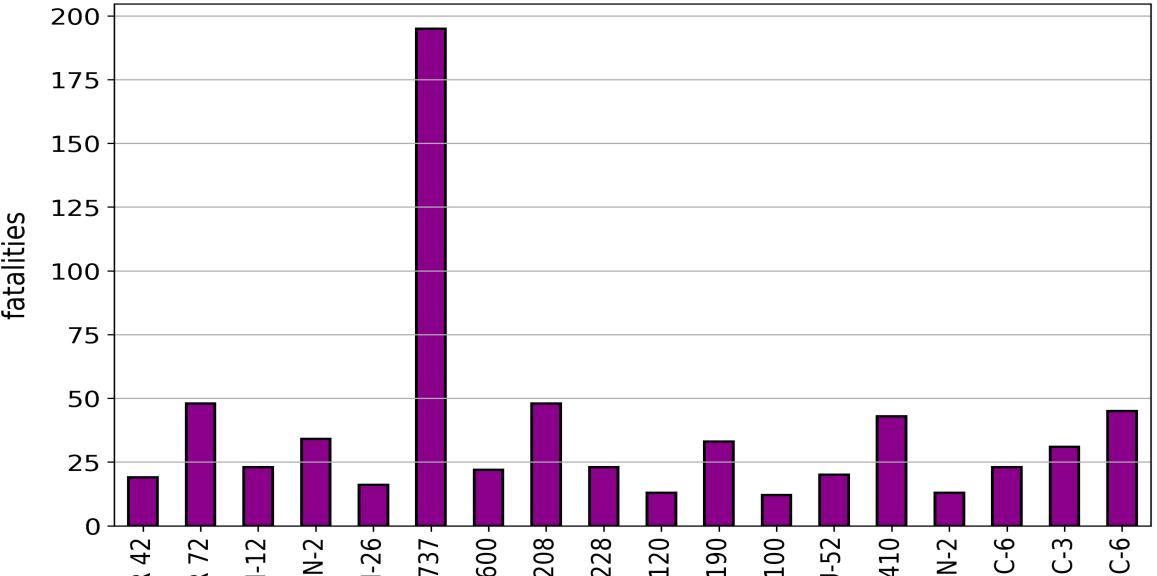
Total Aviation Fatalities per Aircraft Operator (>10 Fatalities) (2012-2022)



AVIATION ACCIDENTS VISUALIZATION

Analysis:

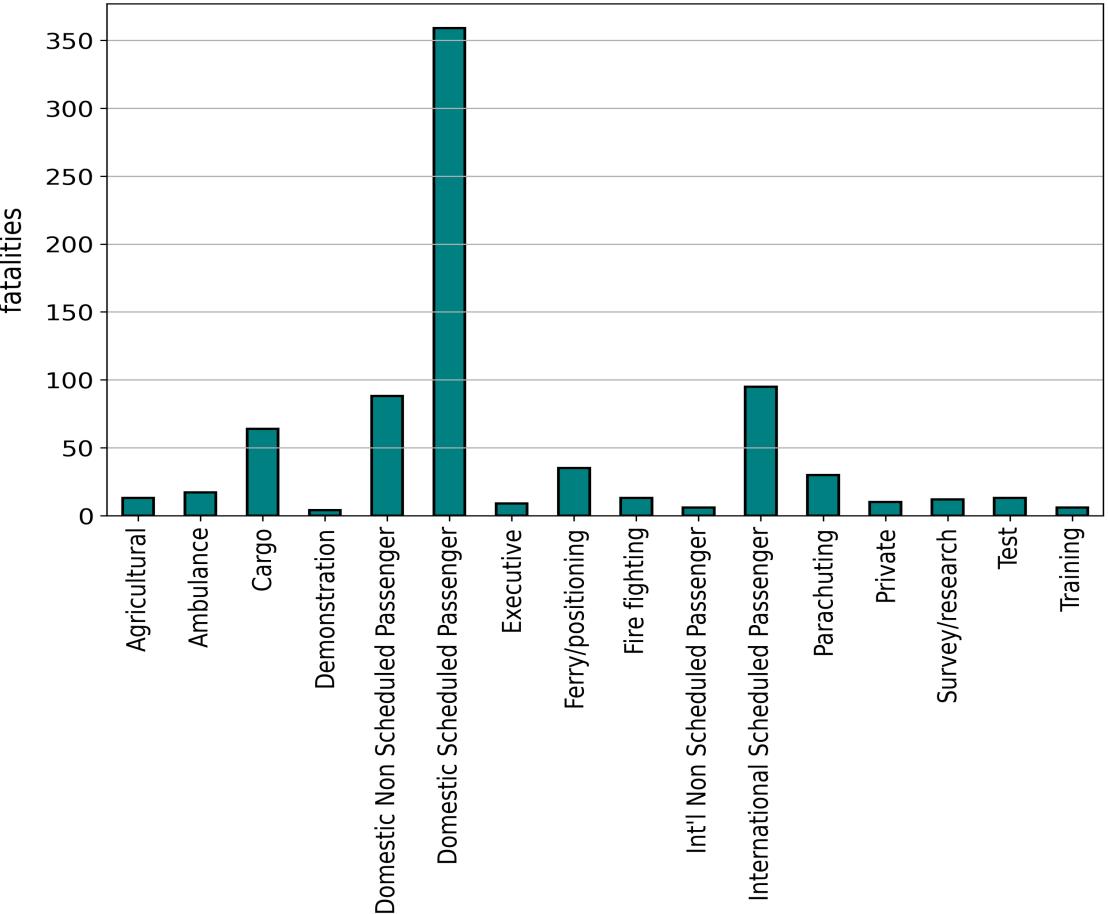
Total Aviation Fatalities per Aircraft Type (>10 Fatalities) (2012-2022)



AVIATION ACCIDENTS VISUALIZATION

Analysis:

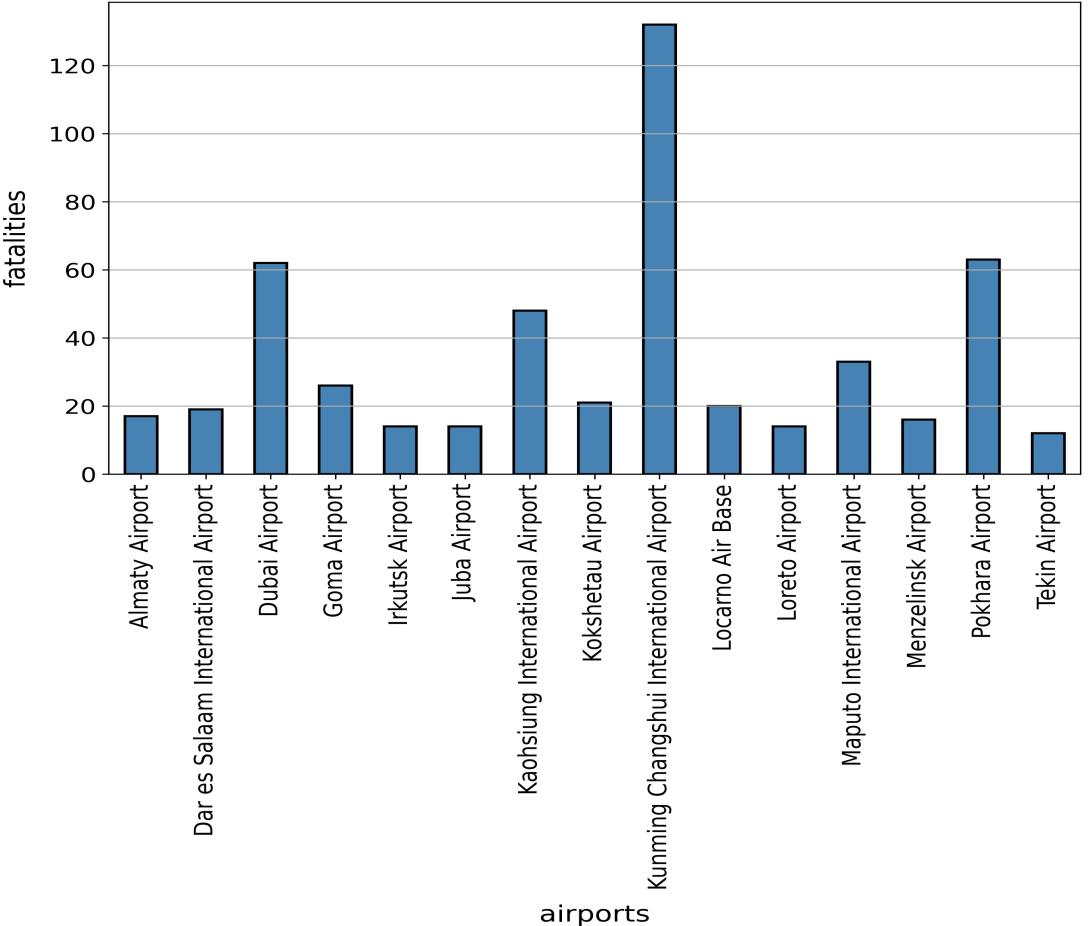
Total Aviation Fatalities per Nature of Flight (>10 Fatalities) (2012-2022)



AVIATION ACCIDENTS VISUALIZATION

Analysis:

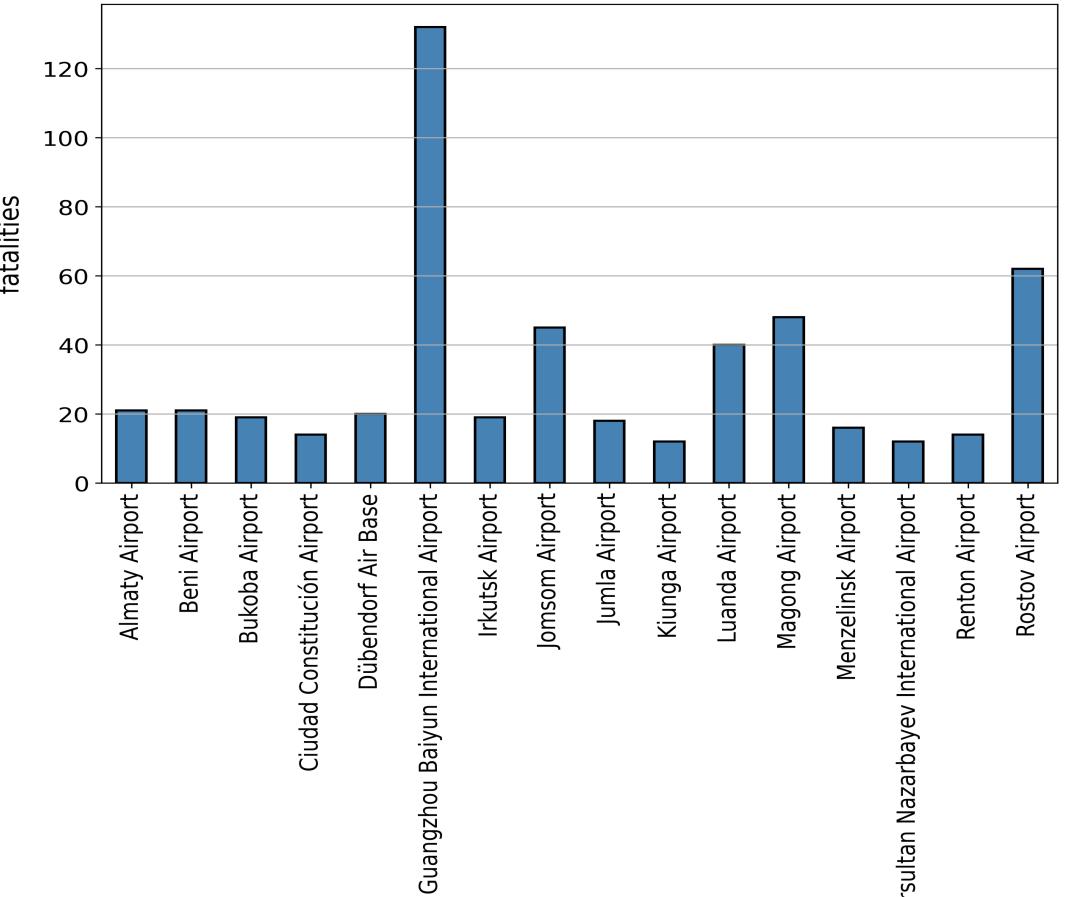
Total Aviation Fatalities per Departure Airport (>10 Fatalities) (2012-2022)



AVIATION ACCIDENTS VISUALIZATION

Analysis:

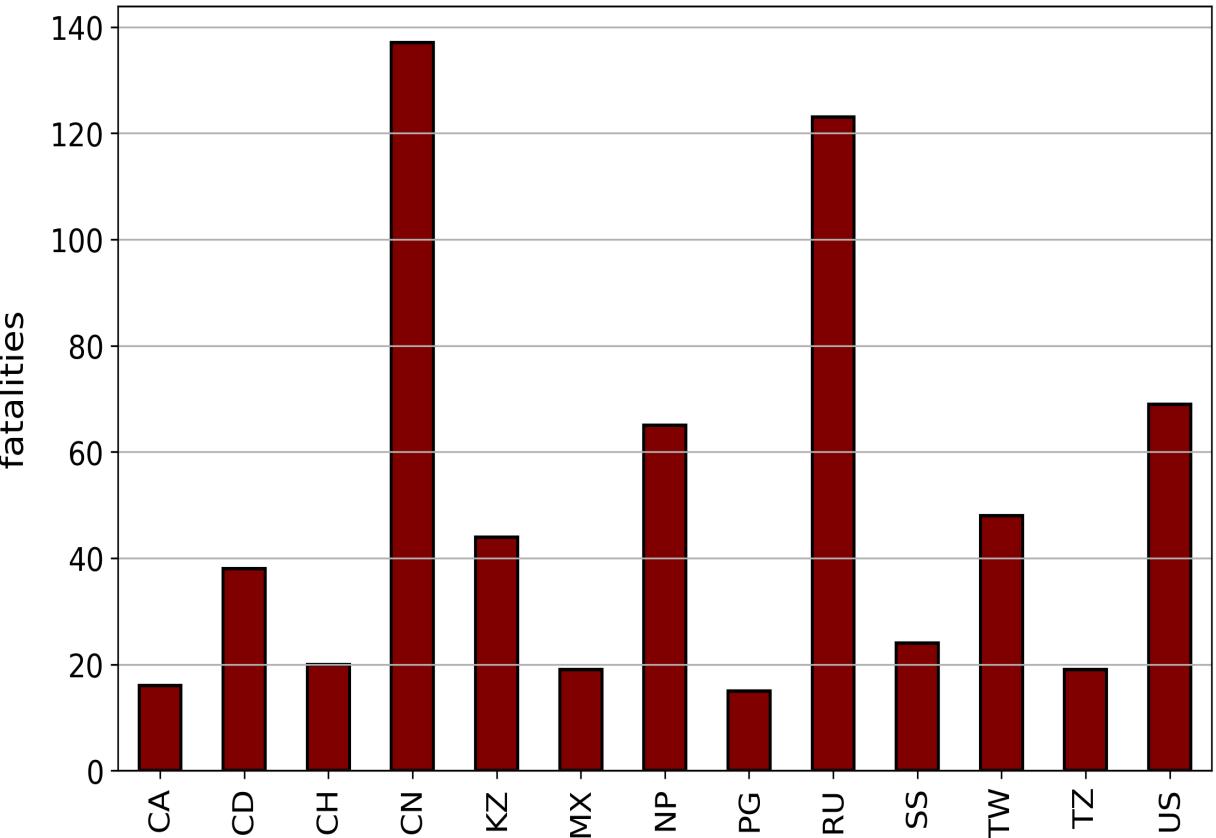
Total Aviation Fatalities per Destination Airport (>10 Fatalities) (2012-2022)



AVIATION ACCIDENTS VISUALIZATION

Analysis:

Total Aviation Fatalities per Country (>10 Fatalities) (2012-2022)



AVIATION ACCIDENTS VISUALIZATION

Conclusion:

- We cannot accurately predict the location of plane crashes only the likelihood based on past events.
- During the last ten years, China Eastern Airlines has experienced the largest fatalities.
- Possible outside factors for aviation fatalities include terrorism, poor maintenance, and employee negligence or malfeasance
- Do not catch the next China Eastern Airlines domestic passenger flight from Kunming Changshui International Airport to Guangzhou Baiyun International Airport on a Boeing 737.

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Questions? Comments?

