

# Aviation\_Accident\_Database\_Project

This presentation will explore the main reasons behind aviation accidents dating back to 1948.

We aim to identify patterns and causes to provide suggestions for improving the safety of air travel.

## objectives

- to clean up the data
- to find out the number of accidents that have happened
- to find out how many passengers were injured or killed
- to find out the cause of the crashes
- What is the major contribution to accidents (pilot error or other)
- airline with the most accidents
- country with the most accidents

## Analysis

The data shows that 95.6% of crashes are accidents, which happen more often than incidents. Most accidents are caused by pilot error, but there are other factors too, like overconfidence, busy air traffic, distractions, runway problems, and miscommunications with traffic control. Surprisingly, many accidents happen in clear weather. Landing is the riskiest part of a flight because it involves a lot of factors and little time to fix mistakes. However, as technology improves, airplanes have become safer, and the number of injuries has gone down.

## Recommendations

- Train pilots more on landing and takeoff emergency scenarios
- Increase their mandatory flight hours on a training simulator as Prospective commercial pilots typically log at least 250 hours of flying time to earn their license
- Optimize air traffic management systems with AI-based solutions for smoother coordination.
- Improve communication tools between pilots and air traffic controllers.

- Expand infrastructure to handle increasing air traffic efficiently.
- Standardize communication protocols to reduce ambiguity.
- Invest in reliable backup systems for uninterrupted communication.

## Links

- Powerpoint presentation: <https://docs.google.com/presentation/d/1ytu83b6jLZPcnG6btw22G82pGBaod7TEUOXrFIFVCs/edit?usp=sharing>
- tableau public Tableau public: [Aviation Accident Project | Tableau Public](#)