AVIATION ACCIDENT ANALYSIS: -

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This project is meant to explore, analyse, and visualize aviation accidents and related factors such as reasons, survival rates, fatalities, locations etc. Detailed analyses of following factors:

-The planes crashed per year.

-People aboard per year during crashes.

-People dead per year during crashes.

-People survived per year during crashes.

Dataset - Airplane Crashes and Fatalities since 1908: -

This dataset includes:

-All civil and commercial aviation accidents of scheduled and non-scheduled passenger airliners worldwide, which resulted in a fatality (including all U.S. Part 121 and Part 135 fatal accidents).

-All cargo, positioning, ferry and test flight fatal accidents.

-All military transport accidents with 10 or more fatalities.

-All commercial and military helicopter accidents with greater than 10 fatalities.

-All civil and military airship accidents involving fatalities.

-Aviation accidents involving the death of famous people.

-Aviation accidents or incidents of noteworthy interest.

Attribute Information:

-Date: Date of accident, in the format - January 01, 2001

-Time: Local time, in 24 hr. format unless otherwise specified

-Location: Location of the accident

-Operator: Airline or operator of the aircraft

-Flight: #Flight number assigned by the aircraft operator

-Route: Complete or partial route flown prior to the accident

-Type: Aircraft type

-Registration: CAO registration of the aircraft

-cn/In: Construction or serial number / Line or fuselage number

-Aboard: Total aboard (passengers / crew)

-Fatalities: Total fatalities aboard (passengers / crew)

-Ground: Total killed on the ground

-Summary: Brief description of the accident and cause if known

Data have significantly changed since November 2015 after a major upgrade to the death rate and crash rate web pages This may reflect a change between a [static](https://en.wikipedia.org/wiki/Static_web_page) and [dynamic](https://en.wikipedia.org/wiki/Dynamic_web_page) web page, where data were made to be automatically updated based on the incidents in their [archives](https://en.wikipedia.org/wiki/Archive).)

Chart

Description automatically generated

Graphical user interface, chart

Description automatically generated

Missing Attribute Values:

-Date 0

-Time 2219

-Location 20

-Operator 18

-Flight # 4199

-Route 1706

-Type 27

-Registration 335

-cn/In 1228

-Aboard 22

-Fatalities 12

-Ground 22

-Summary 390

: Creator: Sauro Grandi

Flowchart: -

Diagram

Description automatically generated

Steps Involved: -

1. Importing the Libraries

2. Importing the Dataset

3. Feature engineering

4. EDA (Count of accidents by month, weekday, hour)

5. EDA (Total Fatalities)

6. Importing the second Dataset

7. EDA (Fatalities vs Year)

8. EDA (Operators)

Bibliography:-

* KLu Crash Archief; Ongevallenfoto's 1945 – 1965, 'Flash Aviation', 2003.
* KLu Crash Archief 2; Ongevallenfoto's 1964 – 1974, 'Flash Aviation', 2004.
* BLu Crash Archief; Ongevallenfoto's 1945 – 1965, 'Flash Aviation', 2004.

Libraries Used: -

* Pandas
* Matplotlib
* NumPy
* Seaborn
* Datetime