THE TRAGEDY OF FLIGHT: A COMPREHENSIVE CRASH ANALYSIS

INTRODUCTION

➢ 1.1 OVERVIEW

An airplane crash analysis is a detailed investigation into the causes of an aviation accident. The goal of an airplane crash analysis is to identify any factors that contribute to the accident, with the ultimate goal of improving safety and preventing future accidents. An aviation accident is defined by the convention on International civil aviation. Annex 13 defines an aviation accident as an occurrence other than an associated, associated with the operation of an aircraft that affects or could affect the safety of operation.

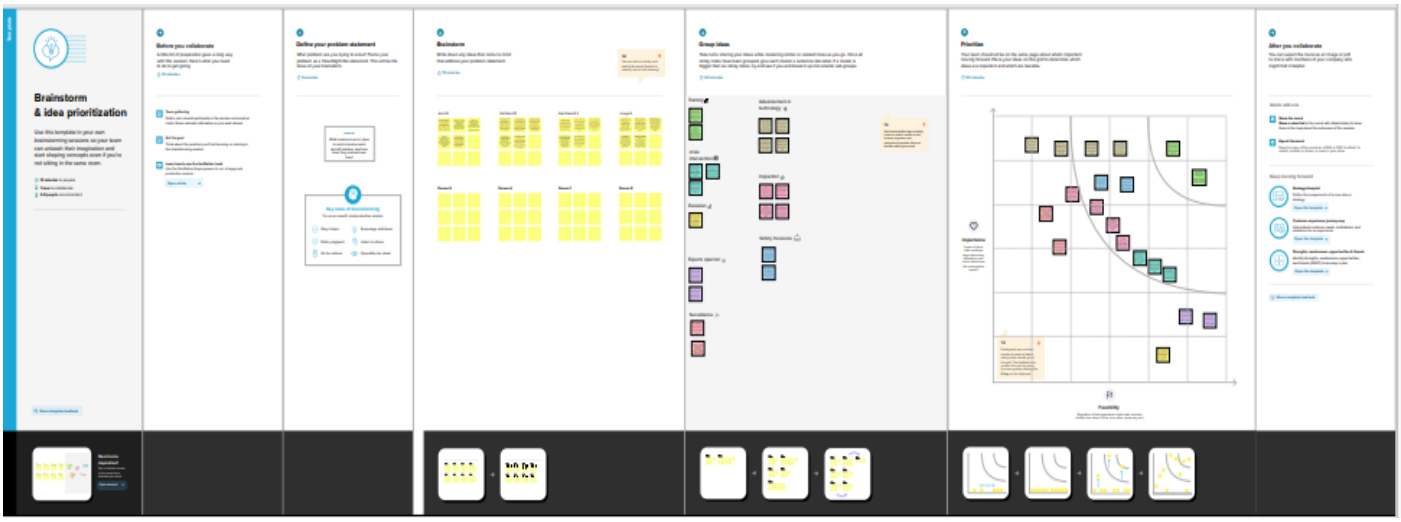
➢ 1.2 PURPOSE

Now a day airways are more common like road ways. People tends to use airways in order to save time. Henceforth the main purpose of choosing this topic is to reduce Aviation accidents.
Aviation accidents can we traced to a variety of causes, including pilot error, air traffic controller error, manufacturer defects or inclement weather.
We can't control weather conditions but we can reduce human error by taking proper measures.
Overall in this topic we prominently discuss about various ways to reduce aviation accidents in large percentage.

PROBLEM DEFINITION AND DESIGN THINKING

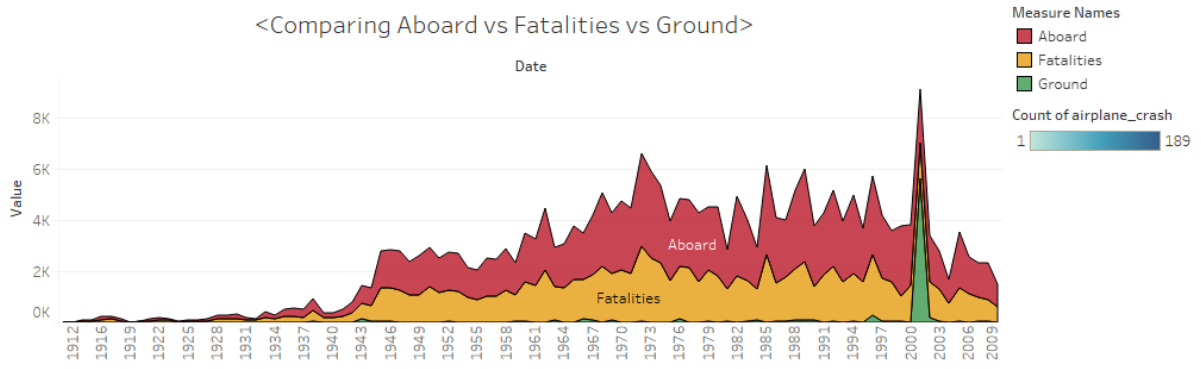
➢ 2.1 EMPATHY MAP

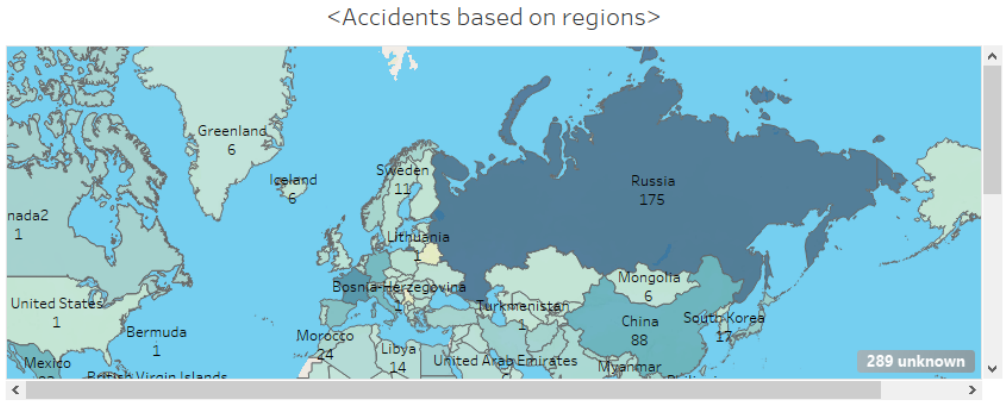
➢ 2.2 IDEATION AND BRAINSTORMING MAP

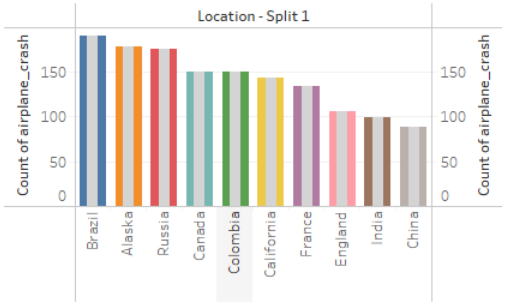


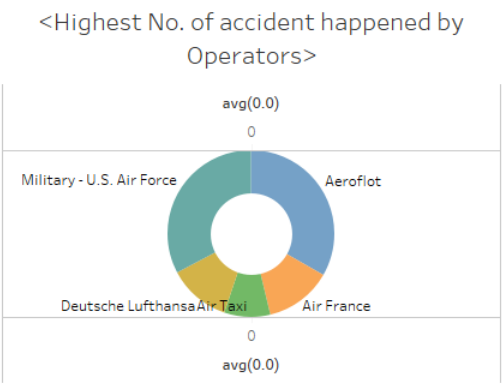
RESULT

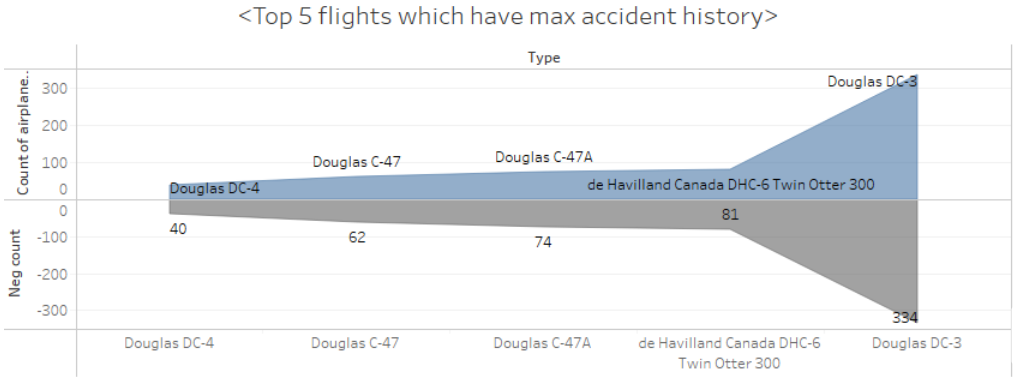
DASHBOARD

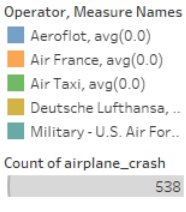








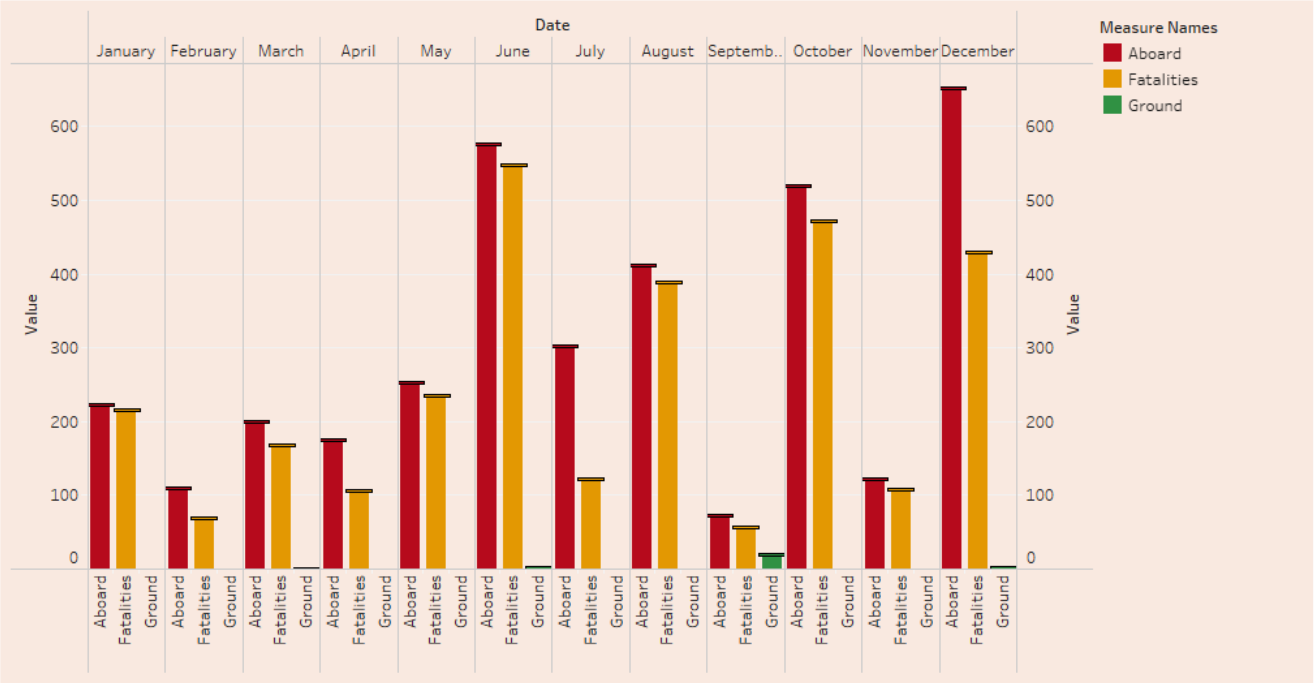




STORY

Story 1

litie | In the year of 1972 maximum accidents happened | **Accidents happened in 1972** | Accidents happened by operators | Top 10 locations which had more accidents | Top 5 flight which have more accidents | Number of accidents based on regions



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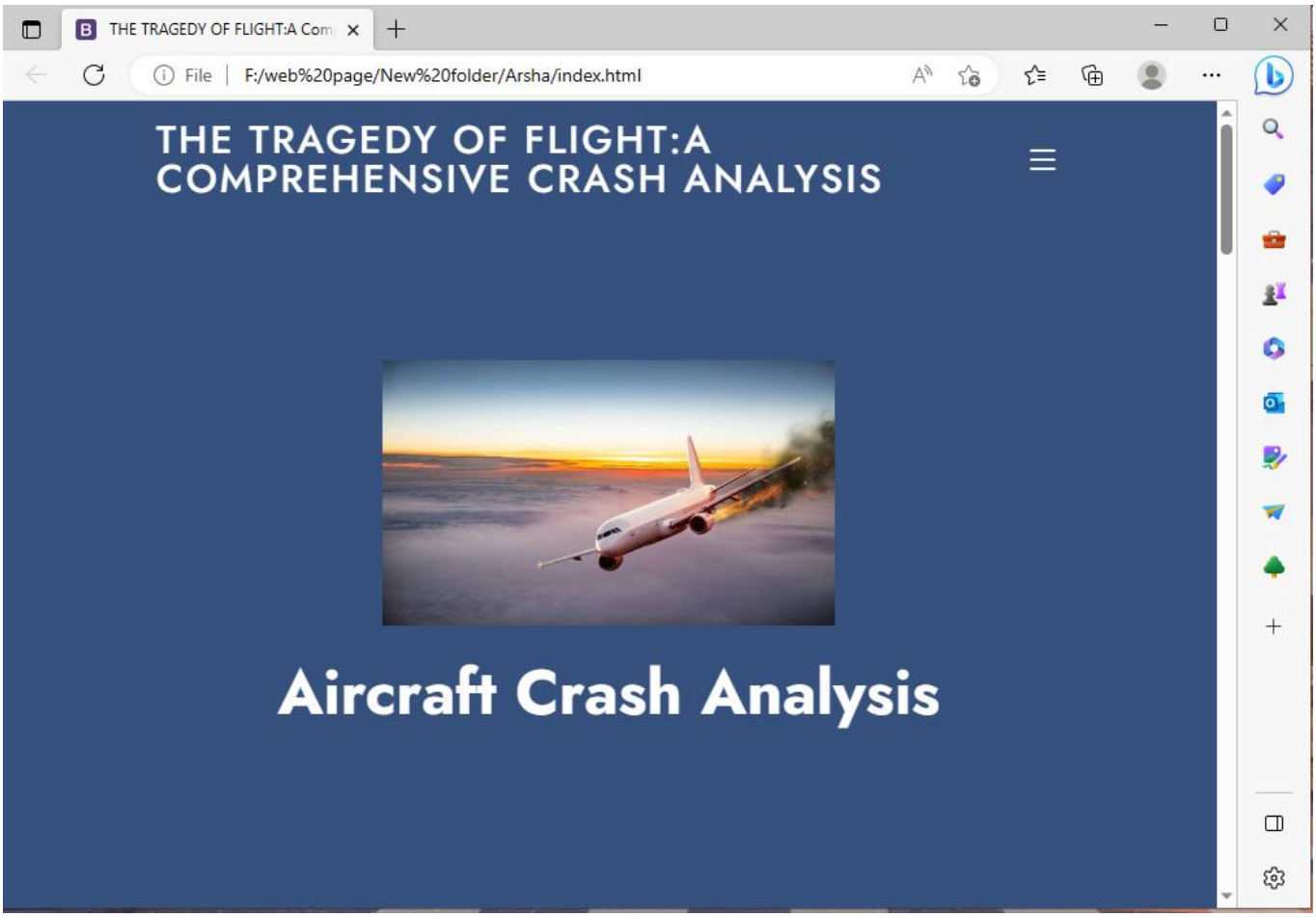
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THE TRAGEDY OF FLIGHT:A COMPREHENSIVE CRASH ANALYSIS
Aircraft Crash Analysis

ADVANTAGES AND DISADVANTAGES

➢ ADVANTAGES

The primary advantage of airplane crash analysis is that

*** Identification of safety:**

A comprehensive crash analysis can also help to identify safety issues that may have been previously unknown or overlooked. This can lead to improvements in aircraft design, maintenance practices and operational procedures

***Regulatory compliance:**

Aircraft crash analysis is often required by aviation regulatory agencies such as the federal Aviation Administration in the United States. Compliance with this regulation is essential for ensuring the safety of air travel and preventing accidents.

***Public confidence:**

When airlines and Aviation Authorities conduct the thorough and transparent crash analysis, it can help to maintain public confidence in air travel.

➢ DISADVANTAGES

The disadvantage of airplane crash is that

*** Cost:**

A comprehensive crash analysis can be very expensive, especially if it involves detailed investigation and analysis of the wreckage, flight data, and other relevant factors. This can be a significant financial burdens for airlines authorities.

*** Time consuming:**

A crash analysis can take a significant amount of time to complete, particularly if the investigation is complex or involve multiple agencies. This can delay the release of critical safety recommendations or findings which can impact the aviation industry as a whole.

*** Legal implications:**

A crash analysis can have legal implications, particularly if it uncovers evidence of negligence or wrong doing. This can lead to lawsuits or other legal action, which can be costly and time consuming.

APPLICATIONS

It is important to note that flight crashing is a tragic and complex event, and any analysis should be carried out by trained professionals with expertise in aviation safety and accident investigation. However, some possible applications of analyzing flight crashes include:

Determine the cause of the crash:

One of the primary goals of analyzing a flight crash is to determine the cause of the accident. This involves gathering evidence, such as flight data and cockpit voice recorders, analyzing the wreckage, and interviewing witnesses. This information can then be used to identify any mechanical, human, or environmental factors that contributed to the crash.

Improving safety:

Another important application of analyzing flight crashes is to identify safety issues that may have contributed to the accident. This can lead to improvements in aircraft design, maintenance procedures, pilot training, and air traffic control procedures, which can help prevent future accidents.

Legal and insurance purposes:

Flight crash analysis can also be used and insurance purposes. For example, determining the amount of insurance coverage required in the event of crash.

CONCLUSION

In general, the conclusion of an aircraft crash analysis project would typically summarize

- The main findings of the investigation
- Including any contributing factors
- Potential causes
- Recommended measures to similar incidence from occurring in the future

We came to conclusion by analyses the worksheets and the data provided the method of analyzing our data contains following ways

- Comparing Aboard vs Fatalities vs Ground
- Max accidents based on years
- Accidents happened in 1972 (MAX ACCIDENTS) based on months
- Highest No. of accident happened by Operators
- Top 10 locations which had more accidents
- Top 3 flights which have max accident history
- Accidents based on regions

Ultimately, the goal of an aircraft crash analysis project is to provide a comprehensive understanding of the incident and to help prevent similar incidents from happening in the future, so the conclusion should be clear and actionable to ensure that it achieves this objective.

FUTURE SCOPE

Use of artificial intelligence:

The use of artificial intelligence and machine learning in aviation is becoming increasingly common, and this technology could be applied to crash analysis in the future. Algorithms could analyses large amount of data from aircraft black. Boxes and other sources to identify patterns and root causes of accidents.

Integration of new technologies:

New technologies such as sensors and advanced data analytics and predictive maintenance to improve aircraft safety. These technologies could be integrated into crash analysis to provide a more comprehensive understanding of the causes of accidents.

Focus on human factors:

While aircraft design and maintenance play a critical role in aviation safety. Human factors also play a significant role in accidents. Future crash analysis could place a greater emphasis on understanding the human factors that contribute to accidents, such as pilot error, fatigue, and communication breakdowns.

APPENDIX

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