The Tragedy of Flight : Comprehensive Crash Analysis

Project Report

1 INTRODUCTION

1.1 Overview

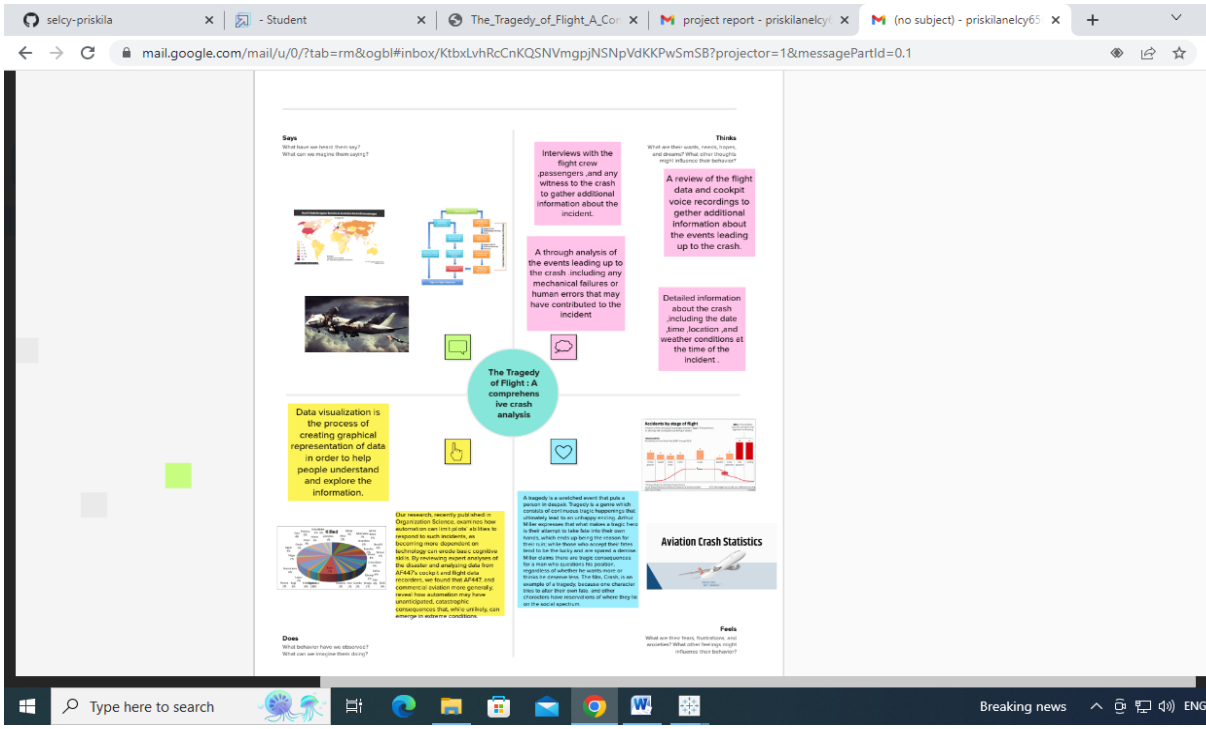
An airplane crash analysis is a detailed investigation into the causes of an aviation accident. The goal of an airplane crash analysis is to identify any factors that contributed to the accident, with the ultimate goal of improving safety and preventing future accidents.

1.2 Purpose

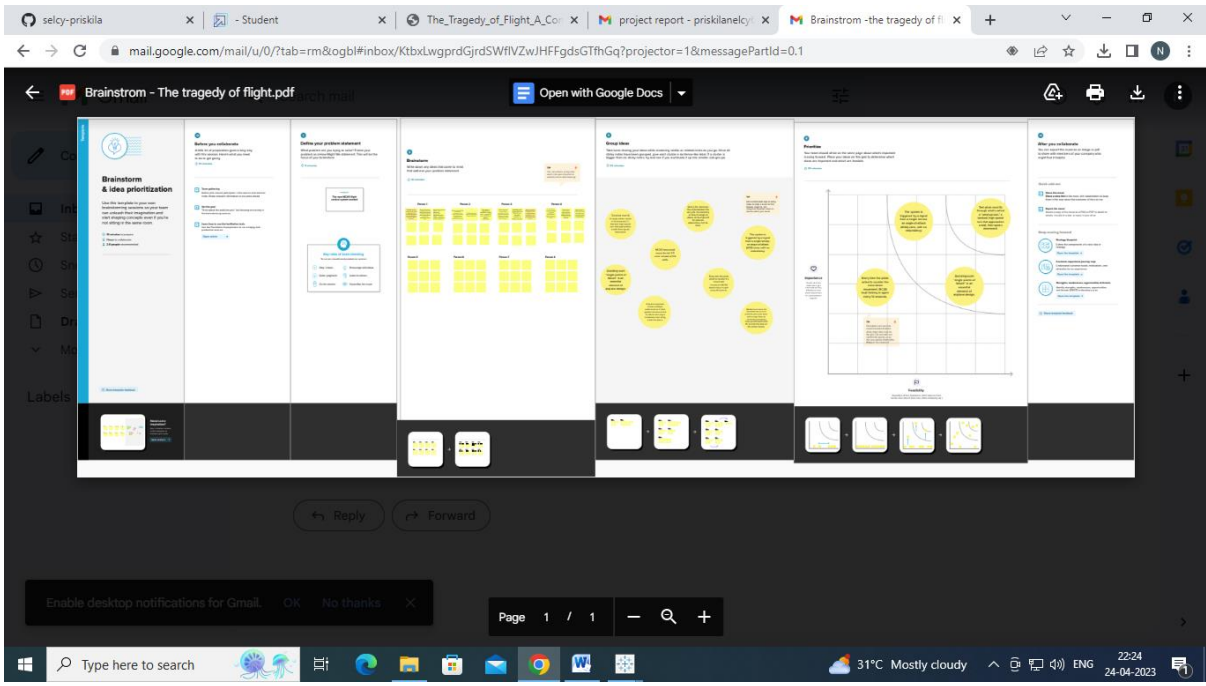
Aviation accident analysis is performed to determine the cause of errors once an accident has happened. In the modern aviation industry, it is also used to analyze a database of past accidents in order to prevent an accident from happening.

2 PROBLEM DEFINITION & DESIGN THINKING

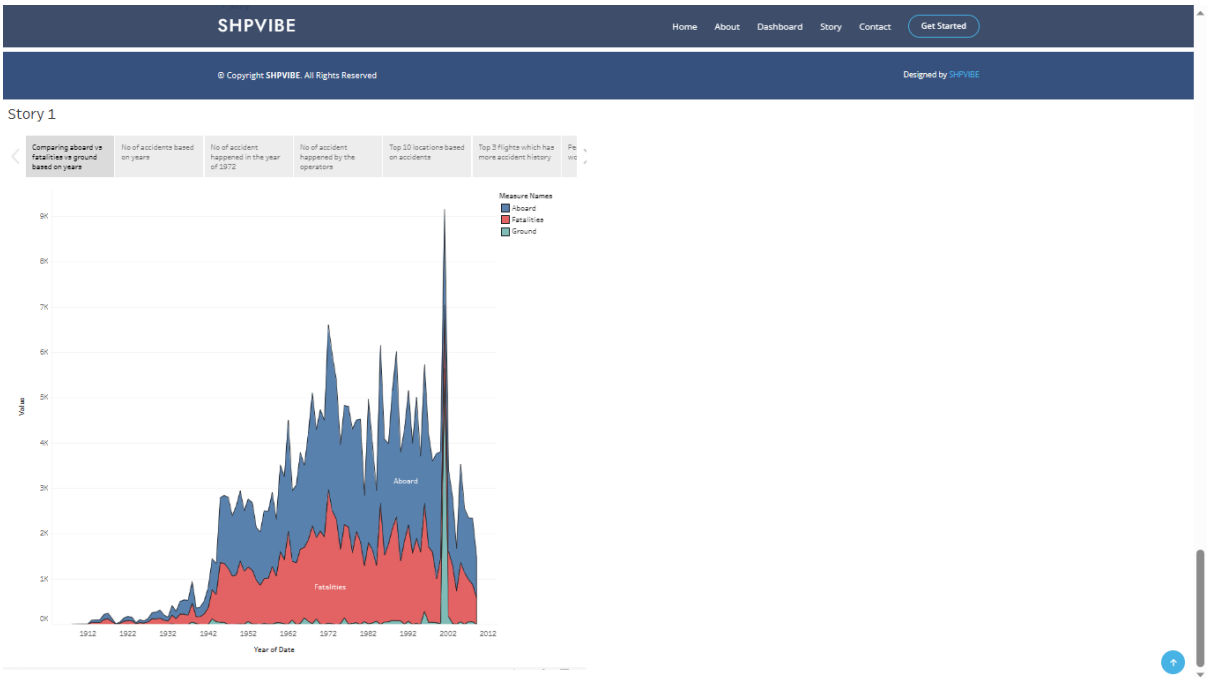
2.1 EmpathyMap

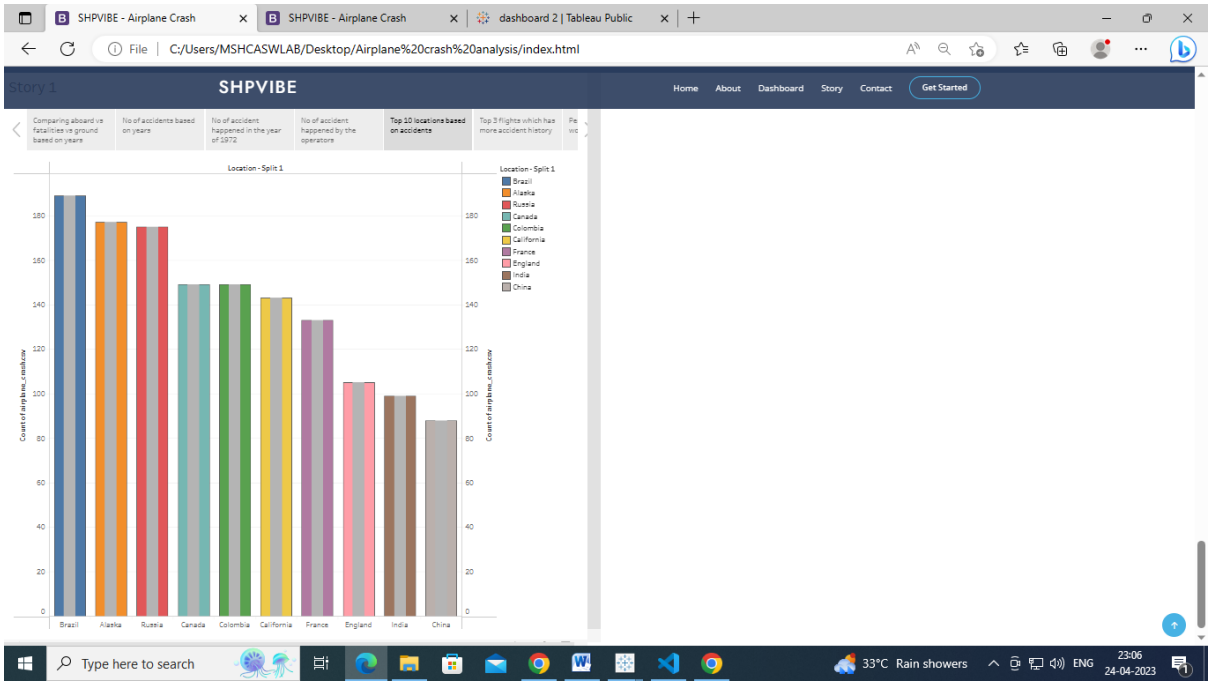


2.2 Ideation & Brainstorming Map



3 RESULT

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Story 1
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Get Started
Location - Split 1
Brazil
Alaska
Russia
Canada
Colombia
California
France
England
India
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Count of airplane_crash.csv
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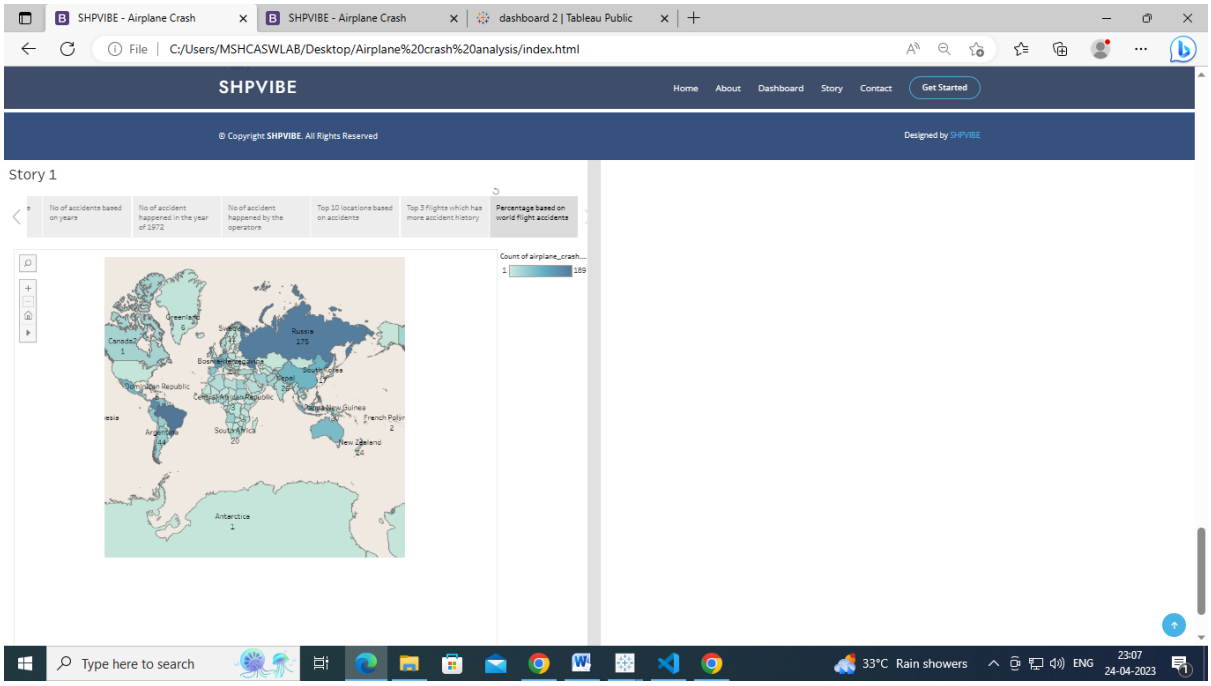
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Story 1
Percentage based on world flight accidents
Count of airplane_crash...
Russia
175
Canada
1
Greenland
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Antarctica
1
South Africa
20
New Zealand
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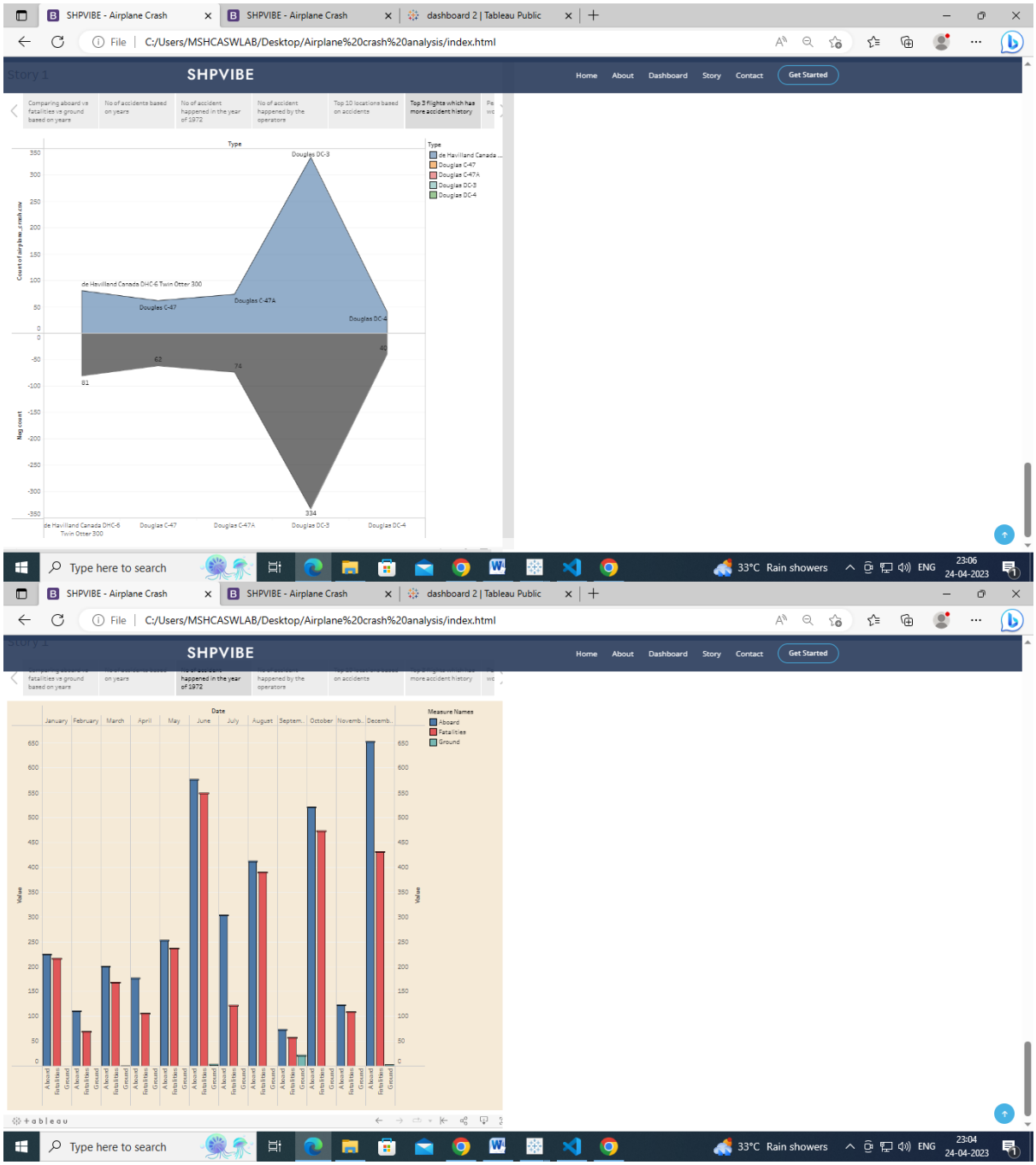
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Comparing aboard vs fatalities vs ground based on years
No of accidents based on years
No of accident happened in the year of 1972
No of accident happened by the operators
Top 10 locations based on accidents
Top 3 flights which has more accident history
Type
Douglas DC-3
de Havilland Canada DHC-6 Twin Otter 300
Douglas C-47
Douglas C-47A
Douglas DC-4
Count of airplane_crash.csv
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62
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33°C Rain showers
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Get Started
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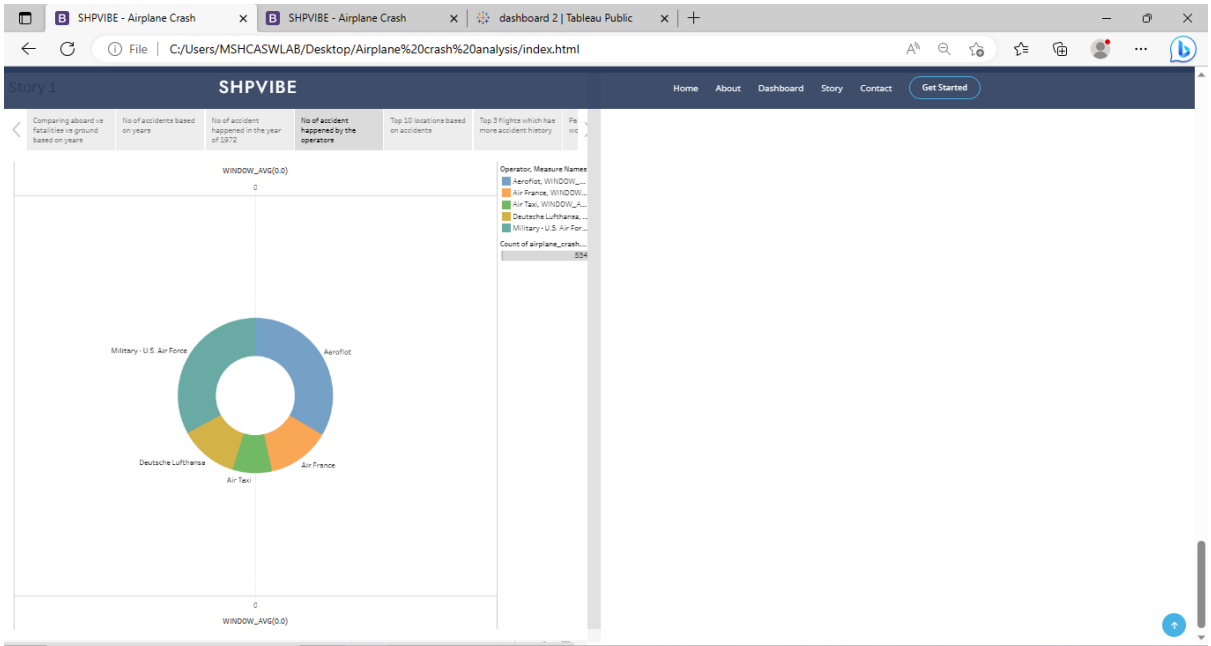
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WINDOW_AVG(0.0)
Operator, Measure Names
Aeroflot, WINDOW_...
Air France, WINDOW_...
Air Taxi, WINDOW_A...
Deutsche Lufthansa, ...
Military - U.S. Air For...
Count of airplane_crash...
554
Military - U.S. Air Force
Aeroflot
Deutsche Lufthansa
Air France
Air Taxi
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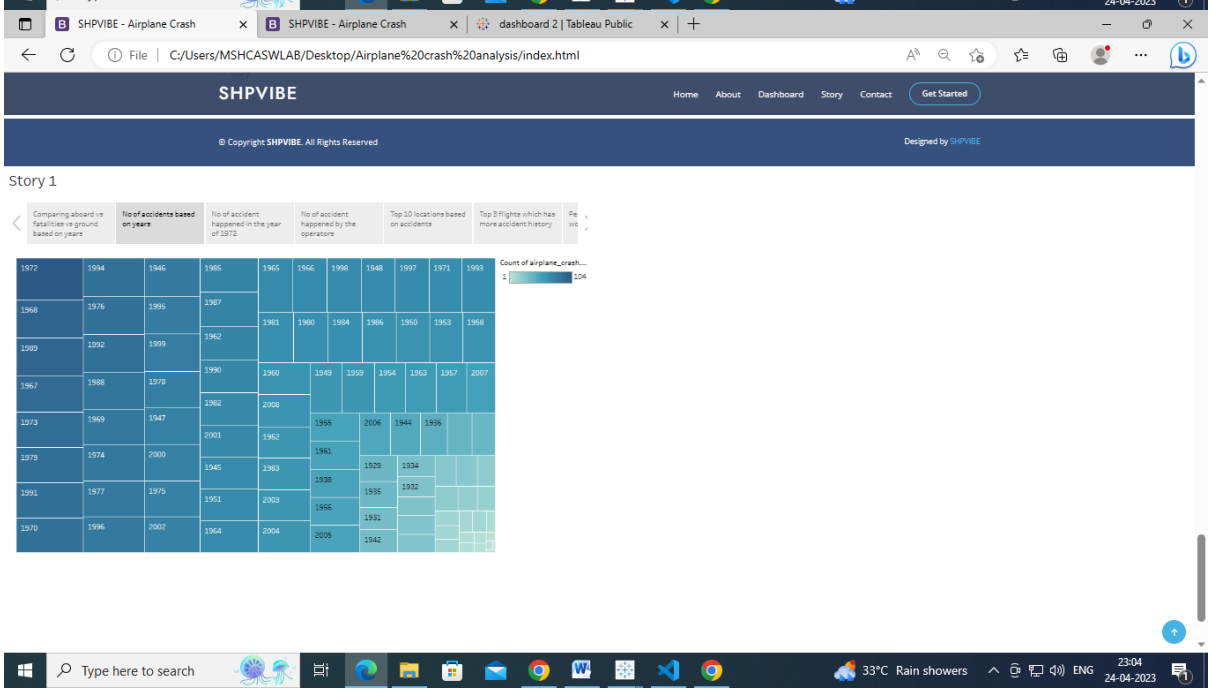
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Top 3 flights which has more accident history
Count of airplane_crash...
1
104
1972
1994
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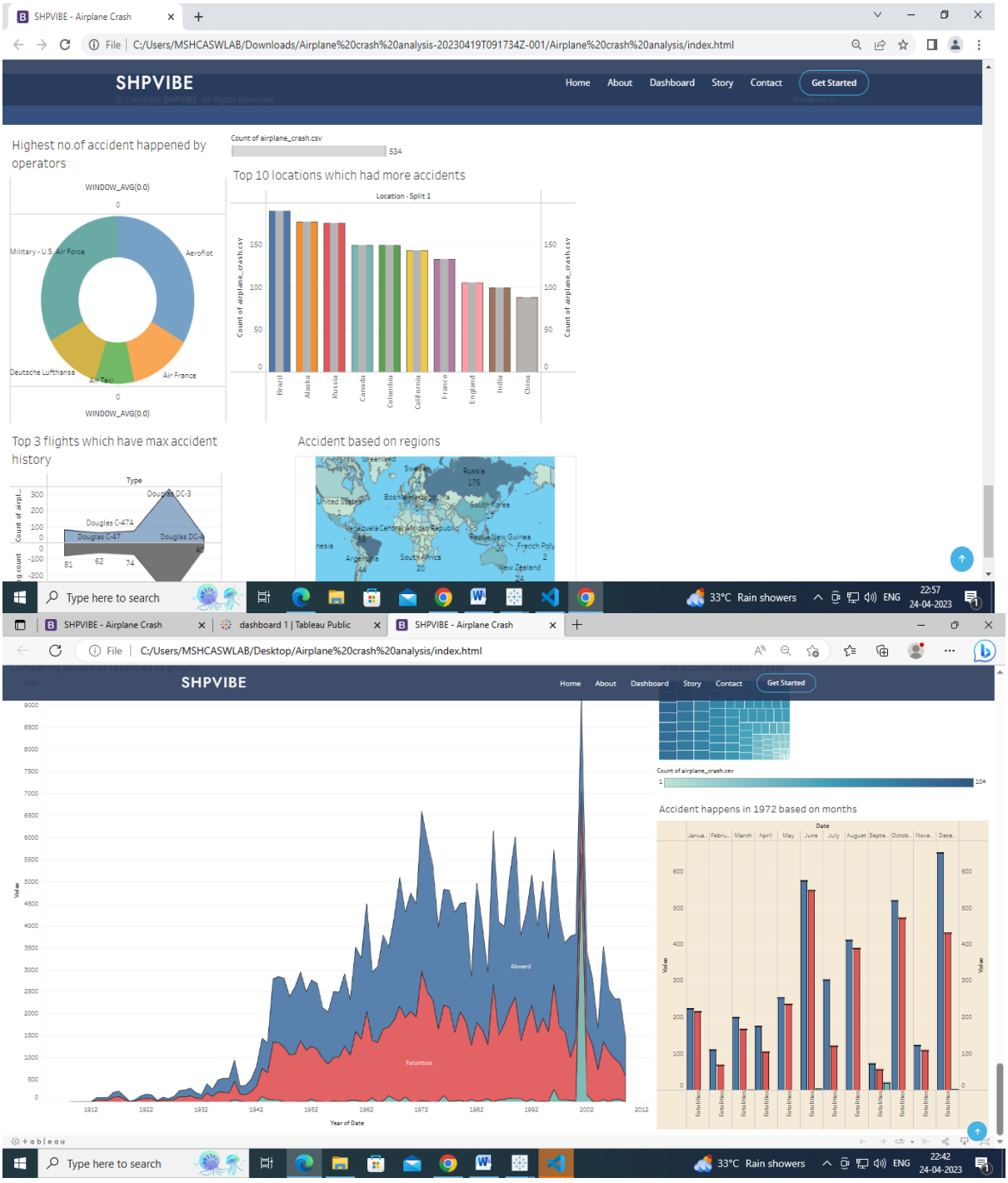
24-04-2023



4 ADVANTAGES & DISADVANTAGES

Advantages:

It is the fastest mode of transport and therefore suitable for carriage of goods over a long distance. It require less time.

Air transport provides comfortable, efficient and quick transport services. It is regarded as best mode of transport for transporting perishable goods.

Disadvantages:

Air transport is the most risky form of transport because a minor accident may put a substantial loss to the goods, passengers and the crew.

Air transport is considered costlier as compare to other mode of transport.

5 APPLICATIONS

Aviation accident analysis is performed to determine the cause of errors once an accident has happened. In the modern aviation industry, it is also used to analyze a database of past accidents in order to prevent an accident from happening. Many models have been used not only for the accident investigation but also for educational purpose.[1]

6 CONCLUSION

This analysis revealed that among the pilotsthat caused the targeted accidents, 22 had flight experience for 301 to 1000 hours and 20 had 1001 or more hours of experience. By age, those in their 50s and 60s combined were 34, accounting for nearly 60% of the total.

7 FUTURE SCOPE

The system is able to predict whether the airplane will be be “safe” or not. As a result, the delays of every airplane can also be predicted. The period after which an airplane has to go under the maintenance stage can also be included with the system. Hence, the system will be the one stop destination to check the flight delays, airplane crashes and the period after which the flight should undergo the maintenance phase.