PROJECT DOCUMENTATION

THE TRAGEDY OF FLIGHT: A COMPREHENSIVE CRASH ANALYSIS

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. The process of conducting an airplane crash analysis typically involves the collection and analysis of a wide range of data, including information about the aircraft and its system, the operators, and any other relevant factors. Once the data has been collected, it is analysis through tableau, to identify any potential causes of the accident. The results of an airplane crash analysis are typically published in a report, which may include recommendations for improving safety and preventing similar accidents in the future .These recommendations may be implemented by the relevant authorities or industry organizations.

1.2 PURPOSE

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.

2. PROBLEM DEFINITION AND DESIGN THINKING

2.1 EMPATHY MAP

Template

Empathy map

Use this framework to develop a deep, shared understanding and empathy for other people. An empathy map helps describe the aspects of a user's experience, needs and pain points, to quickly understand your users' experience and mindset.

Share template feedback

Need more inspiration?

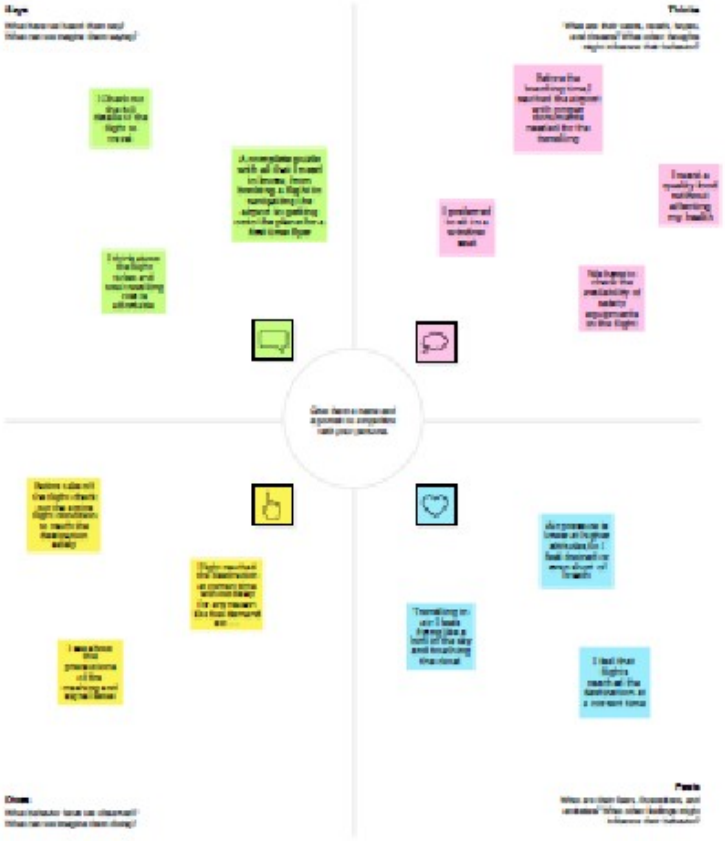
Get a finished version of this template to kickstart your work.

Open example →

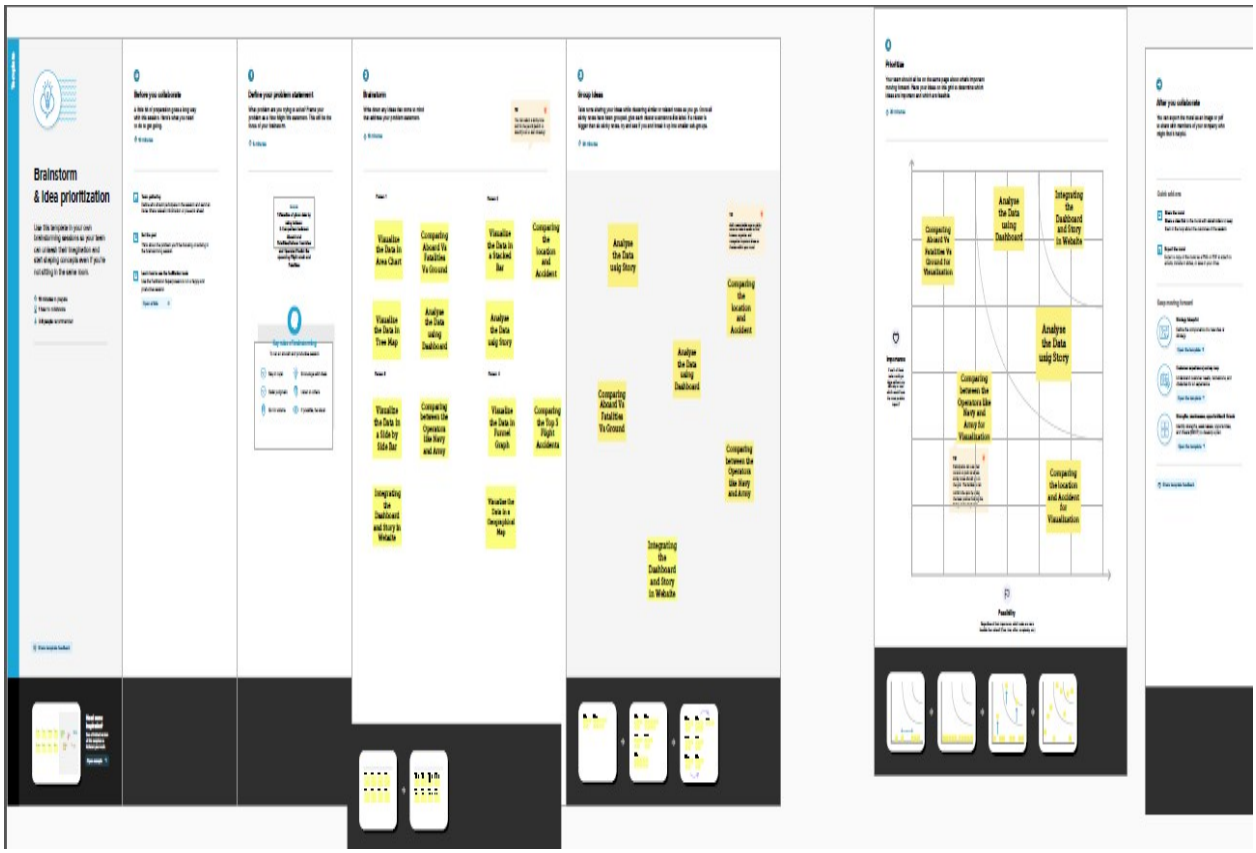
2

Build empathy

The information you add here should be representative of the observations and research you've done about your users.



2.2 IDEATION & BRAINSTORMING MAP



3. RESULT

Through the analysis of visualizations dashboard and story, We conclude that the Analysis of Maximum Flight Crashes occurred(104 crashes) in the year of 1972 and in the location Brazil have a Mazimum Crash Counting(189 crashes).

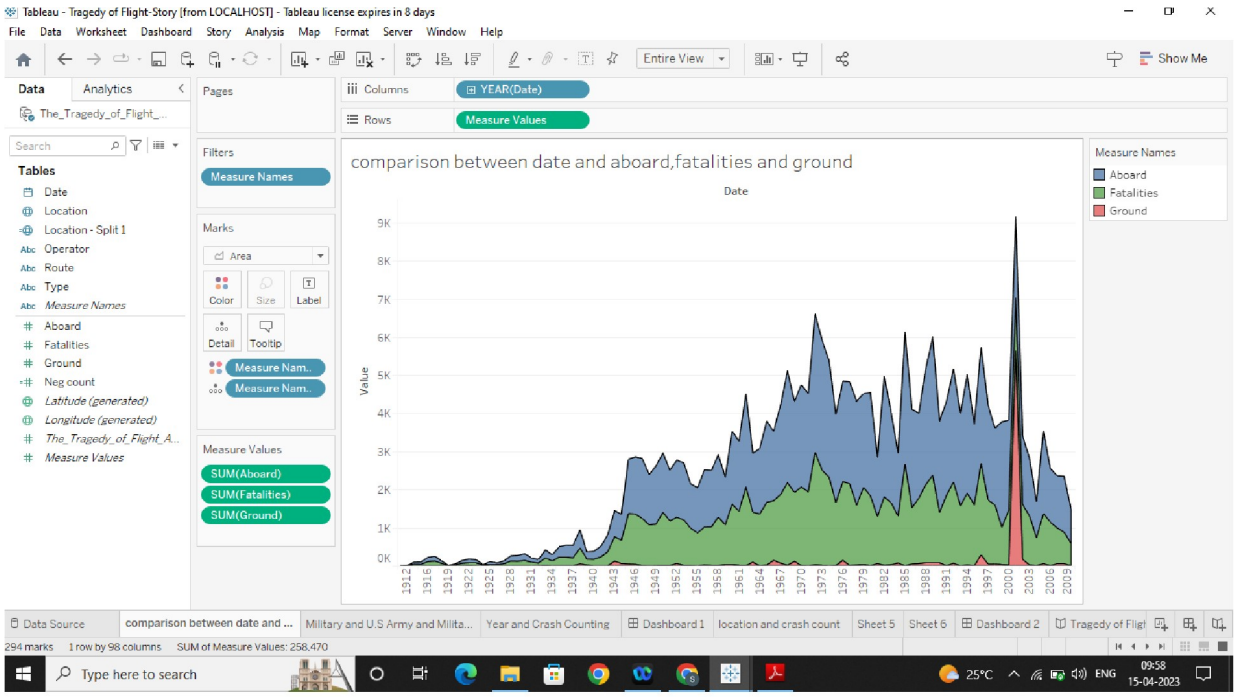


Tableau - Tragedy of Flight-Story [from LOCALHOST] - Tableau license expires in 8 days
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Entire View
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Data
Analytics
The_Tragedy_of_Flight_...
Tables
Date
Location
Location - Split 1
Operator
Route
Type
Measure Names
Aboard
Fatalities
Ground
Neg count
Latitude (generated)
Longitude (generated)
The_Tragedy_of_Flight_A...
Measure Values
Pages
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SUM(Aboard)
SUM(Fatalities)
SUM(Ground)
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comparison between date and aboard,fatalities and ground
Date
Value
Measure Names
Aboard
Fatalities
Ground
Data Source
comparison between date and ...
Military and U.S Army and Milita...
Year and Crash Counting
Dashboard 1
location and crash count
Sheet 5
Sheet 6
Dashboard 2
294 marks
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ENG
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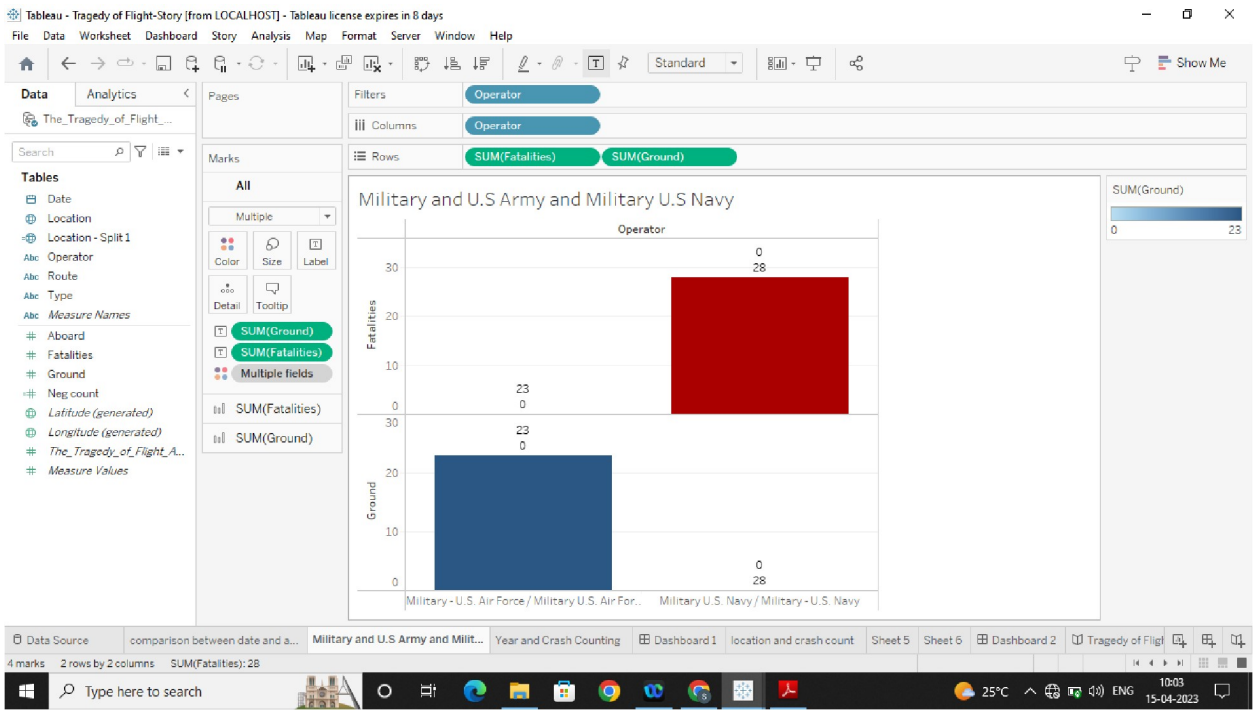
15-04-2023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SUM(Ground)
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SUM(Fatalities)
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SUM(Fatalities)
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23
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28
Military - U.S. Air Force / Military U.S. Air For..
Military U.S. Navy / Military - U.S. Navy
SUM(Ground)
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23
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comparison between date and a...
Military and U.S Army and Milit...
Year and Crash Counting
Dashboard 1
location and crash count
Sheet 5
Sheet 6
Dashboard 2
4 marks
2 rows by 2 columns
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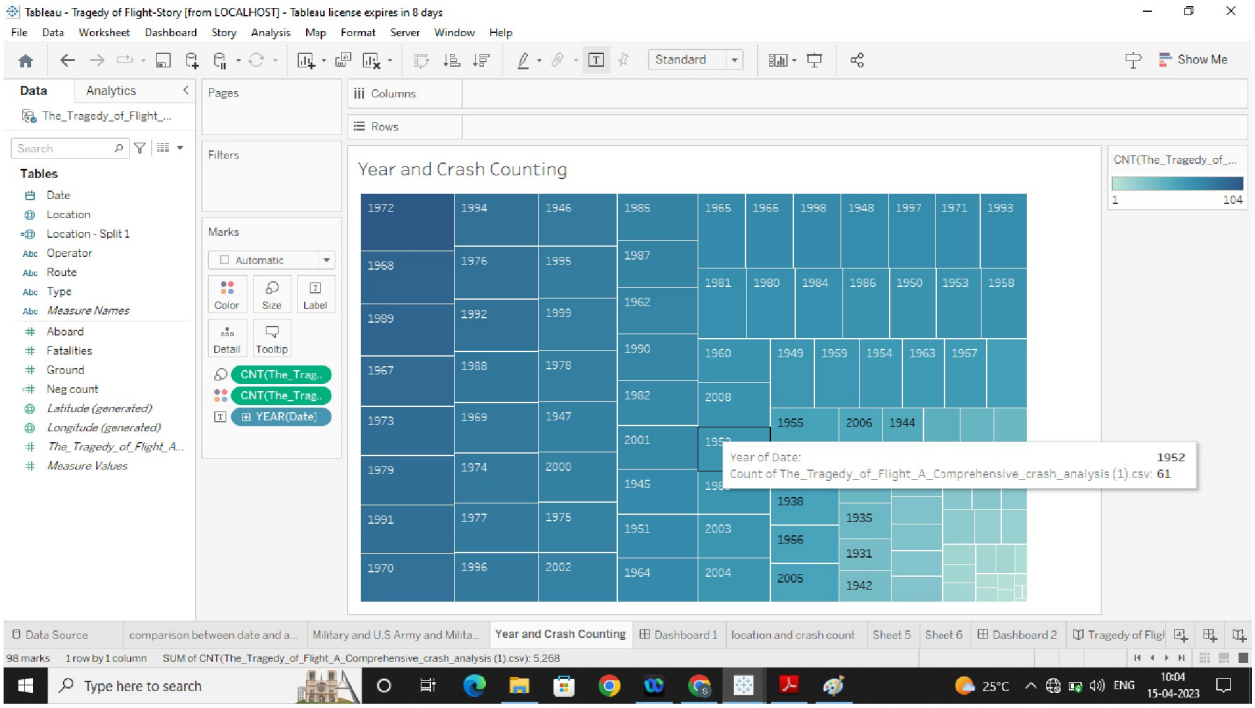
15-04-2023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Rows
Year and Crash Counting
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1
104
1972
1994
1946
1985
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1998
1948
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1931
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1945
2005
1942
1970
1996
2002
1951
2003
1964
2004
Year of Date: 1952
Count of The_Tragedy_of_Flight_A_Comprehensive_crash_analysis (1).csv: 61
Data Source
comparison between date and a...
Military and U.S Army and Milita...
Year and Crash Counting
Dashboard 1
location and crash count
Sheet 5
Sheet 6
Dashboard 2
Tragedy of Flig
98 marks
1 row by 1 column
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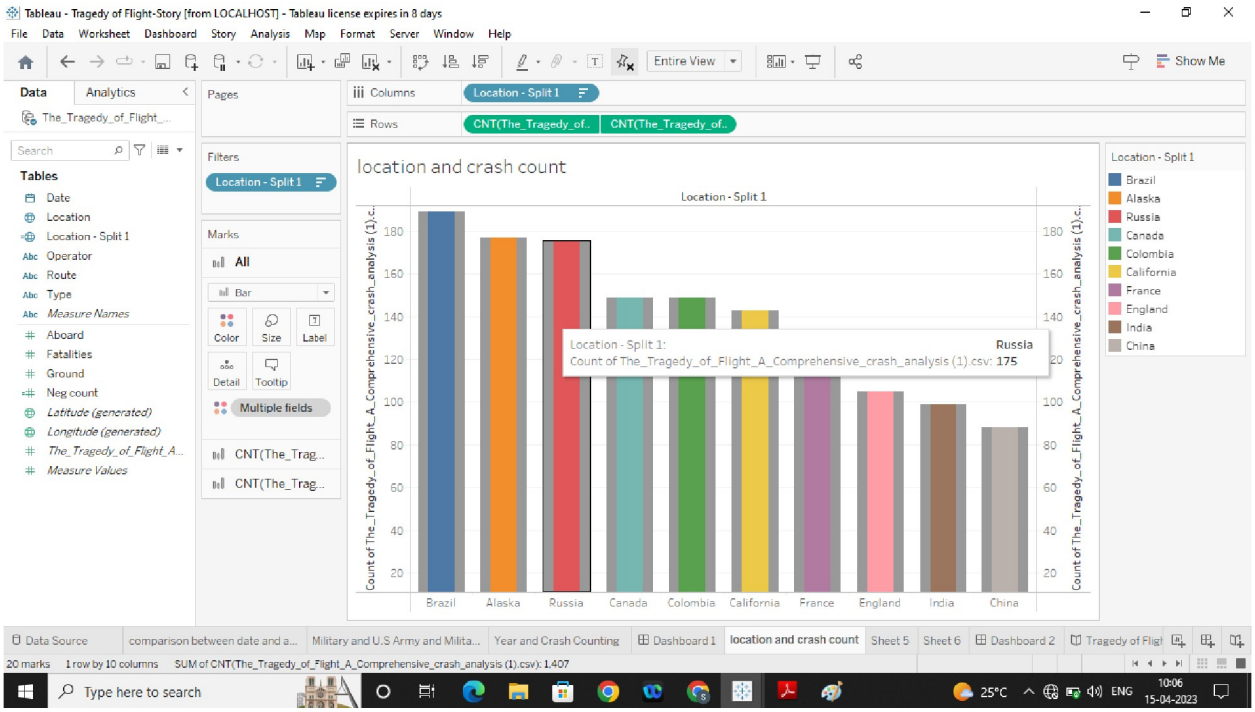
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Tables
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Location
Location - Split 1
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Type
Measure Names
Aboard
Fatalities
Ground
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Latitude (generated)
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Measure Values
Pages
Filters
Location - Split 1
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Location - Split 1
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location and crash count
Location - Split 1
Count of The_Tragedy_of_Flight_A_Comprehensive_crash_analysis (1).c...
180
160
140
120
100
80
60
40
20
Brazil
Alaska
Russia
Canada
Colombia
California
France
England
India
China
Location - Split 1: Russia
Count of The_Tragedy_of_Flight_A_Comprehensive_crash_analysis (1).csv: 175
Location - Split 1
Brazil
Alaska
Russia
Canada
Colombia
California
France
England
India
China
Data Source
comparison between date and a...
Military and U.S Army and Milita...
Year and Crash Counting
Dashboard 1
location and crash count
Sheet 5
Sheet 6
Dashboard 2
Tragedy of Flig
20 marks
1 row by 10 columns
SUM of CNT(The_Tragedy_of_Flight_A_Comprehensive_crash_analysis (1).csv): 1,407
Type here to search
25°C
ENG
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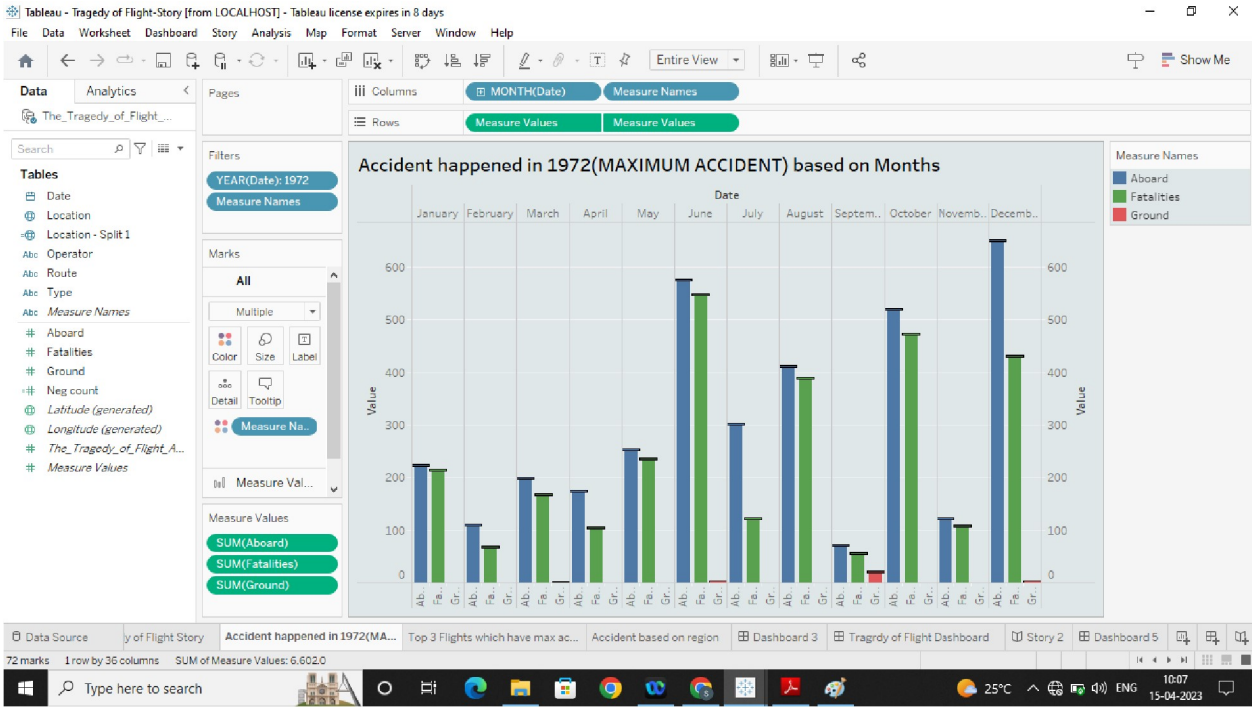
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Data Analytics
Pages
Columns MONTH(Date) Measure Names
Rows Measure Values Measure Values
Filters YEAR(Date): 1972 Measure Names
Marks All Multiple Color Size Label Detail Tooltip Measure Na..
Measure Values SUM(Aboard) SUM(Fatalities) SUM(Ground)
Accident happened in 1972(MAXIMUM ACCIDENT) based on Months
Date
January February March April May June July August Septem.. October Novemb.. Decemb..
Value
Measure Names Aboard Fatalities Ground
Data Source
Accident happened in 1972(MA...
Top 3 Flights which have max ac...
Accident based on region
Dashboard 3
Tragrdy of Flight Dashboard
Story 2
Dashboard 5
72 marks 1 row by 36 columns SUM of Measure Values: 6,602.0
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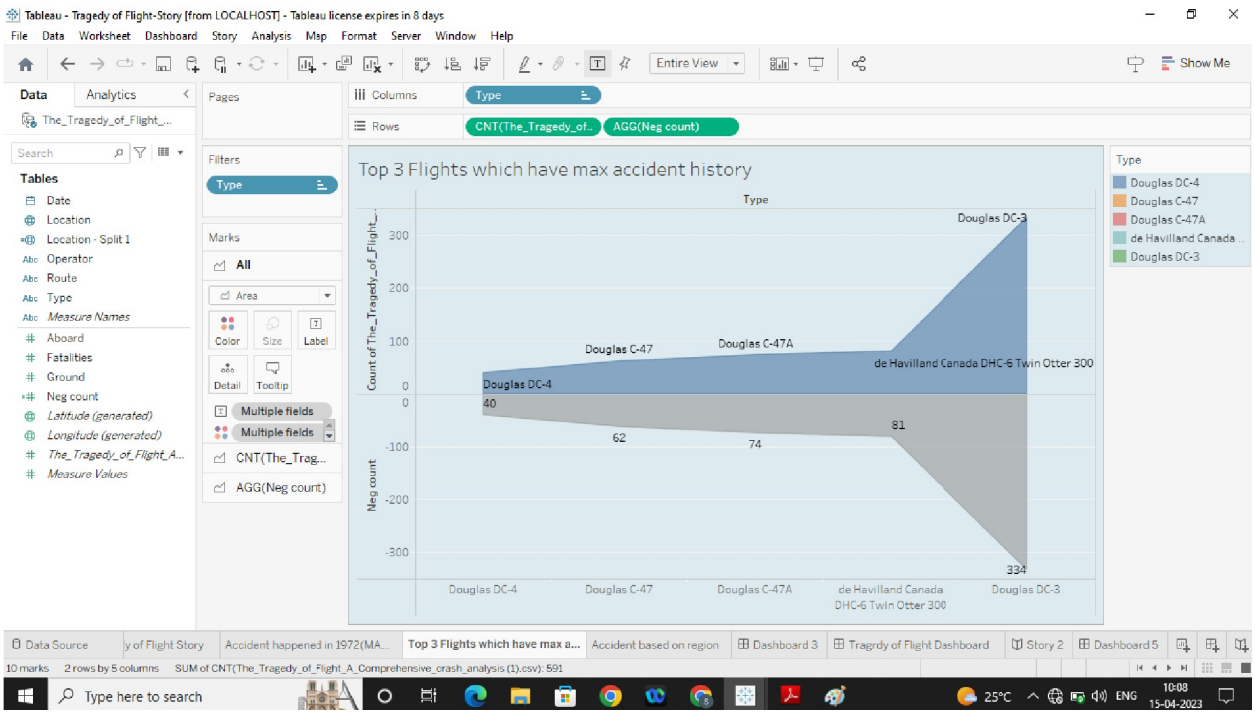
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File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Data Analytics
Pages
Columns Type
Rows CNT(The_Tragedy_of..) AGG(Neg count)
Filters Type
Marks All Area Color Size Label Detail Tooltip Multiple fields Multiple fields CNT(The_Trag... AGG(Neg count)
Top 3 Flights which have max accident history
Type
Count of The_Tragedy_of_Flight_...
Douglas DC-3
Douglas C-47
Douglas C-47A
de Havilland Canada DHC-6 Twin Otter 300
Douglas DC-4
Neg count
40
62
74
81
334
Douglas DC-4 Douglas C-47 Douglas C-47A de Havilland Canada DHC-6 Twin Otter 300 Douglas DC-3
Type Douglas DC-4 Douglas C-47 Douglas C-47A de Havilland Canada .. Douglas DC-3
Data Source
Accident happened in 1972(MA...
Top 3 Flights which have max a...
Accident based on region
Dashboard 3
Tragrdy of Flight Dashboard
Story 2
Dashboard 5
10 marks 2 rows by 5 columns SUM of CNT(The_Tragedy_of_Flight_A_Comprehensive_crash_analysis (1).csv): 591
Type here to search
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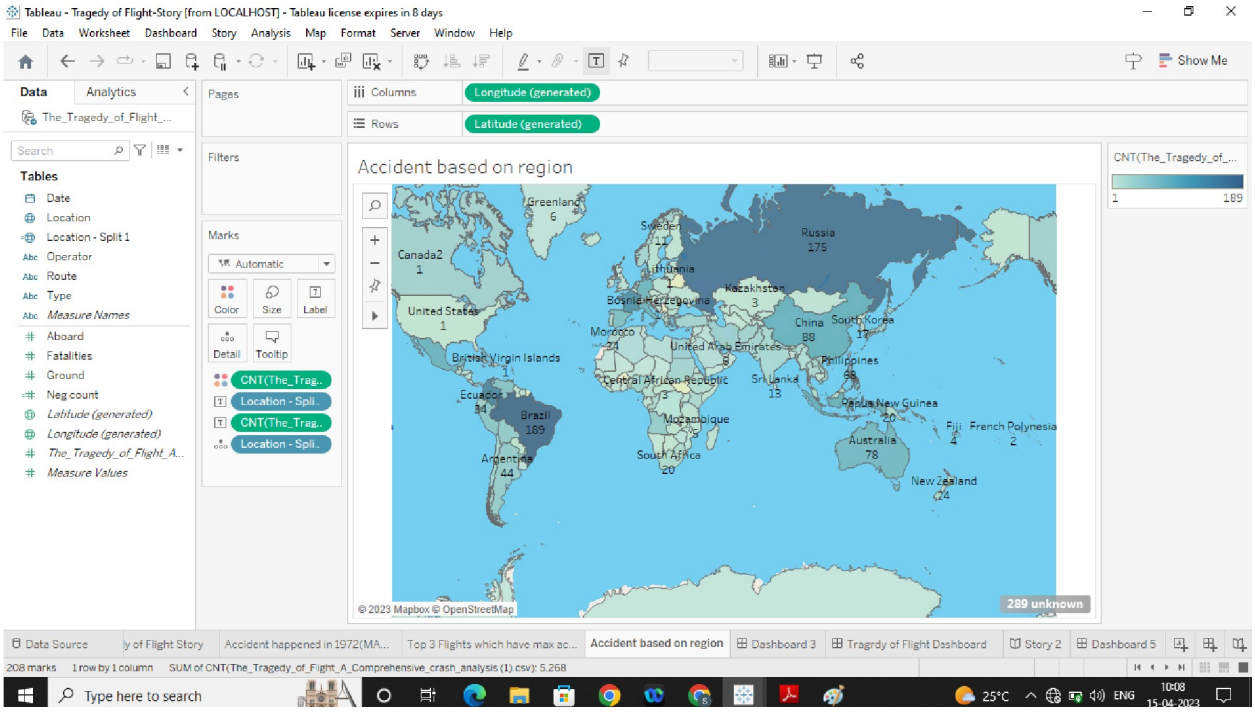
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Columns Longitude (generated)
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Date
Location
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Measure Names
Aboard
Fatalities
Ground
Neg count
Latitude (generated)
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The_Tragedy_of_Flight_A...
Measure Values
Accident based on region
CNT(The_Tragedy_of_...
1 189
Greenland 6
Sweden 17
Russia 175
Canada2 1
Lithuania 1
Kazakhstan 3
Bosnia-Herzegovina 1
United States 1
China 88
South Korea 17
Morocco 24
United Arab Emirates 8
British Virgin Islands 1
Philippines 88
Central African Republic 3
Sri Lanka 13
Ecuador 34
Papua New Guinea 20
Brazil 189
Mozambique 5
Fiji 4
French Polynesia 2
Australia 78
Argentina 44
South Africa 20
New Zealand 24
© 2023 Mapbox © OpenStreetMap
289 unknown
Data Source
Accident happened in 1972(MA...
Top 3 Flights which have max ac...
Accident based on region
Dashboard 3
Tragrdy of Flight Dashboard
Story 2
Dashboard 5
208 marks 1 row by 1 column SUM of CNT(The_Tragedy_of_Flight_A_Comprehensive_crash_analysis (1).csv): 5,268
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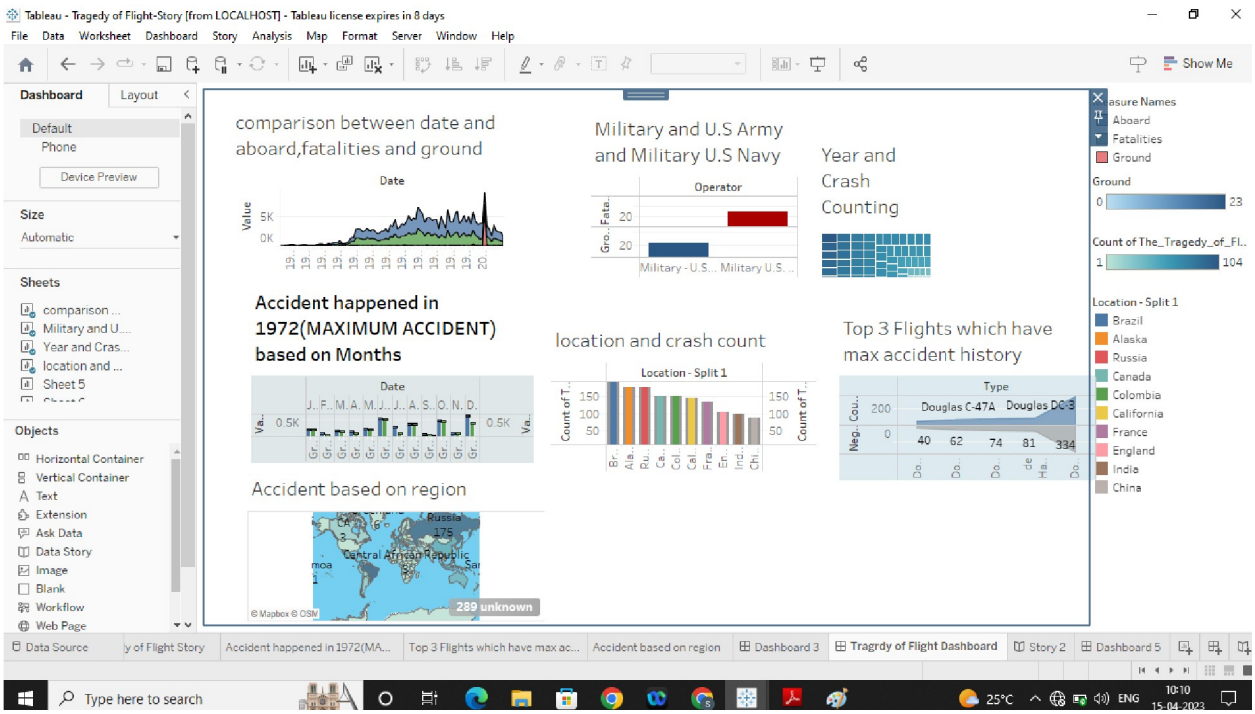
25°C ENG 10:08 15-04-2023

DASHBOARD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Show Me
Dashboard Layout
Default
Phone
Device Preview
Size
Automatic
Sheets
comparison ...
Military and U....
Year and Cras...
location and ...
Sheet 5
Objects
Horizontal Container
Vertical Container
Text
Extension
Ask Data
Data Story
Image
Blank
Workflow
Web Page
comparison between date and aboard,fatalities and ground
Date
Value
5K
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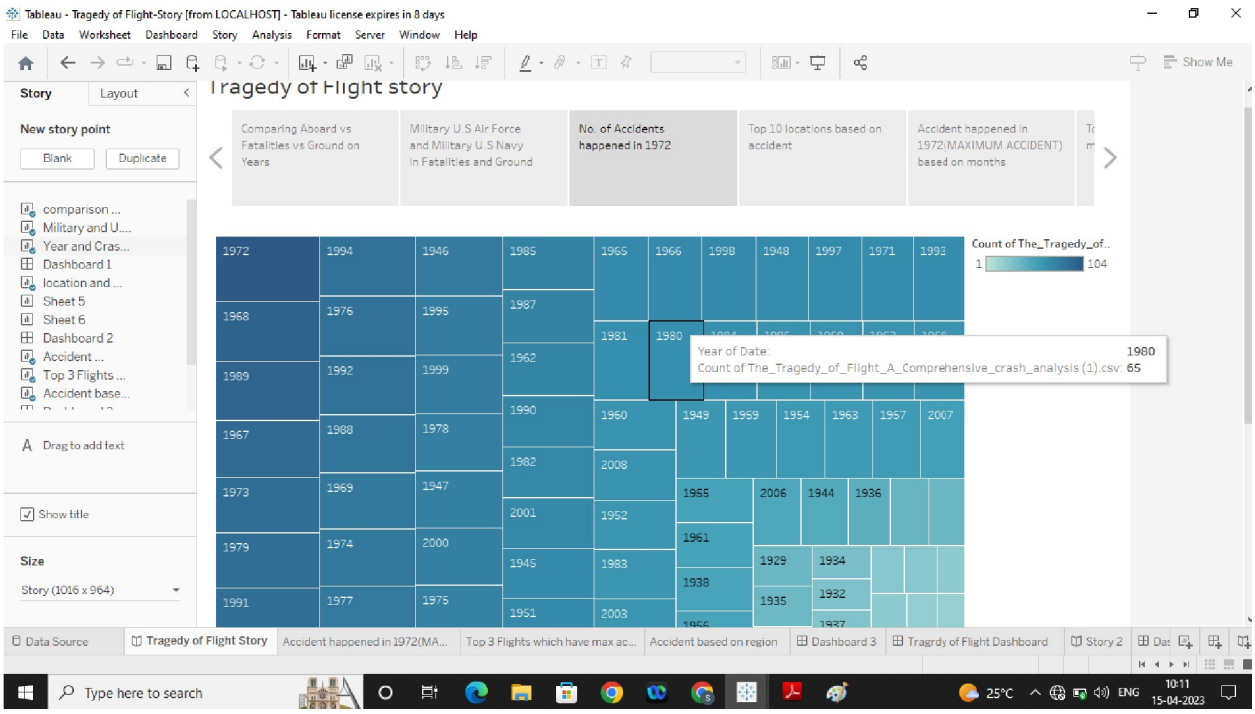
Military and U.S Army and Military U.S Navy
Operator
Military -U.S... Military U.S...
Year and Crash Counting
Accident happened in 1972(MAXIMUM ACCIDENT) based on Months
Date
location and crash count
Location - Split 1
Top 3 Flights which have max accident history
Type
Douglas C-47A
Douglas DC-3
40 62 74 81 334
Accident based on region
Russia 175
Central African Republic
289 unknown
Measure Names
Aboard
Fatalities
Ground
0 23
Count of The_Tragedy_of_Fl...
1 104
Location - Split 1
Brazil
Alaska
Russia
Canada
Colombia
California
France
England
India
China
Data Source
Accident happened in 1972(MA...
Top 3 Flights which have max ac...
Accident based on region
Dashboard 3
Tragrdy of Flight Dashboard
Story 2
Dashboard 5
Type here to search
25°C ENG 10:10 15-04-2023

STORY



4. ADVANTAGES AND DISADVANTAGES

ADVANTAGES

- It is the fastest, most comfortable and prestigious mode of transport.
- Air travel is also the most efficient way to travel long distances. This is because it uses less fuel than other methods of transports, such as cars or trains.
- Planes can carry a lot of weight. This is because they are designed to transport large amount of cargo, such as food and equipment.

DISADVANTAGES

- It can be expensive depending on the route and season . It has capacity limits
- It is more polluting than other more sustainable means of transport such as electric vehicles.
- Security measures can be inconvenient and time consuming. It can be uncomfortable for long journeys.

5. APPLICATIONS

The analysis can help to improve public confidence in the aviation industry by identifying an addressing any safety issues that may have contributed to the incident. The analysis can have significant business implications for the airline and aircraft manufacturer involved in the incident.

6. CONCLUSION

Many major problem can causes an Air crash but mostly of human error . To ensure safety flight the passenger and crew need to follow the instruction carefully. Safety on the aircraft is important.

7. FUTURE SCOPE

Future scope of this project, people can easily differentiate, which flight is safe and unsafe to travel the flight by using the visualization of flight crash analysis.

8. APPENDIX

file:///C:/Users/ELCOT/Downloads/saro/crash%20analysis/Airplane%20crash%20analysis/index.html