THE TRAGEDY OF FLIGHT: A COMPREHENSIVE CRASH ANALYSIS

PROJECT REPORT

1.INTRODUCTION:

1.1 OVERVIEW:

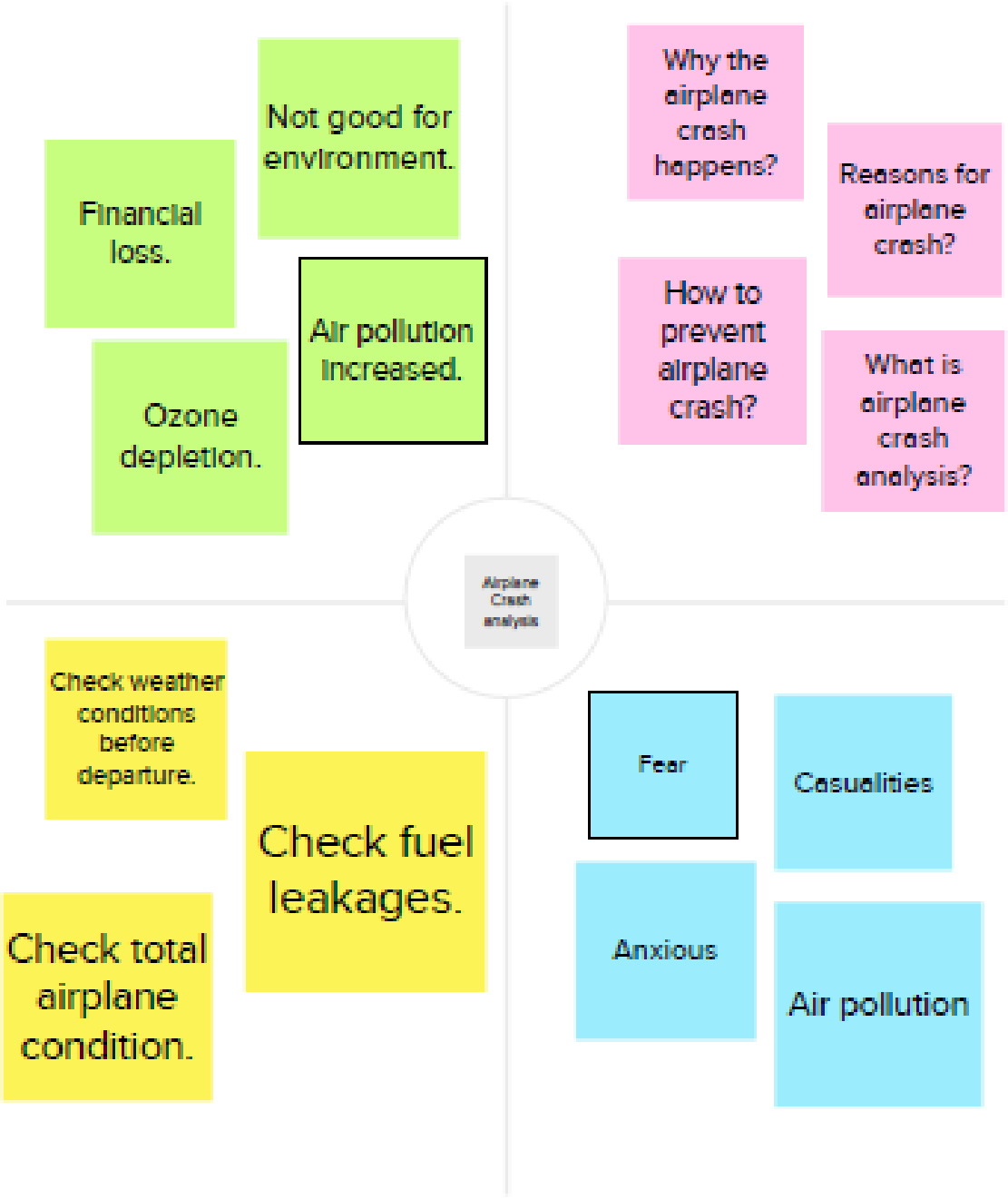
An airplane crash analysis is a detailed investigation into the causes of an aviation accident. The goal of an airplane crash analysis is to identify any factors that contributed to the accident, with the ultimate goal of improving safety and preventing future accidents. The process of conducting an airplane crash analysis typically involves the collection and analysis of a wide range of data, including information about the aircraft and its systems, the operators, and any other relevant factors. This data is typically collected from Kaggle. Once the data has been collected, it is analysed 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:

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.

2.PROBLEM DEFINITION & DESIGN THINKING:

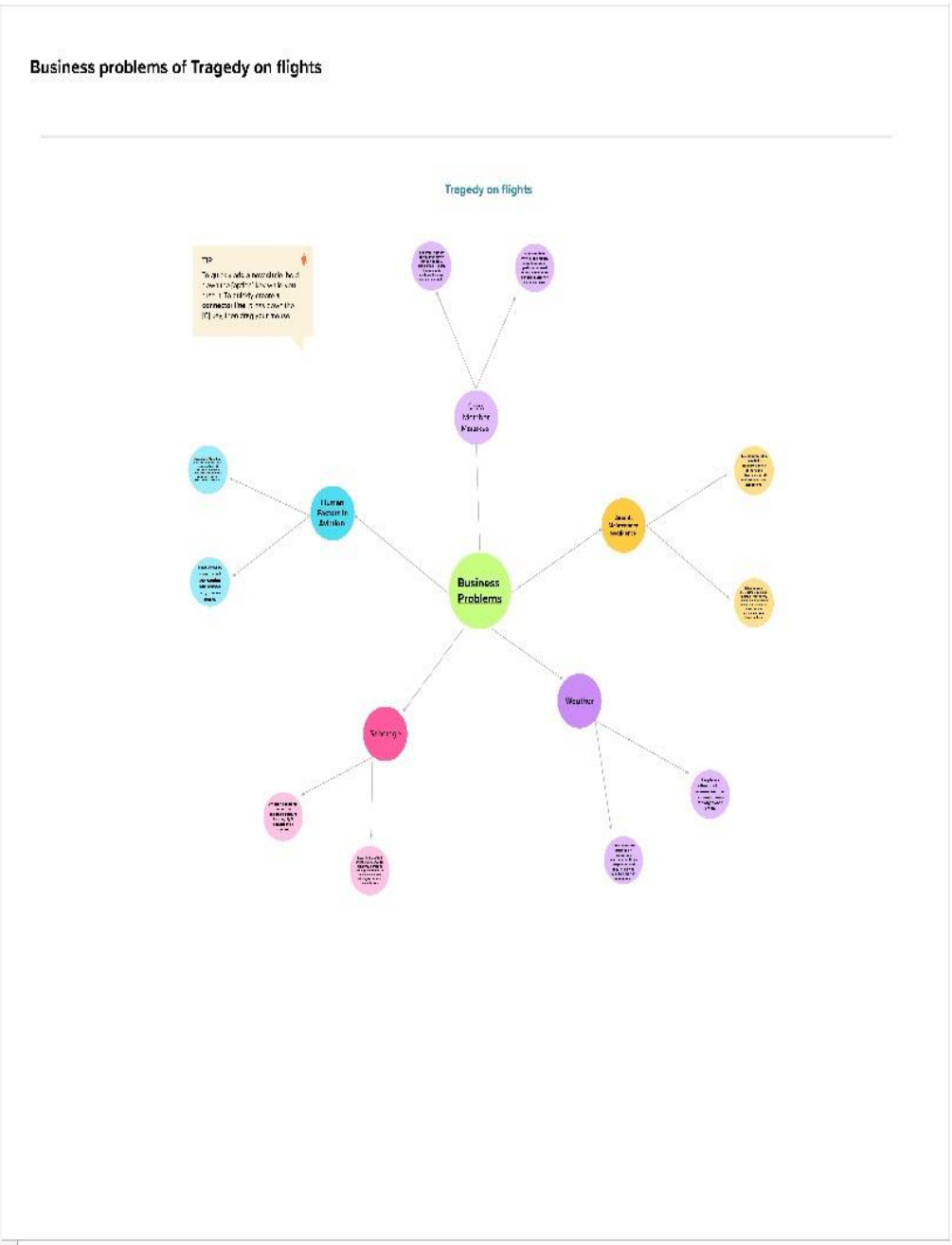
2.1 EMPATHY MAP:



2.2 IDEATION & BRAINSTORMING MAP:

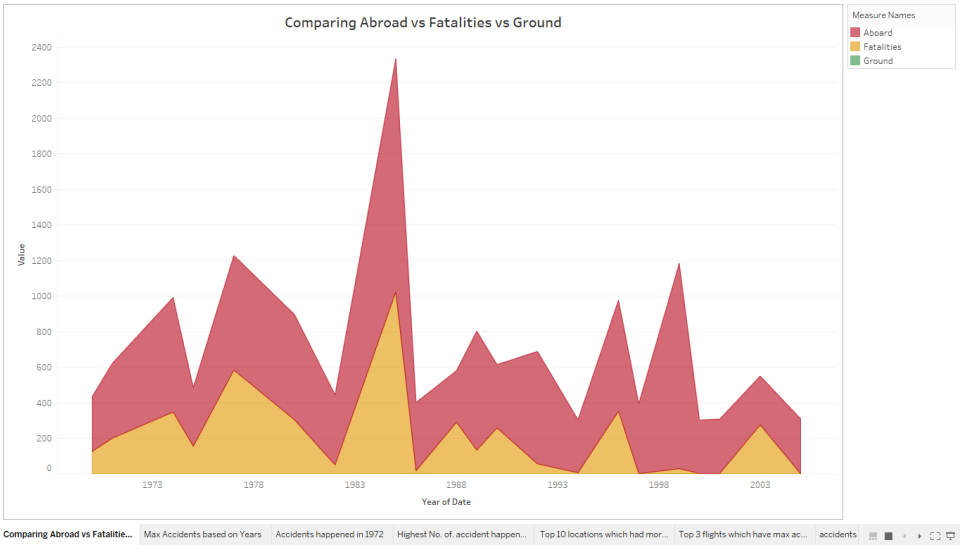
Tragedy on flights :

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 systems, the operators, and any other relevant factors.

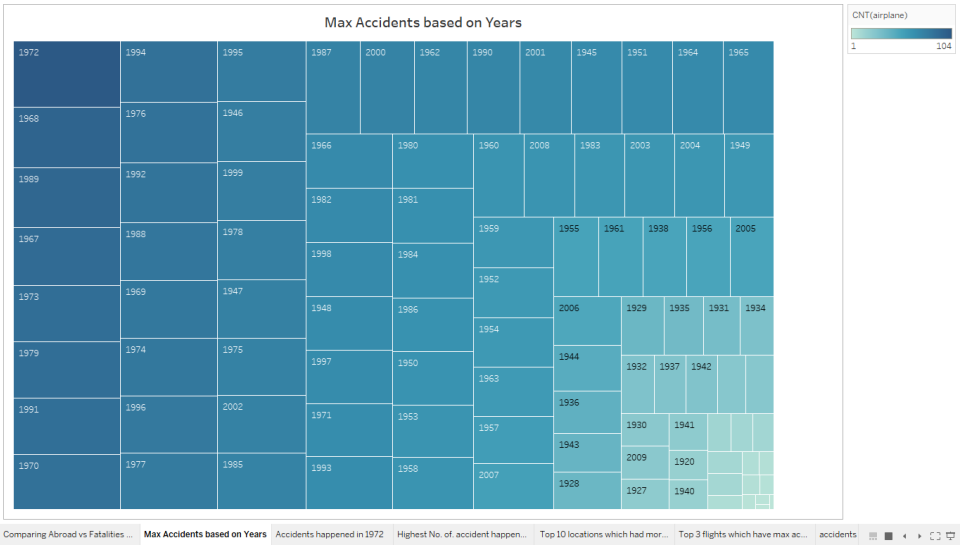


3. RESULT:

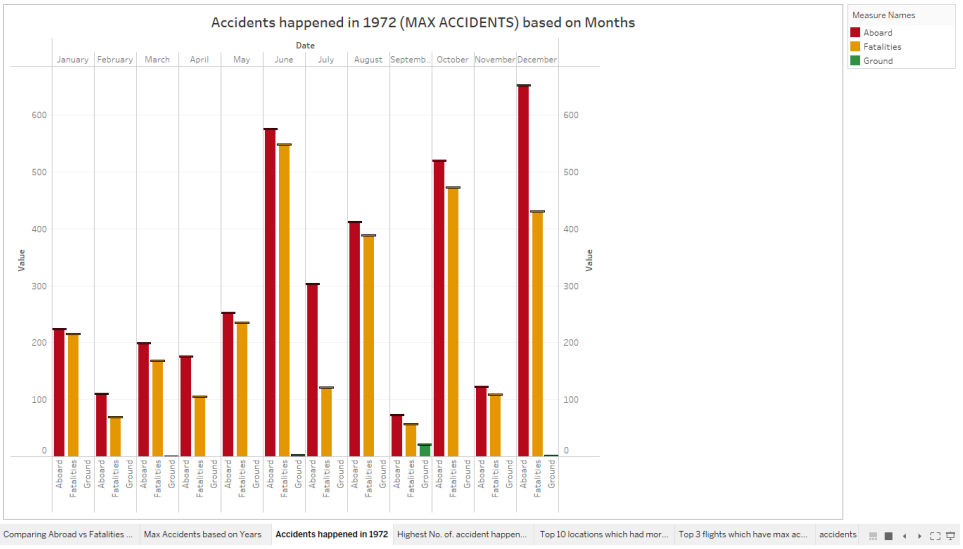
COMPARING ABROAD VS FATALITIES VS GROUND



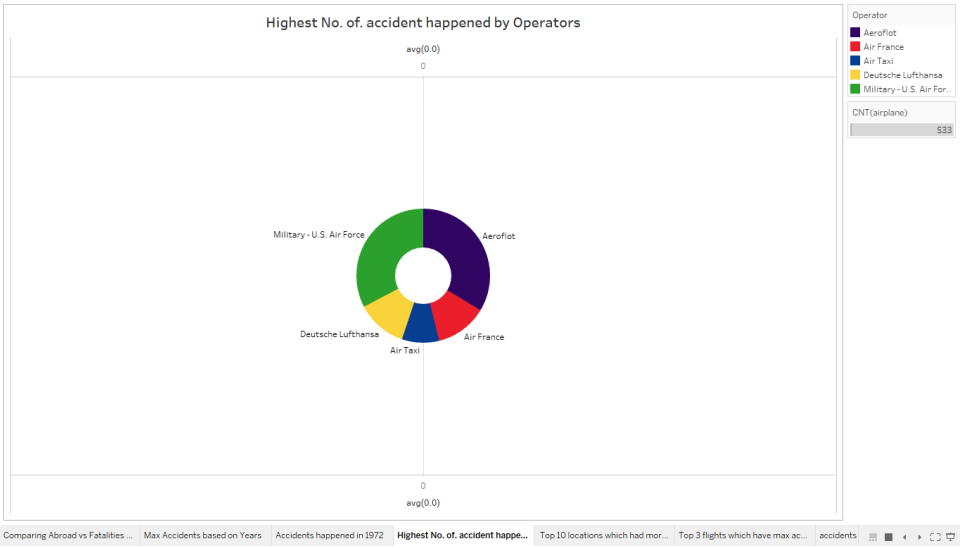
MAXIMUM ACCIDENTS BASED ON THE YEARS



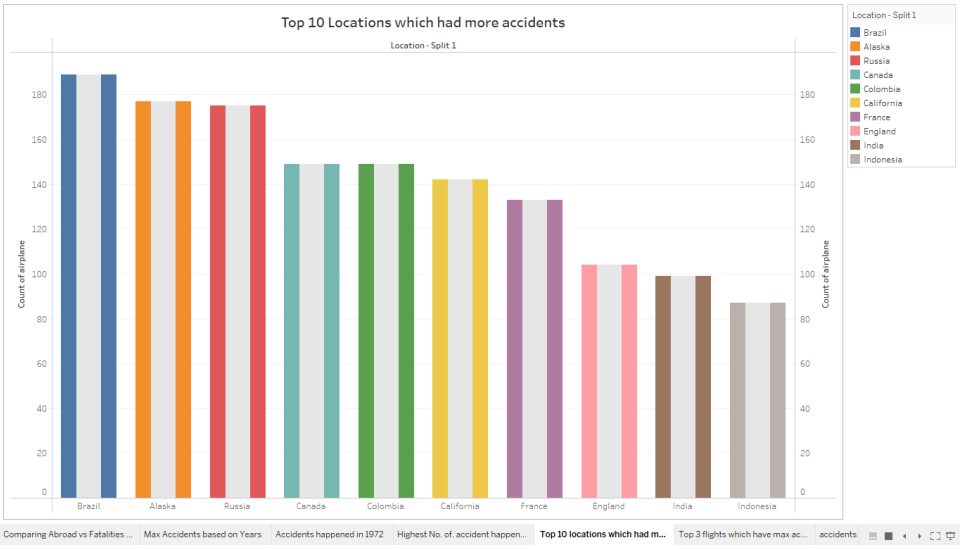
ACCIDENTS HAPPENED IN 1972



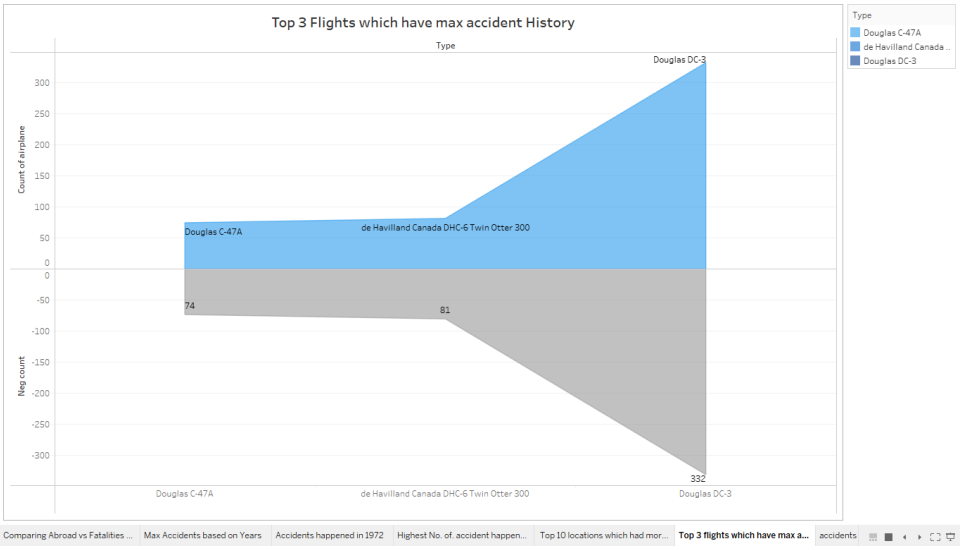
HIGHEST NUMBER OF ACCIDENTS HAPPENED BY OPERATORS



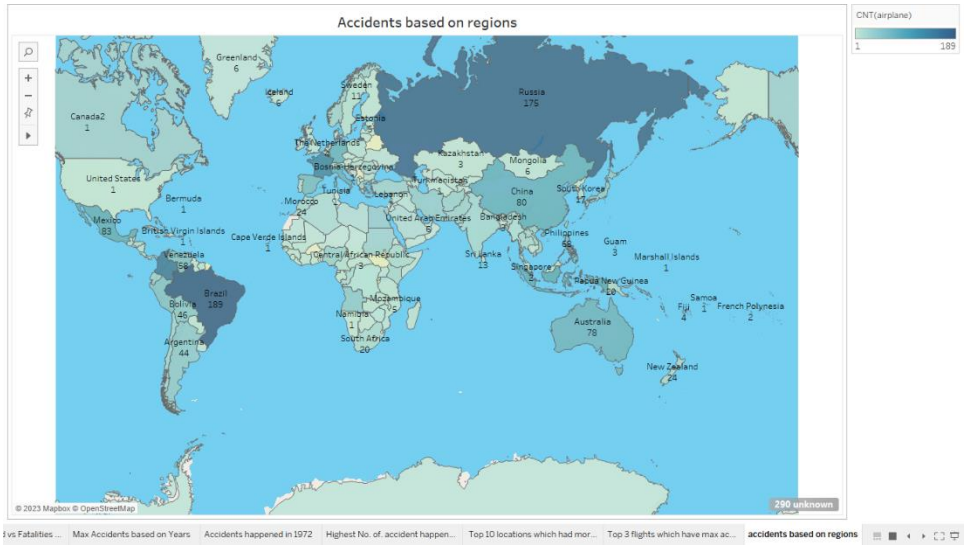
TOP 10 LOCATIONS WHICH HAD MORE ACCIDENTS



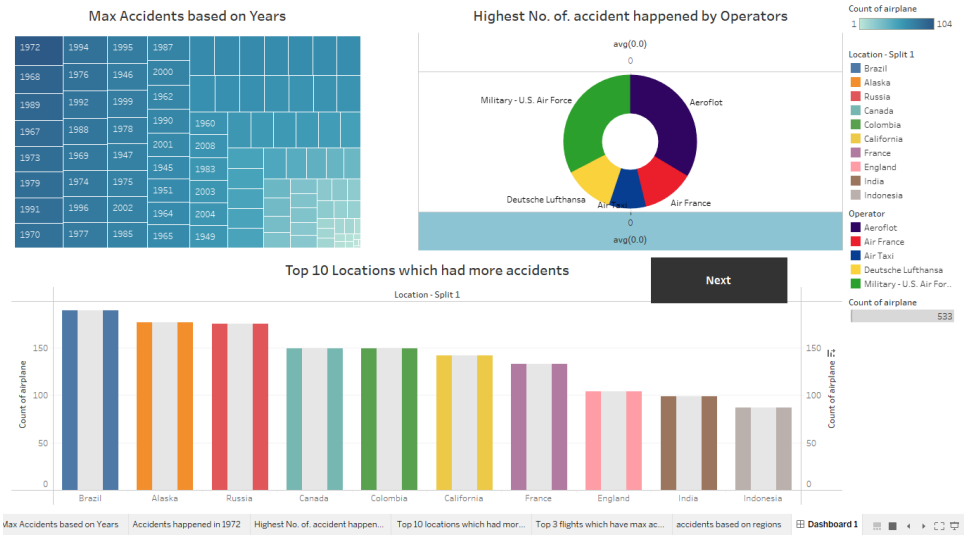
TOP 3 FLIGHTS WHICH HAVE MAX ACCIDENT HISTORY

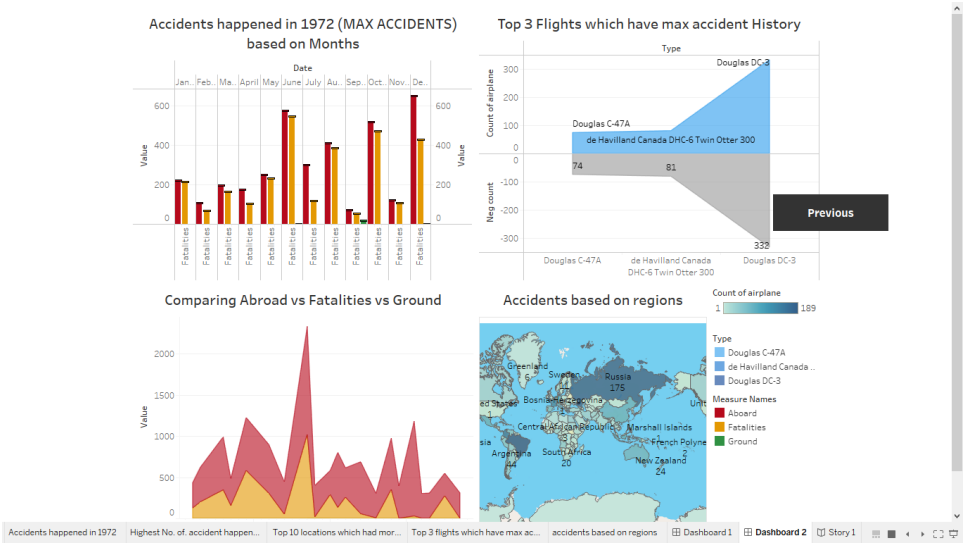


ACCIDENTS BASED ON REGIONS

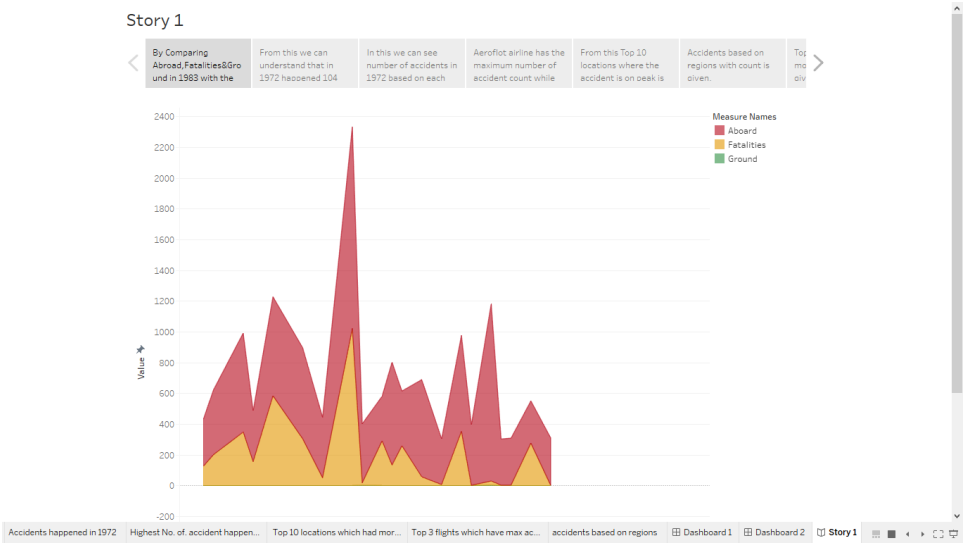

Accidents based on regions
CNT(airplane)
1
189
Greenland 6
Iceland 6
Sweden 17
Estonia 1
Russia 175
Canada2 1
The Netherlands 1
Kazakhstan 3
Mongolia 5
Bosnia-Herzegovina 2
Turkmenistan 1
United States 1
Bermuda 1
Tunisia 2
Lebanon 1
China 80
South Korea 17
Morocco 24
United Arab Emirates 9
Bangladesh 9
Mexico 83
British Virgin Islands 1
Cape Verde Islands 1
Philippines 48
Guam 3
Venezuela 58
Central African Republic 3
Sri Lanka 13
Singapore 3
Marshall Islands 1
Papua New Guinea 10
Brazil 189
Mozambique 5
Samoa 1
Fiji 4
French Polynesia 2
Namibia 1
Australia 78
Argentina 44
South Africa 20
New Zealand 24
© 2023 Mapbox © OpenStreetMap
290 unknown
vs Fatalities ...
Max Accidents based on Years
Accidents happened in 1972
Highest No. of. accident happen...
Top 10 locations which had mor...
Top 3 flights which have max ac...
accidents based on regions

DASHBOARD:


Max Accidents based on Years
1972 1994 1995 1987
1968 1976 1946 2000
1989 1992 1999 1962
1967 1988 1978 1990 1960
2001 2008
1973 1969 1947 1945 1983
1979 1974 1975 1951 2003
1991 1996 2002 1964 2004
1970 1977 1985 1965 1949
Highest No. of. accident happened by Operators
avg(0.0)
0
Military - U.S. Air Force
Aeroflot
Deutsche Lufthansa
Air France
Count of airplane
1
104
Location - Split 1
Brazil
Alaska
Russia
Canada
Colombia
California
France
England
India
Indonesia
Operator
Aeroflot
Air France
Air Taxi
Deutsche Lufthansa
Military - U.S. Air For...
Count of airplane
533
Top 10 Locations which had more accidents
Next
Location - Split 1
Count of airplane
150
100
50
0
Brazil
Alaska
Russia
Canada
Colombia
California
France
England
India
Indonesia
Max Accidents based on Years
Accidents happened in 1972
Highest No. of. accident happen...
Top 10 locations which had mor...
Top 3 flights which have max ac...
accidents based on regions
Dashboard 1



STORY:



4. ADVANTAGES OF REDUCING AIRPLANE CRASH:

1. We can see how the safety measures have been implemented.
2. Able to know the mistakes.
3. Casualities have been decreased.
4. Lives of the people were saved.

DISADVANTAGES OF AIRPLANE CRASH:

1. People's didn't feel good.
2. Increases the fear of the people's.

3. Loss of hope in air transport.
4. Peoples may get anxious.

5. APPLICATIONS:

- Used for case study.
- For the Educational purpose the analysis is used.
- To make awareness about the tragedy of flights.
- In checking, they know the reasons for the crash.
- Used for further analysis.

6. CONCLUSION:

The project “THE TRAGEDY ON FLIGHTS; A COMPREHENSIVE CRASH ANALYSIS” has been developed as per requirement specification. It has been developed using Tableau and MySQL. From this analysis we able to know the crash reports. By implementing useful things we can lower the crash count. Making visualization instead of data be more effective.

7.FUTURE SCOPE:

There is a scope for future development of the project. The airplane crash analysis is not static, it is always subject to be dynamic. Changed every year. So it is not concluded Yet it will improve with further enhancements.

8.APPENDIX:

8.1 SOURCE CODE:

```
<!DOCTYPE html>
<html lang="en">
```

```
<head>
<title>AIRPLANE CRASH ANALYSIS</title>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<style>
* {
  box-sizing: border-box;
}

/* Style the body */
body {
  font-family: Arial, Helvetica, sans-serif;
  margin: 0;
}

/* Header/logo Title */
.header {
  padding: 100px;
  text-align: center;
  background: #F08080;
  background-image: url("airplane.png");
  background-position: center;
  background-size: cover;
  color: black;
}

/* Increase the font size of the heading */
```

```
.header h1 {
  font-size: 40px;
}

/* Sticky navbar - toggles between relative and fixed, depending on the scroll position. It is positioned relative until a given offset position is met in the viewport - then it "sticks" in place (like position:fixed). The sticky value is not supported in IE or Edge 15 and earlier versions. However, for these versions the navbar will inherit default position */
.navbar {
  overflow: hidden;
  background-color: cornsilk;
  position: sticky;
  position: -webkit-sticky;
  top: 0;
}

/* Style the navigation bar links */
.navbar a {
  float: left;
  display: block;
  color: darkorange;
  text-align: center;
  padding: 14px 20px;
  text-decoration: none;
}

/* Right-aligned link */
```

```
.navbar a.right {
  float: right;
}

/* Change color on hover */
.navbar a:hover {
  background-color: #E18B6B;
  color: darksalmon;
}

/* Active/current link */
.navbar a.active {
  background-color: #666;
  color: white;
}

/* Column container */
.row {
  display: -ms-flexbox; /* IE10 */
  display: flex;
  -ms-flex-wrap: wrap; /* IE10 */
  flex-wrap: wrap;
}

/* Create two unequal columns that sits next to each other */
/* Sidebar/left column */
.side {
```

```
  -ms-flex: 30%; /* IE10 */
  flex: 30%;
  background-color: #FFE4E1;
  padding: 20px;
}

/* Main column */
.main {
  -ms-flex: 70%; /* IE10 */
  flex: 70%;
  background-color: #8FBC8F;
  padding: 20px;
}

/* Fake image, just for this example */
.fakeimg {
  background-color: #aaa;
  width: 100%;
  padding: 20px;
}

/* Footer */
.footer {
  padding: 20px;
  text-align: center;
  background: #ddd;
}
```

```
/* Responsive layout - when the screen is less than 700px wide, make the two columns stack on top of each other instead of next to each other */
@media screen and (max-width: 700px) {
  .row {
    flex-direction: column;
  }
}

/* Responsive layout - when the screen is less than 400px wide, make the navigation links stack on top of each other instead of next to each other */
@media screen and (max-width: 400px) {
  .navbar a {
    float: none;
    width: 100%;
  }
}
</style>
</head>
<body >

<div class="header">
  <h1>AIRPLANE CRASH ANALYSIS</h1><br>

<p><h3><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br>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.<h3></p><br>
```

```
</div>

<div class="navbar">
  <a href="#" class="active">Home</a>
  <a href="Dashboard.html">Dashboard</a>
  <a href="Story.html">Story</a>
  <a href="#" class="right">About</a>
</div>

<div class="row">
  <div class="side">

    <h2><i><font color="#F635BA">DESIGN</font></i></h2>
    <p >Data visualization is to make complex data sets more accessible,intuitive and easier to interpret.The Graphs and Charts used in here for visualisation will be more understanding at a quick glance.</p>
     <br>
      <h2><i><font color="#F635BA">DASHBOARD</font></i></h2>
    <p>Visualization dashboard is an interactive dashboard that allows you to track key performance indicators, monitor performance metrics, and display data in the form of charts, graphs, and tables.</p>
    <br>
    <h2><i><font color="#F635BA">STORY</font></i></h2>
    <p>Story is a sequence of data visualizations that work together to convey information.</p>

  </div>
  <div class="main">
```

<h2>DEFINITION OF AIRPLANE CRASH ANALYSIS</h2>

 An accident in which an aircraft hits land or water and is damaged or destroyed.

<h2>EFFECTS OF AIRPLANE CRASH</h2>

Air crash is one of the most fatal accidents and in most of the reported cases; there have been more casualties than survivors. The effects that are brought about by an air crash may be classified as either physical or psychological. In the physical effects, air crash brings about death, disability and injuries.

<h2>HUMAN ERRORS IN AVIATION</h2>

Pilot error is the number one cause of aviation accidents. Piloting an aircraft requires lengthy training, a knowledge of the mechanical components of an aircraft, and hand-eye coordination skills to effectively and safely maneuver an aircraft. Pilots also have to think ahead. Planning flights, checking the weather, and anticipating changes are all keys to being a safe pilot. If a pilot doesn’t plan the flight properly, gets into bad weather, or doesn’t anticipate issues then airplane crashes can happen. Occasionally pilots become disoriented, especially while operating in clouds, under Instrument Flight Rules (IFR). Pilot disorientation can lead to stalls or spins that lead to crashes. Having an attorney that understands piloting is important if legal action is needed.

<h2>Contact us</h2>

</body>

</html>