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Naan Mudhalvan

Project Based Experiential Learning

PROJECT TITTLE: THE TRAGRDY OF FLIGHT(A COMPREHENSIVE CRASH ANALYSIS)

CATEGORY:DATA ANALYTIC WITH TABLEAU

TEAM MATES:

TEAM ID: NM2023TMID25683
TEAM LEADER: P. PANDIRASA
MEMBERS :
1)R.AATHI
2)P.LOGESSWARAN
3)R.MANIKANDAN

The Tragedy Of Flight: A Comprehensive Crash Analysis

INTRODUCTION

1) Define Problem / Problem Understanding (TASK: EMPATHY MAP AND BRAIN STORM &PRIORITIZATION)
2) Data Collection & Extraction From Database
3) Data Preparation
4) Data Visualization TASK:GRAPHICAL REPRESENTATION SHEET(CHARTS,GRAPH,MAP)
5) Dashboard TASK:CREATE DASHBOARD
6) Story TASK:CREATE STORY
7) Performance Testing
8) Web Integration
9) Project Demonstration & Documentation

1)DEFINE PROBLEM/PROBLEM UNDER STANDING

- We can understand the project title
- How can understand the problem of the tragedy of flight
- How can crash makes them
- 1)Specify the business problem
- 2)Business requirements
- 3)Literature survey
- 4)Social and business impact

Task:1

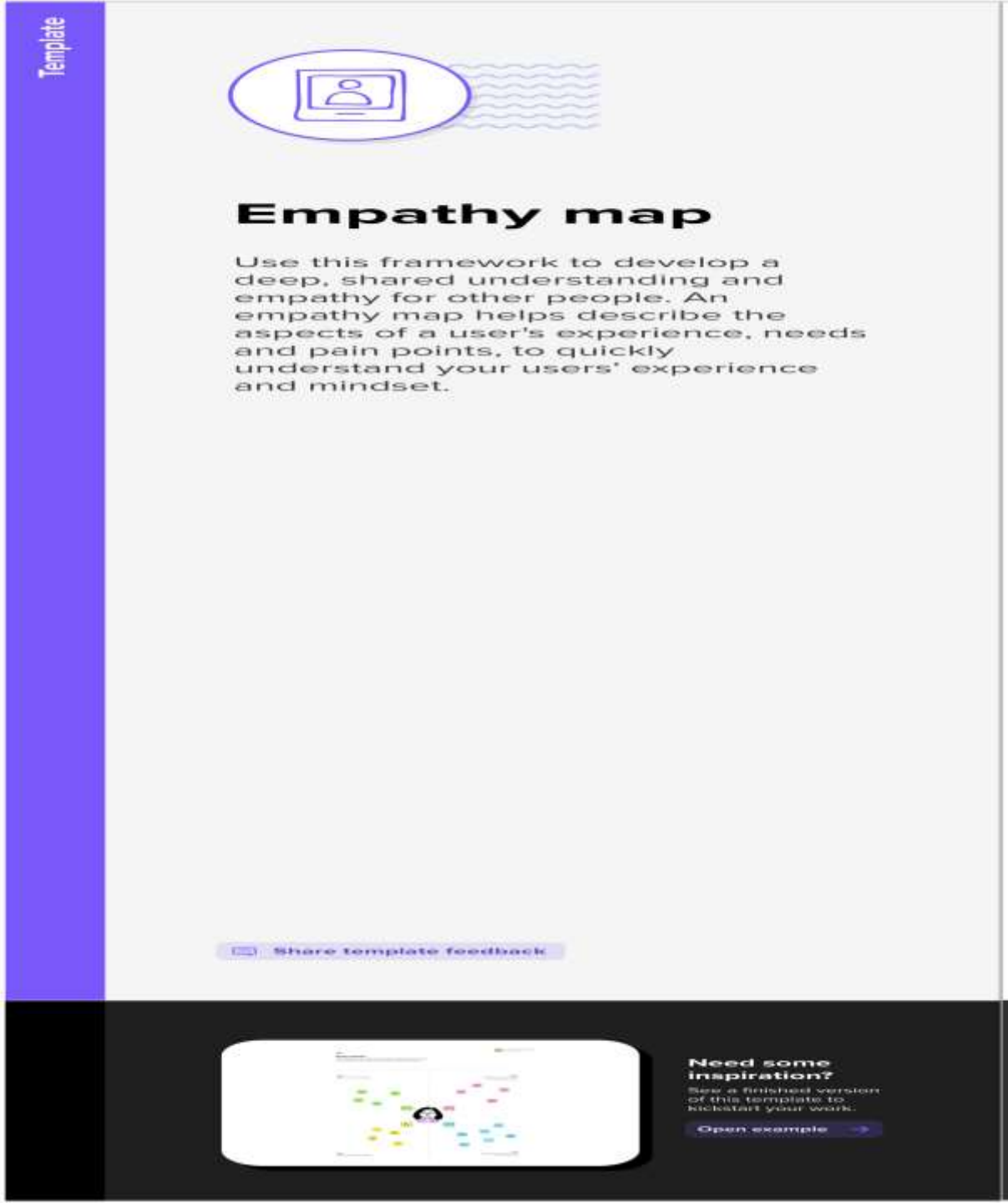
EMPATHY MAP

*Says(what are plane crash)

*Thinks(causes the needs)

*Feels(fear, frustrations)

*Does(we can doing them)



Build empathy

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

Says
What have we heard them say?
What can we imagine them saying?

How and what causes plane crash

Precautionary measures

Security system and service

Thinks
What are their wants, needs, hopes, and dreams? What other thoughts might influence their behavior?

Such accident increases the loss of life

Poor internet communication and human error

THE TRAGEDY OF FLIGHTS

Various system should be installed and monitoring

Manufacturing good components

Good environment and communication development

Have steps taken avoid plane accident

Save people lifes

Lack of seismic scarcity

Does
What behavior have we observed?
What can we imagine them doing?

Feels
What are their fears, frustrations, and anxieties? What other feelings might influence their behavior?

TASK:2 BRAINSTORM & PRIORITIZATION

* In this task the team leader and team members our ideas was excuted in this way

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

10 minutes

A **Team gathering**
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B **Set the goal**
Think about the problem you'll be focusing on solving in the brainstorming session.

C **Learn how to use the facilitation tools**
Use the Facilitation Superpowers to run a happy and productive session.

Open article →

1

Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

⏱ 5 minutes

PROBLEM

How might we [your problem statement]?

Key rules of brainstorming

To run an smooth and productive session

- Stay in topic.
- Defer judgment.
- Go for volume.
- Encourage wild ideas.
- Listen to others.
- If possible, be visual.

2

Brainstorm

Write down any ideas that come to mind that address your problem statement.

10 minutes

TIP

You can select a sticky note and hit the pencil [switch to sketch] icon to start drawing!

Person 1

- CONTROLLED FLIGHT INTO TERRAIN(CFIT)
- LOSS OF CONTROL IN-FLIGHT (LOC-I)
- RUNWAY EXCURSION (RE)
- SYSTEM/COMPONENT FAILURE (SCF)
- FIRE (F-NI AND F-POST)
- ABNORMAL RUNWAY CONTACT (ARC)
- UNDERSHOOT OR OVERSHOOT (LOSS)

ACCIDENT CATEROGY

Person 2

- 1)TENERIFE AIRPORT DISASTER 1977
- 2)JAPAN AIRLINES FLIGHT123
- 3)AMERICAN AIRLINES FLIGHT191
- 4)CHARKHI DADRI MID-AIR COLLISION
- 5)AIR INDIA FLIGHT 182
- 6)TURKISH AIRLINES FLIGHT 981
- 7)MALAYSIA AIRLINES FLIGHT 17
- 8)IRAN AIR FLIGHT 655

DEAD LIEST PLANE CRASH

Person 3

- 1)BOEING (CHICAGO)
- 2)AIRBUS (EUROPEAN)
- 3)LOCKHEED MARTIN (US)
- 4)MCDONNELL DOUGLAS (CANADA)
- 5)NORTHROP GRUMMAN (US)
- 6)HONEY WELL (US)
- 7)LEONARD O (ITALY)
- 8) EMBRAERS.A (BRAZIL)

WORLD TOP AIRCRAFT PART COMPANIES

Person 4

- FLIGHT ENVIRONMENT PROTECTION SYSTEM
- TRAFFIC COLLISION AVOIDANCE SYSTEM
- TERMINAL MANEUVERING AREA
- ENHANCED GROUP PROXIMITY WARNING
- PORTABLE OXYGEN SYSTEM
- EVACUATION TOOLS
- ENHANCED EMERGENCY MEDICAL KITS
- HALON 1211FIRE EXTINGUISH FIRE

AIRPLANE SAFTY FEATURES

3

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.

20 minutes

TIP

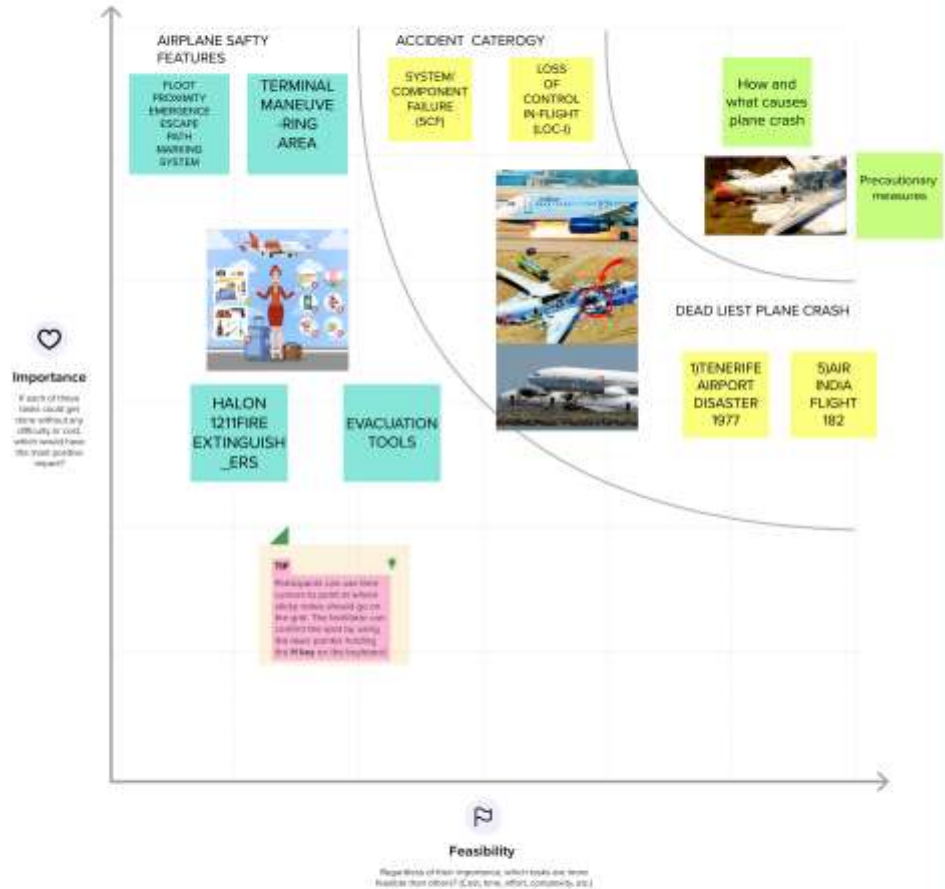
Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.

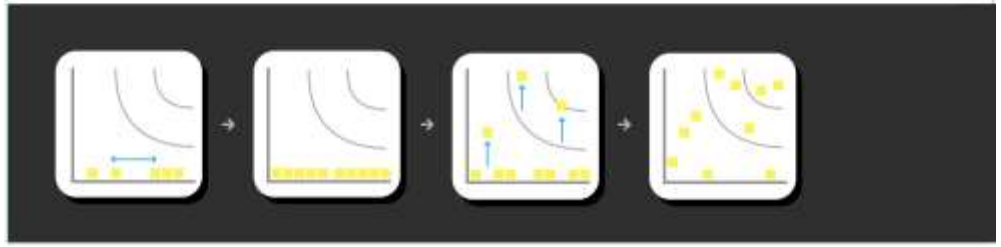
4

Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

20 minutes





After you collaborate

You can export the mural as an image or pdf to share with members of your company who might find it helpful.

Quick add-ons

A **Share the mural**
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.

B **Export the mural**
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save in your drive.

Keep moving forward

Strategy blueprint
Define the components of a new idea or strategy.
Open the template →

Customer experience journey map
Understand customer needs, motivations, and obstacles for an experience.
Open the template →

Strengths, weaknesses, opportunities & threats
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.
Open the template →

Share template feedback

2)DATA COLLECTION&EXTRACTION FROM DATABASA

- COLLECT THE DATA SET(go to work space collect data for download)
- UNDERSTAND THE DATA
- STORING DATA IN DB& PERFORM SQL OPERATION
- CONNECT DB WITH TEBLEAU

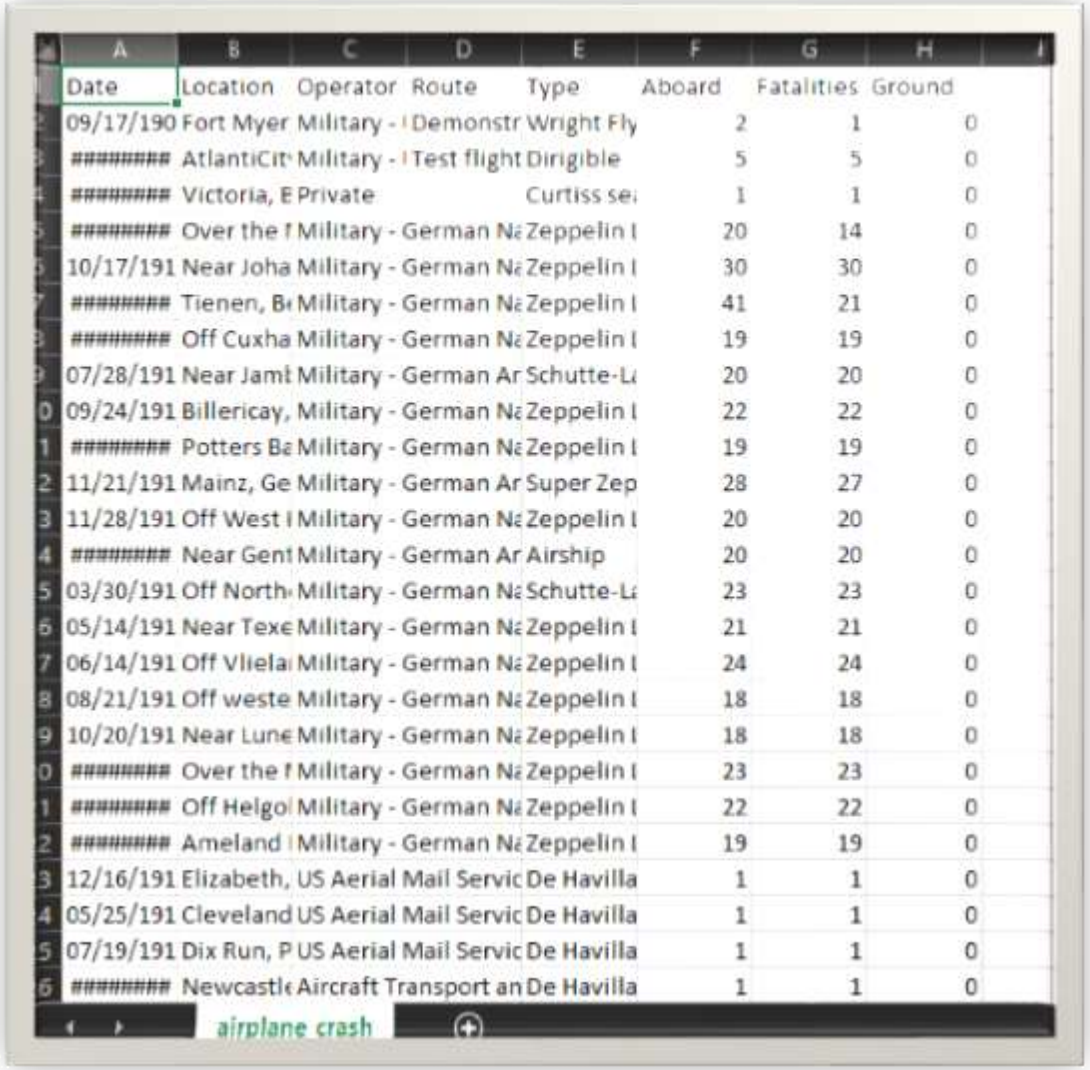
*In this way we can save the dataset for pdf format so we can copy to the dataset for computer in pdf form and include the pdf form for tebleau

3)Data PREPARATION

- PREPARE THE DATA FOR VISULIZATION

  *gathering the information for dataset

  *colud find the topic for dataset



	A	B	C	D	E	F	G	H
1	Date	Location	Operator	Route	Type	Aboard	Fatalities	Ground
2	09/17/190	Fort Myer	Military - I	Demonstr	Wright Fly	2	1	0
3	########	AtlantiCit	Military - I	Test flight	Dirigible	5	5	0
4	########	Victoria, E	Private		Curtiss se	1	1	0
5	########	Over the I	Military -	German Na	Zeppelin l	20	14	0
6	10/17/191	Near Joha	Military -	German Na	Zeppelin l	30	30	0
7	########	Tienen, Be	Military -	German Na	Zeppelin l	41	21	0
8	########	Off Cuxha	Military -	German Na	Zeppelin l	19	19	0
9	07/28/191	Near Jamt	Military -	German Ar	Schutte-La	20	20	0
10	09/24/191	Billericay,	Military -	German Na	Zeppelin l	22	22	0
11	########	Potters Ba	Military -	German Na	Zeppelin l	19	19	0
12	11/21/191	Mainz, Ge	Military -	German Ar	Super Zep	28	27	0
13	11/28/191	Off West I	Military -	German Na	Zeppelin l	20	20	0
14	########	Near Gent	Military -	German Ar	Airship	20	20	0
15	03/30/191	Off North	Military -	German Na	Schutte-La	23	23	0
16	05/14/191	Near Texe	Military -	German Na	Zeppelin l	21	21	0
17	06/14/191	Off Vliela	Military -	German Na	Zeppelin l	24	24	0
18	08/21/191	Off weste	Military -	German Na	Zeppelin l	18	18	0
19	10/20/191	Near Lune	Military -	German Na	Zeppelin l	18	18	0
20	########	Over the I	Military -	German Na	Zeppelin l	23	23	0
21	########	Off Helgo	Military -	German Na	Zeppelin l	22	22	0
22	########	Ameland	Military -	German Na	Zeppelin l	19	19	0
23	12/16/191	Elizabeth,	US Aerial Mail	Servic	De Havilla	1	1	0
24	05/25/191	Cleveland	US Aerial Mail	Servic	De Havilla	1	1	0
25	07/19/191	Dix Run, P	US Aerial Mail	Servic	De Havilla	1	1	0
26	########	Newcastle	Aircraft Transport an		De Havilla	1	1	0

airplane crash

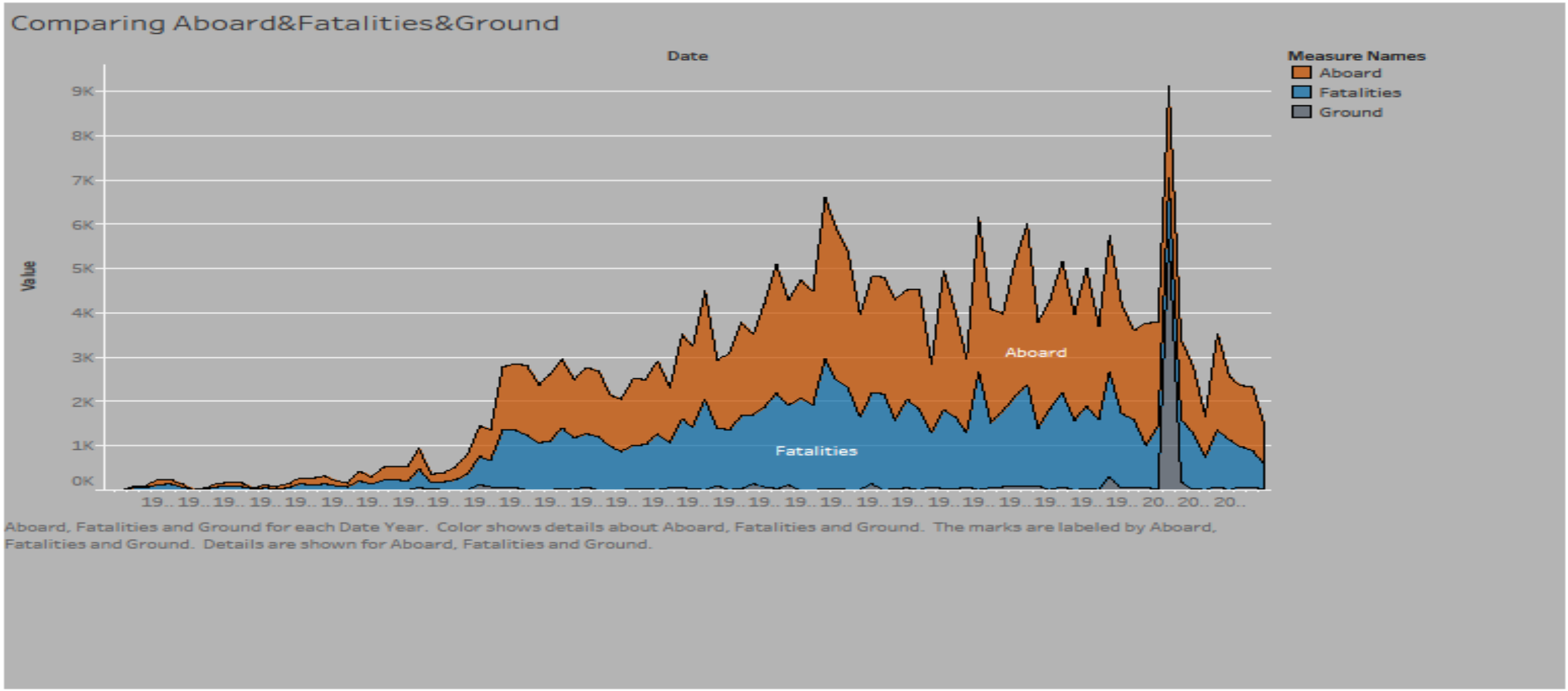
4)Data VISUALIZATION

- The process of creating graphical representations of data in order to help people understand and explore the information
- Visual elements such as charts , graphs, and maps
- Can help people quickly identify patterns, trends outliers in the data

TASK:SHEET

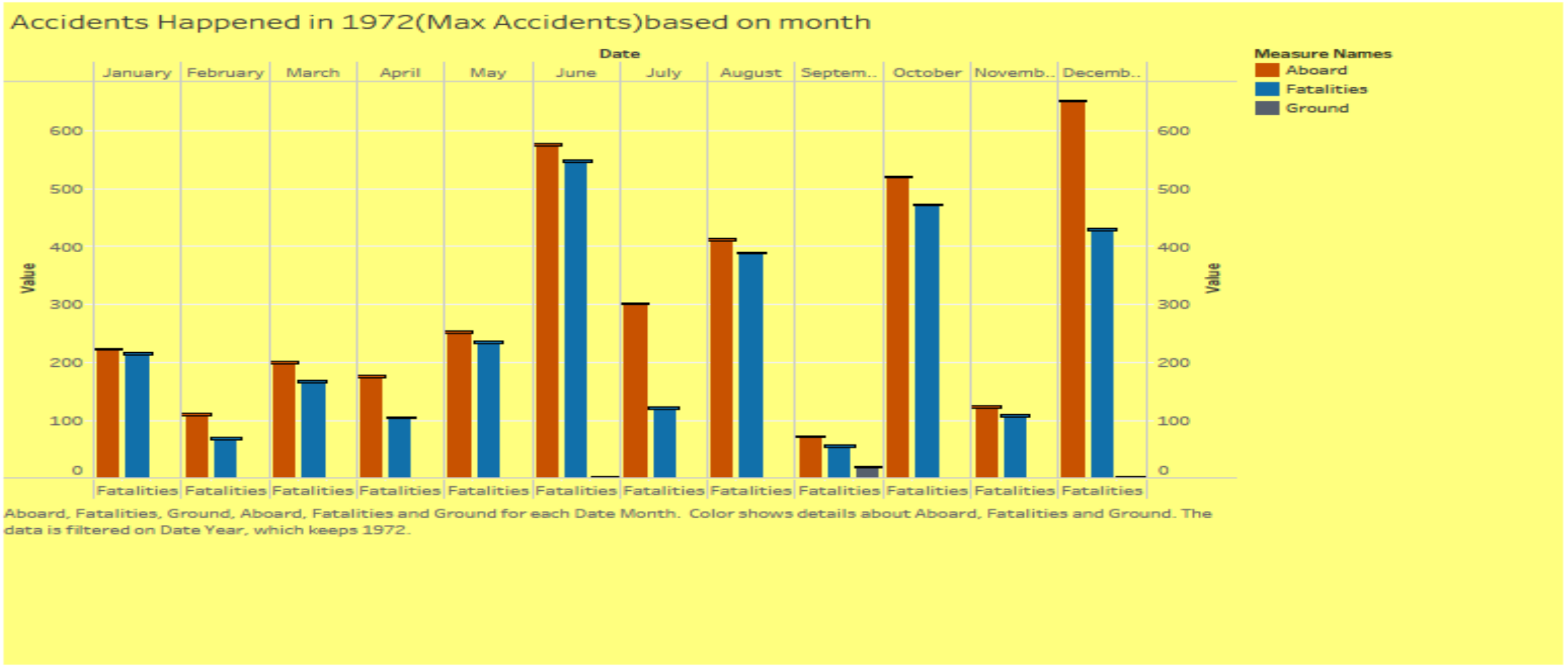
- I) COMPARING ABOARD & FATALITIES & GROUND
- II) MAX ACCIDENTS BASED ON YEARS
- III) ACCIDENTS HAPPENED IN 1972(MAX ACCIDENTS)BASED ON MONTHS
- IV) HIGHEST NO.OF ACCIDENT HAPPENED BY OPERATORS
- V) TOP 10 LOCATIONS WHICH HAD MORE ACCIDENTS
- VI) TOP 3 FLIGHTS WHICH HAVE MAX ACCIDENT HISTORY
- VII) ACCIDENTS BASED ON REGIONS

I) COMPARING ABOARD & FATALITIES & GROUND

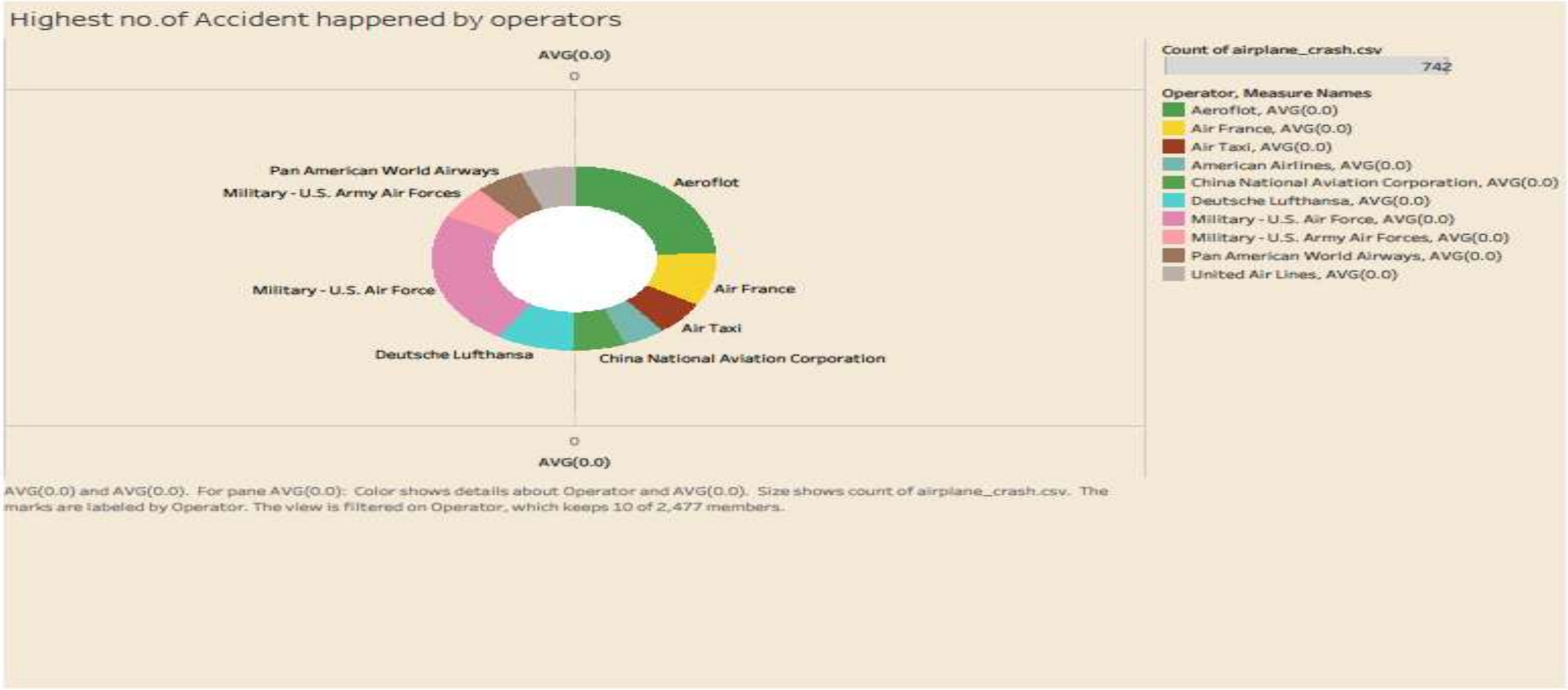


II) MAX ACCIDENTS BASED ON YEARS

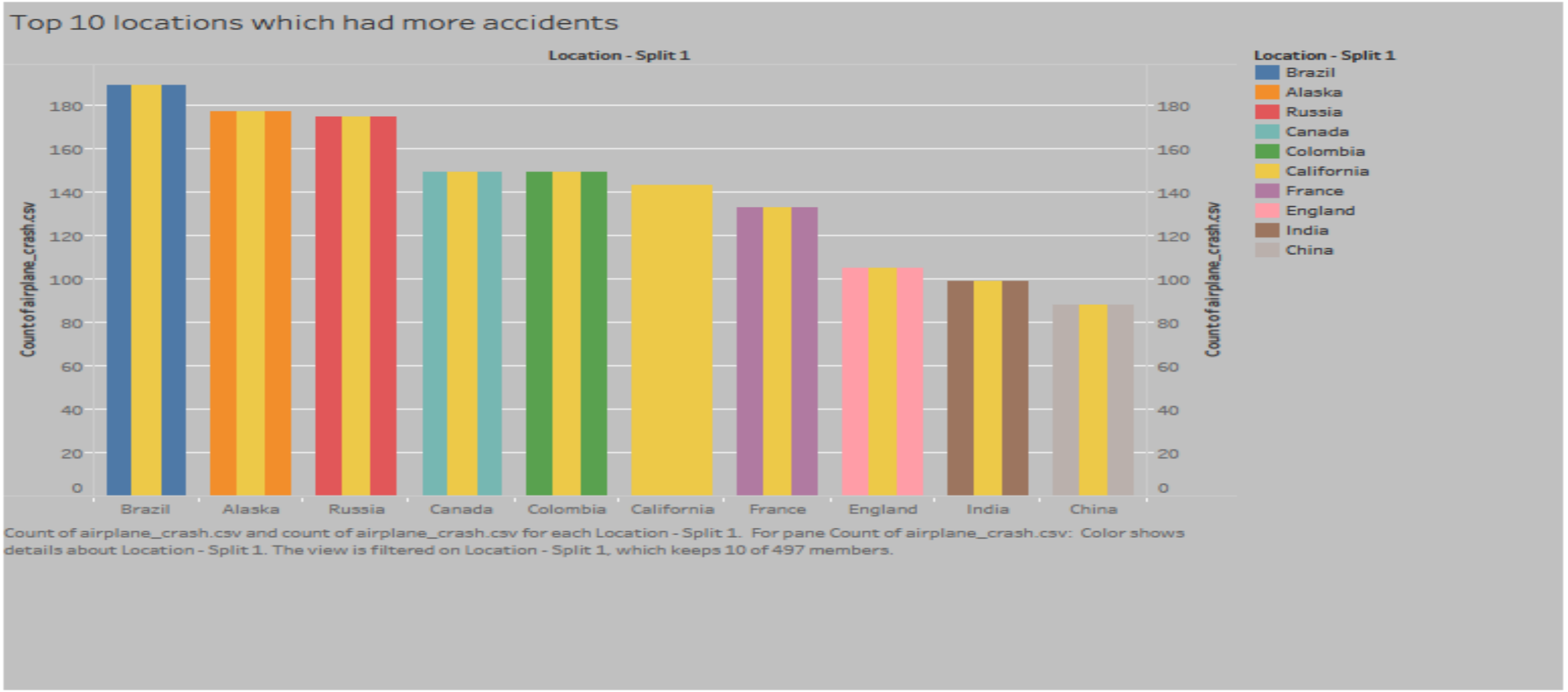
III) ACCIDENTS HAPPENED IN 1972(MAX ACCIDENTS)BASED ON MONTHS



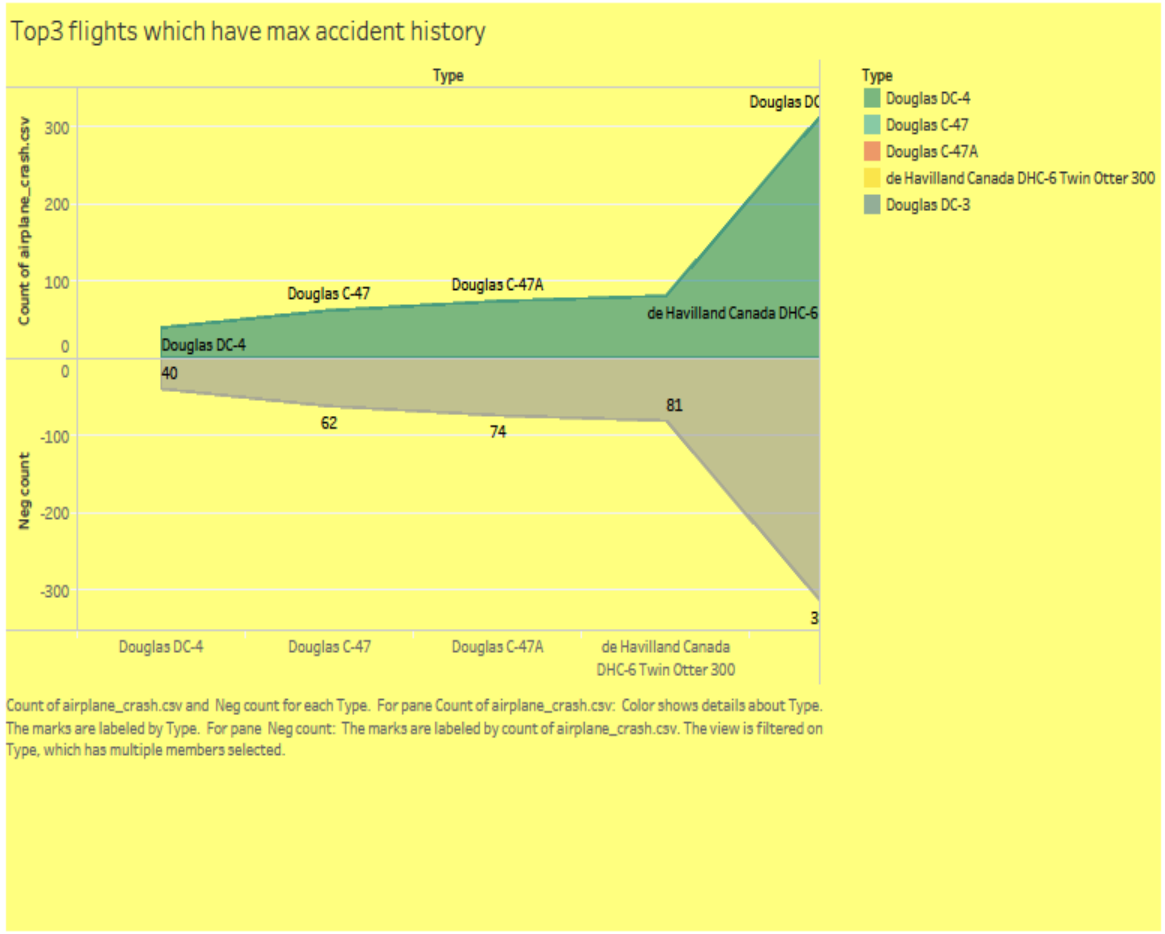
IV) HIGHEST NO.OF ACCIDENT HAPPENED BY OPERATORS



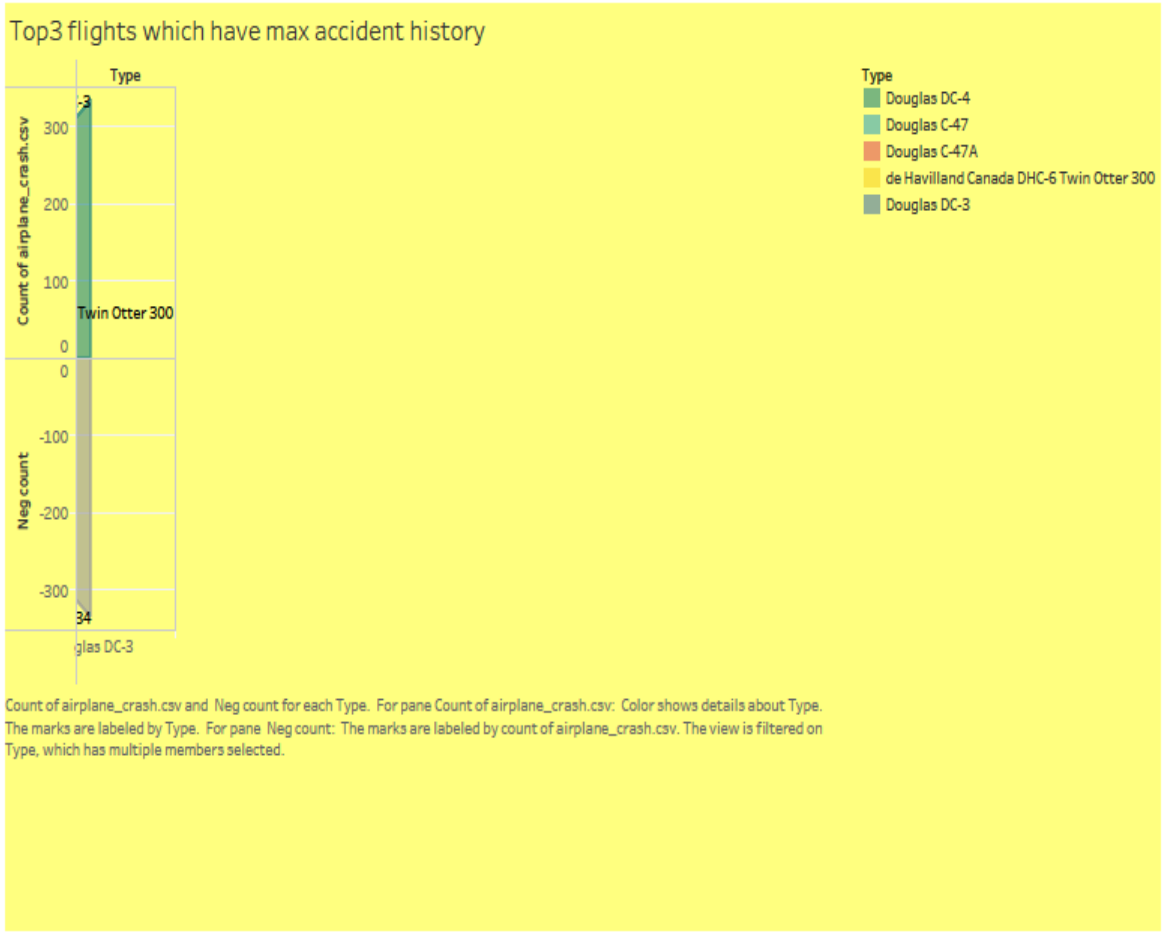
V) TOP 10 LOCATIONS WHICH HAD MORE ACCIDENTS



VI) TOP 3 FLIGHTS WHICH HAVE MAX ACCIDENT HISTORY



Count of airplane_crash.csv and Neg count for each Type. For pane Count of airplane_crash.csv: Color shows details about Type. The marks are labeled by Type. For pane Neg count: The marks are labeled by count of airplane_crash.csv. The view is filtered on Type, which has multiple members selected.



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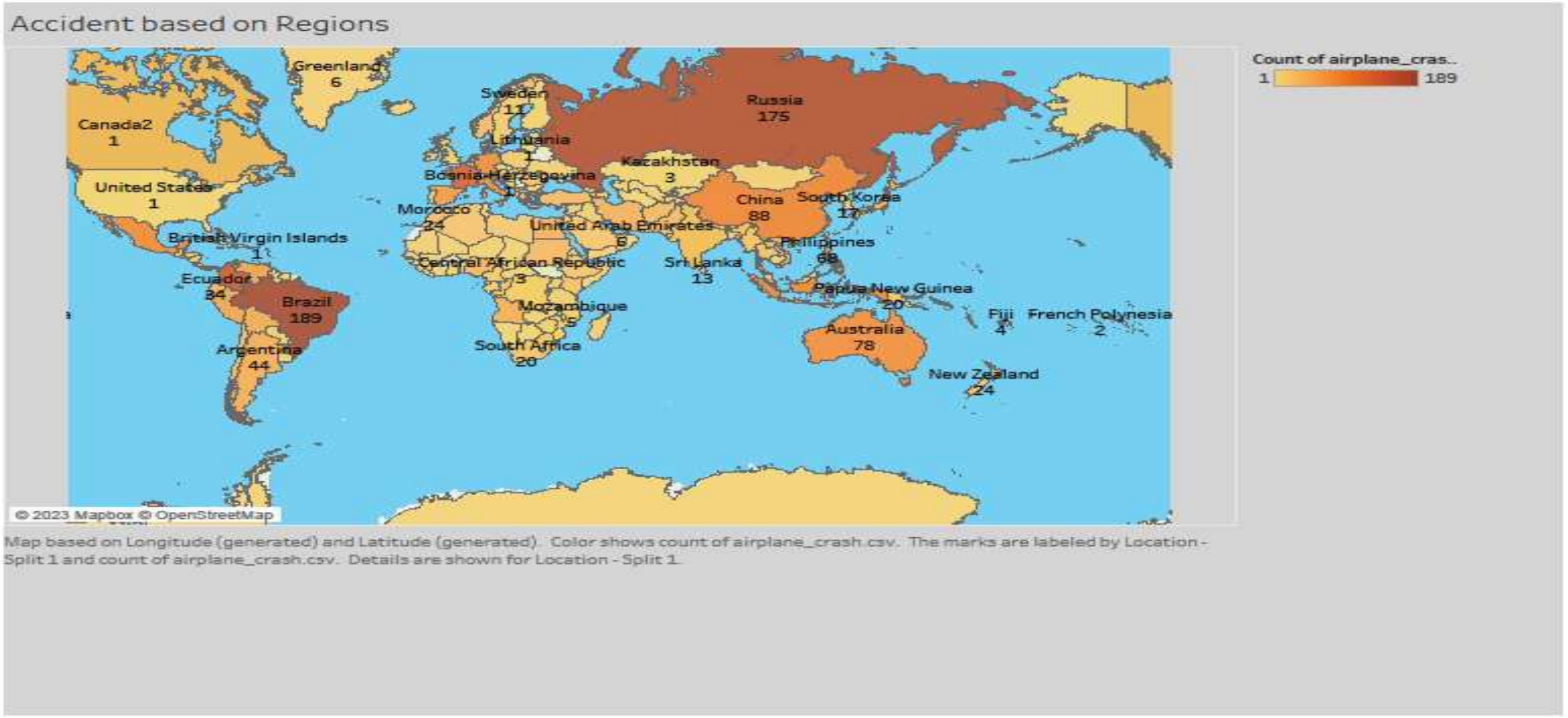
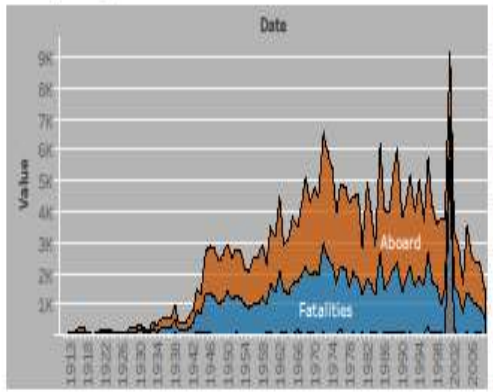
VII) ACCIDENTS BASED ON REGIONS



5)DASHBOARD

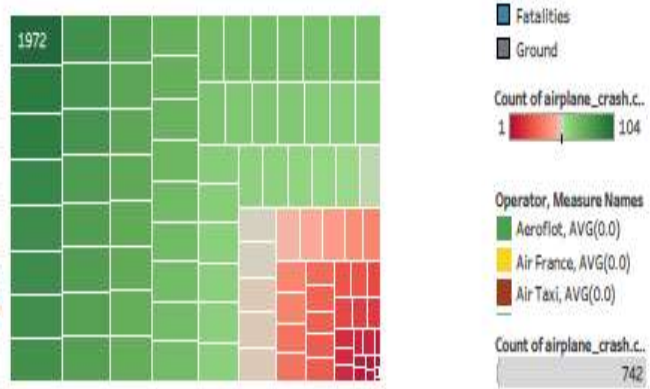
- They can be used to track key performance (KPIs),monitor performance metrics ,and display data in the form of charts ,graphs , and tables
- A dashboard is graphical user interface (GUI) that displays information and data in an organized easy-to-read format
- Such as business ,finance , manufacturing , healthcare , and many industries used them

Comparing Aboard&Fatalities&Ground

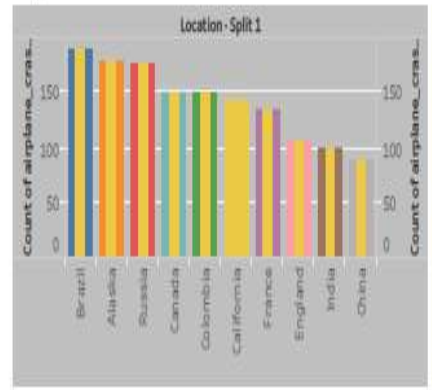


Max Accidents Based on Years

NEXT

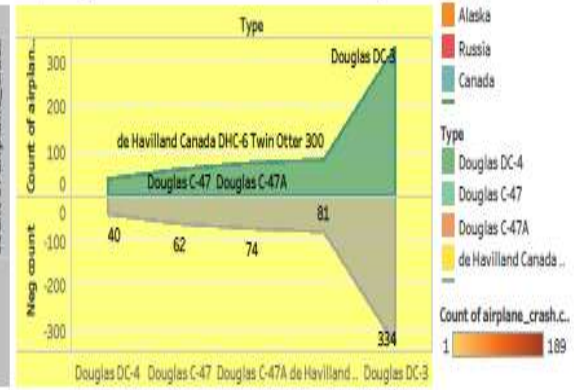


Top 10 locations which had more accidents

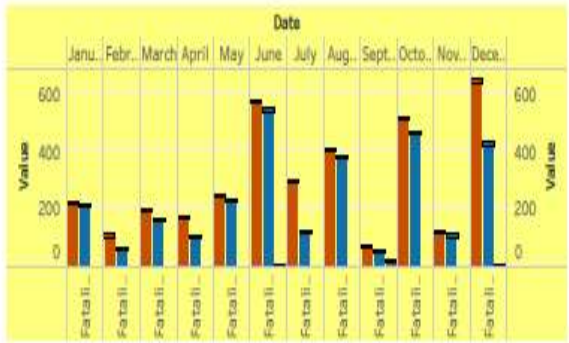


Top3 flights which have max accident history

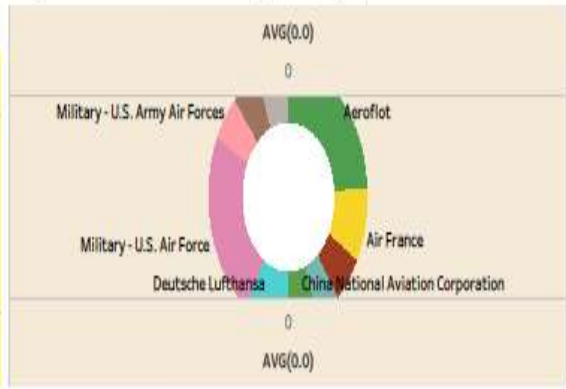
PREVIOUS



Accidents Happened in 1972(Max Accidents)based on month



Highest no.of Accident happened by operators



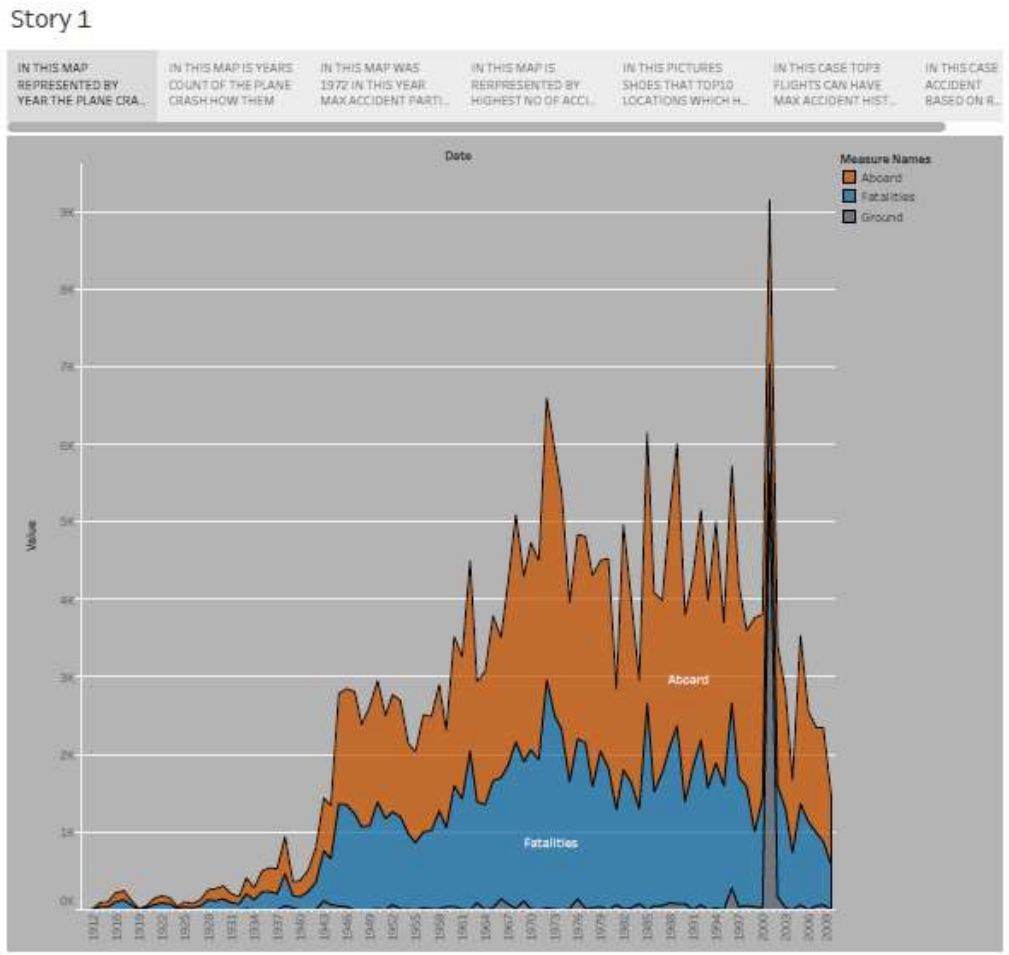
Accident based on Regions

6)STORY

- In an established systematic fashion that enables one to answer started research questions , test hypotheses , and evaluate outcomes and generate insights from the data

STORY:1

IN THIS MAP REPRESENTED BY YEAR THE PLANE

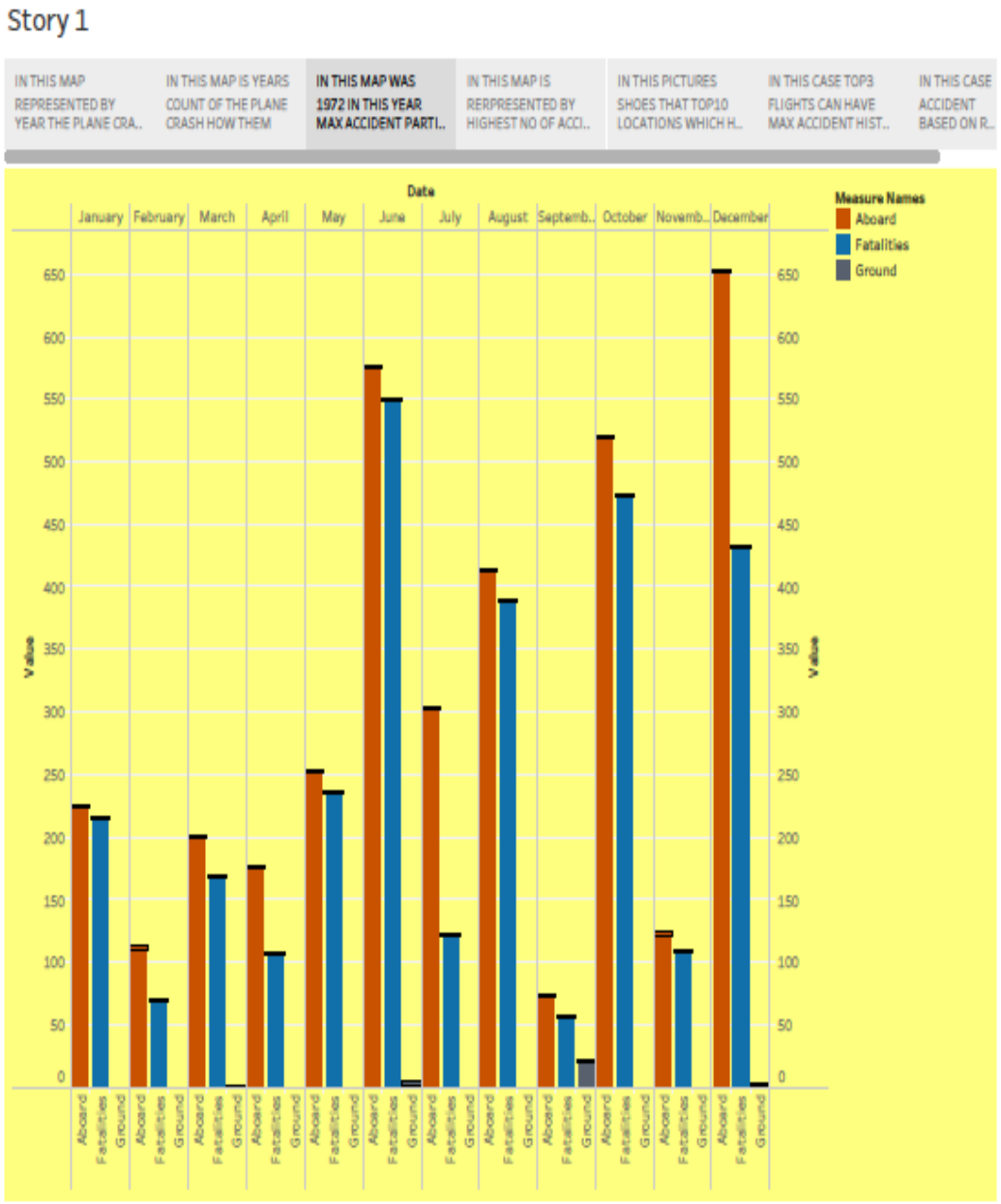


STORY:2

IN THIS MAP IS YEARS COUNT OF THE PLANE CRASH HOW THEM

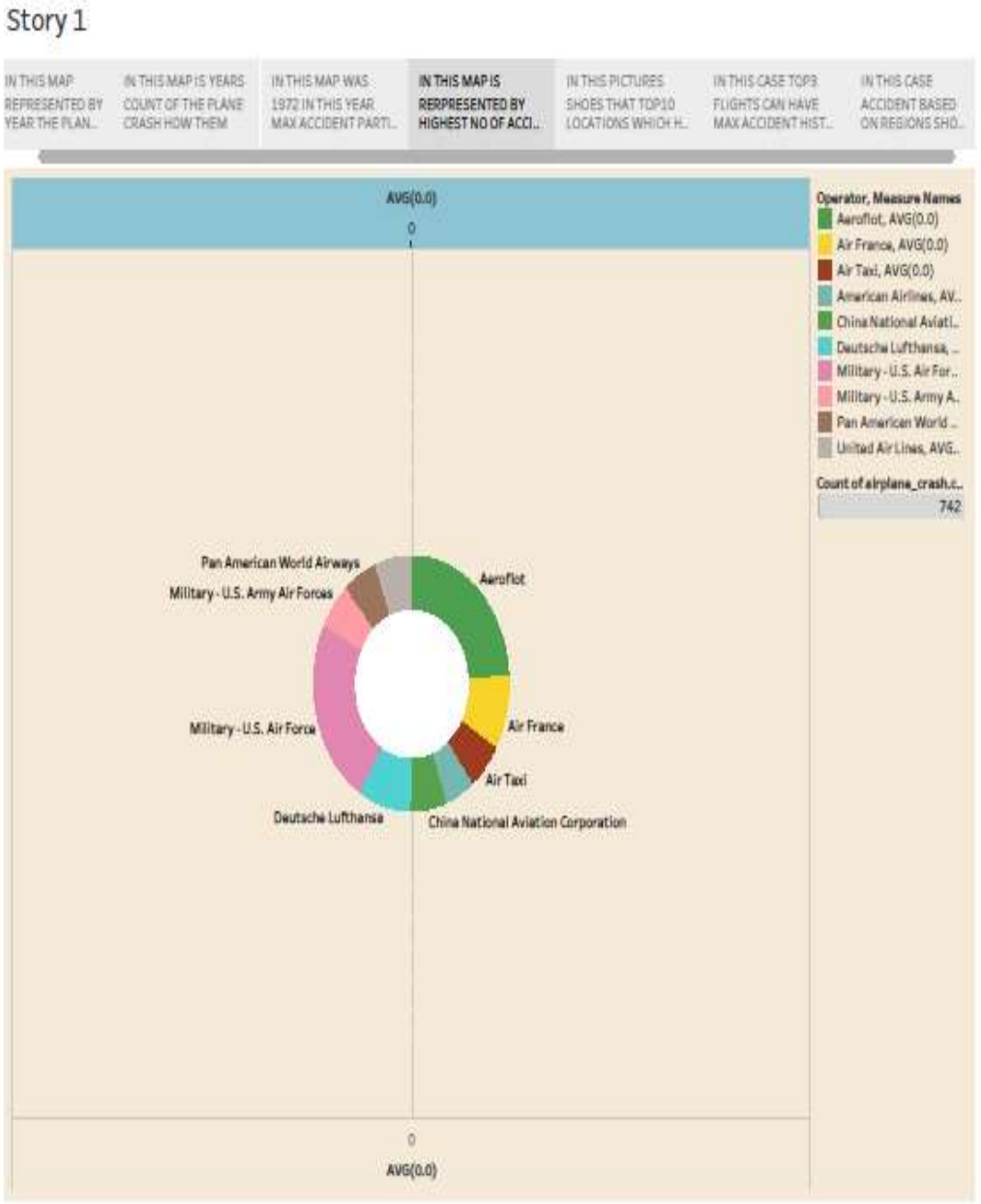
STORY:3

IN THIS MAP WAS 1972 IN THIS YEAR MAX ACCIDENT



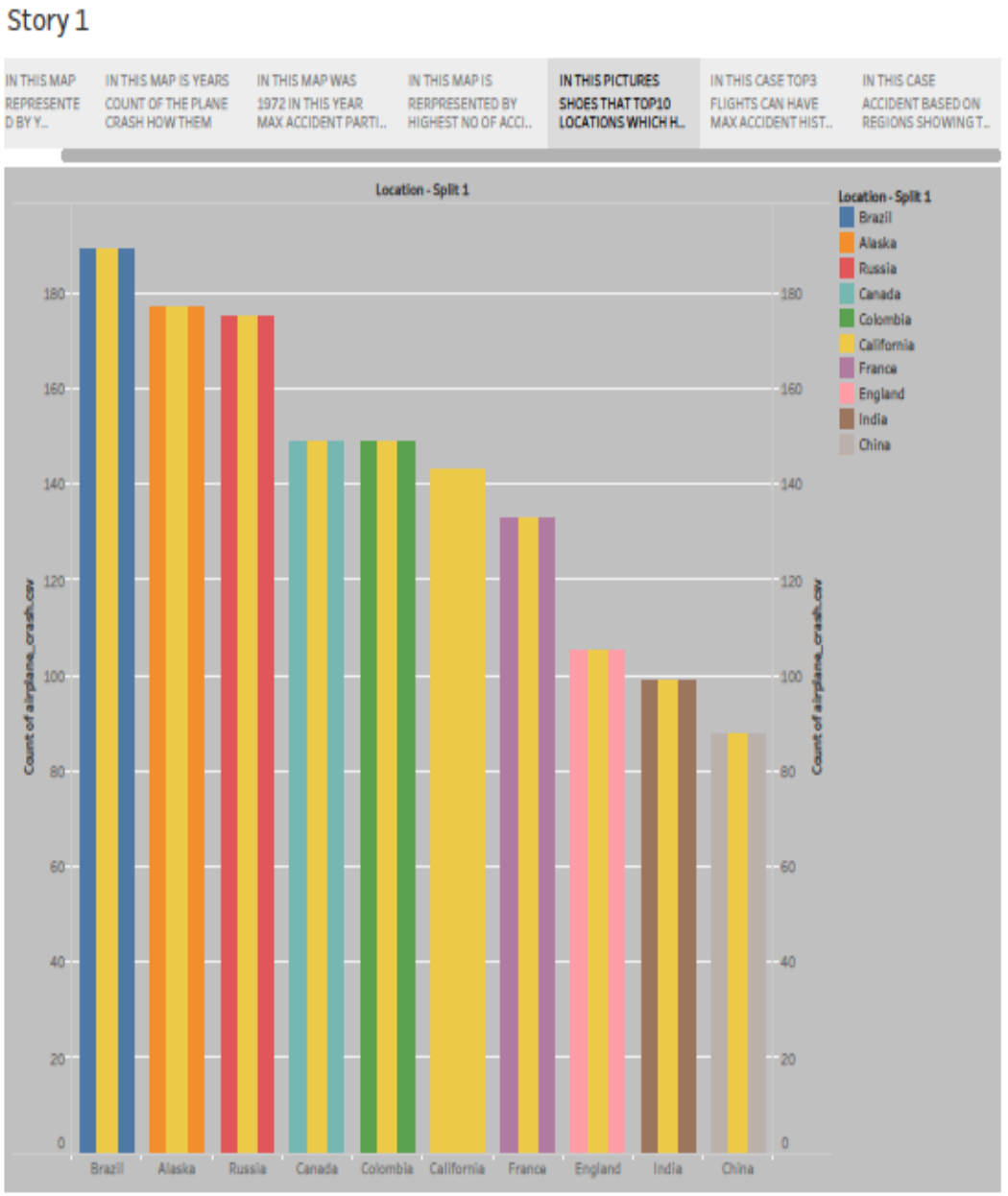
STORY:4

IN THIS MAP IS RERPRESENTED BY HIGHEST NO OF ACCIDENT HAPPENED BY OPERATOR



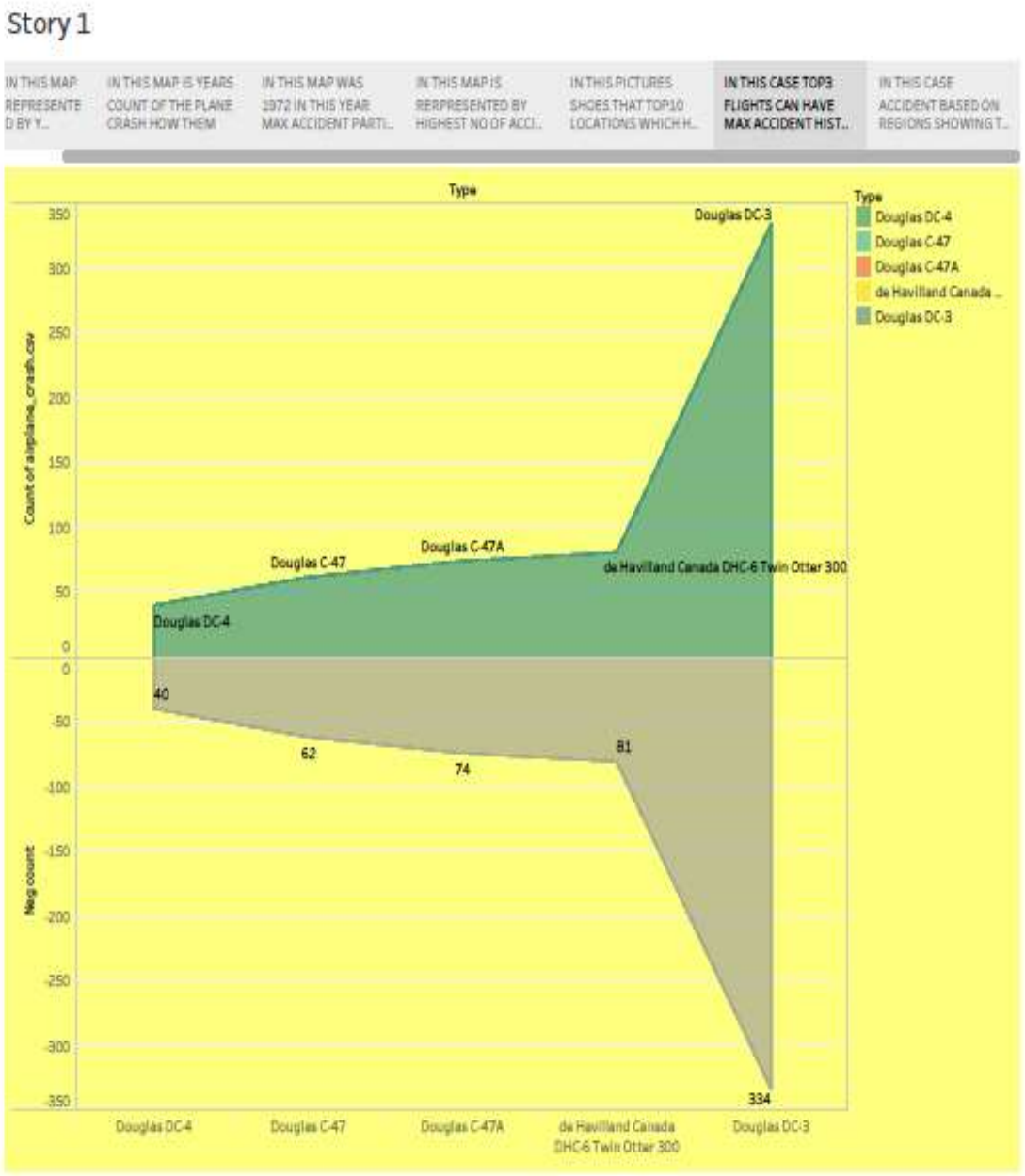
STORY:5

IN THIS PICTURES SHOWS THAT TOP10 LOCATIONS WHICH THERE ACCIDENT PLACES



STORY:6

IN THIS CASE TOP3 FLIGHTS CAN HAVE MAX ACCIDENTN



STORY:7

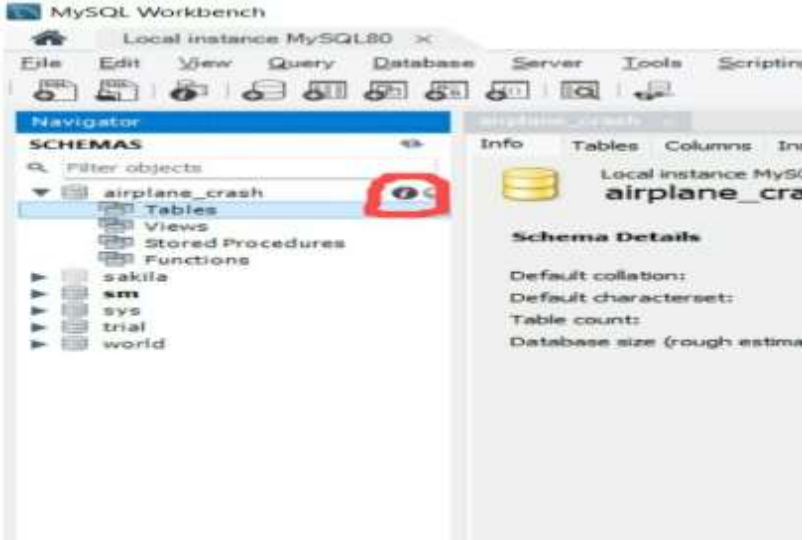
IN THIS CASE ACCIDENT BASED ON REGIONS SHOWING

7)PERFOMANCE TESTING

- *Amount Of Data Rendered DB

- The amount of data that is rendered to a database depends on the size of the dataset and the capacity of the database to store and retrieve data.
-

- Open the MySQL Workbench, go to the database then click to expand the tables , select the table and click on (I) button to get the information related to table such as column count , table rows etc.



7)PERFOMANCE TESTING

- *No Of Calculation Fields
-

7)PERFOMANCE TESTING

- *No Of Visualizations/ Graphs

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

8)Web Integration

Publishing helps us to track and monitor key performance metrics, to communicate results and progress. help a publisher stay informed, make better decisions, and communicate their performance to others**Publishing dashboard and reports to tableau public**

Step 1: Go to Dashboard/story, click on share button on the top ribbon

Step 2: Once you click on connect it will ask you for tableau public user name and password

9)Project Demonstration & Documentation

*Record Explanation Video For Project End To End Solution

- Record explanation Video for project end to end solution

*Project Documentation-Step By Step Project Development Procedure

- Project Documentation-Step by step project development procedure

THANK YOU