

THE TRAGEDY OF FLIGHT- A COMPREHENSIVE CRASH ANALYSIS

1 INTRODUCTION

1.1 Overview

The tragedy of a flight crash can be a complex and multifaceted event with many potential causes, including human error, mechanical failure, weather conditions, and other factors. Crash analysis typically involves investigating the physical evidence, including the wreckage of the plane, flight data recorders, and eyewitness accounts, to determine the sequence of events leading up to the crash.

1.2 Purpose

Crash analysis provides valuable information about the causes and contributing factors of aviation accidents. This information can be used to improve aviation safety by identifying areas for improvement in procedures, training, technology, and regulations. Understanding the sequence of events leading up to a crash can help emergency responders prepare for and respond to future accidents more effectively.

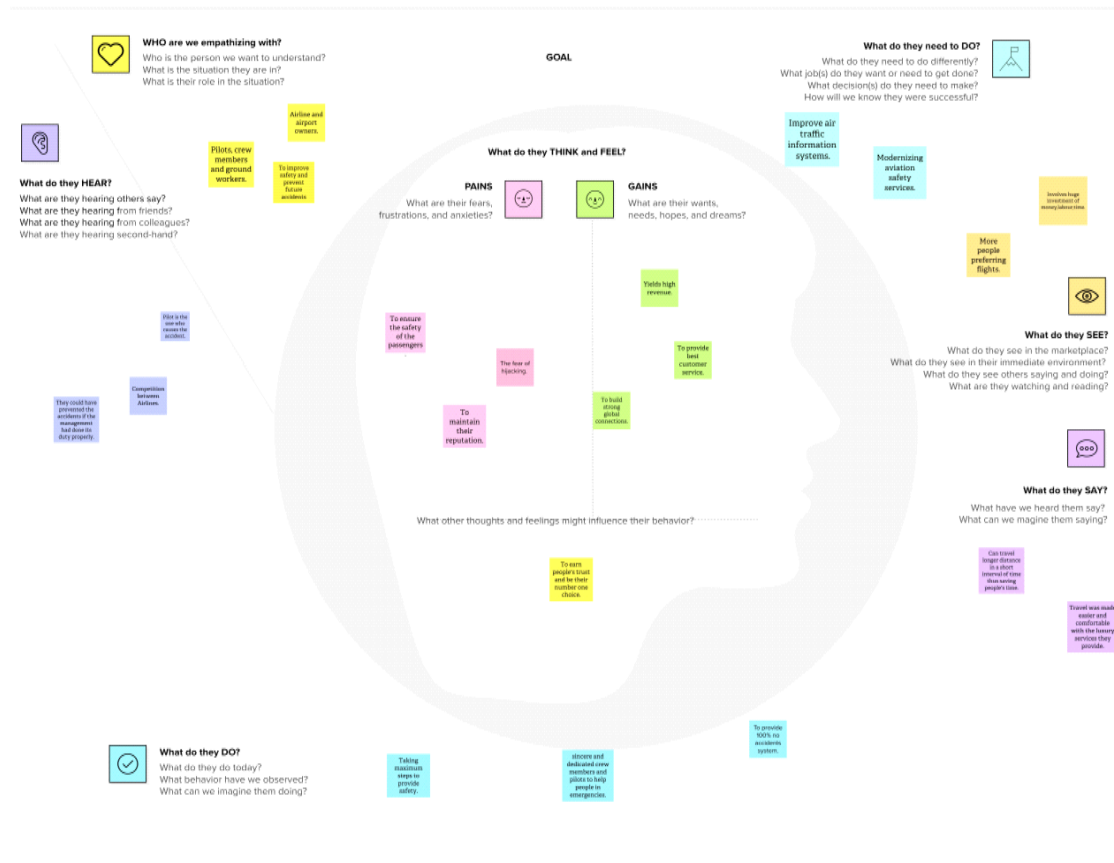
2. PROBLEM DEFINITION & DESIGN THINKING

2.1 Empathy map



Develop shared understanding and empathy

Summarize the data you have gathered related to the people that are impacted by your work. It will help you generate ideas, prioritize features, or discuss decisions.



2.2 Ideation & Brainstorming Map



Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

🕒 10 minutes to prepare
🕒 1 hour to collaborate
👤 2-8 people recommended

🗨️ Share template feedback



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



Team gathering

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



Set the goal

Think about the problem you'll be focusing on solving in the brainstorming session.



Learn how to use the facilitation tools

Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#) →



The Tragedy Of Flight- Crash Analysis

To improve safety measures and prevent future accidents.

🕒 5 minutes

PROBLEM

The Tragedy Of Flight: A Comprehensive Crash Analysis - To improve safety and prevent future accidents.



Key rules of brainstorming

To run a smooth and productive session



Stay in topic.



Encourage wild ideas.



Defer judgment.



Listen to others.



Go for volume.



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!

SHUNMUGHA SHREE

Negligence should be avoided and must be punished.

Insurance agents, relationship units, representatives, customers and provide mutual support when it comes to emergency.

Regular inspection should be done to ensure quality and safety in the units and provide support.

RAJALAKSHMI

Language communication between the crew and air traffic control.

All transactions must be conveyed clearly to each other to ensure the understanding of each other.

Language is more important than money and it is the only asset that can be used in an accident.

Adaptation of flight should be recommended for the flight as per the rules.

MUTHU SELVI

Flare and ground control should be properly trained to ensure they can deal with different situations.

Transportation should be made more efficient and the security should be in place.

The way of getting to the airport should be improved by making more parking spaces.

MARI MATHANA

Business units should be taken to provide any kind of mechanical support.

The business components including flight, crew, or other components and there must be a proper process.

Flight plans, or other plans should be made for the flight as per the rules.

Airside controller should be checked on each side of flight.

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 can break it up into smaller sub-groups.

🕒 20 minutes

PROPER MAINTENANCE

Impersonal notes
should be directed
and to only address
factual information
to be included

The speaker
completes activities,
plans, checks for
understanding
and then asks
other people questions

Assessing competence
should be
checked at each
point of design

Formative assessment
should be used
only with
mechanical errors

Impersonal
communication
between the center
and the teacher
should

PREVENTIVE MEASURES

All assessment must
be completed clearly
to ensure that it is
clear for
understanding in
context

Assessing competence
should be
checked at each
point of design

Assessing competence
should be
checked at each
point of design

Impersonal
communication
between the center
and the teacher
should

Assessing competence
should be
checked at each
point of design

Assessing competence
should be
checked at each
point of design

THINGS TO IMPROVE

Assessing competence
should be
checked at each
point of design

Assessing competence
should be
checked at each
point of design

Assessing competence
should be
checked at each
point of design

Assessing competence
should be
checked at each
point of design

TIP

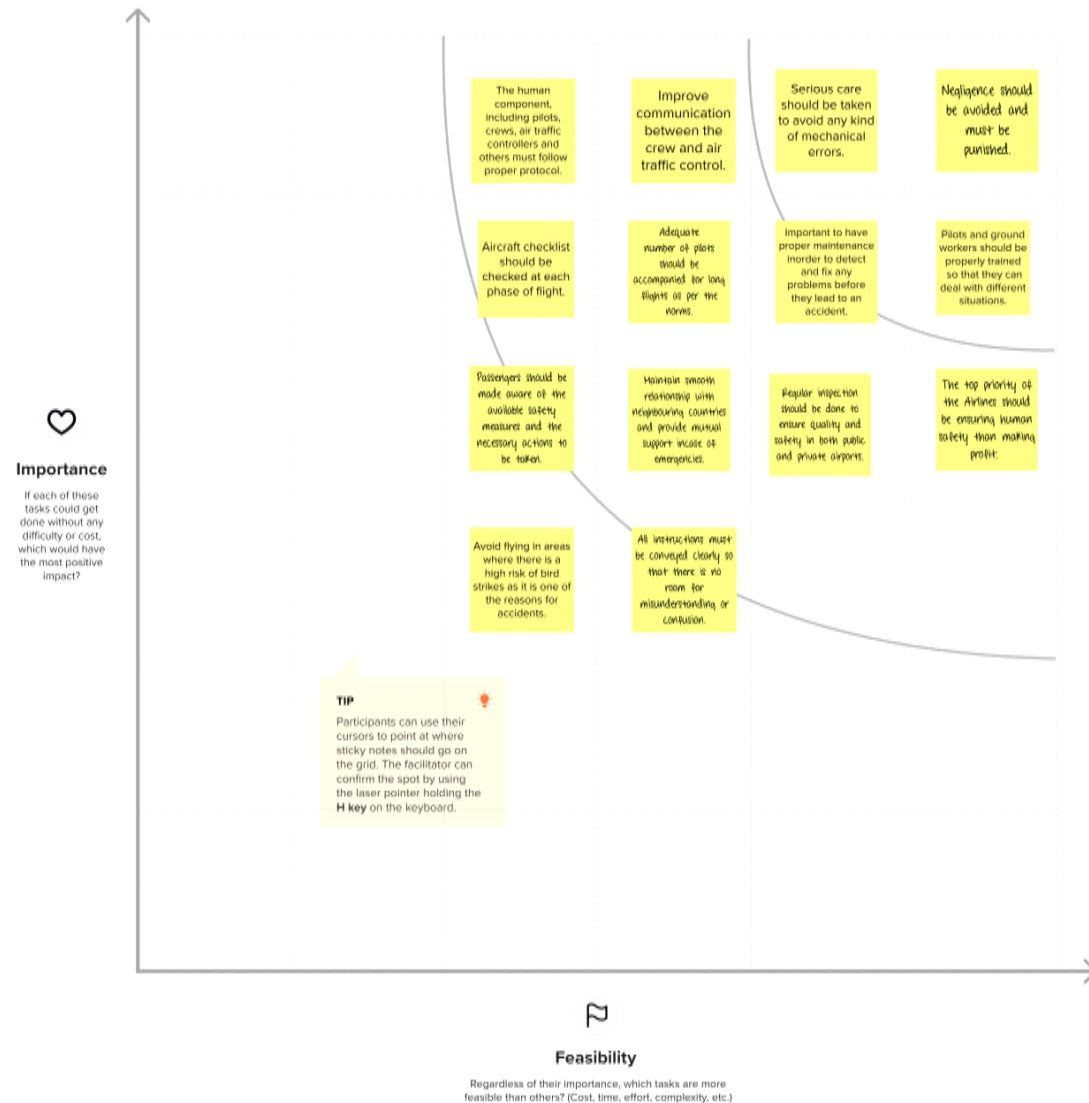
Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.

4

Prioritize

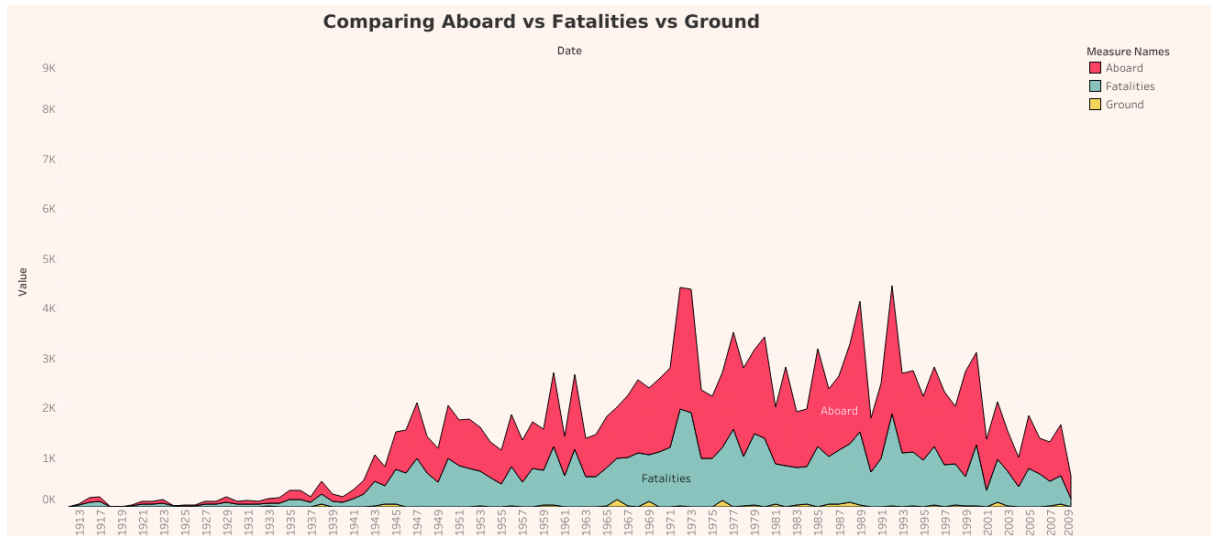
Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

🕒 20 minutes

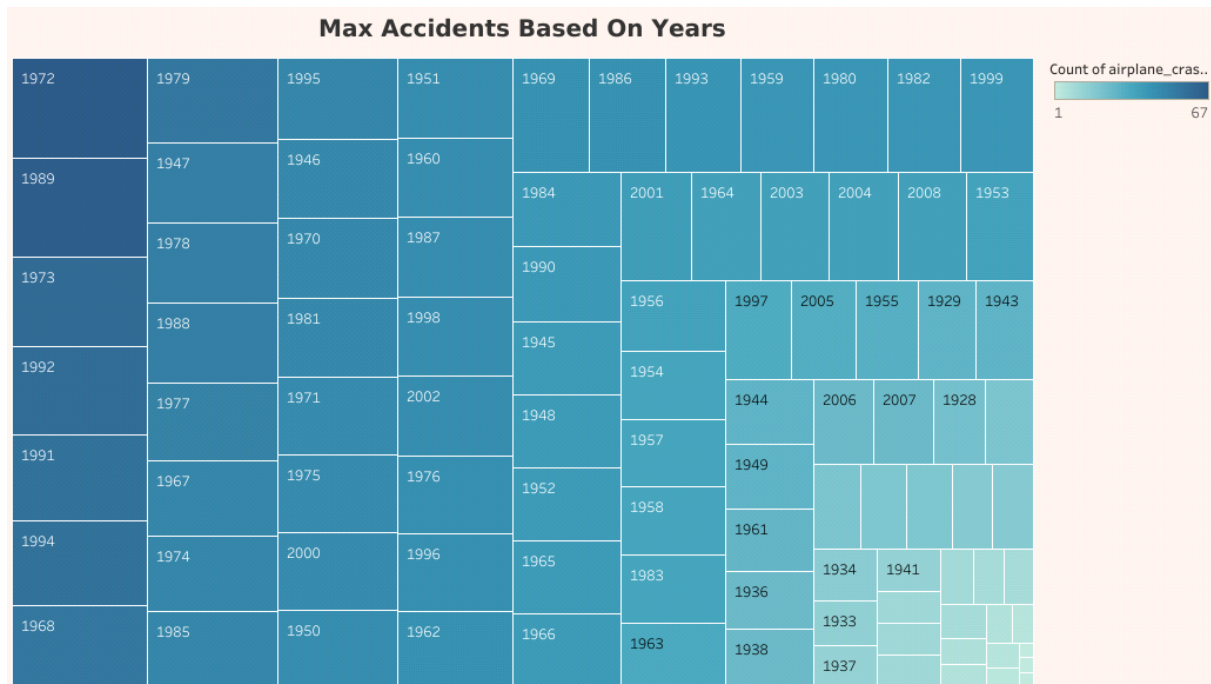


3. RESULT

1. Comparing Aboard vs Fatalities vs Ground

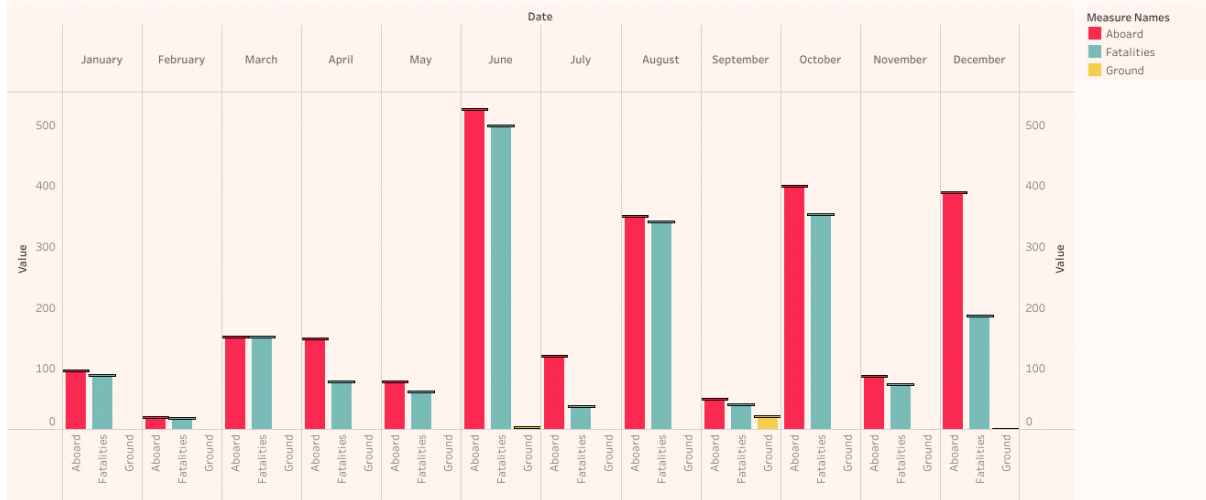


2. Max Accidents Based On Years

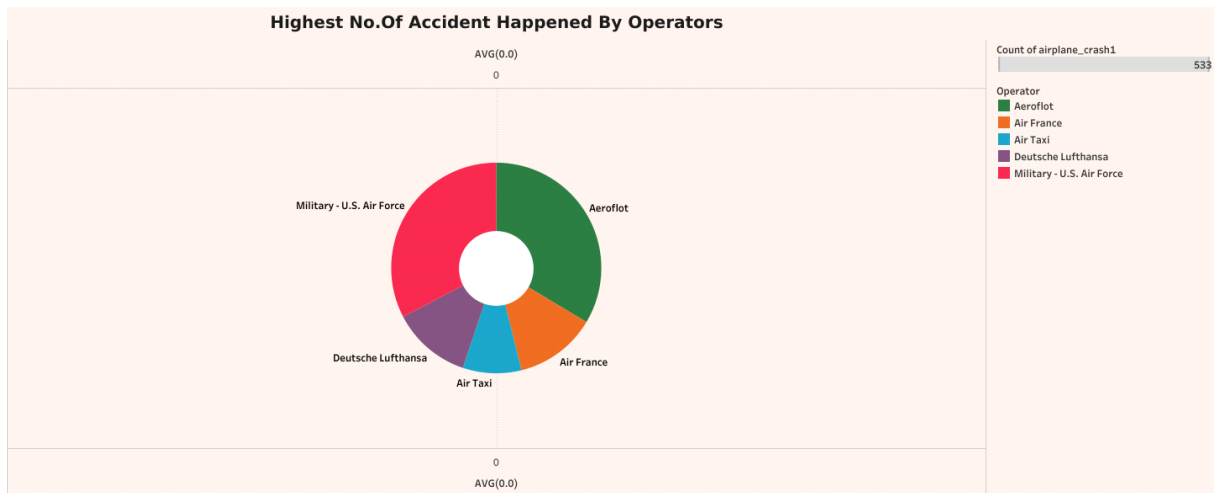


3. Accidents Happened In 1972(MAX ACCIDENTS) Based On Months

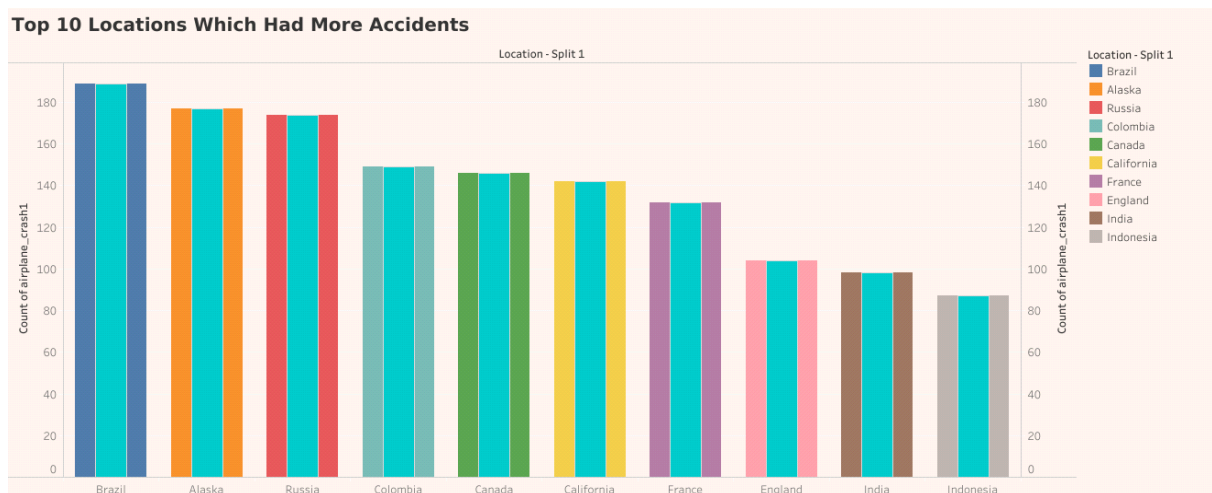
Accidents Happened In 1972(Max Accidents)Based On Months



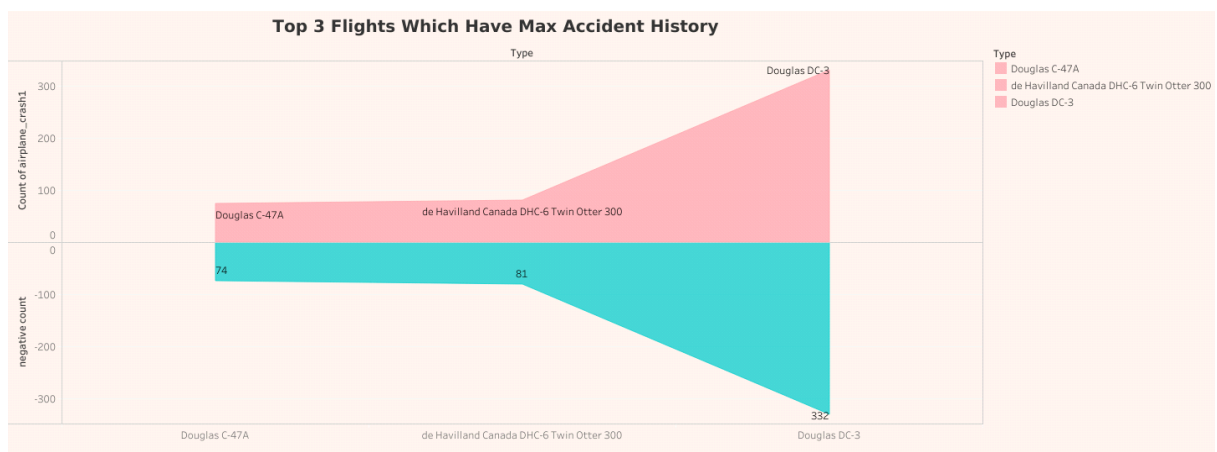
4. Highest No.Of Accident Happened By Operators



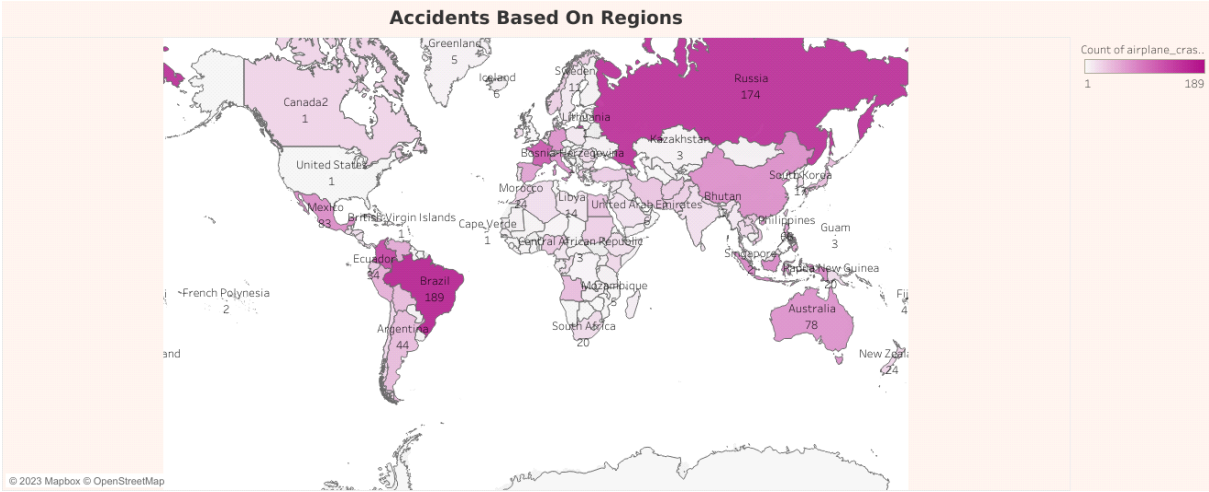
5. Top 10 Locations Which Had More Accidents



6. Top 3 Flights Which Have Max Accident History

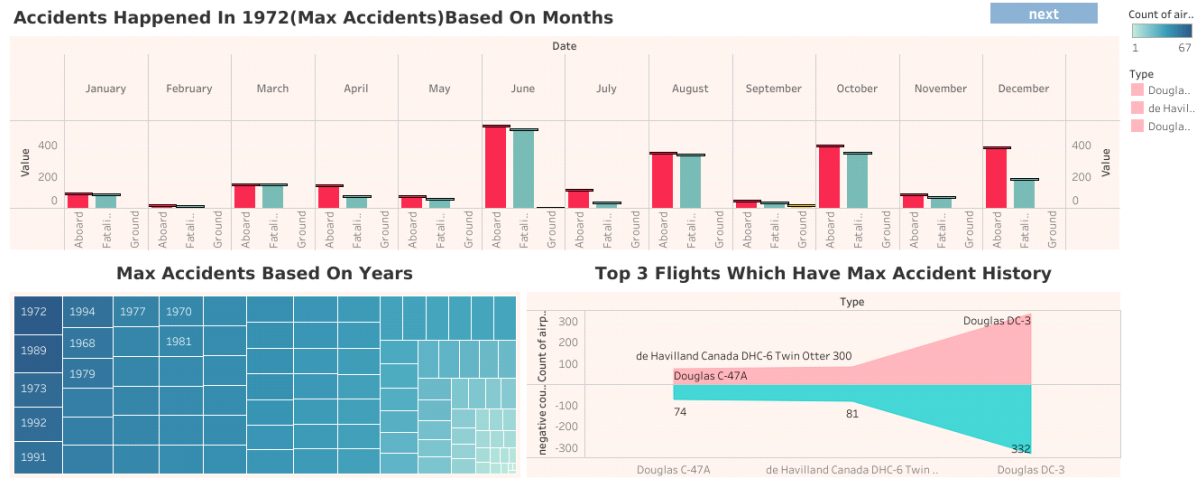


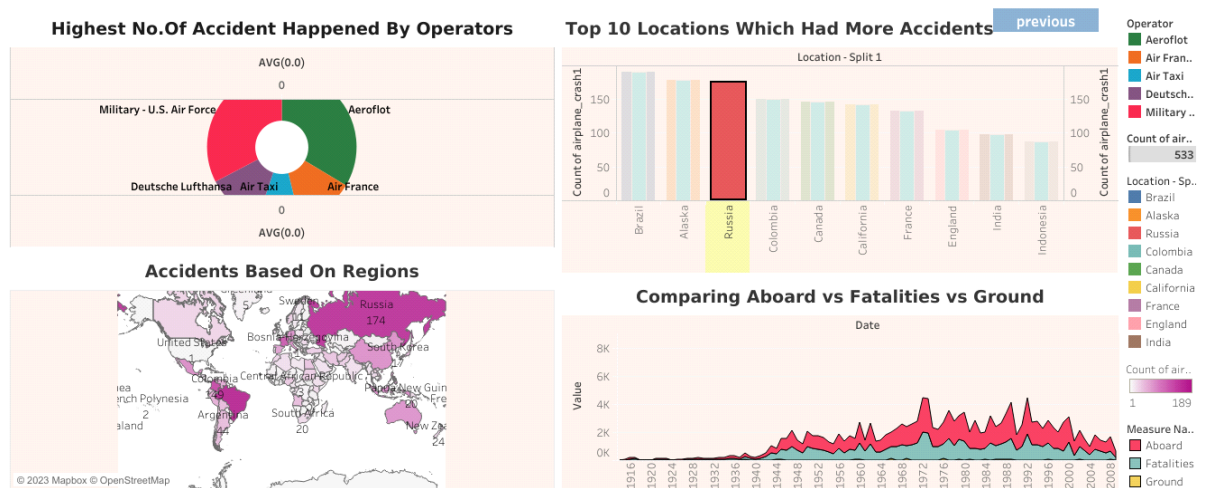
7. Accidents Based On Regions



8. Dashboard

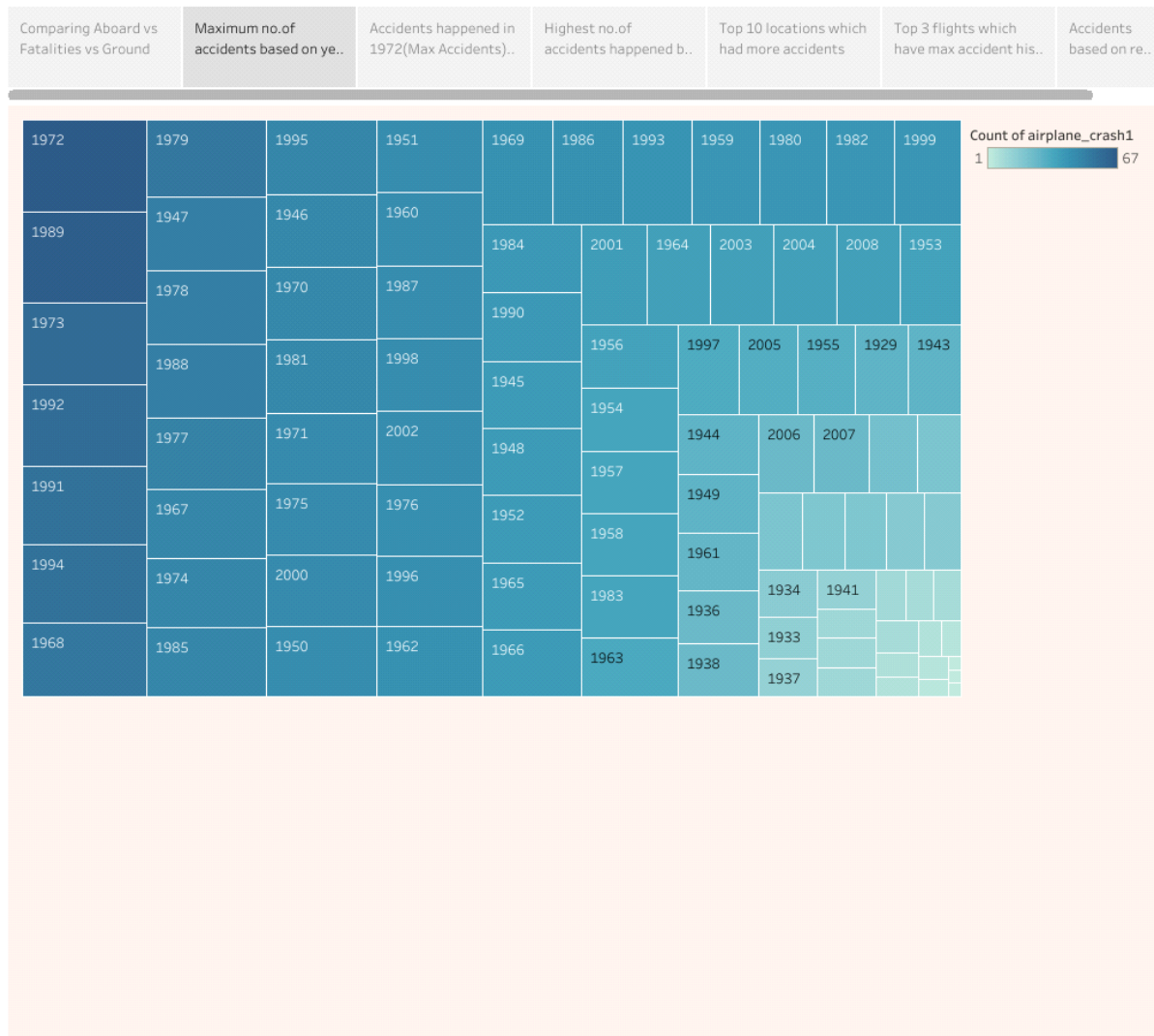
Two dashboards consisting of a 'next' and 'previous' button to navigate between them.



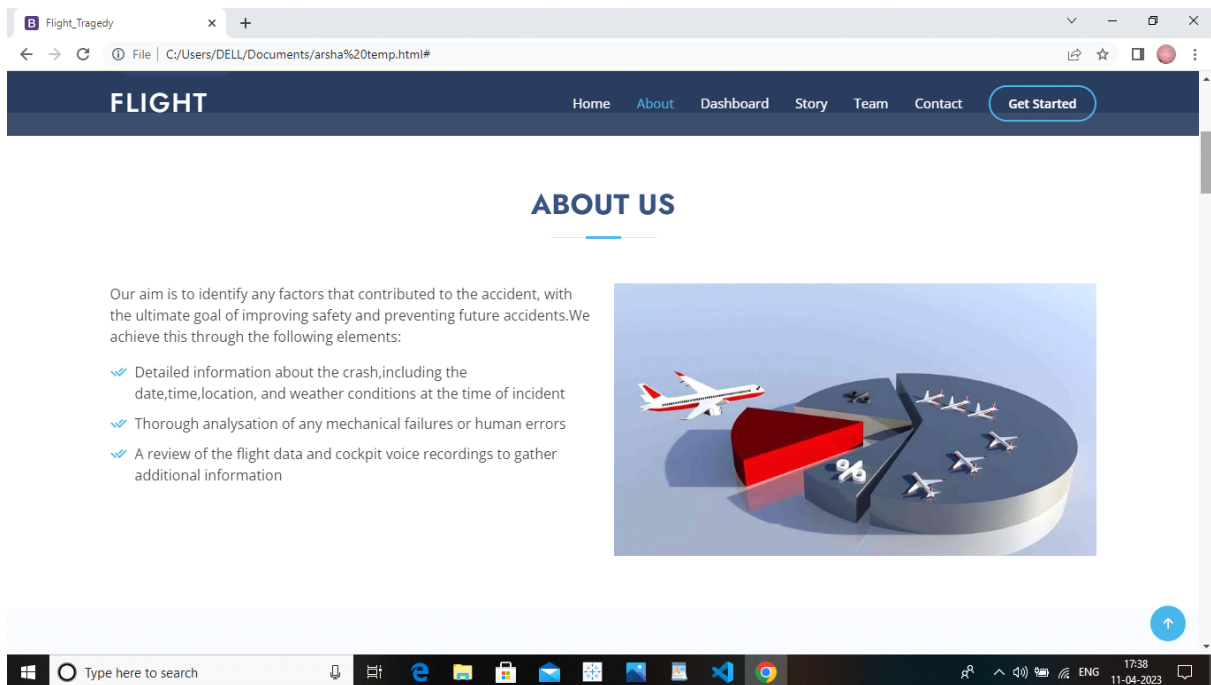
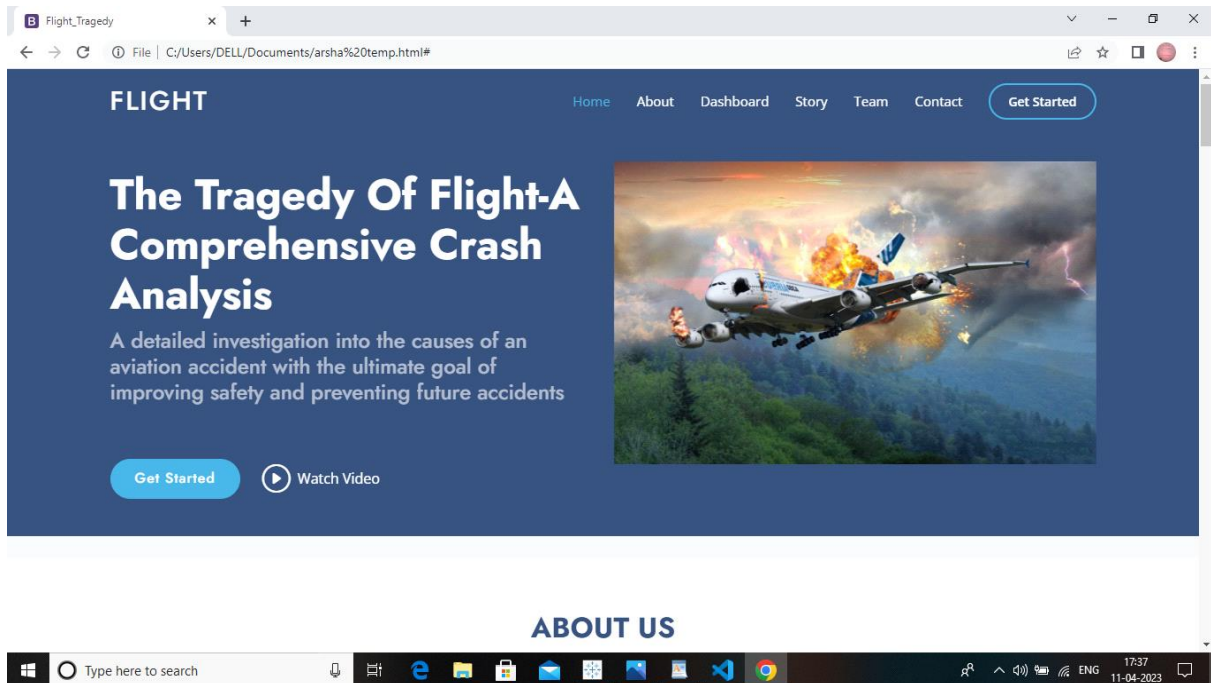


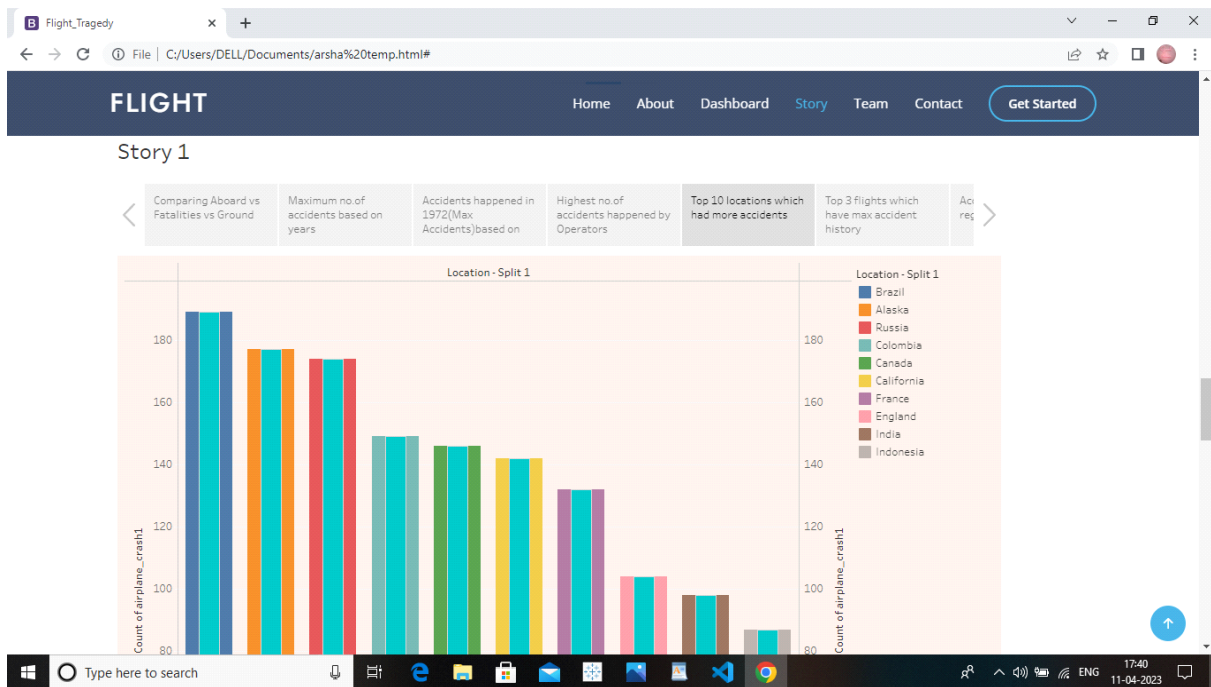
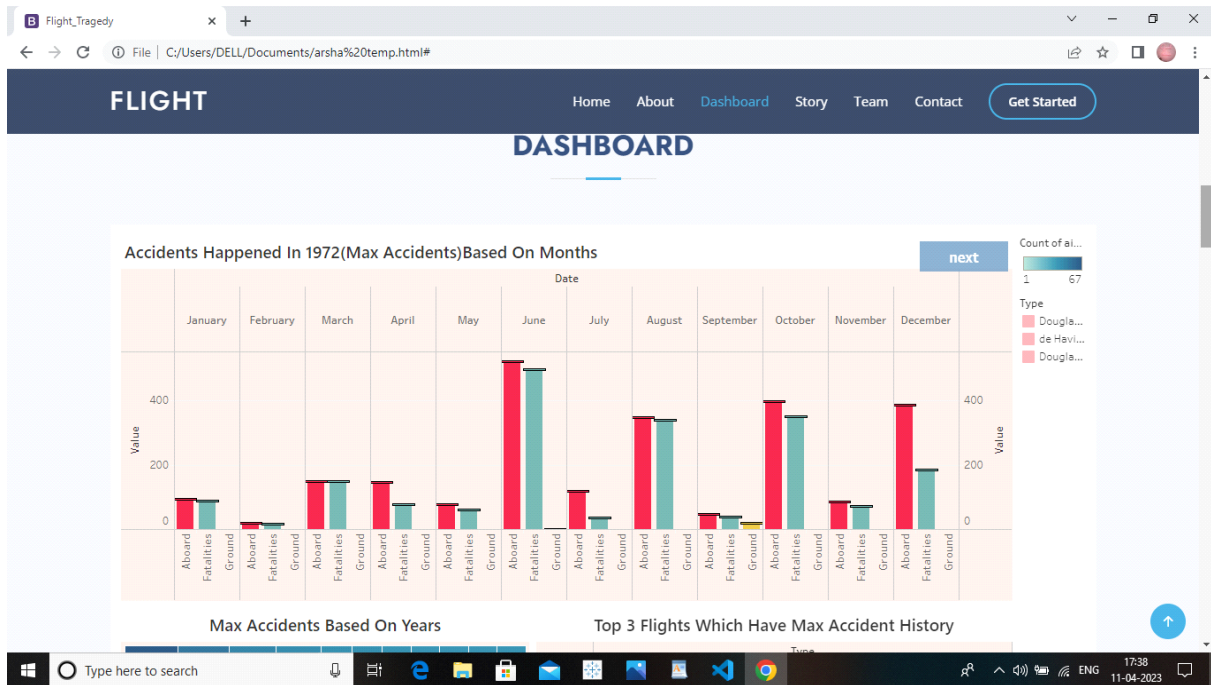
9. Story

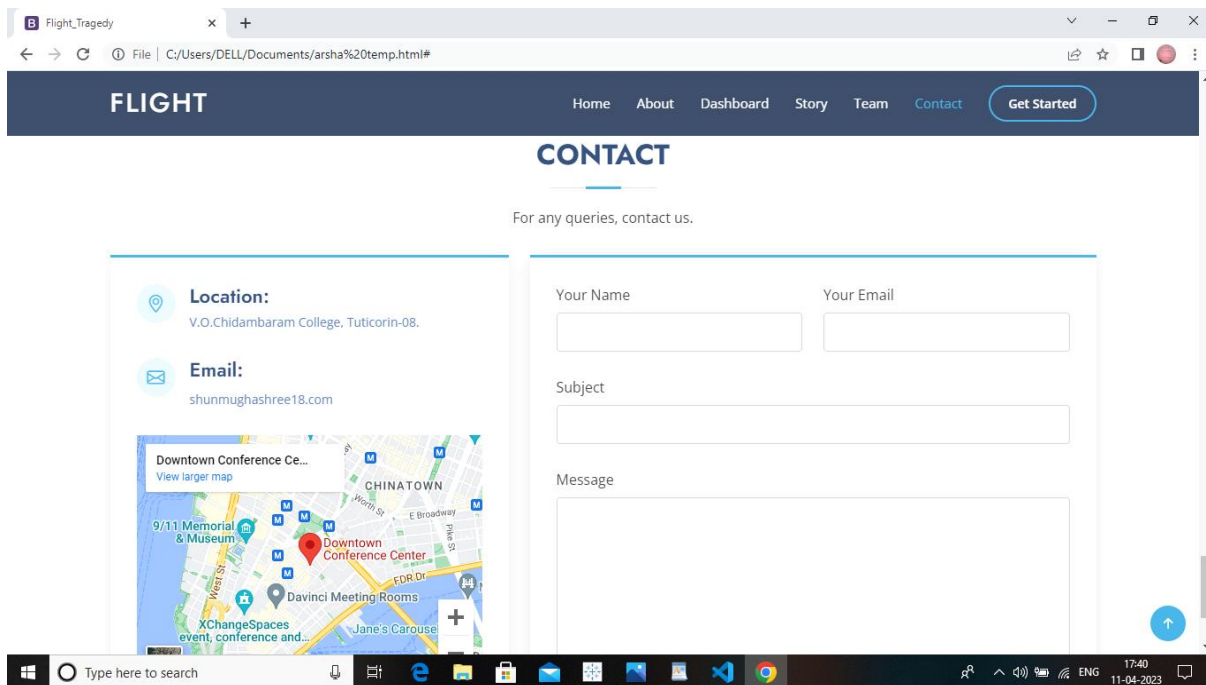
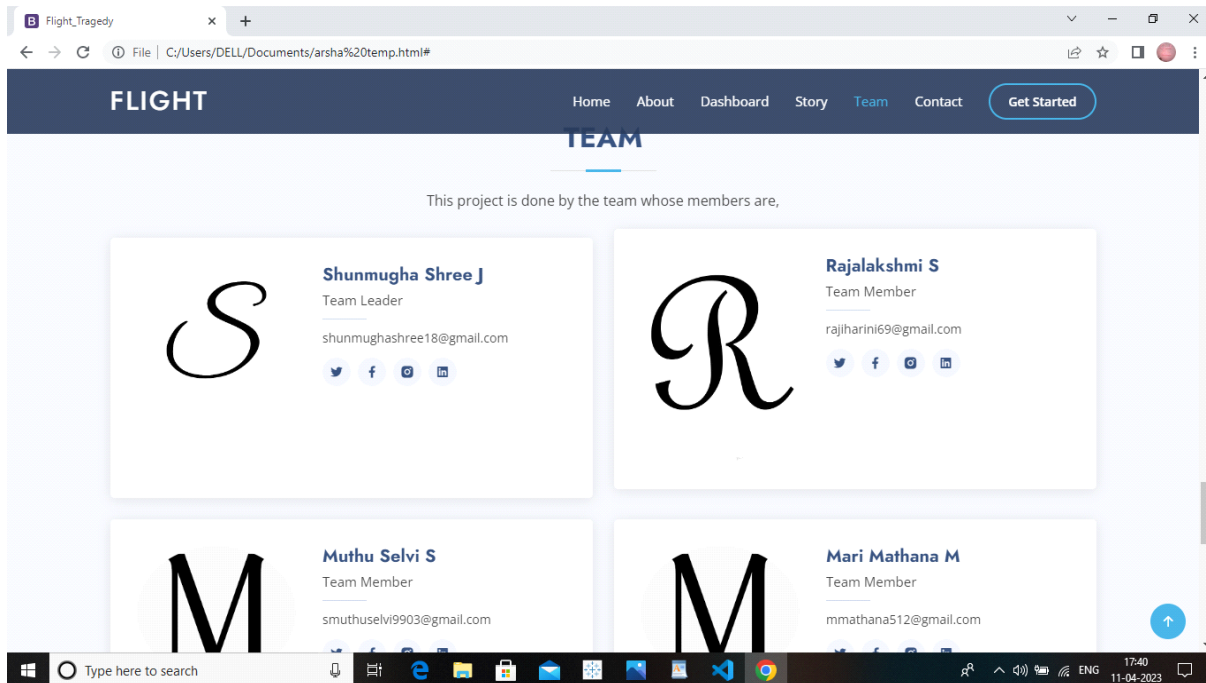
Story 1



10. Web Integration







4. ADVANTAGES

- Improved aviation safety: One of the most significant advantages of a crash analysis is that it can lead to improvements in aviation

safety. By identifying the root causes of an accident, investigators can recommend changes to procedures, regulations, and technology that can help prevent similar accidents from occurring in the future.

- Enhanced emergency response: Crash analysis can provide valuable information that can help emergency responders prepare for and respond to future accidents more effectively. For example, it may lead to the development of new rescue and recovery techniques or better communication protocols between emergency responders.
- Better understanding of human behavior and engineering: Crash analysis can provide valuable insights into human behavior, decision-making, and engineering systems. This information can be used to develop new theories, methods, and technologies in these areas, which can have broader applications beyond aviation.

DISADVANTAGES

- High cost: Conducting a thorough and comprehensive crash analysis can be expensive, particularly if the investigation involves complex or technical issues. These costs may be borne by the aviation industry, governments, or insurance companies.
- Time-consuming: Crash analysis can be a time-consuming process, particularly if the investigation involves multiple jurisdictions or international cooperation. The length of the investigation may delay legal and insurance proceedings, and cause additional stress for victims and their families.
- Emotional impact: The crash analysis process can be emotionally challenging for victims, their families, and others involved in the accident. The investigation may bring back painful memories and lead to further trauma.

5. APPLICATIONS:

- Improving aviation safety: One of the primary applications of a crash analysis is to improve aviation safety. By identifying the

root causes of an accident, the analysis can help aviation authorities and industry stakeholders develop recommendations to prevent similar accidents from happening in the future.

- Enhancing emergency response: The analysis can provide valuable information that can help emergency responders prepare for and respond to future accidents more effectively. For example, it may lead to the development of new rescue and recovery techniques or better communication protocols between emergency responders.

6. CONCLUSION

In conclusion, the tragedy of flight crash analysis is a crucial process that can provide valuable information and insights into the causes of aviation accidents.

The crash analysis may identify the most likely cause or causes of the accident. This information can be used to develop recommendations for improving aviation safety, including changes to regulations, procedures, and training. The analysis may identify technological improvements that could help prevent similar accidents from occurring in the future.

7. FUTURE SCOPE

With the advancement in technology, there is an opportunity to use sophisticated tools such as artificial intelligence, big data analysis, and machine learning to analyze the vast amount of data collected from the accident site. These technologies can help identify patterns and correlations, providing insights into the cause of the accident.

For example, the investigation may recommend changes to the design of aircraft components or the development of new safety systems.

8. APPENDIX

HTML

```
<!DOCTYPE html>
```

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

```
<head>
```

```
<meta charset="utf-8">
```

```
<meta content="width=device-width, initial-scale=1.0" name="viewport">
```

```
<title>Flight_Tragedy</title>
```

```
<meta content="" name="description">
```

```
<meta content="" name="keywords">
```

```
<!-- Favicons -->
```

```
<link href="assets/img/favicon.png" rel="icon">
```

```
<link href="assets/img/apple-touch-icon.png" rel="apple-touch-icon">
```

```
<!-- Google Fonts -->
```

```
<link
```

```
href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,600,600i,700,700i|Jost:300,300i,400,400i,500,500i,600,600i,700,700i|Poppins:300,300i,400,400i,500,500i,600,600i,700,700i" rel="stylesheet">
```

```
<!-- Vendor CSS Files -->
```

```
<link href="assets/vendor/aos/aos.css" rel="stylesheet">
```

```
<link href="assets/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
```

```
<link href="assets/vendor/bootstrap-icons/bootstrap-icons.css" rel="stylesheet">
```

```
<link href="assets/vendor/boxicons/css/boxicons.min.css" rel="stylesheet">
<link href="assets/vendor/glightbox/css/glightbox.min.css" rel="stylesheet">
<link href="assets/vendor/remixicon/remixicon.css" rel="stylesheet">
<link href="assets/vendor/swiper/swiper-bundle.min.css" rel="stylesheet">
```

```
<!-- Template Main CSS File -->
```

```
<link href="assets/css/style.css" rel="stylesheet">
```

```
<!-- =====
```

```
* Template Name: Arsha
```

```
* Updated: Mar 10 2023 with Bootstrap v5.2.3
```

```
* Template URL: https://bootstrapmade.com/arsha-free-bootstrap-html-template-corporate/
```

```
* Author: BootstrapMade.com
```

```
* License: https://bootstrapmade.com/license/
```

```
===== -->
```

```
</head>
```

```
<body>
```

```
<!-- ===== Header ===== -->
```

```
<header id="header" class="fixed-top ">
```

```
<div class="container d-flex align-items-center">
```

```
<h1 class="logo me-auto"><a href="index.html">Flight</a></h1>
```

<!-- Uncomment below if you prefer to use an image logo -->

<!-- -->

<nav id="navbar" class="navbar">

Home

About

Dashboard

Story

Team

Contact

Get Started

<i class="bi bi-list mobile-nav-toggle"></i>

</nav><!-- .navbar -->

</div>

</header><!-- End Header -->

<!-- ===== Hero Section ===== -->

<section id="hero" class="d-flex align-items-center">

<div class="container">

```
<div class="row">
```

```
  <div class="col-lg-6 d-flex flex-column justify-content-center pt-4 pt-lg-0
order-2 order-lg-1" data-aos="fade-up" data-aos-delay="200">
```

```
    <h1>The Tragedy Of Flight-A Comprehensive Crash Analysis</h1>
```

```
    <h2>A detailed investigation into the causes of an aviation accident with
the ultimate goal of improving safety and preventing future accidents </h2>
```

```
    <div class="d-flex justify-content-center justify-content-lg-start">
```

```
      <a href="#about" class="btn-get-started scrollto">Get Started</a>
```

```
      <a href="https://www.youtube.com/watch?v=jDDaplaOz7Q"
class="glightbox btn-watch-video"><i class="bi bi-play-
circle"></i><span>Watch Video</span></a>
```

```
    </div>
```

```
  </div>
```

```
  <div class="col-lg-6 order-1 order-lg-2 hero-img" data-aos="zoom-in"
data-aos-delay="200">
```

```
    
```

```
  </div>
```

```
</div>
```

```
</div>
```

```
</section><!-- End Hero -->
```

```
<main id="main">
```

```
<!-- ===== Clients Section ===== -->
```

```
<section id="clients" class="clients section-bg">
```

```
<div class="container">
```

```
<div class="row" data-aos="zoom-in">
```

```
</div>
```

```
</div>
```

```
</section><!-- End Cliens Section -->
```

```
<!-- ===== About Us Section ===== -->
```

```
<section id="about" class="about">
```

```
<div class="container" data-aos="fade-up">
```

```
<div class="section-title">
```

```
<h2>About Us</h2>
```

```
</div>
```

```
<div class="row content">
```

```
<div class="col-lg-6">
```

```
<p>
```

Our aim is to identify any factors that contributed to the accident, with the ultimate goal of improving safety and preventing future accidents. We achieve this through the following elements:

</p>

<i class="ri-check-double-line"></i>Detailed information about the crash, including the date, time, location, and weather conditions at the time of incident

<i class="ri-check-double-line"></i>Thorough analysis of any mechanical failures or human errors

<i class="ri-check-double-line"></i>A review of the flight data and cockpit voice recordings to gather additional information

</div>

<div class="col-lg-6 pt-4 pt-lg-0">

<div>

<div class="pic"></div>

</div>

</div>

</div>

</div>

</section><!-- End About Us Section -->

<!-- ===== Services Section ===== -->

<section id="Dashboard" class="services section-bg">

<div class="container" data-aos="fade-up">

<div class="section-title">

<h2>Dashboard</h2>

</div>

<div class='tableauPlaceholder' id='viz1681530072870' style='position: relative'><noscript></noscript><object class='tableauViz' style='display:none;'><param


```

name='host_url' value='https%3A%2F%2Fpublic.tableau.com%2F' /> <param
name='embed_code_version' value='3' /> <param name='site_root' value=''
/><param name='name' value='dashfinal-1&#47;Dashboard1' /><param
name='tabs' value='no' /><param name='toolbar' value='yes' /><param
name='static_image'
value='https:&#47;&#47;public.tableau.com&#47;static&#47;images&#47;da&
#47;dashfinal-1&#47;Dashboard1&#47;1.png' /> <param
name='animate_transition' value='yes' /><param name='display_static_image'
value='yes' /><param name='display_spinner' value='yes' /><param
name='display_overlay' value='yes' /><param name='display_count'
value='yes' /><param name='language' value='en-US' /></object></div>
<script type='text/javascript'>          var divElement =
document.getElementById('viz1681530072870');          var vizElement =
divElement.getElementsByTagName('object')[0];          if (
divElement.offsetWidth > 800 ) {
vizElement.style.width='100%';vizElement.style.height=(divElement.offsetWidt
h*0.75)+'px';} else if ( divElement.offsetWidth > 500 ) {
vizElement.style.width='100%';vizElement.style.height=(divElement.offsetWidt
h*0.75)+'px';} else {
vizElement.style.width='100%';vizElement.style.height='1127px';}
var scriptElement = document.createElement('script');
scriptElement.src = 'https://public.tableau.com/javascripts/api/viz_v1.js';
vizElement.parentNode.insertBefore(scriptElement, vizElement);
</script>

```

```

<div class='tableauPlaceholder' id='viz1681530158975' style='position:
relative'><noscript><a href='#'><img alt='dashboard 2 '
src='https:&#47;&#47;public.tableau.com&#47;static&#47;images&#47;JW&#
47;JWRKPCX3Y&#47;1_rss.png' style='border: none' /></a></noscript><object
class='tableauViz' style='display:none;'><param name='host_url'
value='https%3A%2F%2Fpublic.tableau.com%2F' /> <param
name='embed_code_version' value='3' /> <param name='path'
value='shared&#47;JWRKPCX3Y' /> <param name='toolbar' value='yes'
/><param name='static_image'
value='https:&#47;&#47;public.tableau.com&#47;static&#47;images&#47;JW

```

```

&#47;JWRKPCX3Y&#47;1.png' /> <param name='animate_transition'
value='yes' /><param name='display_static_image' value='yes' /><param
name='display_spinner' value='yes' /><param name='display_overlay'
value='yes' /><param name='display_count' value='yes' /><param
name='language' value='en-US' /></object></div>          <script
type='text/javascript'>          var divElement =
document.getElementById('viz1681530158975');          var vizElement =
divElement.getElementsByTagName('object')[0];          if (
divElement.offsetWidth > 800 ) {
vizElement.style.width='100%';vizElement.style.height=(divElement.offsetWidt
h*0.75)+'px';} else if ( divElement.offsetWidth > 500 ) {
vizElement.style.width='100%';vizElement.style.height=(divElement.offsetWidt
h*0.75)+'px';} else {
vizElement.style.width='100%';vizElement.style.height='1627px';}
var scriptElement = document.createElement('script');
scriptElement.src = 'https://public.tableau.com/javascripts/api/viz\_v1.js';
vizElement.parentNode.insertBefore(scriptElement, vizElement);
</script>

</div>

</section><!-- End Services Section -->

```

```

<!-- ===== Portfolio Section ===== -->

```

```

<section id="Story" class="portfolio">

```

```

  <div class="container" data-aos="fade-up">

```

```

    <div class="section-title">

```

```

      <h2>Story</h2>

```

</div>

```
<div class='tableauPlaceholder' id='viz1681530264030' style='position:
relative'><noscript><a href='#'><img alt='Story 1 '
src='https://public.tableau.com/static/images/94&#4
7;94RHY2TFS&#47;1_rss.png' style='border: none' /></a></noscript><object
class='tableauViz' style='display:none;'><param name='host_url'
value='https%3A%2F%2Fpublic.tableau.com%2F' /> <param
name='embed_code_version' value='3' /> <param name='path'
value='shared&#47;94RHY2TFS' /> <param name='toolbar' value='yes'
/><param name='static_image'
value='https://public.tableau.com/static/images/94&
#47;94RHY2TFS&#47;1.png' /> <param name='animate_transition' value='yes'
/><param name='display_static_image' value='yes' /><param
name='display_spinner' value='yes' /><param name='display_overlay'
value='yes' /><param name='display_count' value='yes' /><param
name='language' value='en-US' /></object></div>      <script
type='text/javascript'>          var divElement =
document.getElementById('viz1681530264030');          var vizElement =
divElement.getElementsByTagName('object')[0];
vizElement.style.width='1016px';vizElement.style.height='991px';
var scriptElement = document.createElement('script');
scriptElement.src = 'https://public.tableau.com/javascripts/api/viz_v1.js';
vizElement.parentNode.insertBefore(scriptElement, vizElement);
</script>
```

</div>

</section><!-- End Portfolio Section -->

<!-- ===== Team Section ===== -->

<section id="team" class="team section-bg">

<div class="container" data-aos="fade-up">

<div class="section-title">

<h2>Team</h2>

<p>This project is done by the team whose members are,</p>

</div>

<div class="row">

<div class="col-lg-6" data-aos="zoom-in" data-aos-delay="100">

<div class="member d-flex align-items-start">

<div class="pic"></div>

<div class="member-info">

<h4>Shunmugha Shree J</h4>

Team Leader

<p>shunmughashree18@gmail.com</p>

<div class="social">

<i class="ri-twitter-fill"></i>

<i class="ri-facebook-fill"></i>

<i class="ri-instagram-fill"></i>

```
        <a href=""> <i class="ri-linkedin-box-fill"></i> </a>
    </div>
</div>
</div>
</div>
```

```
<div class="col-lg-6 mt-4 mt-lg-0" data-aos="zoom-in" data-aos-
delay="200">
```

```
    <div class="member d-flex align-items-start">
        <div class="pic"></div>
        <div class="member-info">
            <h4>Rajalakshmi S</h4>
            <span>Team Member</span>
            <p>rajiharini69@gmail.com</p>
            <div class="social">
                <a href=""><i class="ri-twitter-fill"></i></a>
                <a href=""><i class="ri-facebook-fill"></i></a>
                <a href=""><i class="ri-instagram-fill"></i></a>
                <a href=""> <i class="ri-linkedin-box-fill"></i> </a>
            </div>
        </div>
    </div>
</div>
</div>
```

```
<div class="col-lg-6 mt-4" data-aos="zoom-in" data-aos-delay="300">
  <div class="member d-flex align-items-start">
    <div class="pic"></div>
    <div class="member-info">
      <h4>Muthu Selvi S</h4>
      <span>Team Member</span>
      <p>smuthuselvi9903@gmail.com</p>
      <div class="social">
        <a href=""><i class="ri-twitter-fill"></i></a>
        <a href=""><i class="ri-facebook-fill"></i></a>
        <a href=""><i class="ri-instagram-fill"></i></a>
        <a href=""><i class="ri-linkedin-box-fill"></i> </a>
      </div>
    </div>
  </div>
</div>
</div>
```

```
<div class="col-lg-6 mt-4" data-aos="zoom-in" data-aos-delay="400">
  <div class="member d-flex align-items-start">
    <div class="pic"></div>
    <div class="member-info">
      <h4>Mari Mathana M</h4>
      <span>Team Member</span>
```

<p>mmathana512@gmail.com</p>

<div class="social">

<i class="ri-twitter-fill"></i>

<i class="ri-facebook-fill"></i>

<i class="ri-instagram-fill"></i>

 <i class="ri-linkedin-box-fill"></i>

</div>

</div>

</div>

</div>

</div>

</div>

</section><!-- End Team Section -->

<!-- ===== Contact Section ===== -->

<section id="contact" class="contact">

<div class="container" data-aos="fade-up">

<div class="section-title">

<h2>Contact</h2>

<p>For any queries, contact us.</p>

</div>

<div class="row">

<div class="col-lg-5 d-flex align-items-stretch">

<div class="info">

<div class="address">

<i class="bi bi-geo-alt"></i>

<h4>Location:</h4>

<p>V.O.Chidambaram College, Tuticorin-08.</p>

</div>

<div class="email">

<i class="bi bi-envelope"></i>

<h4>Email:</h4>

<p>shunmughashree18.com</p>

</div>

<iframe

src="https://www.google.com/maps/embed?pb=!1m14!1m8!1m3!1d12097.433213460943!2d-74.0062269!3d40.7101282!3m2!1i1024!2i768!4f13.1!3m3!1m2!1s0x0%3A0xb89d1fe6bc499443!2sDowntown+Conference+Center!5e0!3m2!1smk!2sbg!4v1

539943755621" frameborder="0" style="border:0; width: 100%; height: 290px;" allowfullscreen></iframe>

</div>

</div>

<div class="col-lg-7 mt-5 mt-lg-0 d-flex align-items-stretch">

<form action="forms/contact.php" method="post" role="form" class="php-email-form">

<div class="row">

<div class="form-group col-md-6">

<label for="name">Your Name</label>

<input type="text" name="name" class="form-control" id="name" required>

</div>

<div class="form-group col-md-6">

<label for="name">Your Email</label>

<input type="email" class="form-control" name="email" id="email" required>

</div>

</div>

<div class="form-group">

<label for="name">Subject</label>

<input type="text" class="form-control" name="subject" id="subject" required>

</div>

```
<div class="form-group">
  <label for="name">Message</label>
  <textarea class="form-control" name="message" rows="10"
required></textarea>
</div>
<div class="my-3">
  <div class="loading">Loading</div>
  <div class="error-message"></div>
  <div class="sent-message">Your message has been sent. Thank
you!</div>
</div>
  <div class="text-center"><button type="submit">Send
Message</button></div>
</form>
</div>

</div>

</section><!-- End Contact Section -->

</main><!-- End #main -->

<!-- ===== Footer ===== -->
```

</footer><!-- End Footer -->

<div id="preloader"></div>

<i class="bi bi-arrow-up-short"></i>

<!-- Vendor JS Files -->

<script src="assets/vendor/aos/aos.js"></script>

<script src="assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>

<script src="assets/vendor/glightbox/js/glightbox.min.js"></script>

<script src="assets/vendor/isotope-layout/isotope.pkgd.min.js"></script>

<script src="assets/vendor/swiper/swiper-bundle.min.js"></script>

<script src="assets/vendor/waypoints/noframework.waypoints.js"></script>

<script src="assets/vendor/php-email-form/validate.js"></script>

<!-- Template Main JS File -->

<script src="assets/js/main.js"></script>

</body>

</html>