



Dr. ZAKIR HUSAIN COLLEGE

Minority Aided College - Estd. In 1970
(Reaccredited by "NAAC" in the 4th Cycle) Ilayangudi - 630 702



P.G Department of Mathematics

The Tragedy of Flight-A Comprehensive Flight Analysis

Submitted By,

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1.INTRODUCTION

1.1 OVERVIEW

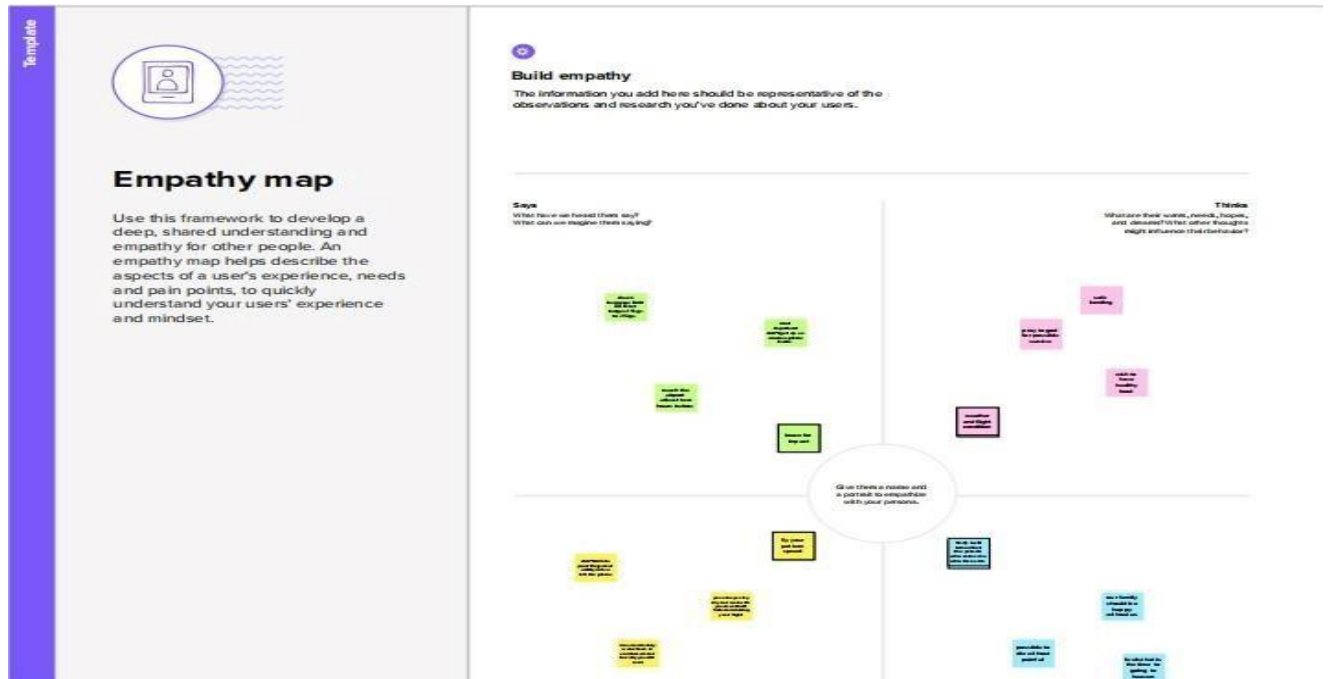
An airplane crash analysis is a detailed investigation into the cause of an aviation accident. The goal of an airplane crash analysis is to identify any factors that contributed to the accident, with the ultimate goal of improving safety and preventing future accidents. The process of conducting an airplane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

1.2 PURPOSE

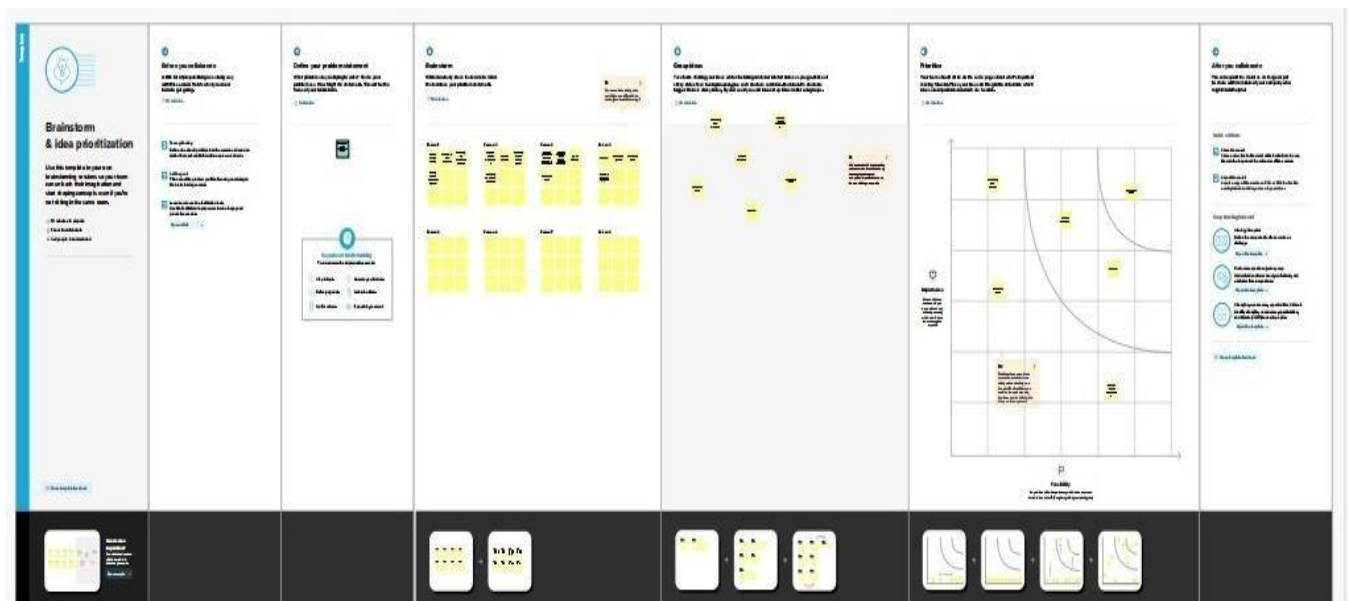
The primary purpose of air crash investigation is to determine the cause of the crash and any contributing factors involved in the crash. The goal of an airplane crash analysis is to identify any factors that contributed to the accident, with the ultimate goal of improving safety and preventing future accidents. 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 AND DESIGN THINKING

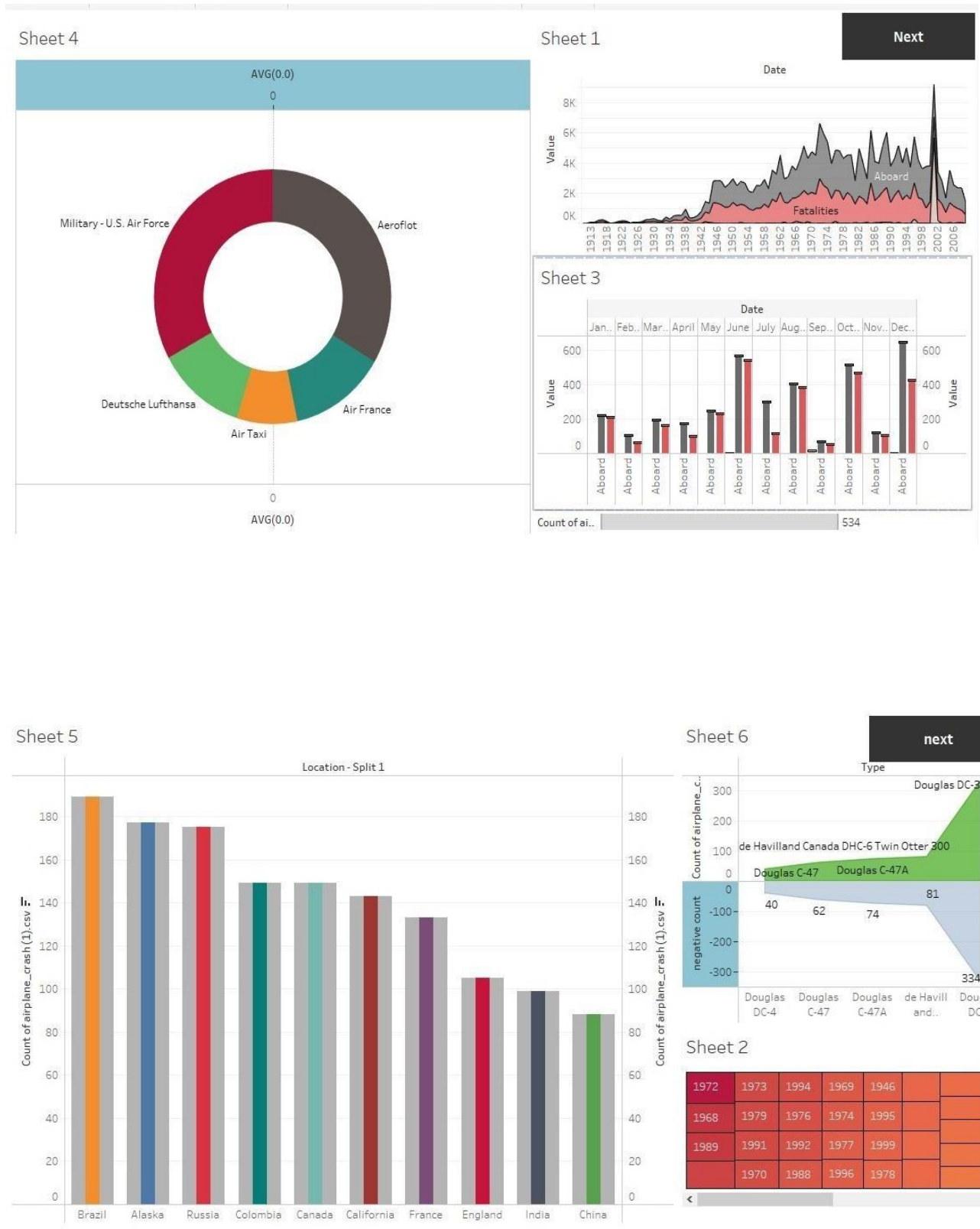
2.1 EMPATHY MAP



2.1 IDEATION AND BRAINSTORMING MAP



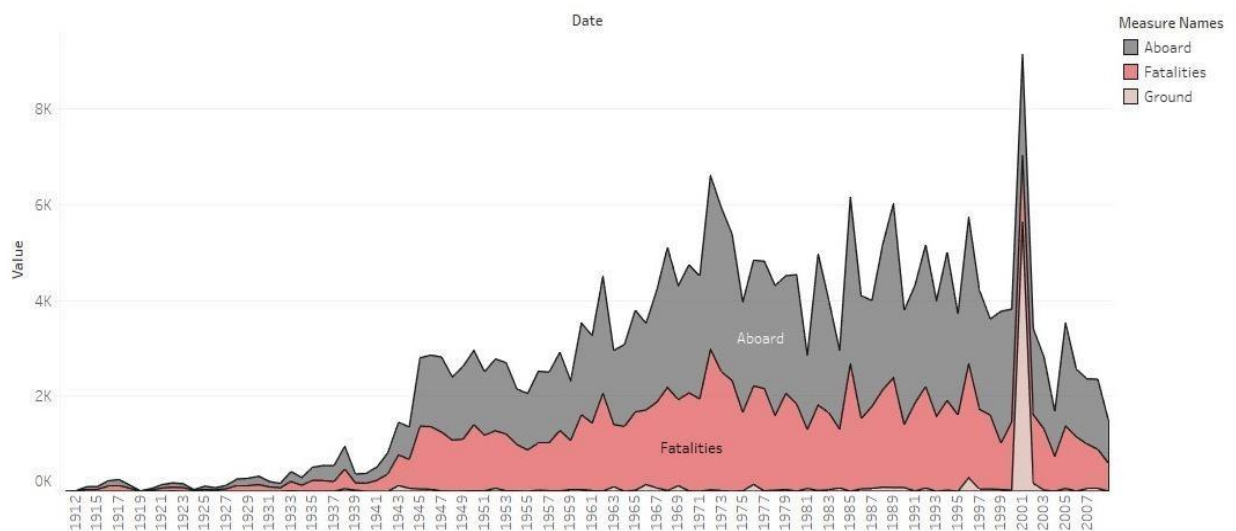
3.RESULT



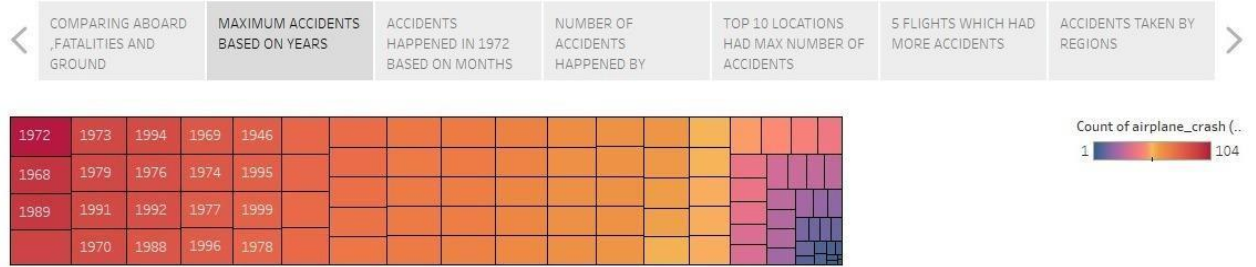


Story 1

<	COMPARING ABOARD, FATALITIES AND GROUND	MAXIMUM ACCIDENTS BASED ON YEARS	ACCIDENTS HAPPENED IN 1972 BASED ON MONTHS	NUMBER OF ACCIDENTS HAPPENED BY	TOP 10 LOCATIONS HAD MAX NUMBER OF ACCIDENTS	5 FLIGHTS WHICH HAD MORE ACCIDENTS	ACCIDENTS TAKEN BY REGIONS	>
---	---	----------------------------------	--	---------------------------------	--	------------------------------------	----------------------------	---



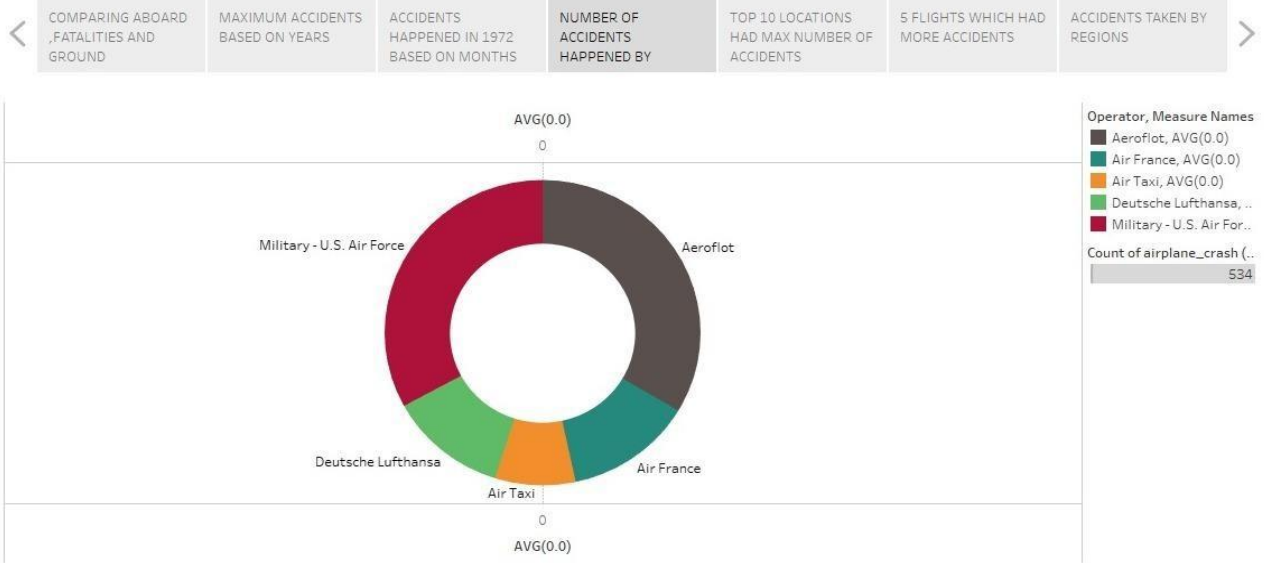
Story 1



Story 1



Story 1



Story 1



Story 1



Story 1



4.ADVANTAGES AND DISADVANTAGES

4.1 ADVANTAGES

Scrutinizing the flight accident by doing the Air crash analysis has the following advantages.

- It helps to classify the accidents under certain classification
- It facilitates the Agency with much needed investigative and administrative power
- It helps to formulate safety recommendation based on the safety studies conducted by the investigation agency
- For the induction of new technology to enhance safety from time to time
- To establish and maintain an accident and serious incident database for effective analysis of information on actual potential safety deficiencies

4.2 DISADVANTAGES

However, it has some disadvantages to overcome as well.

- It is a time consuming and a tedious process
- This investigation depends on many other agencies for collecting information
- Normally, the agency can only recommend certain things as it cannot enforce the same on its own
- Since it takes a lot of time for the investigation to be completed, it has a financial constraint

5. APPLICATIONS

- Air crash analysis is useful in finding the exact cause of the accident
- By Formulating the safety rules based on the recommendation, it helps to train the pilots in such a way that they will be more equipped to deal with any untoward incidents in the future
- Accident database can be maintained for future reference
- It helps to save many humans life in future
- Financial losses incurred can be reduced drastically by inducing the novel technologies

6.CONCLUSION

We have seen that the air crash analysis helps in finding the exact root cause for the accident and to recommend safety measures to avoid such accident in future. Maintaining such accident database information helps us to formulate safety codes for the pilots. It also helps in understanding the need of the new technologies to avoid any mishap. However, it has some limitations like financial constraint and time consuming.

7.FUTURE SCOPE

We have understood that the Air crash analysis is primarily done to avoid accidents as it involves loss of human life and financial loss. Hence it is the need of the hour for introducing fail-proof systems with modern technology. Safety codes should be revised from time to time based on the analysis. Pilots shall be given periodical training on safety codes based on the past experiences. By doing so, we can avert most of the air accidents.

8. APPENDIX

A. SOURCE CODE

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

<head>
  <meta charset="utf-8">
  <meta content="width=device-width, initial-scale=1.0" name="viewport">
```

```
<title>SHPVIBE - Airplane Crash</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 - v4.9.1
* 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">SHPVIBE</a></h1>
    <!-- Uncomment below if you prefer to use an image logo -->
    <!-- <a href="index.html" class="logo me-auto"></a>-->

```

```

    <nav id="navbar" class="navbar">
      <ul>
        <li><a class="nav-link scrollto active" href="#hero">Home</a></li>
        <li><a class="nav-link scrollto" href="#about">About</a></li>

```

```

        <li><a class="nav-link scrollto" href="#team">Dashboard</a></li>

```

```

        <li><a class="nav-link scrollto" href="#pricing">Story</a></li>

```

```

        <li><a class="nav-link scrollto" href="#contact">Contact</a></li>
        <li><a class="getstarted scrollto" href="#about">Get Started</a></li>
      </ul>
      <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>Airplane Crash analysis</h1>
                <h2>Airplane Crashes and Fatalities Since 1908</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/@thesmartbridge/videos"
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">
    <!-- ===== About Us Section ===== -->
    <section id="about" class="about">
        <div class="container" data-aos="fade-up">
```

```
            <div class="section-title">
                <h2>About Project</h2>
            </div>
```

```
            <div class="row content">
                <div class="col-lg-6">
                    <p>
                        An aviation accident is defined by the Convention on International
                        Civil Aviation Annex 13 as an occurrence associated with the operation of an
                        aircraft, which takes place from the time any person boards the aircraft with
                        the intention of flight until all such persons have disembarked, and in which
                    </p>
                    <ul>
                        <li><i class="ri-check-double-line"></i> a) a person is fatally or
                        seriously injured, </li>
                        <li><i class="ri-check-double-line"></i> b) the aircraft sustains
                        significant damage or structural failure, or </li>
                        <li><i class="ri-check-double-line"></i> c) the aircraft goes
                        missing or becomes completely inaccessible.</li>
                    </ul>
```

```

    </div>
    <div class="col-lg-6 pt-4 pt-lg-0">
      <p>
        This dataset includes:
      <ul>
        <li><i class="ri-check-double-line"></i> All civil and commercial
aviation accidents of scheduled and non-scheduled passenger airliners worldwide,
which resulted in a fatality (including all U.S. Part 121 and Part 135 fatal
accidents)</li>
        <li><i class="ri-check-double-line"></i> All cargo, positioning,
ferry and test flight fatal accidents.</li>
        <li><i class="ri-check-double-line"></i> All military transport
accidents with 10 or more fatalities.</li>
        <li><i class="ri-check-double-line"></i> All commercial and
military helicopter accidents with greater than 10 fatalities.</li>
        <li><i class="ri-check-double-line"></i> All civil and military
airship accidents involving fatalities.</li>
        <li><i class="ri-check-double-line"></i> Aviation accidents
involving the death of famous people.</li>
      </ul>
    </p>
  </div>
</div>

```

```

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

```

```

<!-- ===== Cta Section ===== -->
<section id="cta" class="cta">
  <div class="container" data-aos="zoom-in">

```

```

    <div class="row">
      <div class="col-lg-9 text-center text-lg-start">
        <h3>Call To Action</h3>
      </div>
      <div class="col-lg-3 cta-btn-container text-center">
        <a class="cta-btn align-middle" href="#">Call To Action</a>
      </div>
    </div>

```

```

  </div>
</section><!-- End Cta Section -->
<!-- ===== Team Section ===== -->
<section id="team" class="team section-bg">
  <div class="container" data-aos="fade-up">

```

```

    <div class="section-title">
      <h2>Dashboard</h2>
    </div>

```

```

        <div class='tableauPlaceholder' id='viz1671640028467' style='position:
relative'><noscript><a href='#'><img alt='Airplane Crash Analysis '
src='https://public.tableau.com/static/images/Ai/Airplane_Crash/Dashboard1/1_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='site_root' value='' /><param
name='name' value='Airplane_Crash&#47;Dashboard1' /><param name='tabs'
value='no' /><param name='toolbar' value='yes' /><param name='static_image'
value='https://public.tableau.com/static/images/Ai/Airplane_Crash&#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'
/><param name='filter' value='publish=yes'
/></object></div>
        <script
type='text/javascript'>
            var divElement =
document.getElementById('viz1671640028467');
            var vizElement =
divElement.getElementsByTagName('object')[0];
            if
( divElement.offsetWidth > 800 )
{ vizElement.style.width='100%';vizElement.style.height=(divElement.offsetWidth*
0.75)+'px';} else if ( divElement.offsetWidth > 500 )
{ vizElement.style.width='100%';vizElement.style.height=(divElement.offsetWidth*
0.75)+'px';} else
{ vizElement.style.width='100%';vizElement.style.height='1027px';}
            var scriptElement =
document.createElement('script');
            scriptElement.src =
'https://public.tableau.com/javascripts/api/viz_v1.js';
            vizEl
ement.parentNode.insertBefore(scriptElement,
vizElement);
        </script>
    </div>
</section><!-- End Team Section -->

```

```

<!-- ===== Pricing Section ===== -->
<section id="pricing" class="pricing">
    <div class="container" data-aos="fade-up">

```

```

        <div class="section-title">
            <h2>Story</h2>
        </div>
        <div class='tableauPlaceholder' id='viz1671640137789' style='position:
relative'><noscript><a href='#'><img alt='Story 1 '
src='https://public.tableau.com/static/images/Ai/Airplane_Crash_story/Story1&#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='site_root' value='' /><param
name='name' value='Airplane_Crash_story&#47;Story1' /><param name='tabs'
value='no' /><param name='toolbar' value='yes' /><param name='static_image'
value='https://public.tableau.com/static/images/Ai/Airplane_Crash_story&#47;Story1&#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'
/><param name='filter' value='publish=yes'
/></object></div>
    </div>
</section>

```

```

ane_Crash_story&#47;Story1&#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'
/><param name='filter' value='publish=yes'
/></object></div>
<script
type='text/javascript'>
    var divElement =
document.getElementById('viz1671640137789');
    var vizElement =
divElement.getElementsByTagName('object')[0];
    vizElement.styl
e.width='100%';vizElement.style.height=(divElement.offsetWidth*0.75)+'px';
    var scriptElement =
document.createElement('script');
    scriptElement.src =
'https://public.tableau.com/javascripts/api/viz_v1.js';
    vizEl
ement.parentNode.insertBefore(scriptElement,
vizElement);
</script>
</div>
</section><!-- End Pricing Section -->

```

```

<!--===== Contact Section ===== -->
<section id="contact" class="contact">
    <div class="container" data-aos="fade-up">

```

```

        <div class="section-title">
            <h2>Contact</h2>
        </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>xxxxxx Street, xxx, xx 53xxx2</p>
                    </div>

```

```

                <div class="email">
                    <i class="bi bi-envelope"></i>
                    <h4>Email:</h4>
                    <p>info@example.com</p>
                </div>

```

```

                <div class="phone">
                    <i class="bi bi-phone"></i>
                    <h4>Call:</h4>
                    <p>+1 5xxx 5xxx8 5xs</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%3A0xb89d1fe6bc4994
43!2sDowntown+Conference+Center!5e0!3m2!1smk!2sbg!4v1539943755621"
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>
```

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

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

```
<!-- ===== Footer ===== -->
<footer id="footer">
```

```
  <div class="footer-newsletter">
    <div class="container">
      <div class="row justify-content-center">
        <div class="col-lg-6">
          <h4>Join Our Newsletter</h4>
```

```
          <form action="" method="post">
            <input type="email" name="email"><input type="submit"
value="Subscribe">
          </form>
        </div>
      </div>
    </div>
  </div>
```

```
<div class="footer-top">
  <div class="container">
    <div class="row">
```

```
      <div class="col-lg-3 col-md-6 footer-links">
        <h4>Useful Links</h4>
        <ul>
          <li><i class="bx bx-chevron-right"></i> <a
href="#hero">Home</a></li>
          <li><i class="bx bx-chevron-right"></i> <a
href="#about">About</a></li>
          <li><i class="bx bx-chevron-right"></i> <a
href="#portfolio">Charts</a></li>
          <li><i class="bx bx-chevron-right"></i> <a
href="#team">Dashboard</a></li>
          <li><i class="bx bx-chevron-right"></i> <a
href="#pricing">Story</a></li>
        </ul>
      </div>
```

```
    <div class="col-lg-3 col-md-6 footer-links">
      <h4></h4>
      <ul>
```

```
    </ul>
  </div>
  <div class="col-lg-3 col-md-6 footer-links">
    <h4></h4>
    <ul>
```

```
</ul>
</div>
```

```
<div class="col-lg-3 col-md-6 footer-links">
  <h4>Our Social Networks</h4>
```

```
  <div class="social-links mt-3">
    <a href="https://www.linkedin.com/in/hariprabu741/"
class="linkedin"><i class="bx bxl-linkedin"></i></a>
    <a href="#" class="twitter"><i class="bx bxl-twitter"></i></a>
    <a href="#" class="facebook"><i class="bx bxl-facebook"></i></a>
    <a href="#" class="instagram"><i class="bx bxl-instagram"></i></a>
    <a href="#" class="google-plus"><i class="bx bxl-skype"></i></a>
```

```
  </div>
</div>
```

```
</div>
</div>
</div>
```

```
<div class="container footer-bottom clearfix">
  <div class="copyright">
    &copy; Copyright <strong><span>SHPVIBE</span></strong>. All Rights
Reserved
  </div>
  <div class="credits">
    <!-- All the links in the footer should remain intact. -->
    <!-- You can delete the links only if you purchased the pro version. -->
    <!-- Licensing information: https://bootstrapmade.com/license/ -->
    <!-- Purchase the pro version with working PHP/AJAX contact form:
https://bootstrapmade.com/arsha-free-bootstrap-html-template-corporate/ -->
    Designed by <a href="https://bootstrapmade.com/">SHPVIBE</a>
  </div>
</div>
</footer><!-- End Footer -->
```

```
<div id="preloader"></div>
<a href="#" class="back-to-top d-flex align-items-center justify-content-
center"><i class="bi bi-arrow-up-short"></i></a>
```

```
<!-- 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>
```

```
>
```