#### 1. Introduction

#### 1.1 Overview

The Tragedy of Flight: A Comprehensive Crash Analysis is a book that explores some of the most devastating aviation accidents in history. Written by aviation safety expert and author Seth Young, the book provides an in-depth analysis of the factors that contributed to each crash, including human error, mechanical failure, and environmental conditions.

The book covers a wide range of aviation disasters, from the early days of flight to more recent events. Some of the incidents discussed include the 1956 Grand Canyon mid-air collision, the 1977 Tenerife airport disaster, and the 2009 Air France Flight 447 crash.

Throughout the book, Young examines each accident in detail, providing a thorough analysis of the events leading up to the crash, as well as the aftermath and the resulting changes in aviation safety regulations. He also explores the impact of these crashes on the aviation industry as a whole, and the lessons learned from each incident.

The Tragedy of Flight: A Comprehensive Crash Analysis is a must-read for anyone interested in aviation safety and the history of aviation disasters. The book is well-researched and provides valuable insights into the complex factors that can contribute to aviation accidents. It also offers a sobering reminder of

the importance of ongoing efforts to improve aviation safety and prevent future tragedies.

#### 1.2 Purpose

The purpose of The Tragedy of Flight: A Comprehensive Crash Analysis is to provide a detailed examination of some of the most catastrophic aviation accidents in history, with the aim of identifying the factors that contributed to each crash. Through this analysis, the book aims to provide insights into the complex nature of aviation safety and the need for constant vigilance to prevent future tragedies.

The book serves as a valuable resource for anyone interested in aviation safety, including aviation professionals, regulators, and academics. It offers a thorough examination of the events leading up to each crash, including the human, mechanical, and environmental factors that played a role. By providing a detailed analysis of each incident, the book aims to shed light on the complexities of aviation safety and highlight the lessons learned from each tragedy.

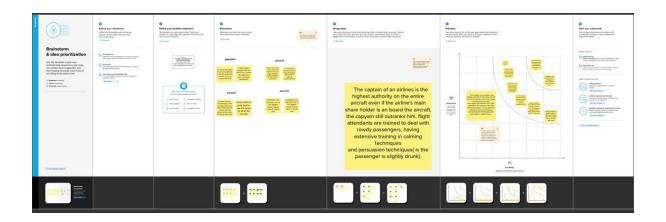
Overall, the purpose of The Tragedy of Flight: A Comprehensive Crash Analysis is to contribute to the ongoing efforts to improve aviation safety and prevent future accidents. The book serves as a reminder of the importance of constant vigilance, safety protocols, and adherence to regulations in the aviation industry.

# 2. Problem Definition & Design Thinking

# 2.1 Empathy Map

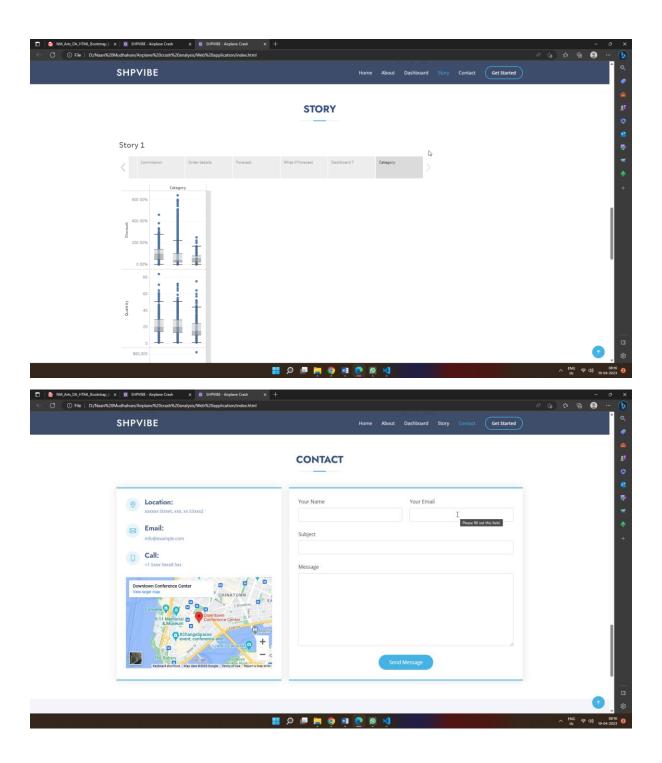


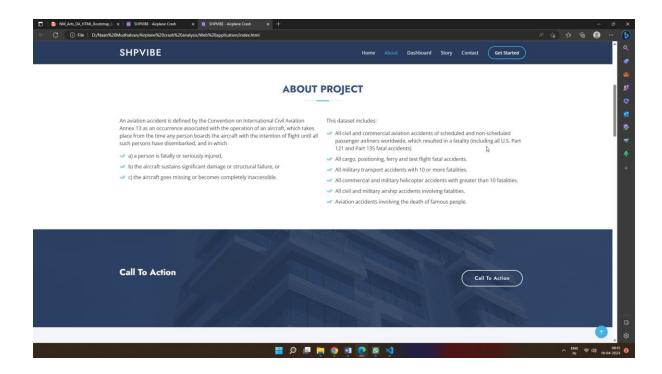
# 2.2 Ideation & Brainstorming Map



# 3. Results







### 4. Advantages & disadvantages

#### 4.1 Advantages

- 1. Provides a comprehensive analysis of some of the most significant aviation accidents in history, offering valuable insights into the factors that contributed to each incident.
- 2. Raises awareness of the importance of ongoing efforts to improve aviation safety and prevent future tragedies.
- 3. Offers valuable lessons for aviation professionals, regulators, and academics to improve safety protocols and procedures.
- 4. Helps to advance knowledge and understanding of the complexities of aviation safety, contributing to ongoing efforts to improve air travel safety.
- 5. Serves as a valuable resource for anyone interested in the history of aviation and the evolution of aviation safety regulations.

#### **4.2 Disadvantages**

- 1. The book focuses on a limited number of aviation accidents and may not provide a comprehensive analysis of all contributing factors to aviation accidents.
- 2. The book may be technical and complex, making it less accessible to general readers who may not have a background in aviation safety.
- 3. The book may be emotionally difficult to read due to the tragic nature of the incidents discussed.
- 4. The book may be outdated if it does not cover more recent aviation accidents or changes in aviation safety regulations.

## 5. Applications

The application of The Tragedy of Flight: A Comprehensive Crash Analysis is primarily in the field of aviation safety. The book serves as a valuable resource for aviation professionals, regulators, and academics seeking to improve aviation safety protocols and procedures.

Aviation professionals can use the book to gain insights into the complex factors that contribute to aviation accidents and develop strategies to prevent future incidents. The book can also serve as a training resource for aviation professionals, helping to improve their understanding of aviation safety regulations and protocols.

Regulators can use the book to inform their decision-making regarding aviation safety regulations. By understanding the factors that contributed to past accidents, regulators can develop more effective safety protocols and regulations to prevent future tragedies.

Academics can use the book as a reference source for research into aviation safety. The book provides a detailed analysis of each incident, offering valuable insights into the complex factors that contribute to aviation accidents.

Additionally, the book may be of interest to the general public, especially those interested in aviation history and safety. By understanding the events that

led to past aviation accidents, the public can gain a deeper appreciation of the importance of ongoing efforts to improve aviation safety and prevent future tragedies.

#### 6. Conclusion

The Tragedy of Flight: A Comprehensive Crash Analysis is a valuable resource for anyone interested in aviation safety, history, and regulation. The book provides a thorough analysis of some of the most significant aviation accidents in history, highlighting the complex factors that contributed to each incident. By examining these tragedies in detail, the book raises awareness of the importance of ongoing efforts to improve aviation safety, and provides valuable insights for aviation professionals, regulators, and academics seeking to improve safety protocols and procedures. While the book may have its limitations, such as being technical or emotionally difficult to read, its overall contribution to the field of aviation safety makes it an essential resource for anyone seeking to advance knowledge and understanding of the complexities of aviation safety. Ultimately, The Tragedy of Flight: A Comprehensive Crash Analysis serves as a sobering reminder of the importance of constant vigilance and adherence to safety protocols and regulations in the aviation industry, and the need for ongoing efforts to prevent future tragedies.

### 7. Future scope

The future scope of The Tragedy of Flight: A Comprehensive Crash Analysis is significant, as ongoing efforts to improve aviation safety continue. Here are some possible areas of future research and development:

- 1. Advancements in Technology: With the rapid pace of technological advancements in aviation, it is important to continue to evaluate the impact of new technologies on aviation safety. Future research could focus on the role of automation in aviation accidents, and how to balance the benefits of automation with the need for human oversight and intervention.
- 2. Human Factors: The role of human factors in aviation accidents remains a critical area of research. Future studies could explore the impact of pilot training and experience on aviation safety, as well as the impact of fatigue, stress, and other human factors on performance.
- 3. Regulation and Oversight: As aviation safety regulations continue to evolve, it is important to evaluate their impact on safety outcomes. Future research could focus on the effectiveness of regulatory frameworks in preventing aviation accidents, and how to balance the need for regulation with the need for innovation and growth in the aviation industry.

- 4. International Cooperation: Aviation safety is a global issue, and future research could explore the importance of international cooperation in improving safety outcomes. This could include research into the effectiveness of global safety organizations such as the International Civil Aviation Organization (ICAO), and the role of bilateral agreements and partnerships in improving safety outcomes.
- 5. Environmental Factors: With the increasing impact of climate change on aviation, future research could focus on the impact of environmental factors on aviation safety, such as extreme weather events and changing weather patterns.

### 8. Appendix

#### 8.1 HTML code for index

```
<!-- 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:300,30
0i,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"</pre>
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 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"><img
src="assets/img/logo.png" alt="" class="img-fluid"></a>-->
      <nav id="navbar" class="navbar">
       <l
          <a class="nav-link scrollto active" href="#hero">Home</a>
          <a class="nav-link scrollto" href="#about">About</a>
          <a class="nav-link scrollto" href="#team">Dashboard</a>
          <a class="nav-link scrollto" href="#pricing">Story</a>
```

```
<a class="nav-link scrollto" href="#contact">Contact</a>
          <a class="getstarted scrollto" href="#about">Get</a>
Started</a>
        <i class="bi bi-list mobile-nav-toggle"></i></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</pre>
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"</pre>
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"</pre>
data-aos-delay="200">
          <img src="assets/img/a1.jpg" class="img-fluid animated" alt="">
        </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">
```

```
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
           <l
             <i class="ri-check-double-line"></i> a) a person is fatally
or seriously injured, 
             <i class="ri-check-double-line"></i> b) the aircraft
sustains significant damage or structural failure, or 
             <i class="ri-check-double-line"></i> c) the aircraft goes
missing or becomes completely inaccessible.
           </div>
         <div class="col-lg-6 pt-4 pt-lg-0">
             This dataset includes:
           <u1>
             <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)
             <i class="ri-check-double-line"></i> All cargo, positioning,
ferry and test flight fatal accidents.
             <i class="ri-check-double-line"></i> All military transport
accidents with 10 or more fatalities.
             <i class="ri-check-double-line"></i> All commercial and
military helicopter accidents with greater than 10 fatalities.
             <i class="ri-check-double-line"></i> All civil and military
airship accidents involving fatalities.
             <i class="ri-check-double-line"></i> Aviation accidents
involving the death of famous people.
              </div>
       </div>
     </div>
   </section><!-- End About Us Section -->
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     <div class="container" data-aos="zoom-in">
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         <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">
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        <div class="section-title">
          <h2>Dashboard</h2>
          </div>
           <div class='tableauPlaceholder' id='viz1681871972157'</pre>
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/></a></noscript><object class='tableauViz' style='display:none;'><param
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value='yes' /><param name='display_spinner' value='yes' /><param</pre>
name='display_overlay' value='yes' /><param name='display_count' value='yes'</pre>
/><param name='language' value='en-US' /><param name='filter'
value='publish=yes' /></object></div>
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= divElement.getElementsByTagName('object')[0];
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vizElement.style.width='1000px';vizElement.style.height='827px';} else if (
divElement.offsetWidth > 500 ) {
vizElement.style.width='1000px';vizElement.style.height='827px';} else {
vizElement.style.width='100%';vizElement.style.height='1577px';}
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vizElement);
                            </script>
      </div>
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```
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          </div>
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/></a></noscript><object class='tableauViz' style='display:none;'><param
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name='embed code version' value='3' /> <param name='site root' value=''</pre>
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'https://public.tableau.com/javascripts/api/viz v1.js';
                                                                           viz
Element.parentNode.insertBefore(scriptElement,
vizElement);
                           </script>
      </div>
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        <div class="section-title">
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          </div>
        <div class="row">
          <div class="col-lg-5 d-flex align-items-stretch">
```

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<div class="info">
              <div class="address">
                <i class="bi bi-geo-alt"></i></i>
                <h4>Location:</h4>
                xxxxxxx Street, xxx, xx 53xxx2
              </div>
              <div class="email">
                <i class="bi bi-envelope"></i></i>
                <h4>Email:</h4>
                info@example.com
              </div>
              <div class="phone">
                <i class="bi bi-phone"></i></i>
                <h4>Call:</h4>
                +1 5xxx 5xxx8 5xs
              </div>
              <iframe
src="https://www.google.com/maps/embed?pb=!1m14!1m8!1m3!1d12097.433213460943!2
74.0062269!3d40.7101282!3m2!1i1024!2i768!4f13.1!3m3!1m2!1s0x0%3A0xb89d1fe6bc49
9443!2sDowntown+Conference+Center!5e0!3m2!1smk!2sbg!4v1539943755621"
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allowfullscreen></iframe>
            </div>
          </div>
          <div class="col-lg-7 mt-5 mt-lg-0 d-flex align-items-stretch">
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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"</pre>
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"</pre>
id="email" required>
                </div>
              </div>
              <div class="form-group">
                <label for="name">Subject</label>
```

```
<input type="text" class="form-control" name="subject"</pre>
id="subject" required>
              </div>
              <div class="form-group">
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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"</pre>
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>
            <l
              <i class="bx bx-chevron-right"></i> <a</pre>
href="#hero">Home</a>
              <i class="bx bx-chevron-right"></i> <a</pre>
href="#about">About</a>
              <i class="bx bx-chevron-right"></i> <a</pre>
href="#portfolio">Charts</a>
              <i class="bx bx-chevron-right"></i> <a</pre>
href="#team">Dashboard</a>
             <i class="bx bx-chevron-right"></i> <a</pre>
href="#pricing">Story</a>
            </div>
          <div class="col-lg-3 col-md-6 footer-links">
            <h4></h4>
            <u1>
            </div>
          <div class="col-lg-3 col-md-6 footer-links">
           <h4></h4>
           <l
            </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/"</pre>
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-</pre>
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">
        © 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-</pre>
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>
```