

PROJECT REPORT TEMPLATE

1 INTRODUCTION

1.1 Overview

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

- A person is fatally or seriously injured.
- The aircraft sustains significant damage or structural failure.
- The aircraft goes missing or becomes completely inaccessible.

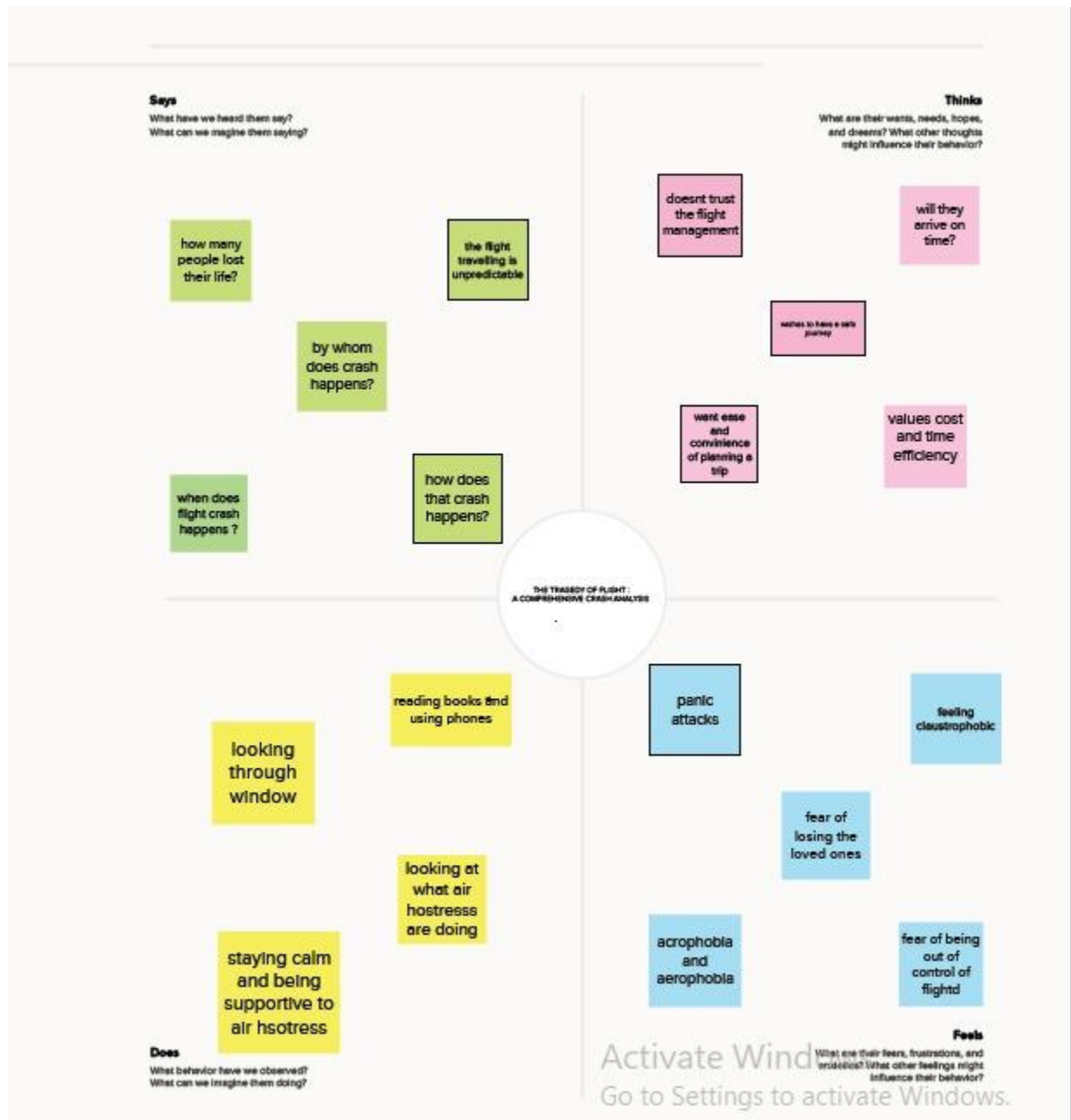
1.2 Purpose

The study helps to understand who all are suffering, what is the reason for the crash and what harm is it causing to the general population and how can we prevent them. The crashes may cause loss of human life as well as loss of natural resources.

Finding designs in the aeronautical data physically is impracticable because of the mass measure of data delivered each day. This vast amount of data can be analysed and measured using various computing techniques. This technique can be used to discover unknown patterns from the massive dataset, produced to make expectations for future data in light of examples found in gathered data.


2 PROBLEM DEFINITION & DESIGN THINKING

2.1 Empathy Map



2.2 Ideation & Brainstorming Map

Template



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

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

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

QUESTIONS

Whats are the majors causes of flight crash?

QUESTIONS

What is the best way for an air traveller to avoid being in a plane crash?

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 select) icon to start drawing

Person 1

Person 2

Person 3

Person 4

Person 5

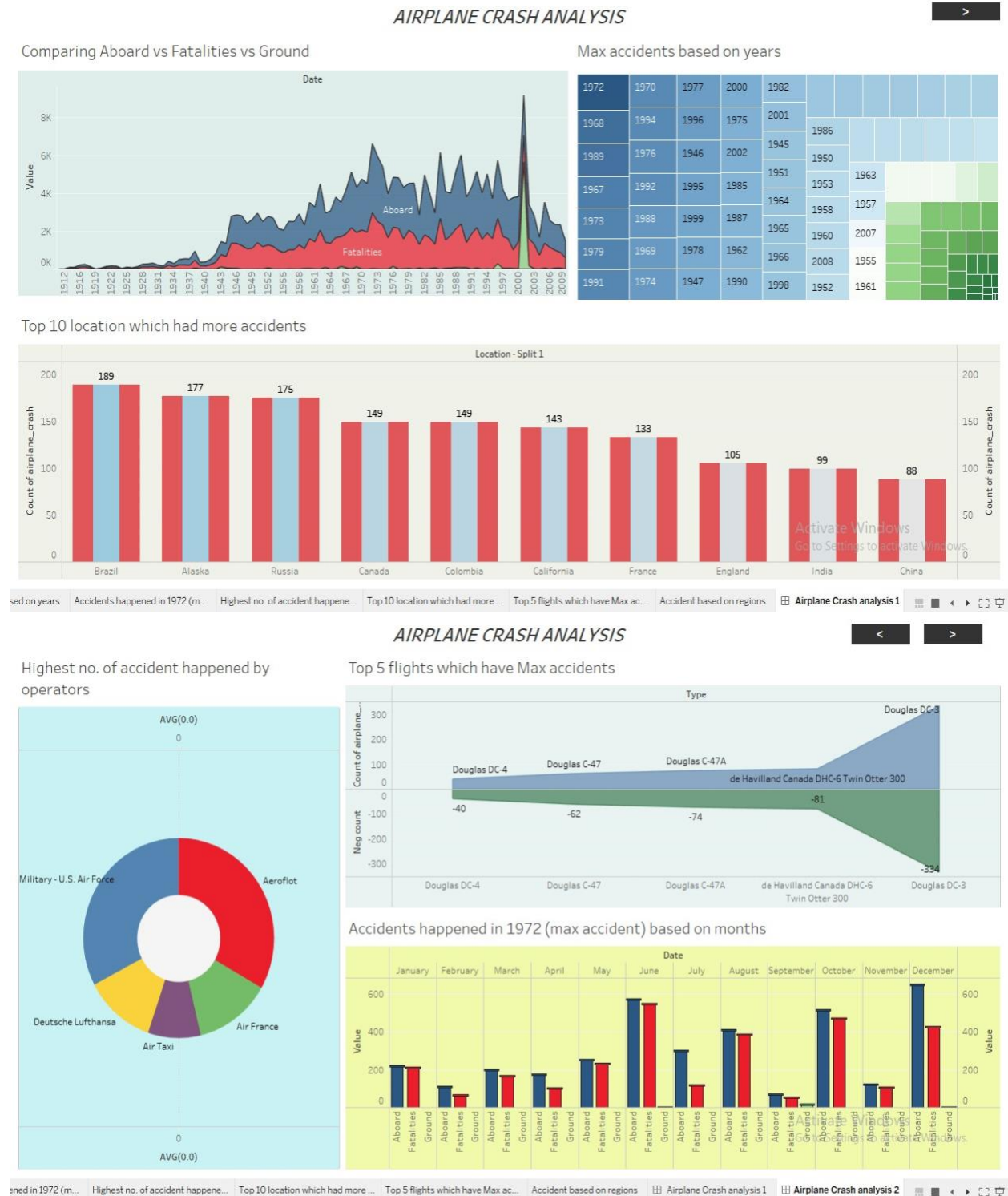
Person 6

Person 7

Person 8

3 RESULT

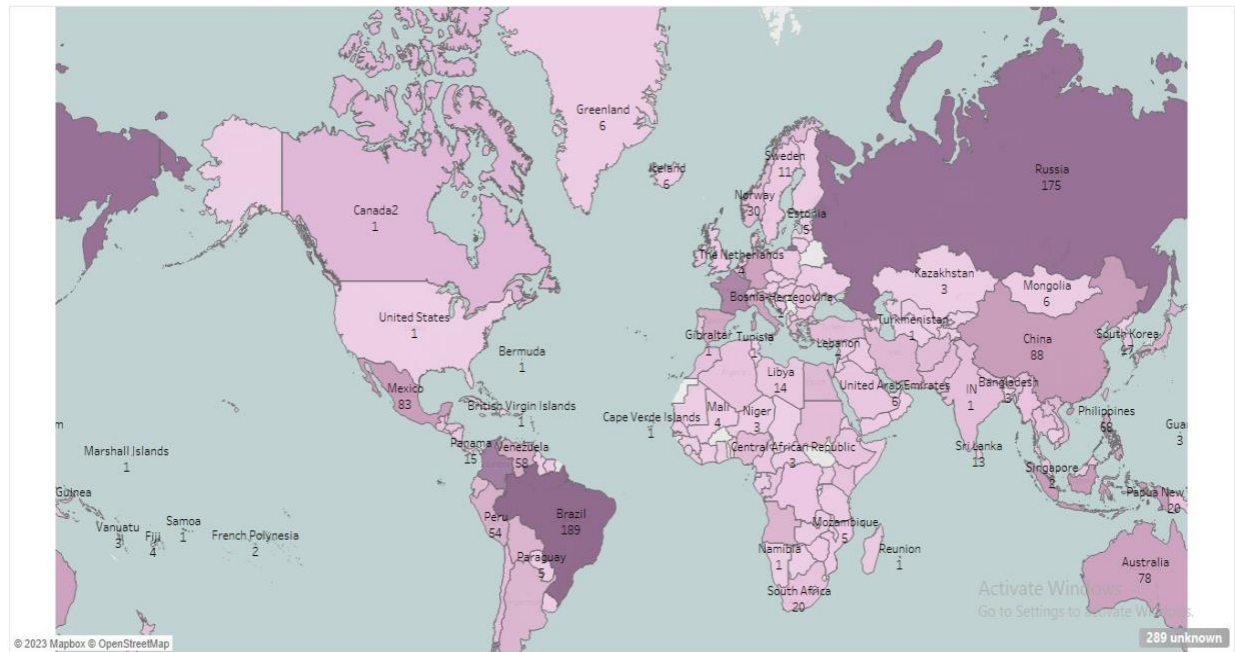
Dashboard:



AIRPLANE CRASH ANALYSIS



Accident based on regions



of accident happene... Top 10 location which had more ... Top 5 flights which have Max ac... Accident based on regions Airplane Crash analysis 1 Airplane Crash analysis 2 Airplane Crash analysis 3

Story:

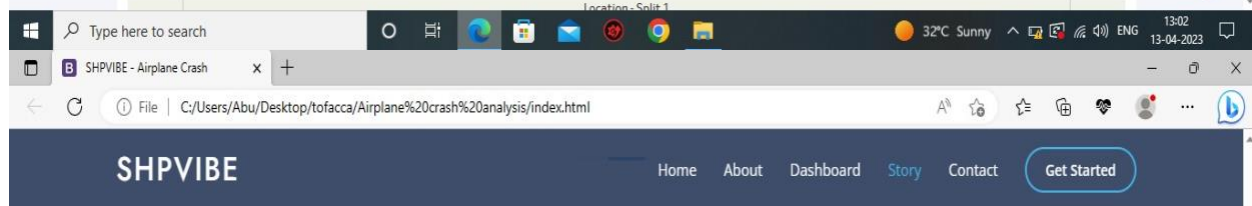
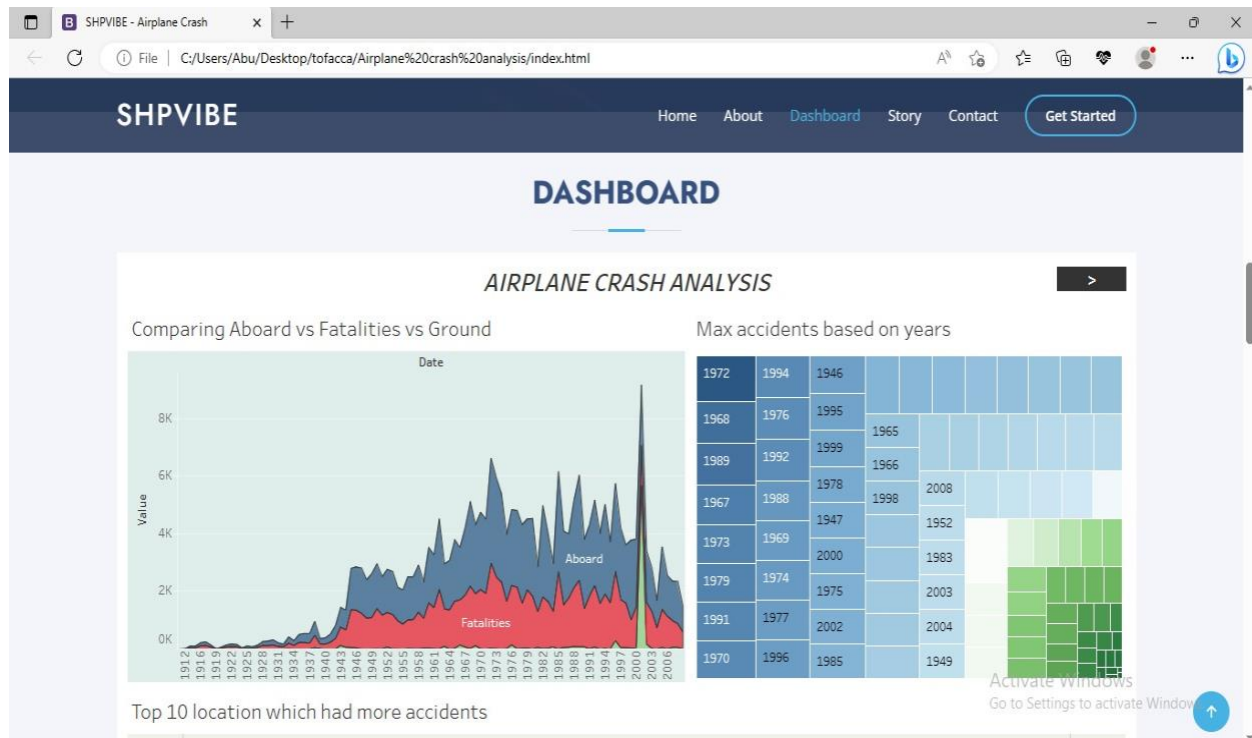
STORY OF AIRPLANE CRASH ANALYSIS

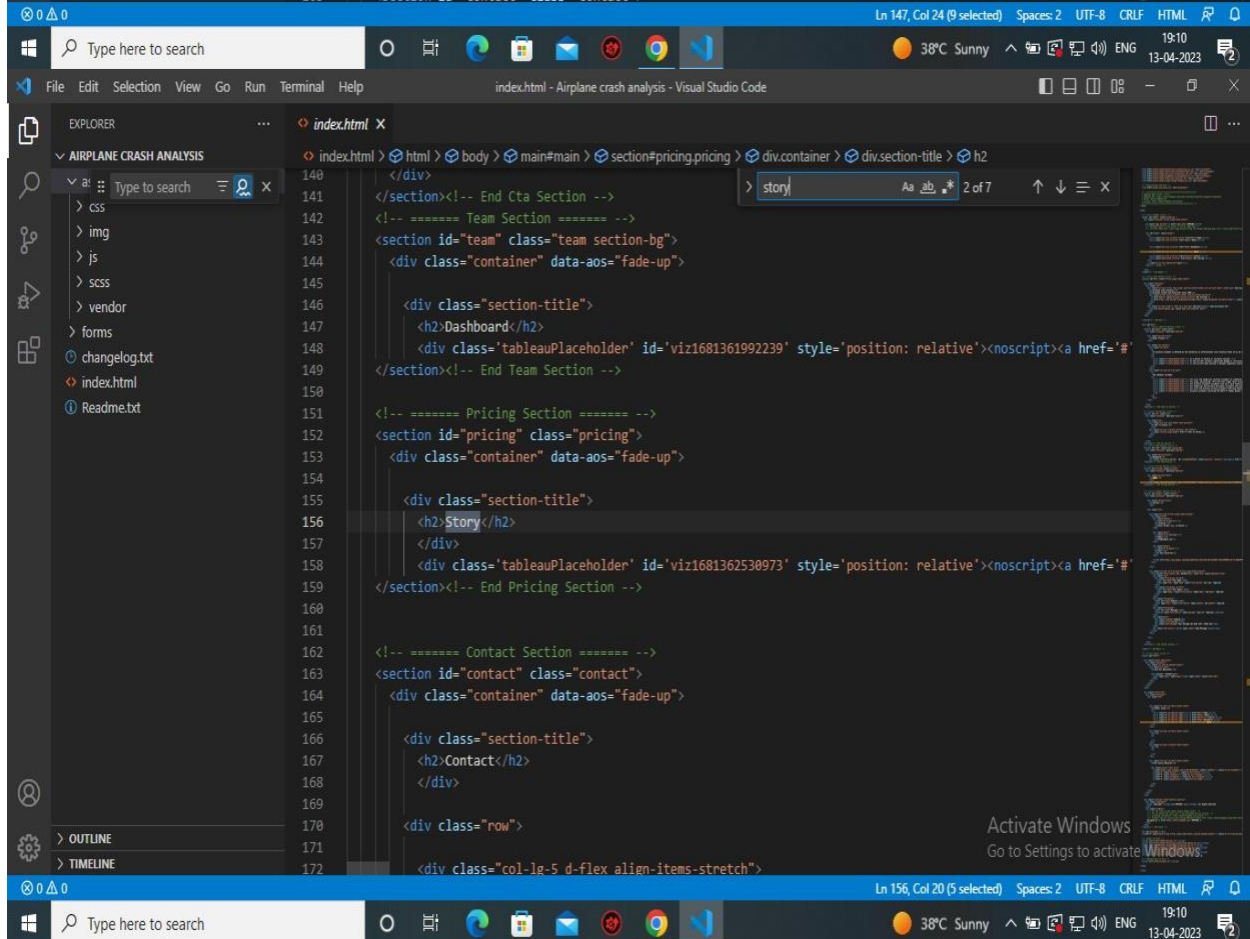
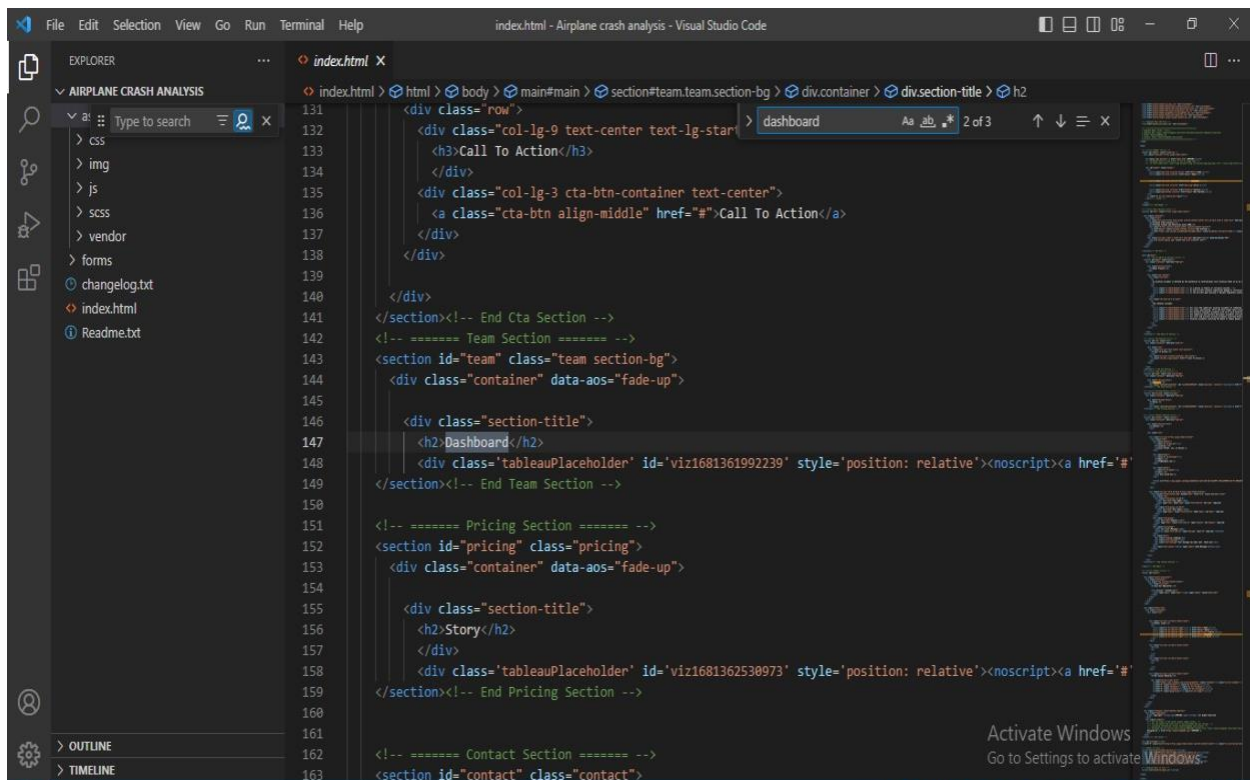
Maximum Accidents based on years Accidents happened in 1972 (MAX ACCIDENTS) based on Highest No. of accident happened by Operators Top 10 locations which had more accidents Top 5 flights which have max accident history Accident based on regions



happene... Top 10 location which had more ... Top 5 flights which have Max ac... Accident based on regions Airplane Crash analysis 1 Airplane Crash analysis 2 Airplane Crash analysis 3 Story 1

Web Application





4 ADVANTAGES & DISADVANTAGES

Advantages:

There are many benefits of investigating accidents or incidents. These include:

- The prevention of similar events happening again. Where the outcomes or the consequences are severe injuries the enforcing authorities are likely to take a tough stance if the previous warnings have been ignored.
- The prevention of the business losses because of disruption immediately after the event, loss of production, the loss of business through the lowering of reputation or the inability to deliver and the costs of the criminal and legal actions.
- The improvement in workers' morale and the general attitudes to health and safety mainly if they have been involved in the investigations.
- To improve the management skills to improve the health and safety performance everywhere in the organization.
- Health and safety investigations form an essential part of the monitoring process that you are required to carry out. Incidents, including near misses, can tell you a lot about how things actually are in reality.
- Investigation findings will also provide essential information for your insurers in the event of a claim.

- Analysis of accidents and reported cases of occupational ill health will help you uncover and correct any breaches in health and safety legal compliance you may have been unaware of.
- The fact that you thoroughly investigated an incident and took remedial action to prevent further occurrences would help demonstrate to a court that your company has a positive attitude to health and safety.
- An Investigation can help you identify why the existing risk control measures failed and what improvements or additional measures are needed.
- Improve the management of risk in the future.
- Demonstrate your commitment to effective health and safety and improving employee morale and thinking towards health and safety.

Disadvantages:

While there are plenty of positive benefits in aircraft analysis methods for data collection, there are also some drawbacks that suggest these methods should be used with caution despite the benefits.

This includes:

- Non-representative samples
- low response rates

- financial motivation
- participant fraud
- limitations in types of data collected
- Practical survey administration issues all impact the use of online survey data collection.

5 APPLICATIONS

A comprehensive flight performance analysis is used to analyse a database of past accidents in order to prevent an accident from happening. This can be useful in various applications, such as

- Fuel planning.
- Aircraft conceptual design.
- Environmental impacts.
- Assessments airlines marketing analysis.
- Policy making.

6 CONCLUSION

In this day and age, understanding data is the key to making the best decisions for any business. However, the amount of information that's available at any time can

be overwhelming for the most data-survey person. One of the easiest ways to make data easy to understand for technical and non-technical audiences is to create a dashboard that easily displays all of your data visualizations in one place.

So in our project we have created a dashboard, which is a way of displaying various types of visual data in one place. Usually, a dashboard is intended to convey different, but related information in an easy-to-digest form. And our dashboard includes data of all sorts with varying date ranges to help you understand: what happened, why it happened, what may happen, and what action you should take. We have also created the story, which is a sequence of visualizations that work together to convey information.

7 FUTURE SCOPE

The system is able to predict whether the airplane will be “safe” or not. As a result, the delays of every airplane can also be predicted. The period after which an airplane has to go under the maintenance stage can also be included with the system. Hence, the system will be the one stop destination to check the flight delays, airplane crashes and the period after which the flight should undergo the maintenance phase.