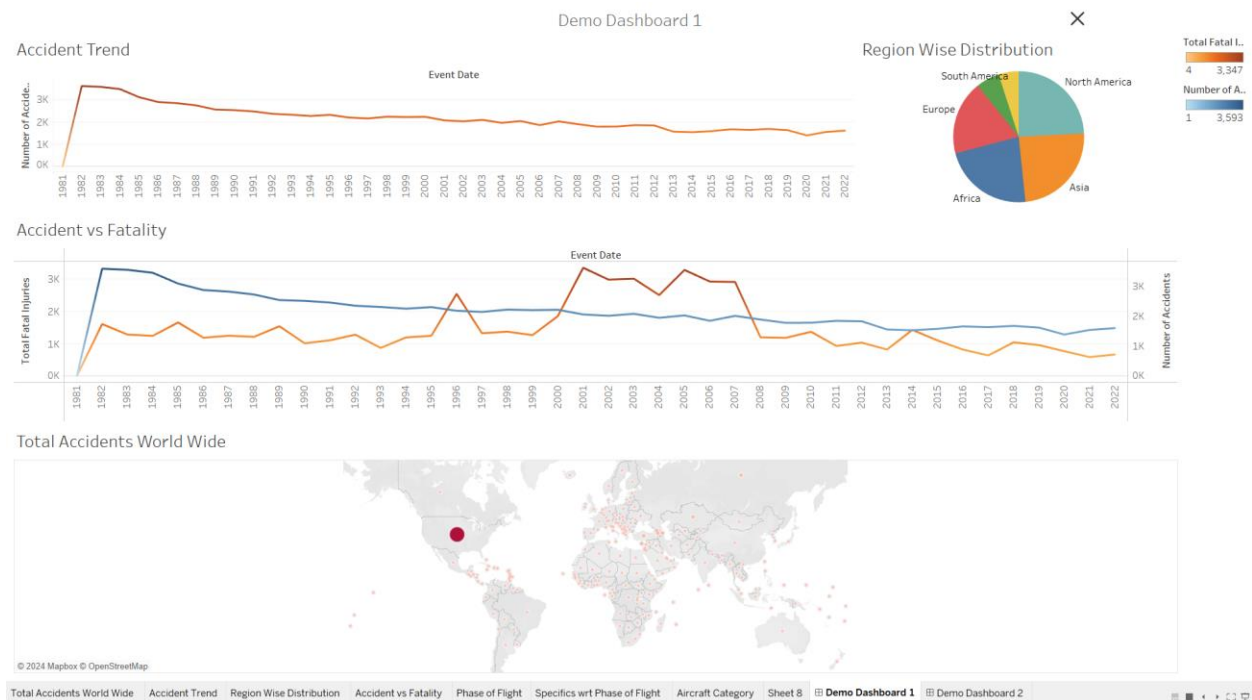


Phase 2: Wireframes, Data Pre-processing, and Infrastructure Technologies

Group - 2

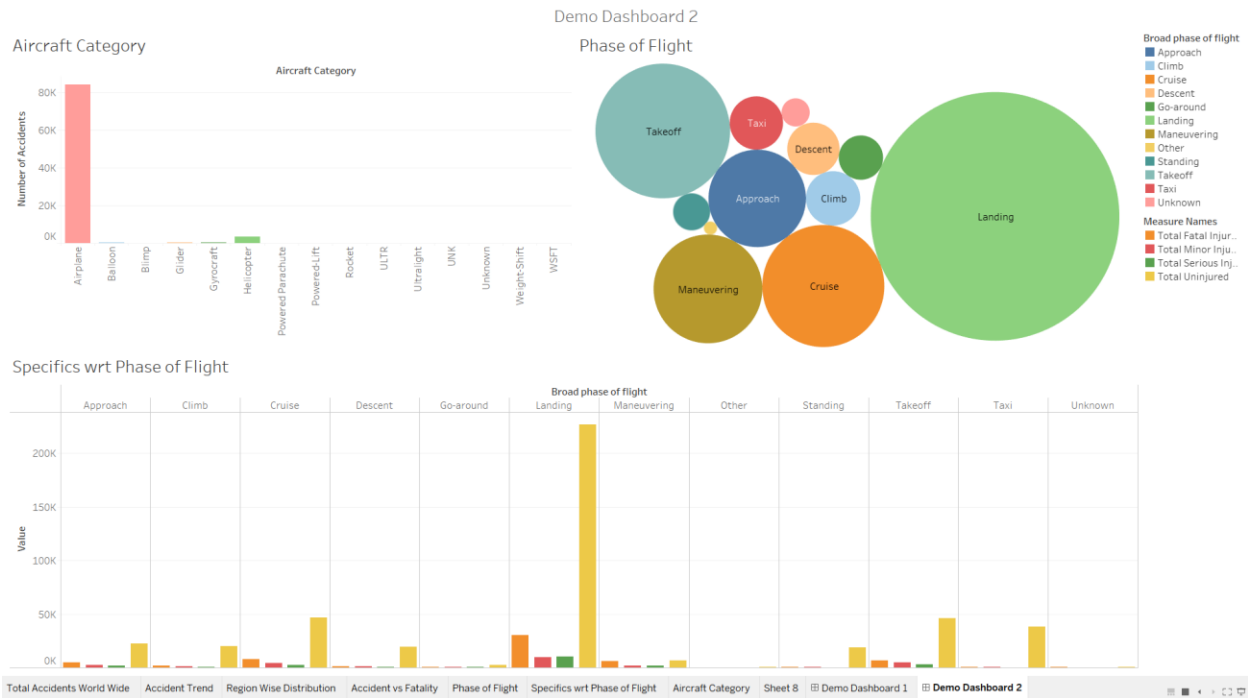
Divya Panchal, Dhvanil Bhagat, Chetas Parekh

1. Wireframes



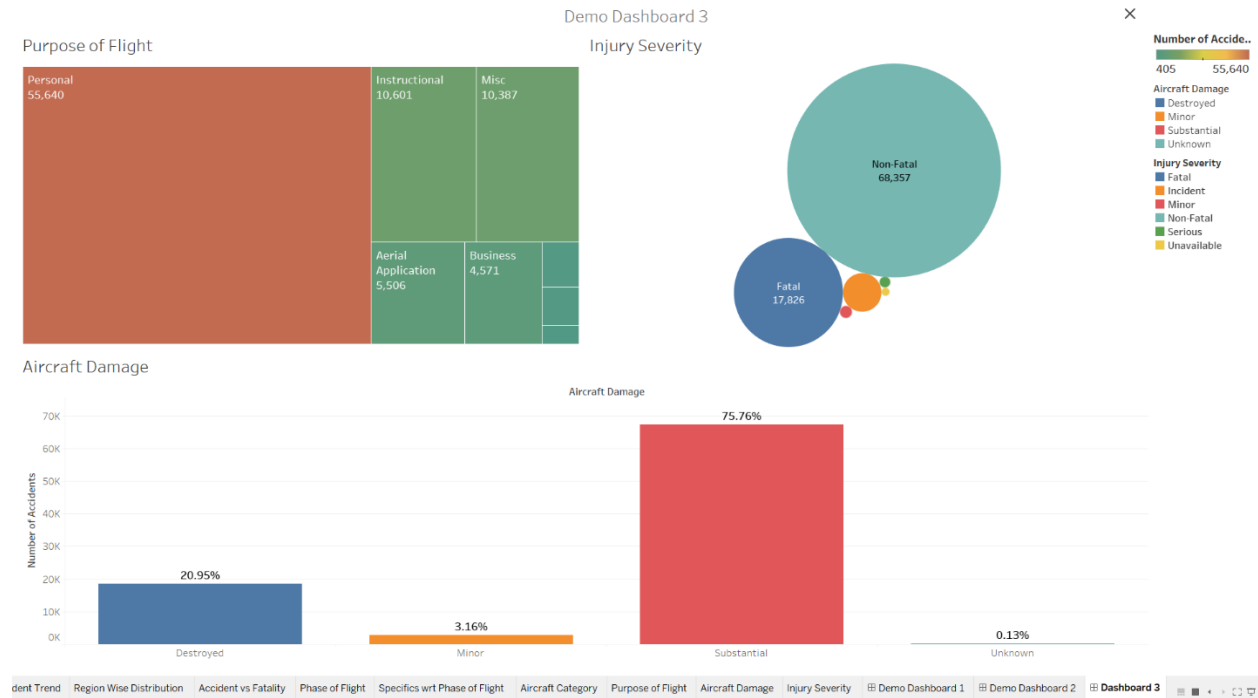
Dashboard 1

This dashboard will be showing the global trend in aviation accidents that have occurred since 1981 spread through the globe with a map chart. It can be further filtered using region to specifics for each region in detail.



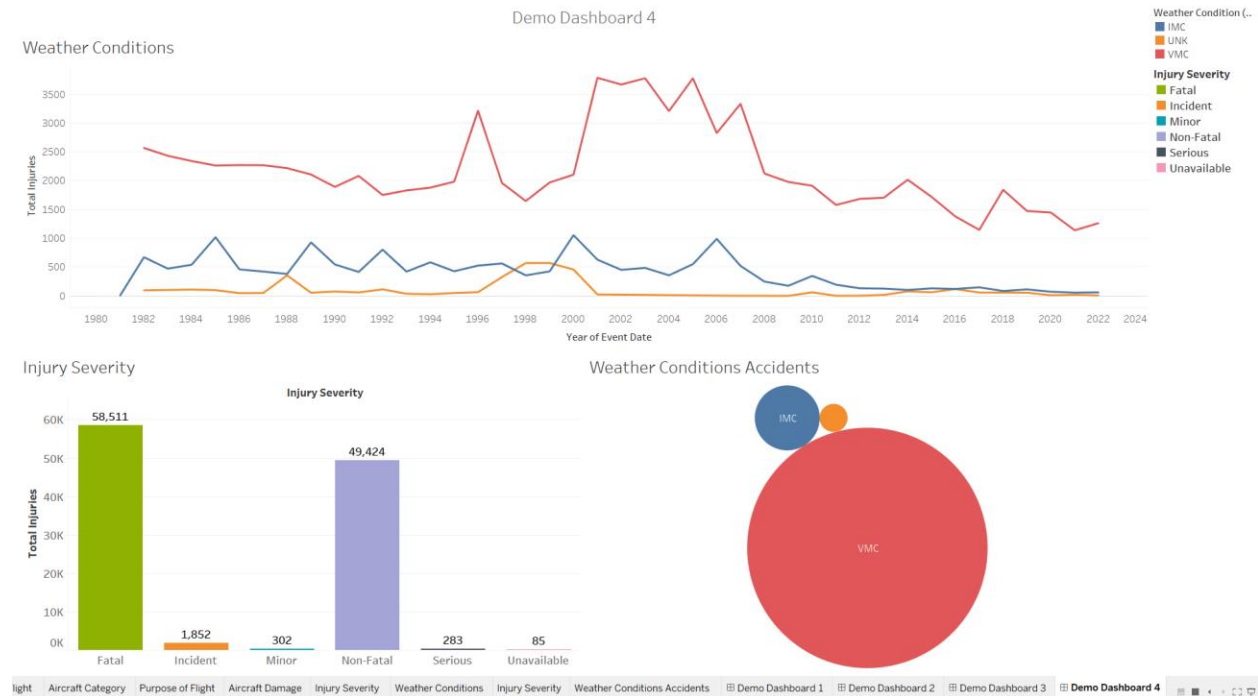
Dashboard 2

This dashboard will focus on severity of injuries w.r.t the broad phase of flight and how does it relate to the aircraft category. Do they go hand-in-hand with each other and are there any relations tied to the aircraft category and the phase of flight.



Dashboard -3

This dashboard will show how the severity of the crash is related to the fatalities that occur or if they occur. And are they bound to the purpose of flight that it was the flight commercial, test flight or a private jet.



Dashboard – 4

This will be one of the interesting visualizations since it shows the number of accidents that happen with weather conditions over time and what percent of the crashed sustain major injuries to the people onboard and does the weather really have an impact to the number of crashes and if it does, what is the fatality rate.

2. Data Exploration and Preprocessing

We searched thoroughly through out the internet for the data related to our topic. We had our hands on one dataset on Kaggle which had a sufficient data for our visualization system and had several features that that could be analyzed upon.

The data was not clean and had unnecessary features such as Accident ID, Publication Date which would have hold no value for the system and were dropped from the dataset.

The data had some missing values, some records were dropped as the number was just a fraction of the total and some were imputed wherever necessary.

3. Technologies

After careful consideration of all the available technologies available for our use for this project, we will be moving forward with **Tableau**.

It is because Tableau is much friendlier, with less knowledge of programming, one can build interactive visualizations; apart from this, Tableau has a drag-and-drop interface with default visualizations that are ready to use, which makes the creation easier. On the other hand, D3.js requires great skill in coding. Besides support for many kinds of data sources, efficient handling of big data makes Tableau more popular for data analysis and reporting.

Technology to be used : **Tableau**