Historical Plane Crashes

Chi Iong Ansjory, Grace Lin, Sohag Desai

We will analyze historical plane crash dataset from an aviation accident database to explore crashes patterns.

The purpose of this project is to visualize locations, aircraft types, fatalities, aircraft types, and possibly flight routes on a world map. The target audience would be both airline providers and passengers. This visualization will be utilized by airline providers to identify key areas which are highly correlated with crashes and whether they could do anything to prevent more accidents in the future. It could be utilized by passengers to avoid certain flights and enjoy a safe trip.

For example, if a high percentage of planes fly from Boston in the morning and arrive in Bermuda in the evening crash, the airline providers will take some preventive measures and passengers will avoid to fly to this location or during this timeframe.

We will start by using the dataset from kaggle:

<https://www.kaggle.com/nguyenhoc/plane-crash/home>

If we find the dataset is to limited, we will scrape more data from plane crash database:

<http://www.planecrashinfo.com/database.htm>

Some features of our visualization include:

* Identifying locations of crashes in a given year on a world map using a filled in circle
* Indicating the number of fatalities by showing a proportional circle size
* Allowing for the year to be changed by provided a slider and a calendar picker entry field
* Color-coding the circle to specify the type of aircraft by manufacturer and by country of origin

Plans for visualization:

* Research D3 libraries for world map and levels of location granularity support, such as countries, cities, or geo-coordinates
* Research D3 libraries for origin and destination route map support
* Understand how to perform calendar slider/picker with any existing D3 templates and the granularity of time intervals based on the dataset
* Determine the appropriate color and representation for fatalities and aircraft types