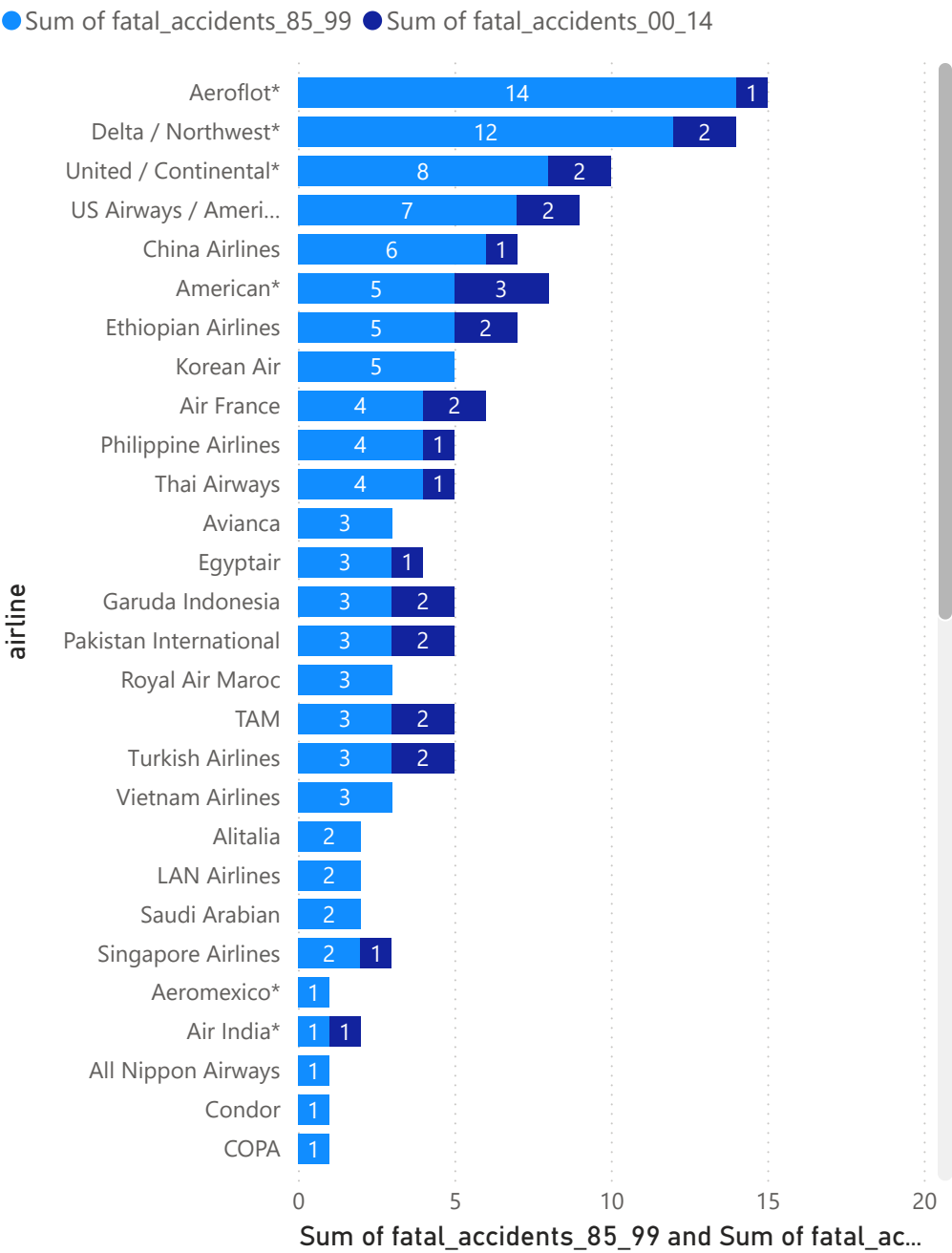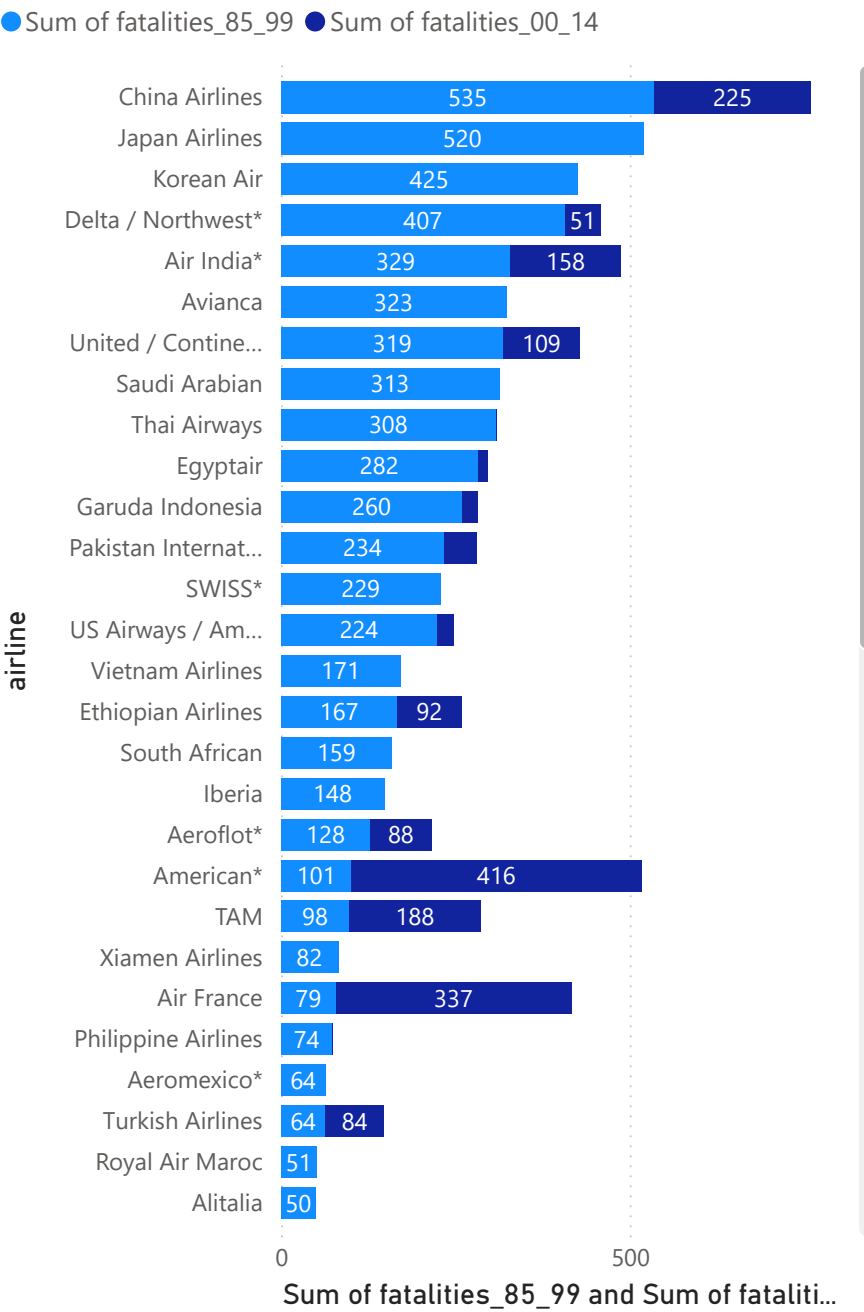# Airline Accidents and Safety EDA:

- Page 1 - Bar Chart to compare sum of fatalities and sum of fatal accidents.
- Page 2 - Scatter Plot to show the airlines with most fatalities.
- Page 3 - Shows how fatalities are distributed across 12 months.
- Page 4 - Global Location of Recent fatalities and the aircraft involved in those accidents.
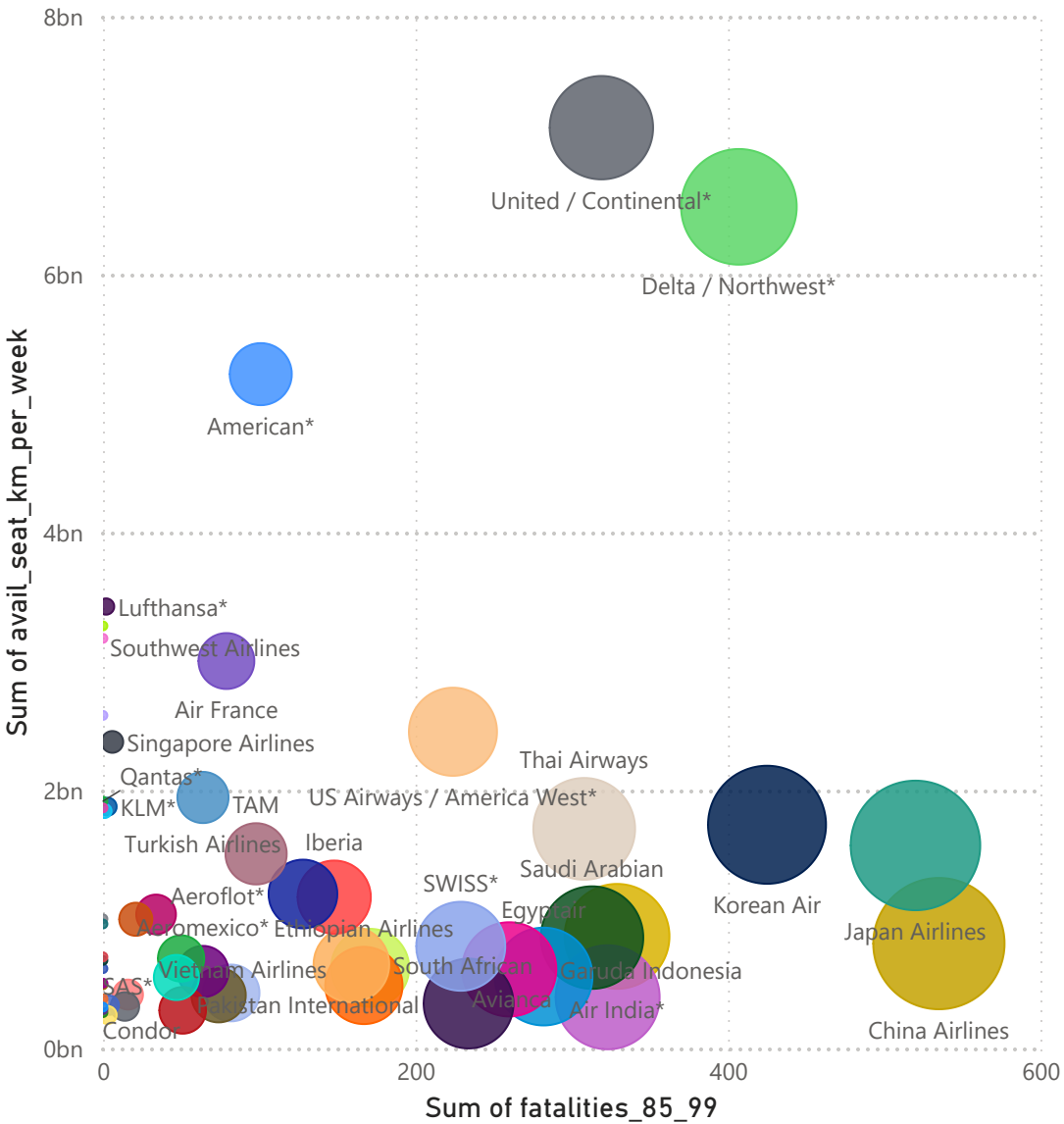
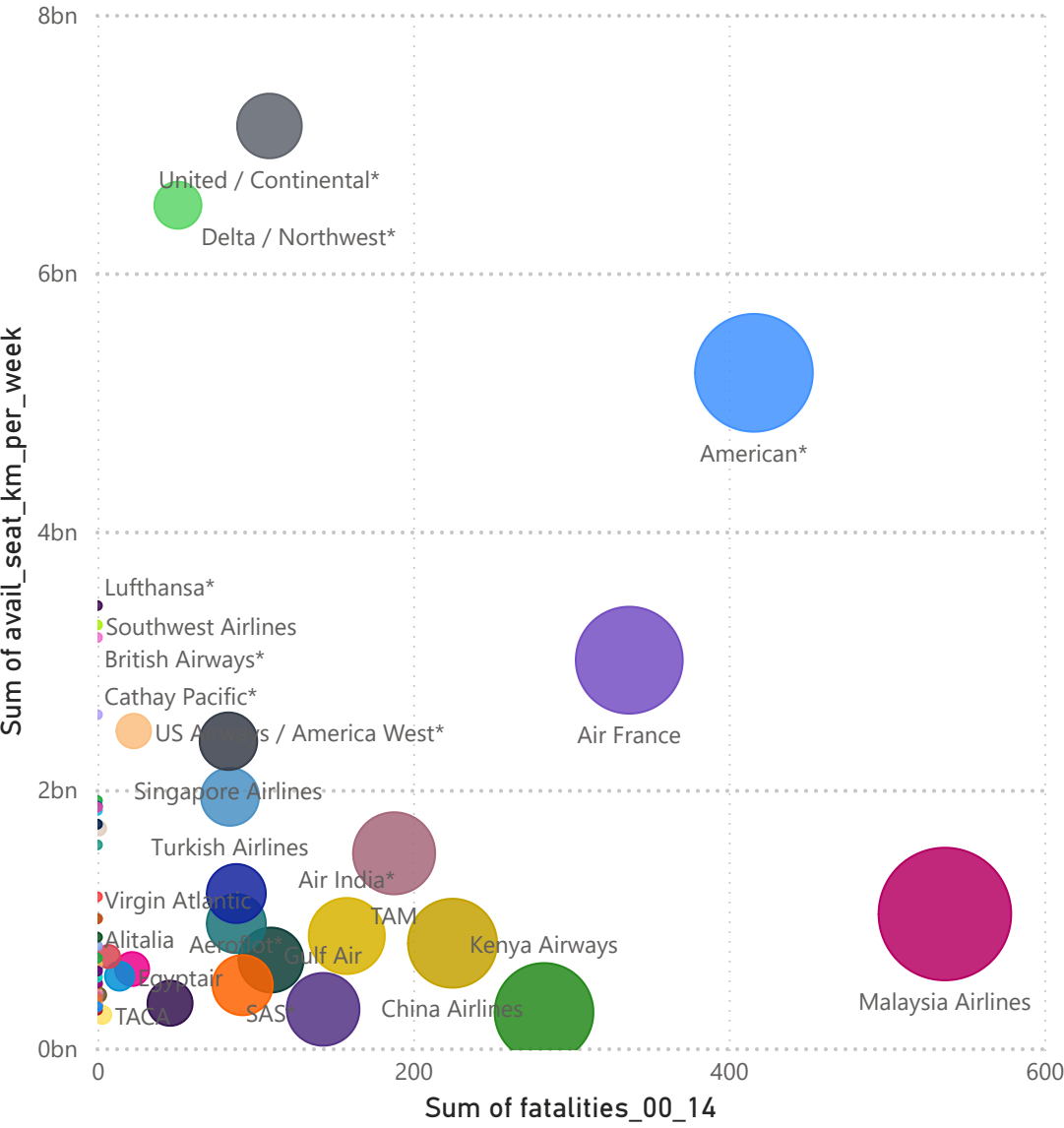## Sum of fatal_accidents_85_99 and Sum of fatal_accidents_00_14 by airline

● Sum of fatal_accidents_85_99 ● Sum of fatal_accidents_00_14

airline	
Aeroflot*	14 / 1
Delta / Northwest*	12 / 2
United / Continental*	8 / 2
US Airways / Ameri...	7 / 2
China Airlines	6 / 1
American*	5 / 3
Ethiopian Airlines	5 / 2
Korean Air	5
Air France	4 / 2
Philippine Airlines	4 / 1
Thai Airways	4 / 1
Avianca	3
Egyptair	3 / 1
Garuda Indonesia	3 / 2
Pakistan International	3 / 2
Royal Air Maroc	3
TAM	3 / 2
Turkish Airlines	3 / 2
Vietnam Airlines	3
Alitalia	2
LAN Airlines	2
Saudi Arabian	2
Singapore Airlines	2 / 1
Aeromexico*	1
Air India*	1 / 1
All Nippon Airways	1
Condor	1
COPA	1

Sum of fatal_accidents_85_99 and Sum of fatal_ac...

Sum of fatalities_85_99 and Sum of fatalities_00_14 by airline

● Sum of fatalities_85_99 ● Sum of fatalities_00_14

airline	
China Airlines	535 / 225
Japan Airlines	520
Korean Air	425
Delta / Northwest*	407 / 51
Air India*	329 / 158
Avianca	323
United / Contine...	319 / 109
Saudi Arabian	313
Thai Airways	308
Egyptair	282
Garuda Indonesia	260
Pakistan Internat...	234
SWISS*	229
US Airways / Am...	224
Vietnam Airlines	171
Ethiopian Airlines	167 / 92
South African	159
Iberia	148
Aeroflot*	128 / 88
American*	101 / 416
TAM	98 / 188
Xiamen Airlines	82
Air France	79 / 337
Philippine Airlines	74
Aeromexico*	64
Turkish Airlines	64 / 84
Royal Air Maroc	51
Alitalia	50

Sum of fatalities_85_99 and Sum of fataliti...

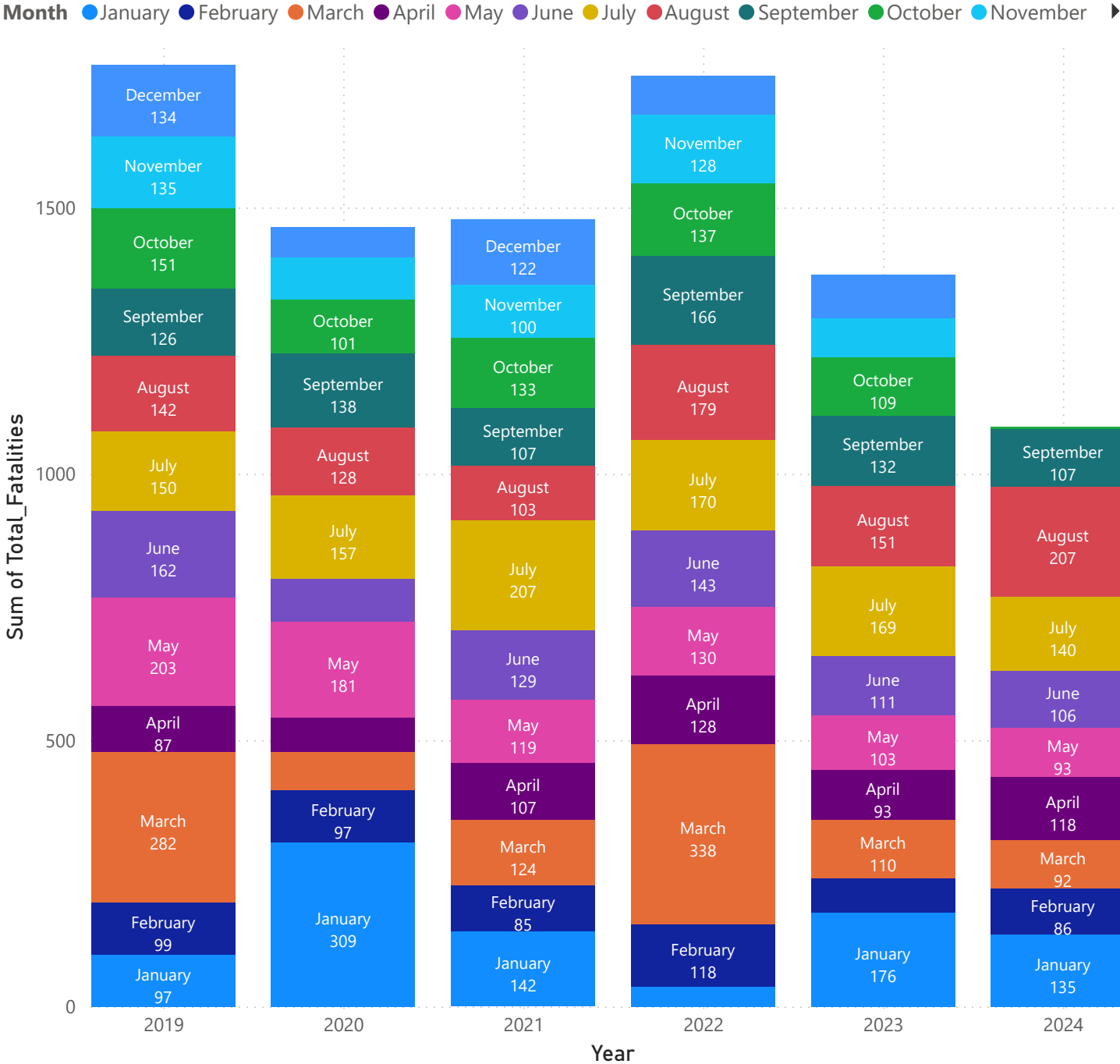Fatalities from 1985-1999 vs Total available Seats based on Airline

Fatalities from 2000-2014 vs Total available Seats based on Airline

Left chart (Sum of avail_seat_km_per_week vs Sum of fatalities_85_99):

United / Continental*
Delta / Northwest*
American*
Lufthansa*
Southwest Airlines
Air France
Singapore Airlines
Qantas*
KLM*
TAM
Turkish Airlines
Iberia
US Airways / America West*
Thai Airways
Aeroflot*
SWISS*
Saudi Arabian
Aeromexico* Ethiopian Airlines
Egyptair
Korean Air
Japan Airlines
Vietnam Airlines
South African
Garuda Indonesia
SAS*
Pakistan International
Avianca
Air India*
Condor
China Airlines

Right chart (Sum of avail_seat_km_per_week vs Sum of fatalities_00_14):

United / Continental*
Delta / Northwest*
American*
Lufthansa*
Southwest Airlines
British Airways*
Cathay Pacific*
US Airways / America West*
Singapore Airlines
Air France
Turkish Airlines
Air India*
Virgin Atlantic
Alitalia
Aeroflot*
TAM
Egyptair
Gulf Air
Kenya Airways
TACA
SAS*
China Airlines
Malaysia Airlines

Fatalities Based on Year and Months:

- Looking at the Fatalities we can see that March accounted for most Fatalities in 2022 overall.
- Second is January with most fatalities in 2020.
- According to Weather survey Spring is more prone to accidents due to changing weather conditions.
- Also monsoon seasons are second to causing uneven weather conditions.
- These finding are definitely supported by our data.

Sum of Total_Fatalities and Last Location by Year and Month

Month ● January ● February ● March ● April ● May ● June ● July ● August ● September ● October ● November ►

Month	Sum of Total_Fatalities
March	1018
July	993
August	910
January	896
May	829
September	776
June	731
October	635
April	597
February	550
November	516
December	465
Total	**8916**

Fatalities based on Location:

From this map we can infer the following information:

- Fatalities are more prominent in less developed countries.
- We can see that Tehran had the biggest fatality in 2020, where Tehran is also under US Sanctions. Plane type Boeing 737.
- Second we have Addis Ababa, Ethiopia with a fatality of 157 in 2019, plane type Boeing 737.
- Third largest airline fatality in Wuzhou, China, plane type Boeing 737.
- Commonality between all 3 major accident from 2019-2024 is the aircraft manufacturer and type - Boeing 737 series.

Sum of Total_Fatalities by Location and Year

Year ● 2019 ● 2020 ● 2021 ● 2022 ● 2023 ● 2024

Microsoft Bing

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