Aviation Accidents Data Analysis

By RAMAN GILL

PROJECT GOALS:

- *To better understand the aircraft accidents through aviation history from 1920s to 2020s*

  o *How many accidents occurred each year*

  o *How many fatalities occurred each year*

  o *Which aircraft manufacturers had highest accidents*

DATA SOURCE:

- *Raw data was obtained from Kaggle in CSV*

https://www.kaggle.com/datasets/alsonp/aviation-accidents-aviation-safety-network-dataset

	A	B	C	D	E	F	G	H	I	J
	date	type	registration	operator	fataliti	location	country		year	
	08/11/19	Felixstowe Fury	N123	RAF	1	near Felixtowe RNAS	U.K.	A1	1919	
	02/23/20	Handley Page O/7	G-EANV	Handley Page Transport	0	Acadia Siding, C...	South Africa	A1	1920	
	02/25/20	Handley Page O/400	G-EAMC	Handley Page Transport	0	near El Shereik	Sudan	A1	1920	
	06/30/20	Handley Page O/400	G-EAKE	Handley Page Transport	0	ÃƒÂ–stanÃƒÂ¥	Sweden	A1	1920	
	03/02/21	Handley Page O/7	G-IAAC	HP Indo-Burmese Transport	0	Meerut	India	O1	1921	
	08/26/21	Farman F.60 Goliath	O-BLAN	SNETA	2	near Calais [The Engl...	France	A1	1921	
	09/27/21	Farman F.60 Goliath	O-BRUN	SNETA	0	Evere Airfield	Belgium	O1	1921	
	09/27/21	Farman F.60 Goliath	O-BLEU	SNETA	0	Evere Airfield	Belgium	O1	1921	
	01/22/22	Handley Page O/10	G-EATN	Handley Page Transport	0	near Senlis	France	A1	1922	
	04/07/22	Farman F.60 Goliath	F-GEAD	Grands Express AÃƒÂ©riens	5	Thieuloy-Saint-A...	France	A1	1922	
	05/14/23	Farman F.60 Goliath	F-AEBY	Air Union	6	Monsures, Somme	France	A1	1923	
	06/25/23	Farman F.60 Goliath	F-AEDL	Air Union	0	near ÃƒÂ‰taples	France	A1	1923	

DATA REVIEW AND CLEANING:

Performed In excel and Power Query

Duplicates

Blank Cells

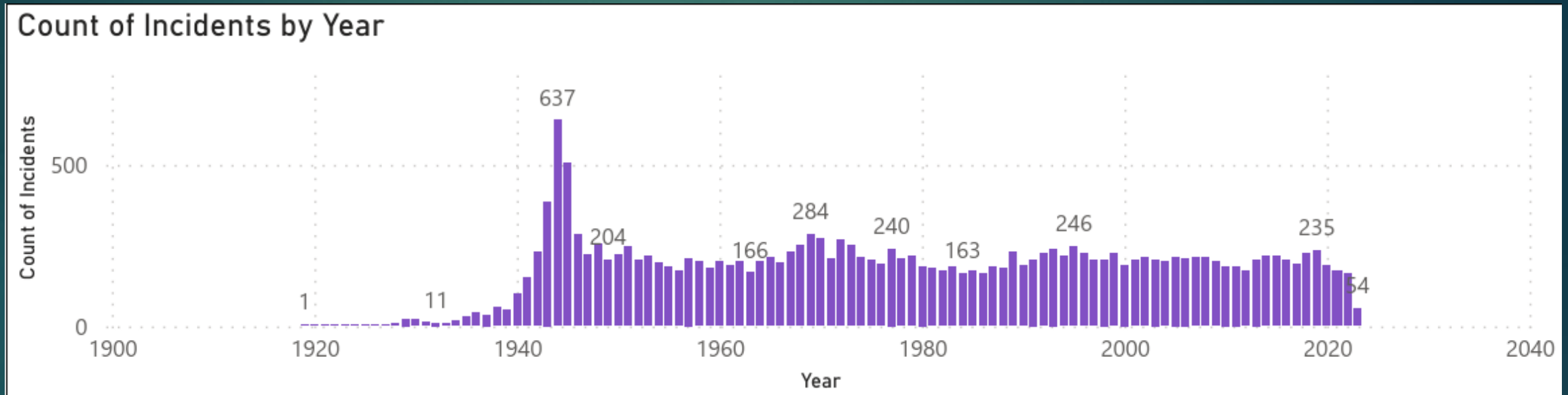*Special character removal*

DATA TRANSFORMATION:

Performed In excel and Power Query

Used delimiters to obtain manufacturer name

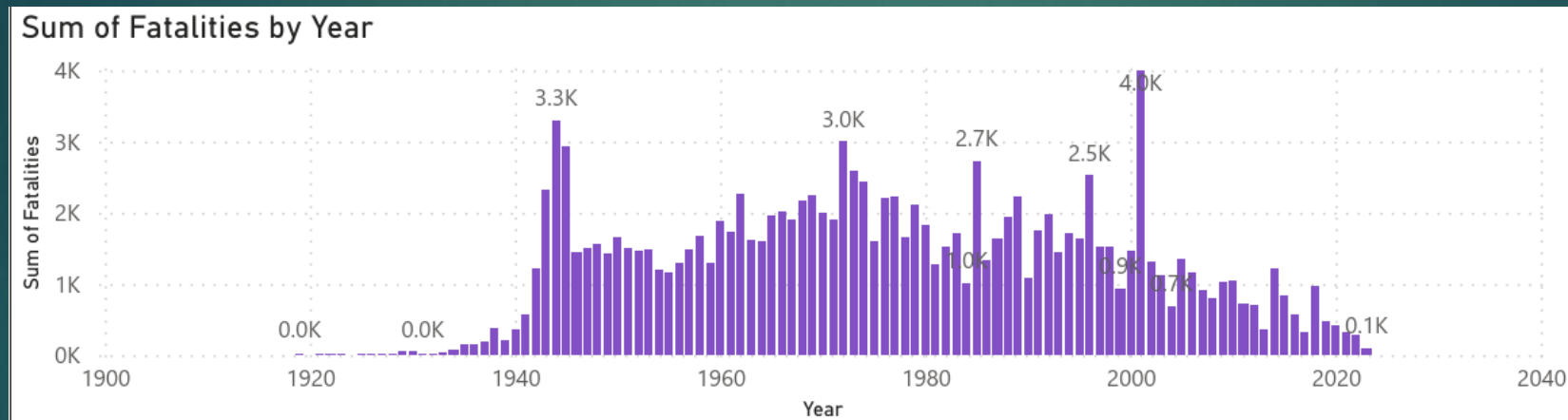*Used conditional column in PQ to obtain column for accidents with fatalities*

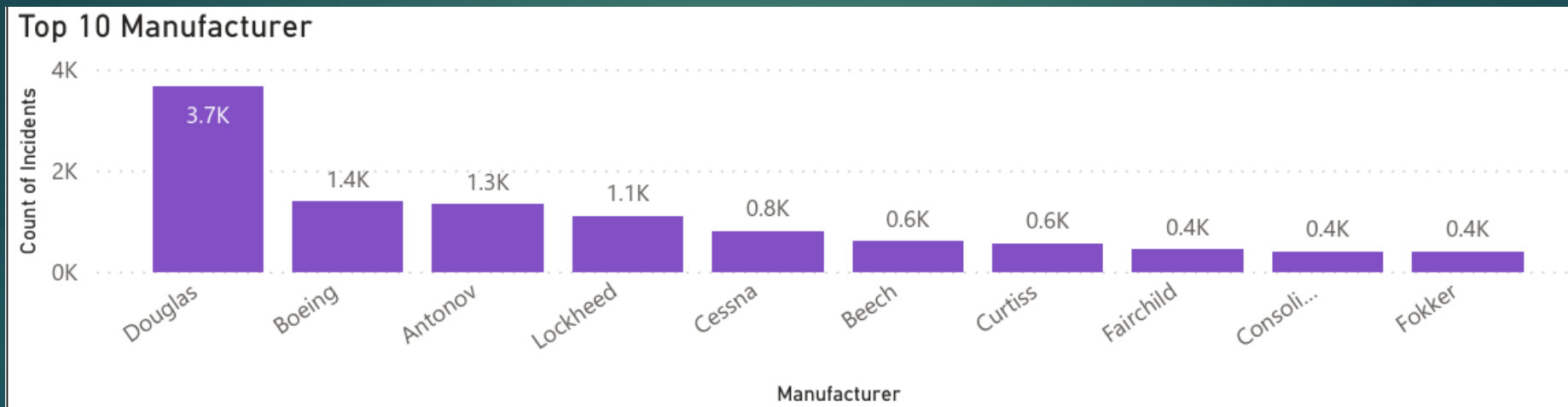| date	country	cat	year	Type.1	Type.2	Type.3	Registration	Operator
11/06/1931 0:00	Sweden	O1	1931	Junkers	G		SEAAG	ABAerotransport
16/06/1931 0:00	Egypt	A1	1931	AWArgosy	IA		GEBLO	ImperialAirways
04/08/1931 0:00	Netherlands	A1	1931	Fokker	FIX		PHAFK	KLM
09/08/1931 0:00	USA	A1	1931	Ford	ATBTri	Motor	NC	AmericanAirways
19/08/1931 0:00	USA	A1	1931	Ford	ATBTri	Motor	NC	TWA
27/08/1931 0:00	USA	A1	1931	Sikorsky	SB		NCV	BostonMaineAirways
19/09/1931 0:00	USA	A1	1931	Ford	XBTri	Motor	NX	FordMotorCompany
27/10/1931 0:00	USA	A1	1931	Ford	ATCTri	Motor	NCH	NationalAirTransport
19/12/1931 0:00	USA	A1	1931	Ford	ATETri	Motor	NC	TWA
15/03/1932 0:00	USA	O1	1932	Ford	ATBTri	Motor	NC	Skyway
19/03/1932 0:00	USA	A1	1932	Fokker	FA		NCE	AmericanAirways
10/07/1932 0:00	USA	A1	1932	Boeing	A		NCM	BoeingAirTransport
16/07/1932 0:00	Chile	A1	1932	Ford	ATCTri	Motor	NCH	Panagra
29/07/1932 0:00	Germany	A2	1932	Junkers	Jumce		D	DeutscheLufthansa
31/08/1932 0:00	Netherlands	A1	1932	Junkers	G		SEAAE	ABAerotransport

NUMBER OF ACCIDENTS BY YEAR

Highest number of aircraft accidents occurred in 1944

NUMBER OF FATALITIES BY YEAR

Highest number of aircraft accident with fatalities occurred in 2001

MANUFACTURES WITH HIGHEST NUMBER OF ACCIDENTS

Highest number of aircraft accidents with more than 1000 fatalities are with Douglas, Boeing, Antonov and Lockheed.