



UNIFIED MENTOR

Bird Strike Between 2000–2011

Khushi Daga



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Problem Statement

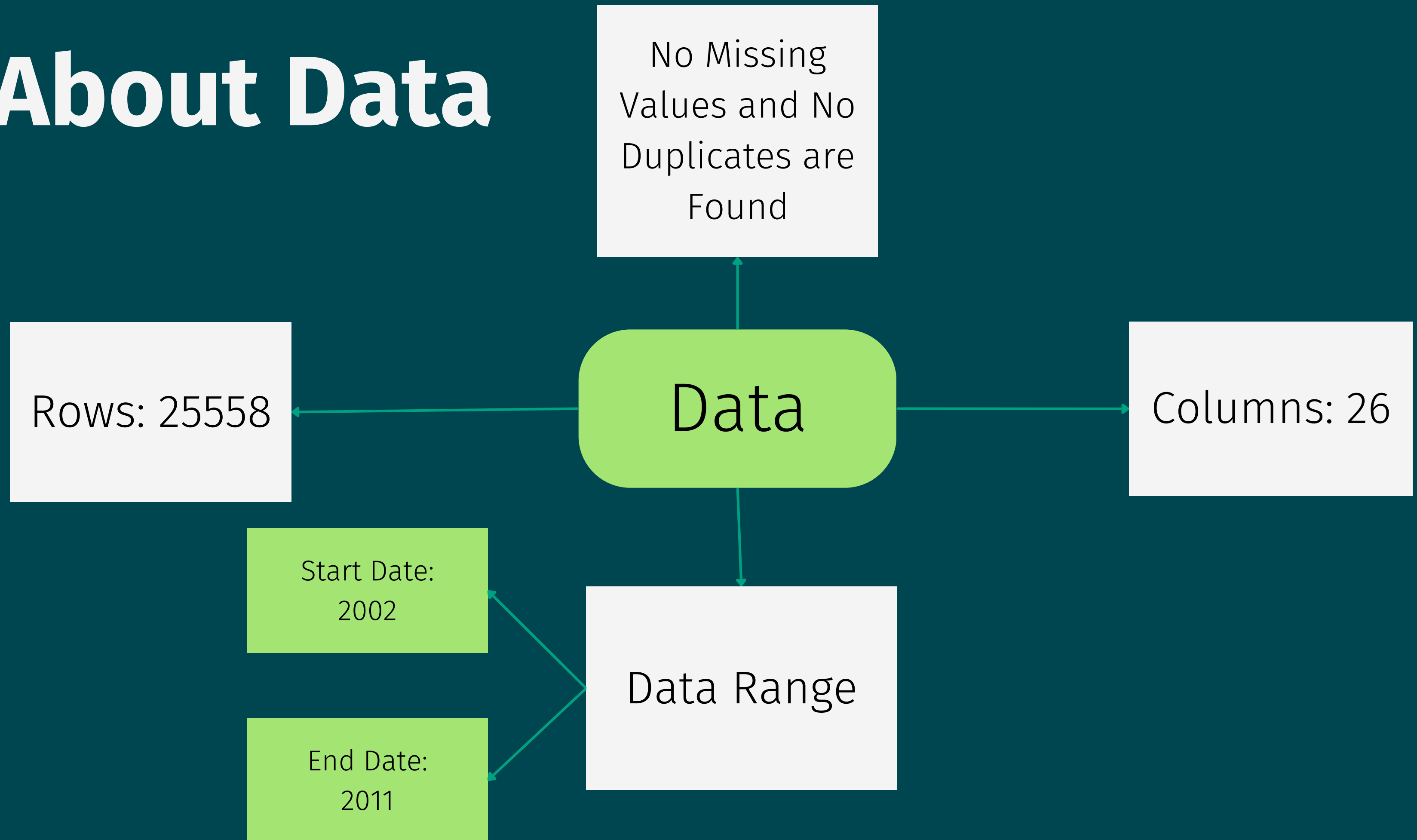
Bird strikes, collisions between birds and aircraft, pose a significant safety threat, often leading to damage and engine failures. They occur most frequently during takeoff, climb, approach, and landing. With urban expansion and increasing air traffic, the need for effective solutions to mitigate bird strike risks is critical, including the use of technologies like artificial intelligence.



Fields Used



About Data



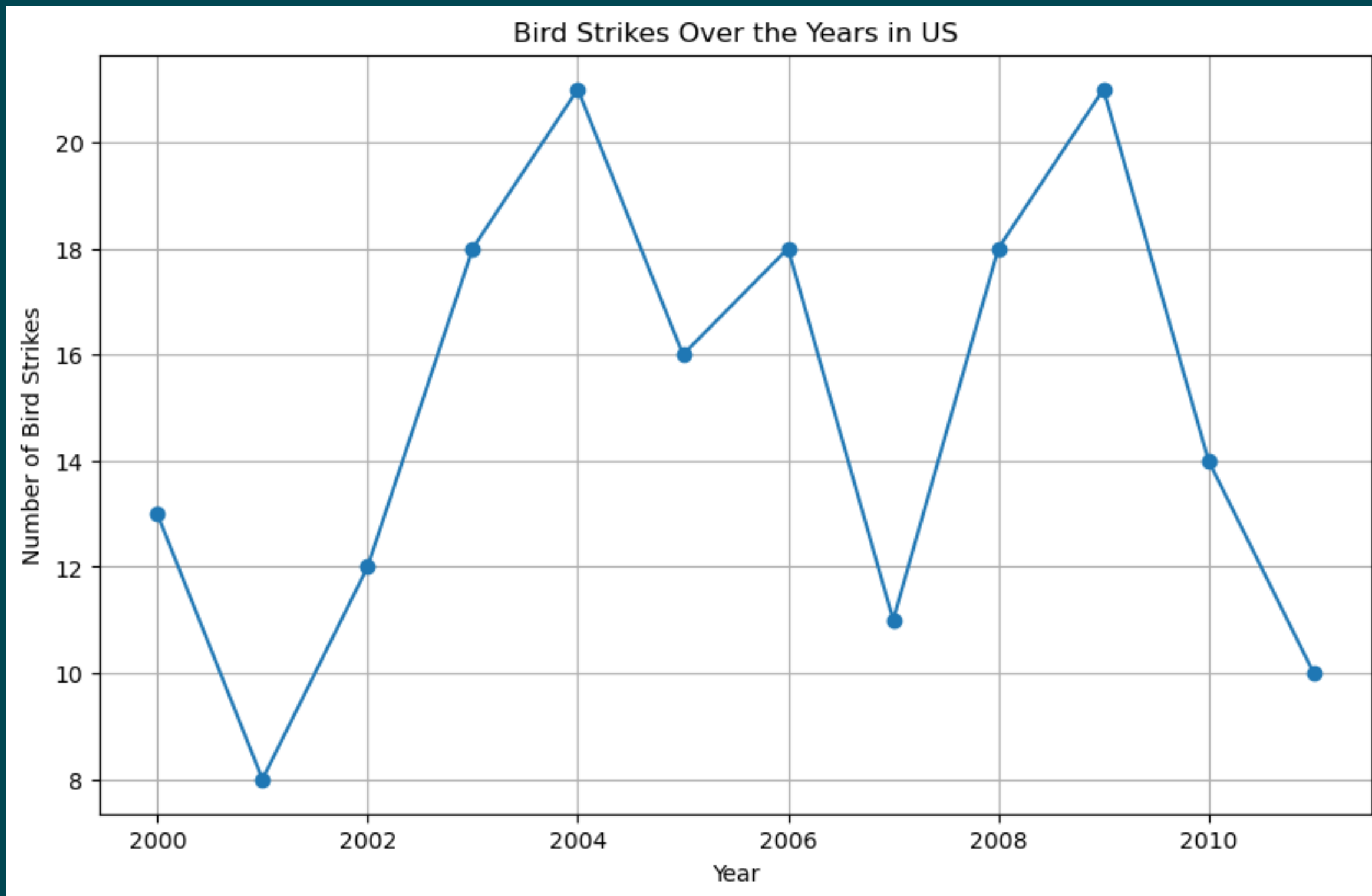
Python

Libraries used are following:
pandas as pd
matplotlib.pyplot as plt
seaborn as sns

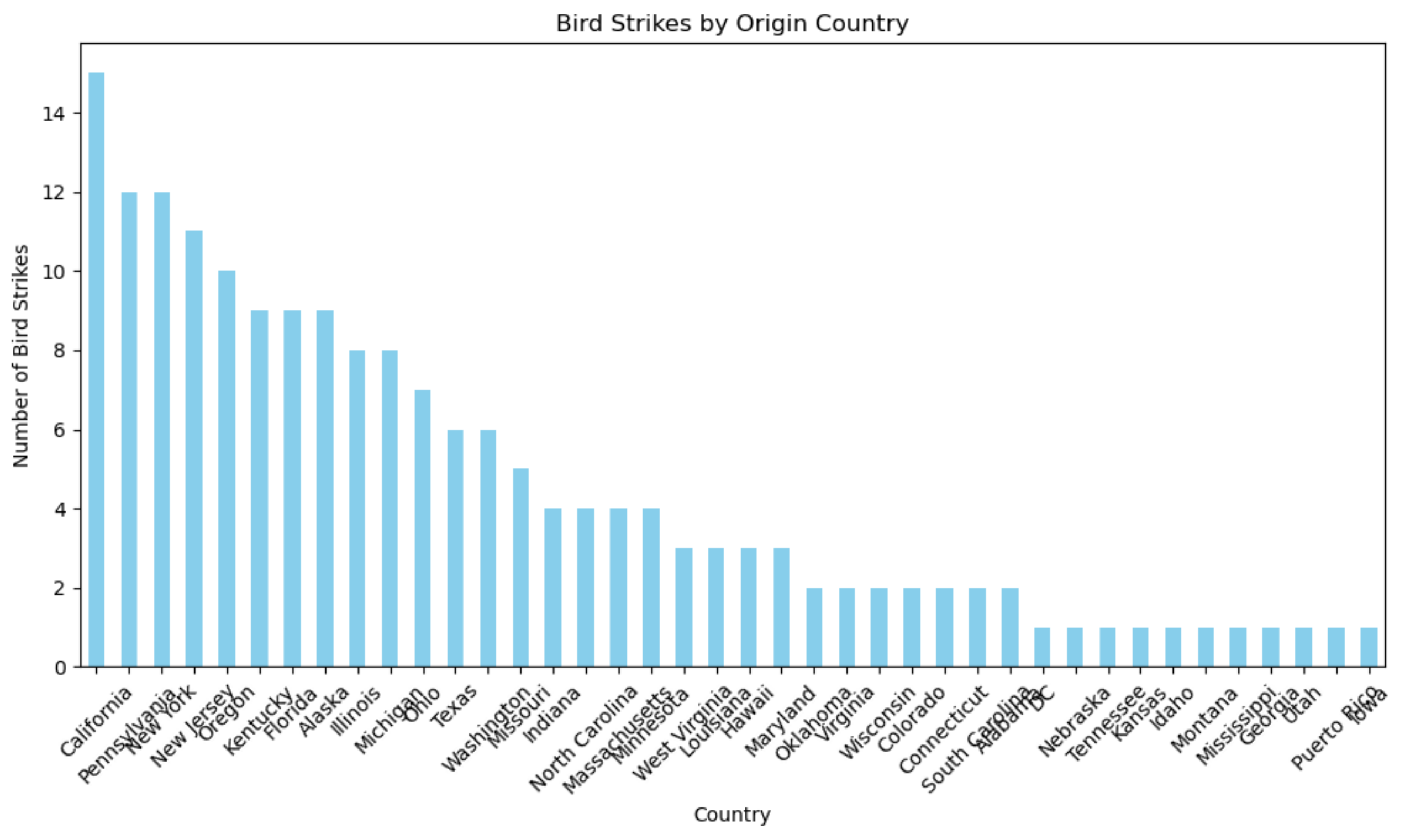
These libraries were used for various observations and visualisations.



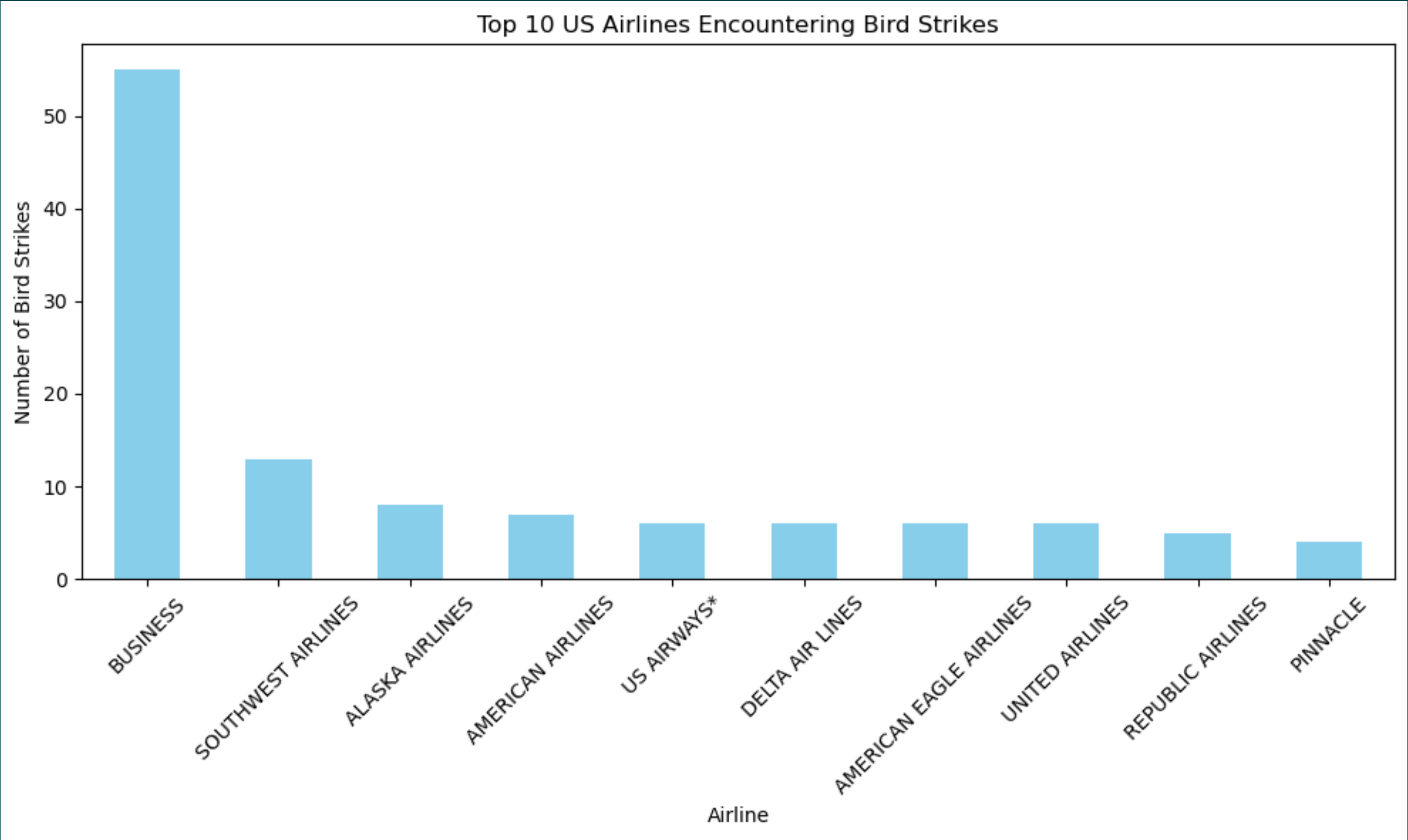
Output



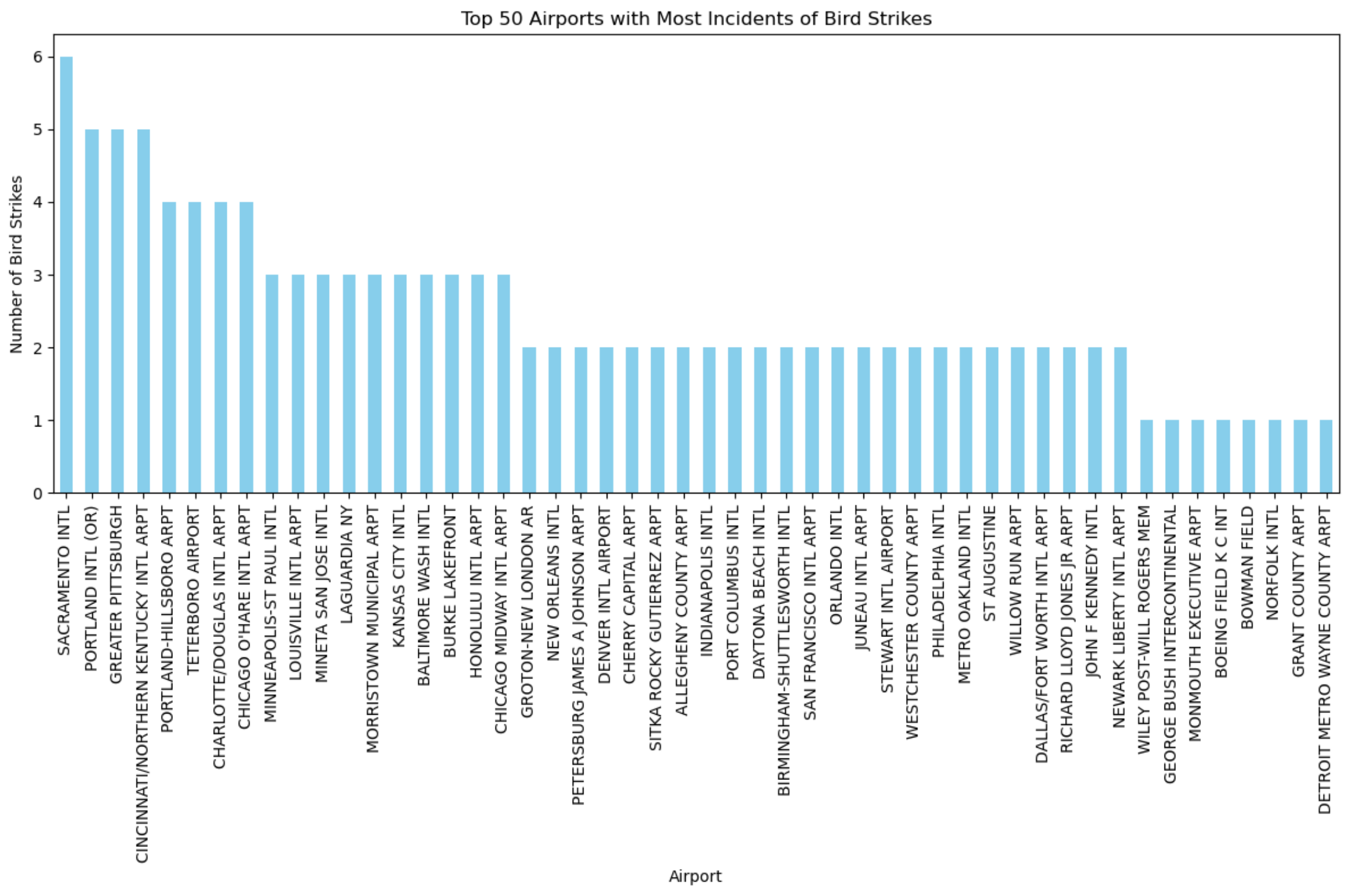
Output



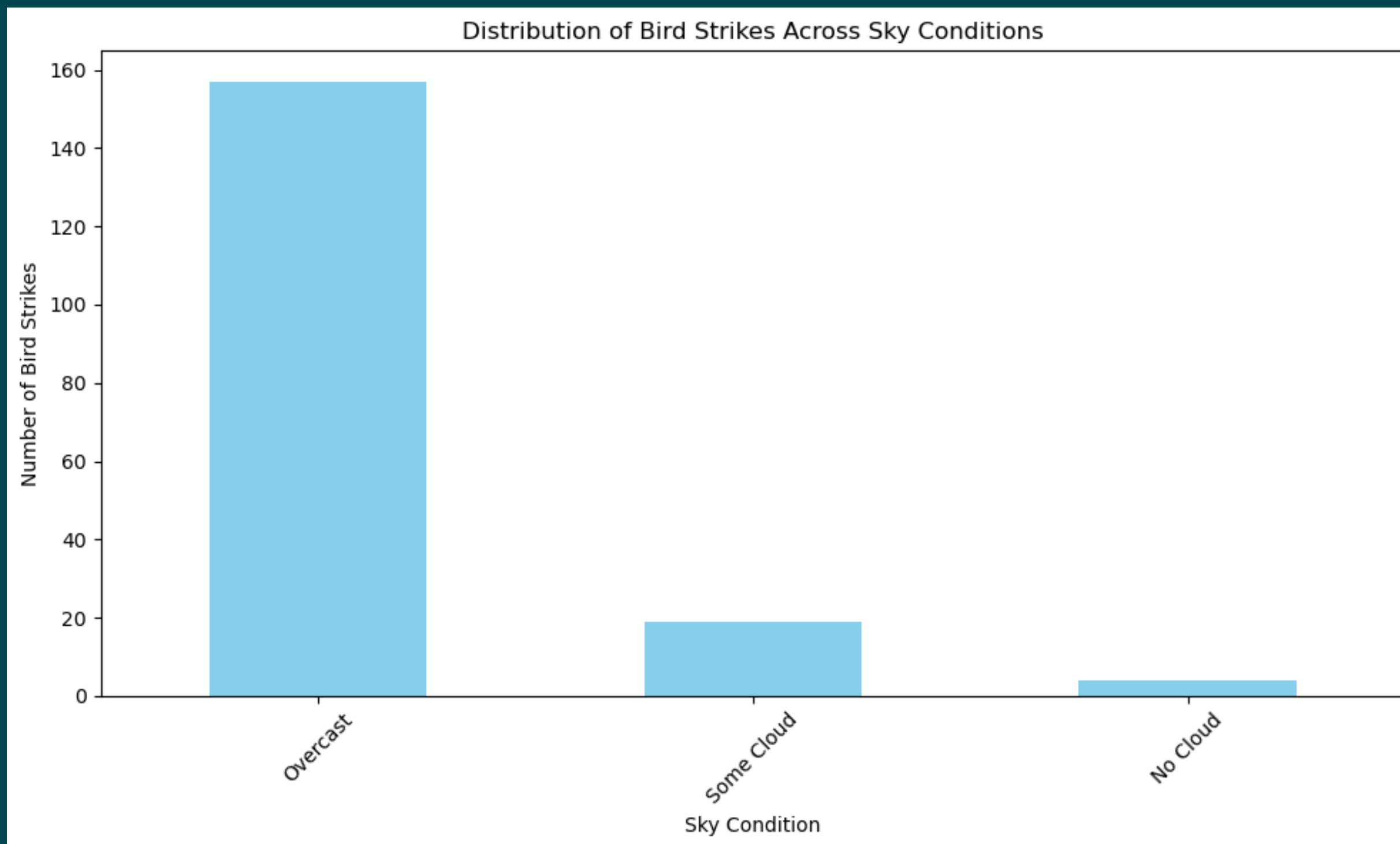
Output



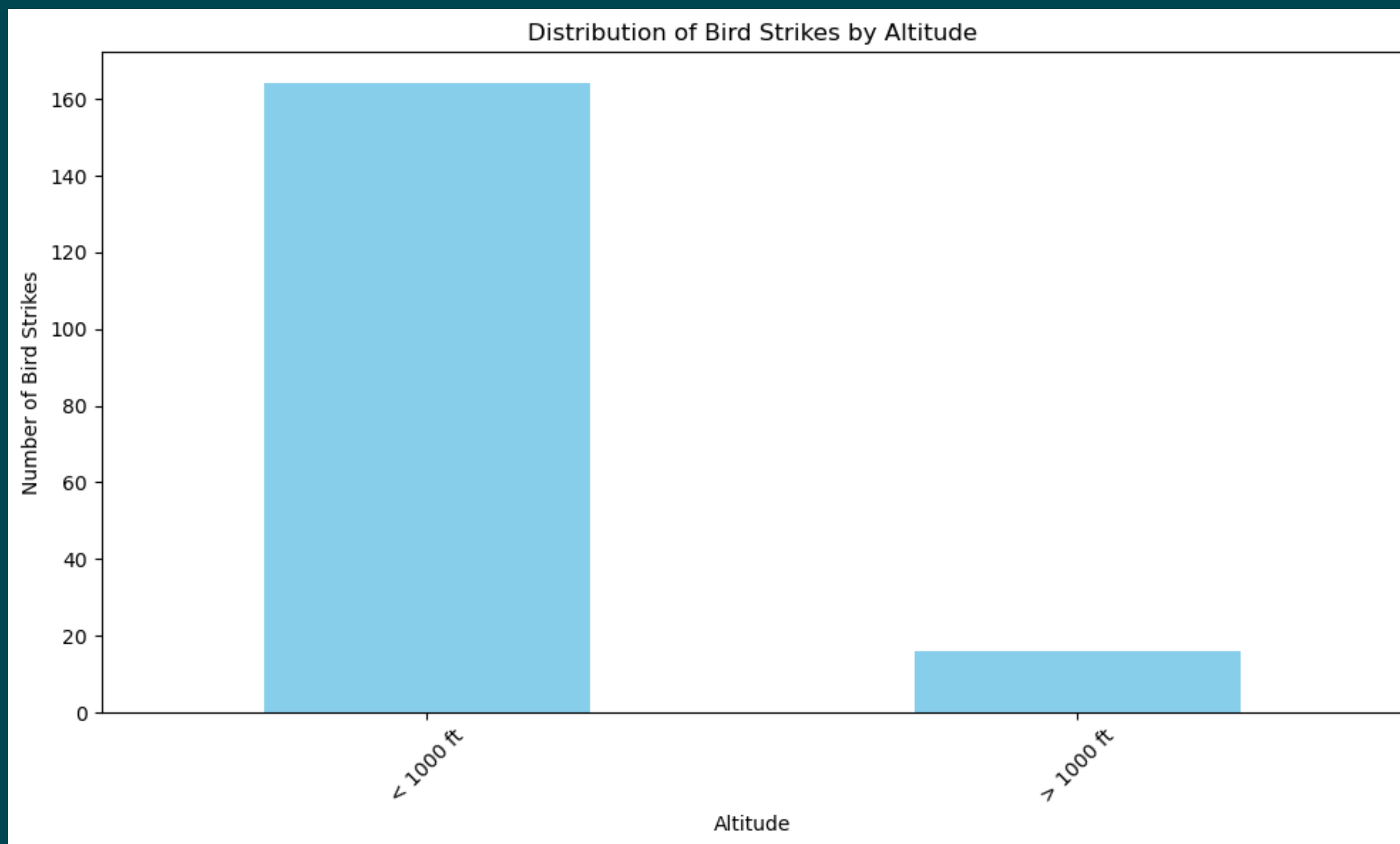
Output



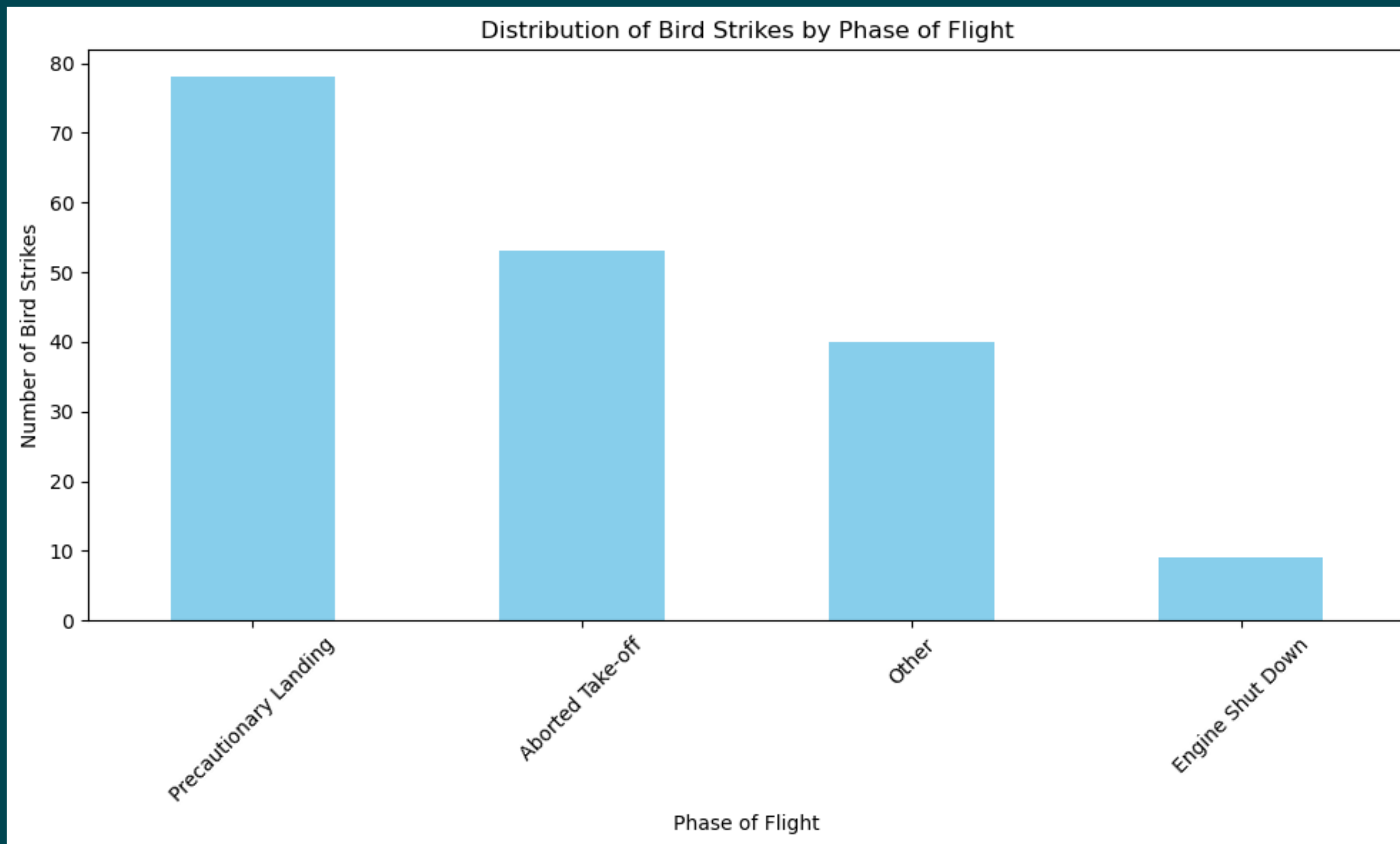
Output



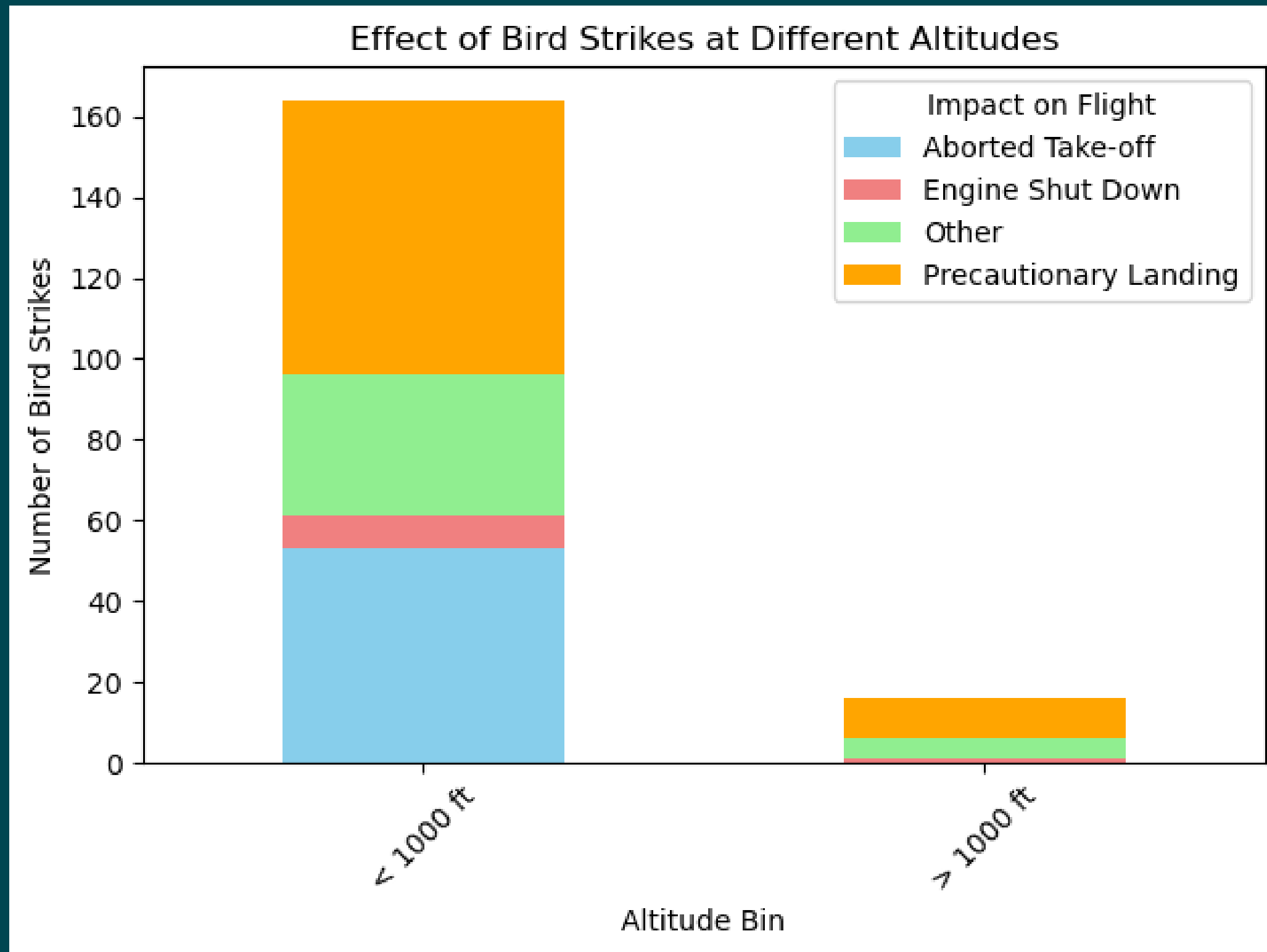
Output



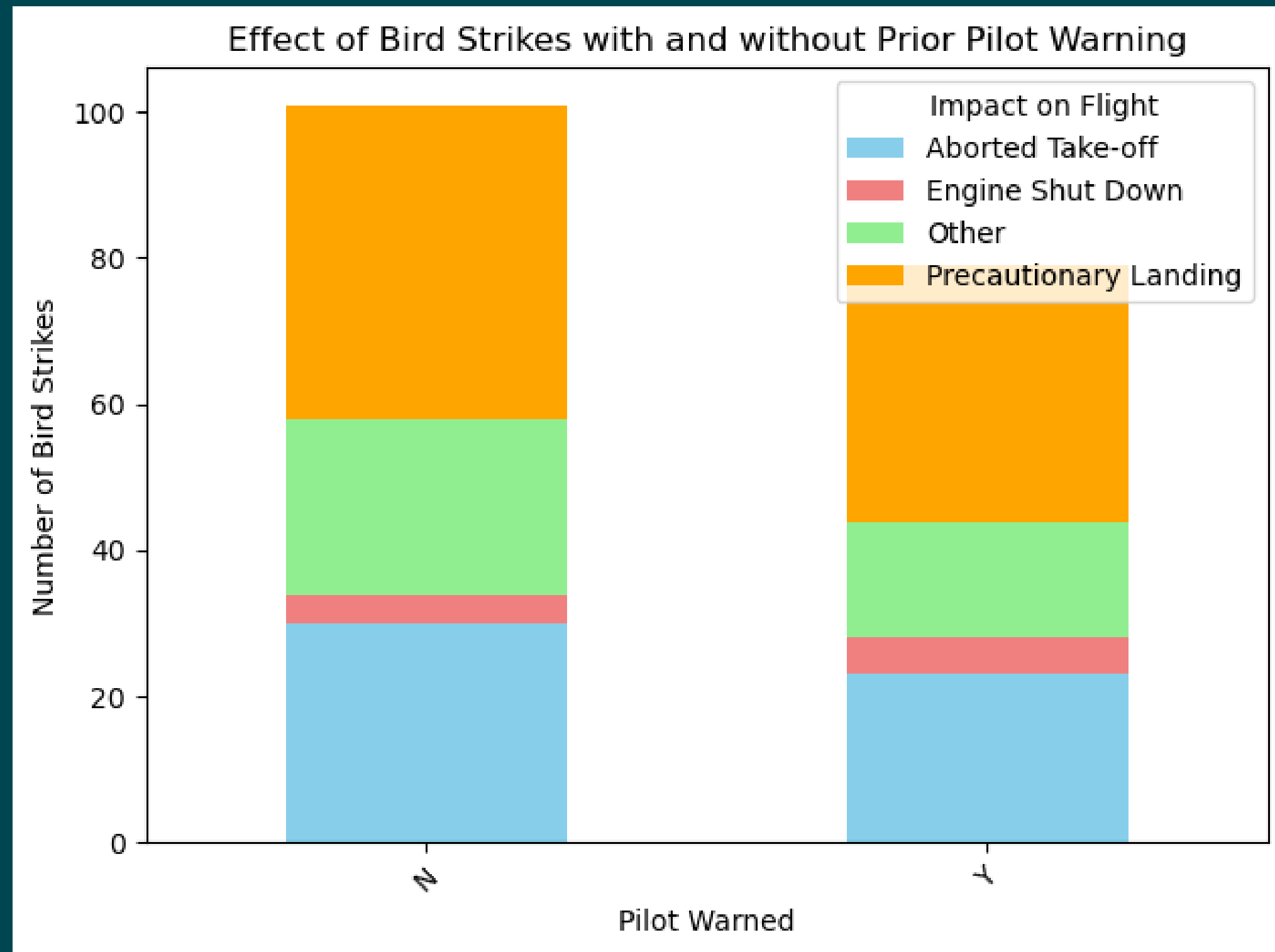
Output



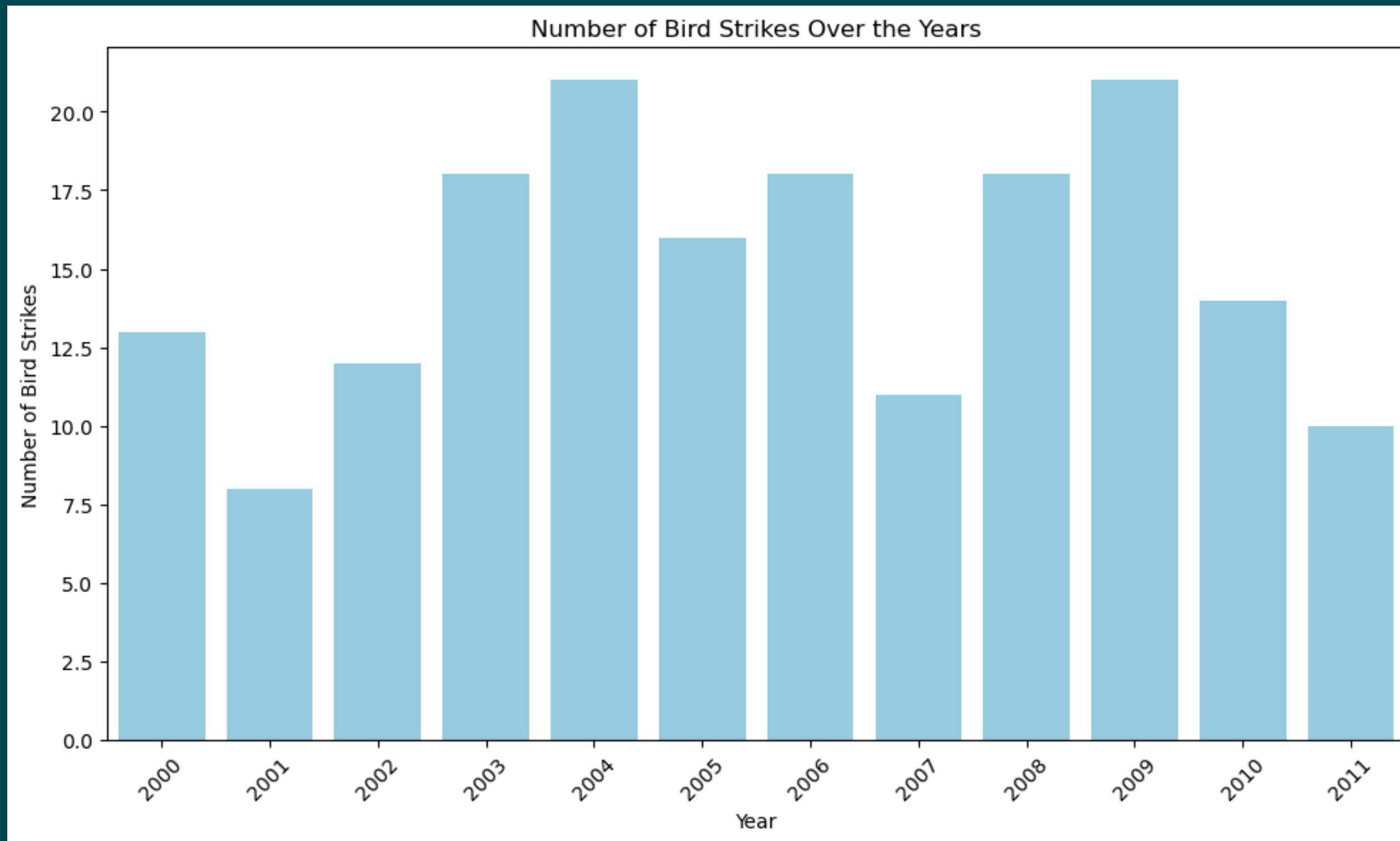
Output



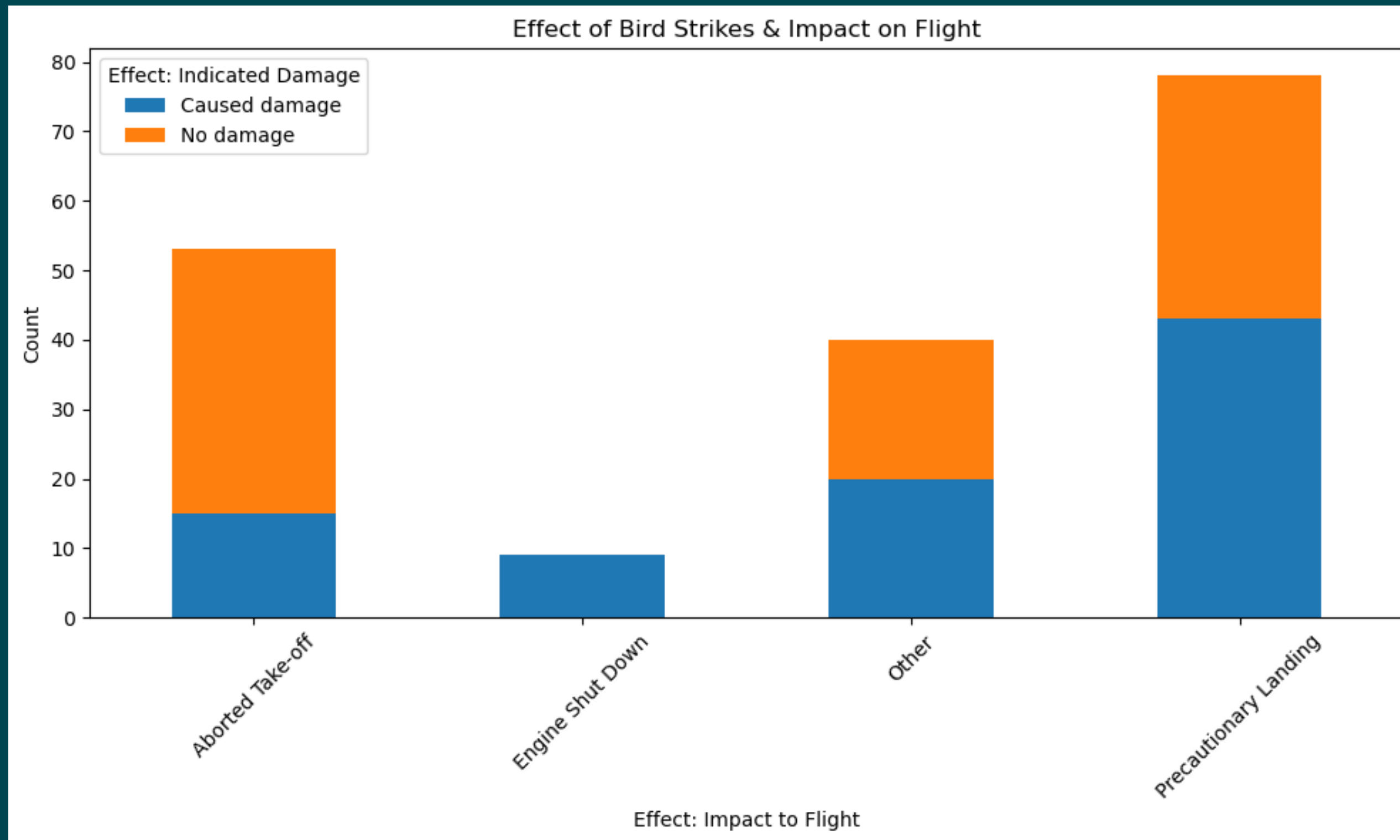
Output



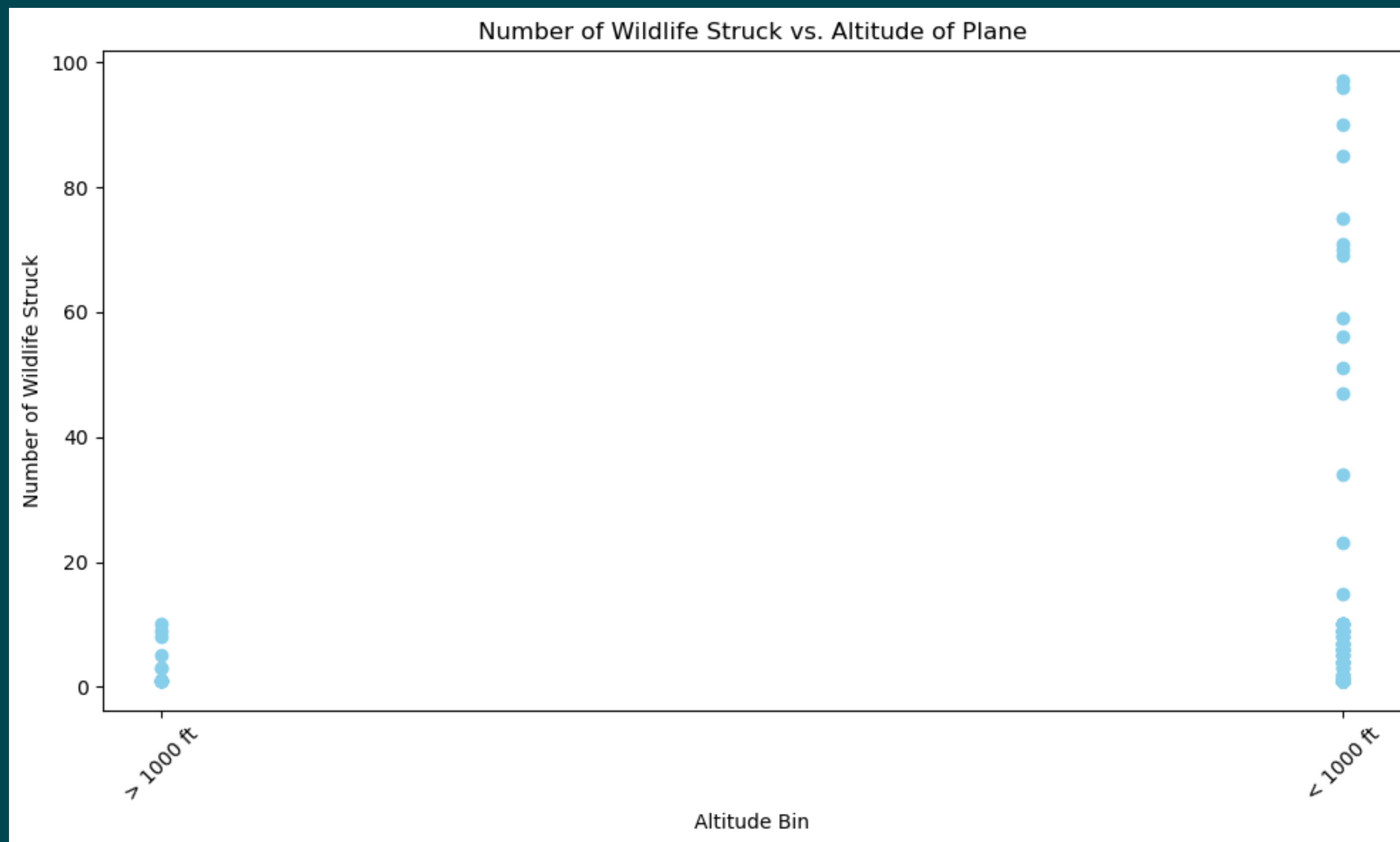
Output



Output



Output



Tableau

Tableau is a data visualization and analytics tool that helps to create interactive dashboards and visualizations from various data sources.

It connect you with your data, create visualizations using a drag-and-drop interface, build interactive dashboards, and share your insights with everyone.

For my Bird Strike Visualization, I have used Tableau to visualize number of bird strike, effects, impacts, and more, making it easier to understand and analyze my data effectively.

Output

Indicated Damage and Effects to flight due to size of Aircraft

Effect: Indi..	Effect: Impact to flight	Is Aircraft Large?		
		Null	No	Yes
Caused damage	Null	7,39,240		
	Aborted Take-off		1,17,15,209	11,85,939
	Engine Shut Down		1,09,95,576	1,12,56,763
	None		2,85,22,646	60,28,089
	Other		2,15,51,818	38,94,610
	Precautionary Landing		1,88,41,060	2,59,79,985
No damage	Null	4,027		
	Aborted Take-off		15,776	0
	Engine Shut Down		77,844	0
	None		2,30,130	4,34,093
	Other		14,829	39,099
	Precautionary Landing		7,01,029	62,683

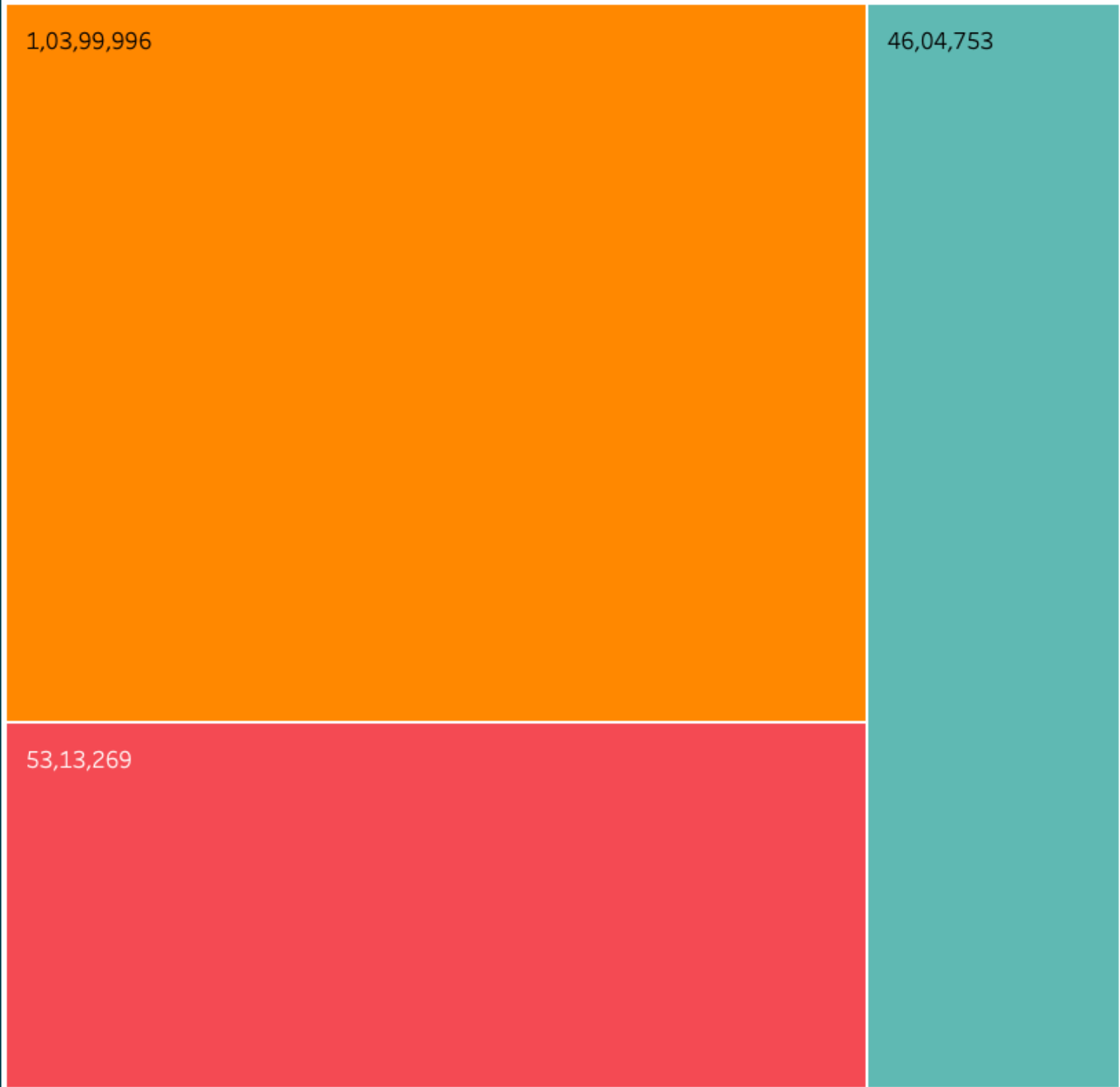
Cost: Total \$



Sum of Cost: Total \$ broken down by Is Aircraft Large? vs. Effect: Indicated Damage and Effect: Impact to flight. Color shows sum of Cost: Total \$. The marks are labeled by sum of Cost: Total \$.

Output

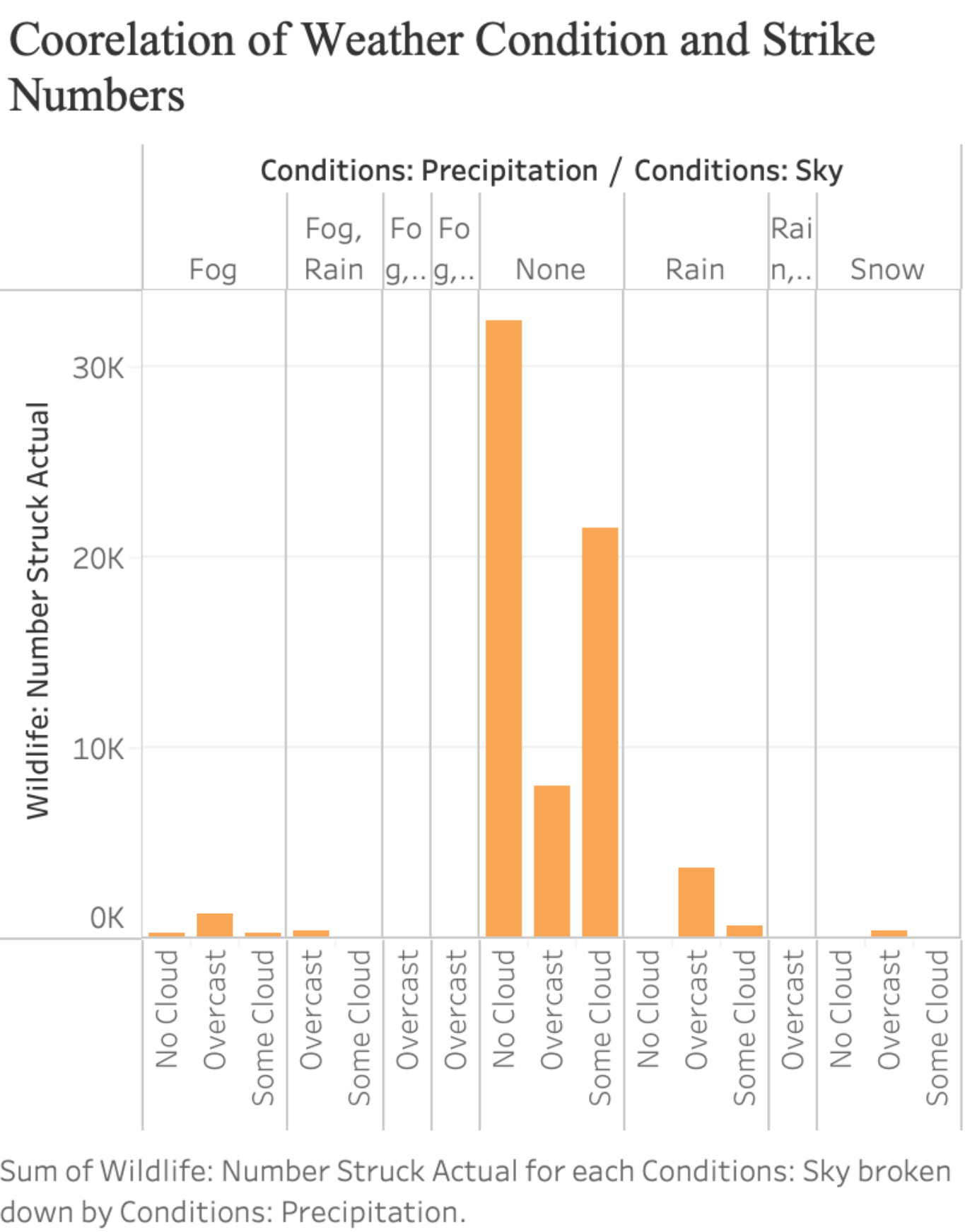
Condition of Flight during Strike



When: Phase

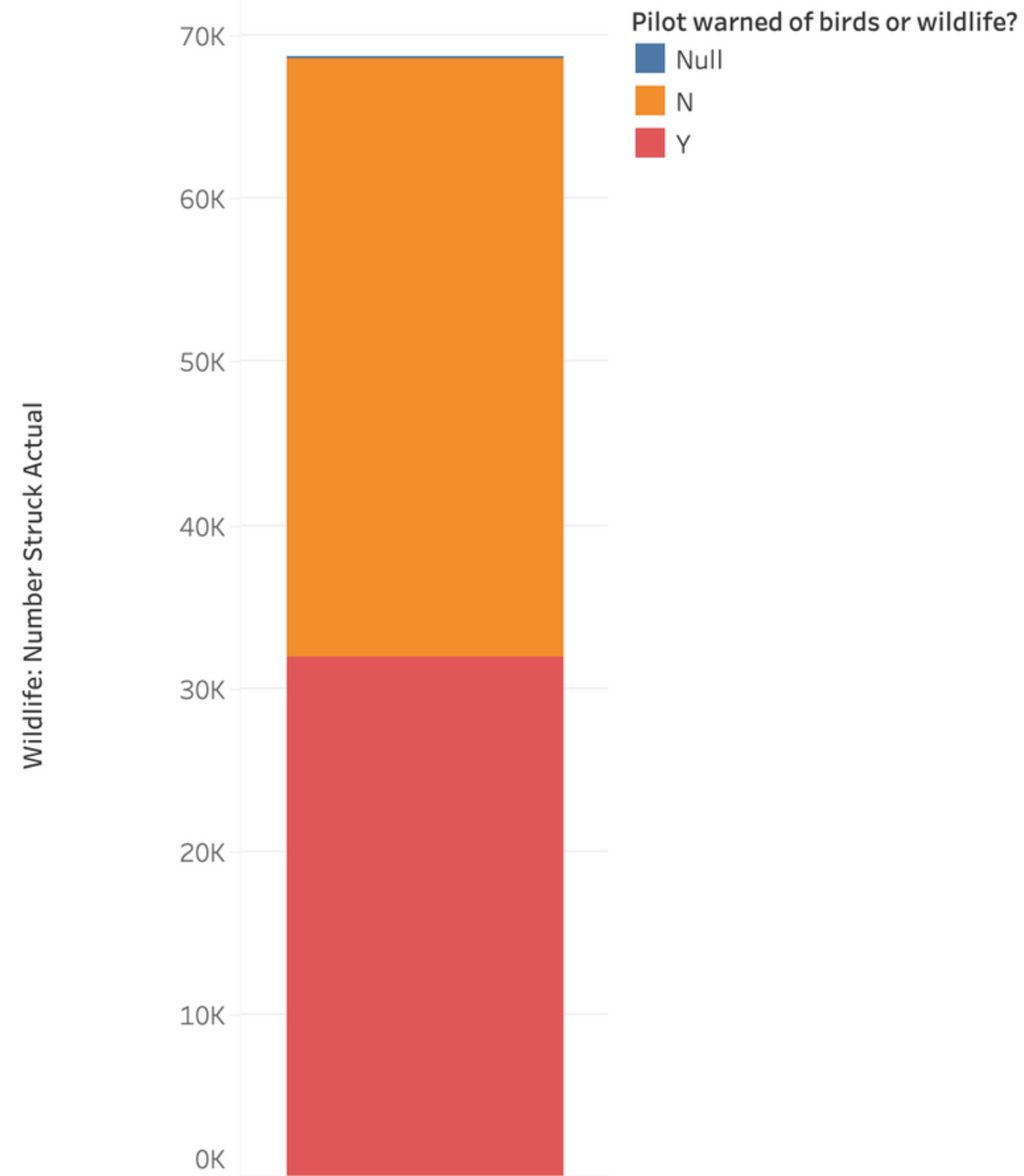
- Approach
- Climb
- Descent
- Landing Roll
- Parked
- Take-off run
- Taxi

Output



Output

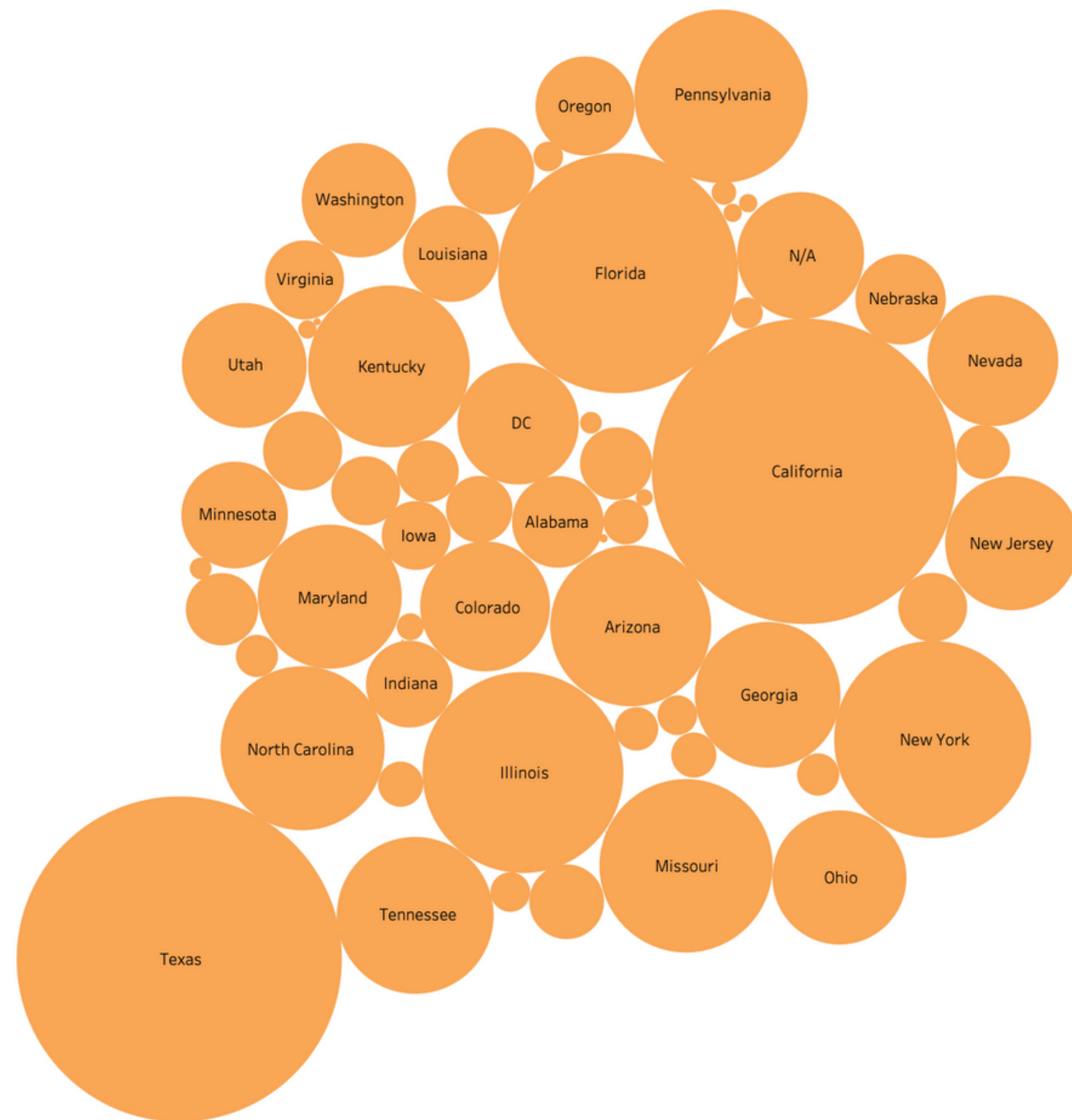
Pilot Warning and Strike Realtion



Sum of Wildlife: Number Struck Actual. Color shows details about Pilot warned of birds or wildlife?.

Output

Origin State and Height at Which Strike Occured



Origin State. Size shows sum of Feet above ground. The marks are labeled by Origin State.

Required Links



Khushi Daga

GitHub

https://github.com/KhushiDaga/Khushi_BirdStrike/upload

The background features a dark teal color. On the left side, there are two overlapping geometric shapes: a large teal triangle pointing downwards and a lime green hexagon pointing upwards. The text "Thank You" is positioned to the right of these shapes.

Thank You