SHARK ATTACK DATASET ANALYSIS GUIDE

OVERVIEW

For your project, you'll be working with a dataset on shark attacks reported over the past 100 years. This is an exciting opportunity to practice both your analytical and data-cleaning skills using Power BI. Below are the questions you'll be addressing, along with a brief guide on how to approach each one.

1. Number of Shark Attacks Annually Over Time Since 1900

- **Guide:**
    - Start by importing the dataset into Power BI and create a line chart to visualize the number of shark attacks per year. Use the 'Year' and 'Number of Attacks' fields.
    - Analyze the trends over time—look for any significant increases or decreases in shark attack reports. Consider external factors that might explain these trends.

2. Countries with the Most Shark Attacks and Dangerous Locations

- **Guide:**
    - Create a bar chart or map to identify the countries with the highest number of reported shark attacks.
    - Drill down into the data by exploring specific regions or locations within those countries to find out which areas are the most dangerous. A heat map could be particularly effective for this.

3. Data Cleaning Practice

- **Guide:**
    - Before moving on to the next analysis, spend some time cleaning the dataset. Look for any inconsistencies, missing values, or incorrect formats, particularly in the 'Location' and 'Time' columns.
    - Use Power BI's data transformation tools to clean and standardize this information. Document any changes you make to ensure your analysis is accurate.

4. Most Commonly Injured Body Parts

- **Guide:**
    - Use text analysis on the 'Injury' column to extract the most commonly injured body parts.
    - You might need to create a custom column or use Power BI's built-in text functions to categorize the injury types before visualizing the data.

5. Shark Attacks by Time of Day

- **Guide:**
    - Clean and transform the 'Time' data to a standard format (e.g., morning, afternoon, evening).
    - Create a column chart to display the frequency of shark attacks at different times of the day. Look for patterns or peak periods when attacks are most common.

6. Shark Species Responsible for Attacks

- **Guide:**
    - Analyze the 'Species' column, cleaning up any inconsistent or misspelled entries.
    - Create a pie chart or bar chart to identify which species of sharks are involved in the most attacks. Consider grouping similar species together for clearer insights.

7. Summarizing Findings

- **Guide:**
    - After creating your visuals, summarize your key findings in a concise report. Focus on the insights that would be most useful for understanding shark attack trends and patterns.

Submission Instructions

- **Video Presentation:** Create a video presentation (more than 2 minutes) summarizing your findings.
- **Upload:** Post the video on your LinkedIn account and include the GitHub link to the dataset.
- **Deadline:** Submission is due by 4th September 2024.