TOURISK agency

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Project Overview

Tourisk Agency, a renowned travel agency, offers a variety of travel packages. To expand their offerings, they are introducing a new package focused on aquatic tourism, specifically shark observation.

To ensure the safety of their clients and avoid fatal accidents, they have enlisted consultants from The Lost Shark Company to conduct an analysis and identify the safest travel options.

As a result, we have analyzed locations, activities (and shark species) to develop the safest possible travel package.

Project Overview

- This dataset offers a comprehensive look at various aspects of shark attacks. It includes both categorical and numerical variables, providing insights into the timing, location, nature of the attack, and details about the victims

- Based on the dataset, we had to explore hypotheses:
    1. Surface water activities (e.g., kayaking, windsurfing) are more risky than underwater activities (e.g., diving, snorkeling).
    2. The countries with the most attacks are not necessarily the countries with the greatest mortality

Project Overview

To explore these hypotheses

1) Analyzing the data

We used simple methods (like dtype, shape, info) to get general information about the dataframe

2) Transforming the data

After analyzing the data, we got better understanding on what to modify:

For the string columns: for example, we had to replace some values to standardize them, replace the null values

For the date columns (‘date’ and ‘year: we needed to find a way to extract the month from the date column, and to combine it with the year, and convert the final date into format date

3) Presenting the data

After cleaning the data, we had to presented it with graphic

Data Wrangling and Cleaning

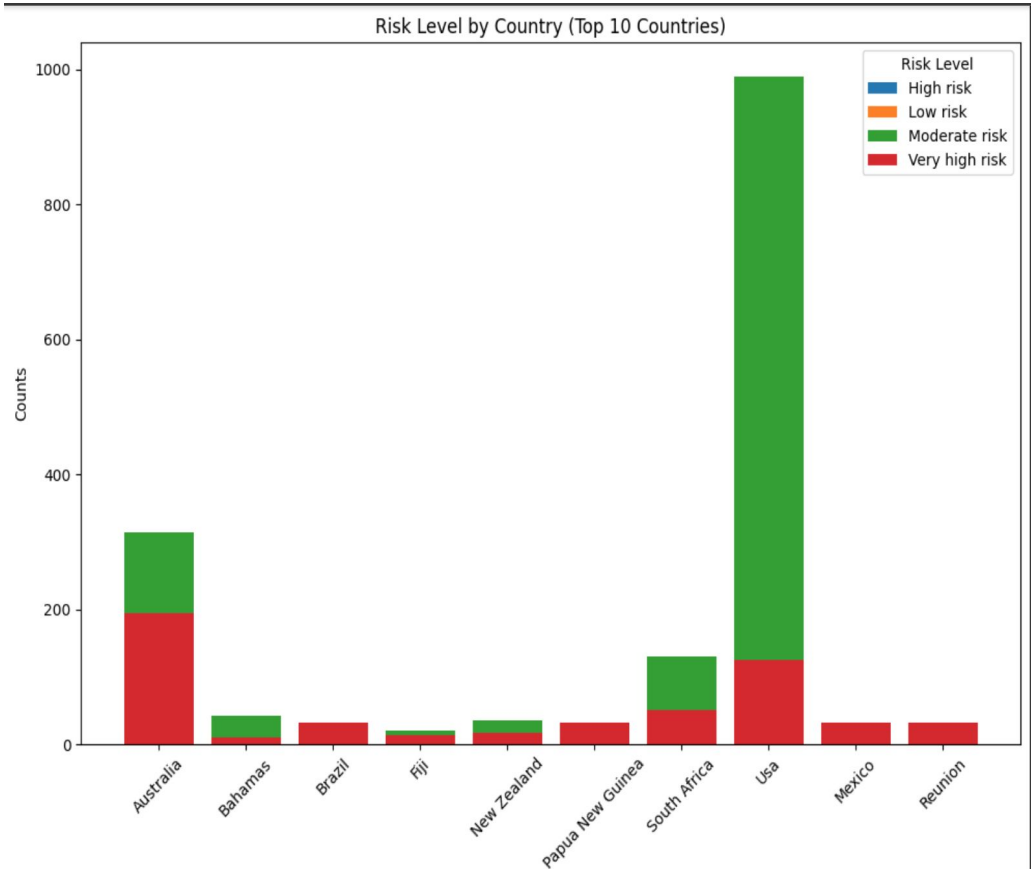
PROBLEM

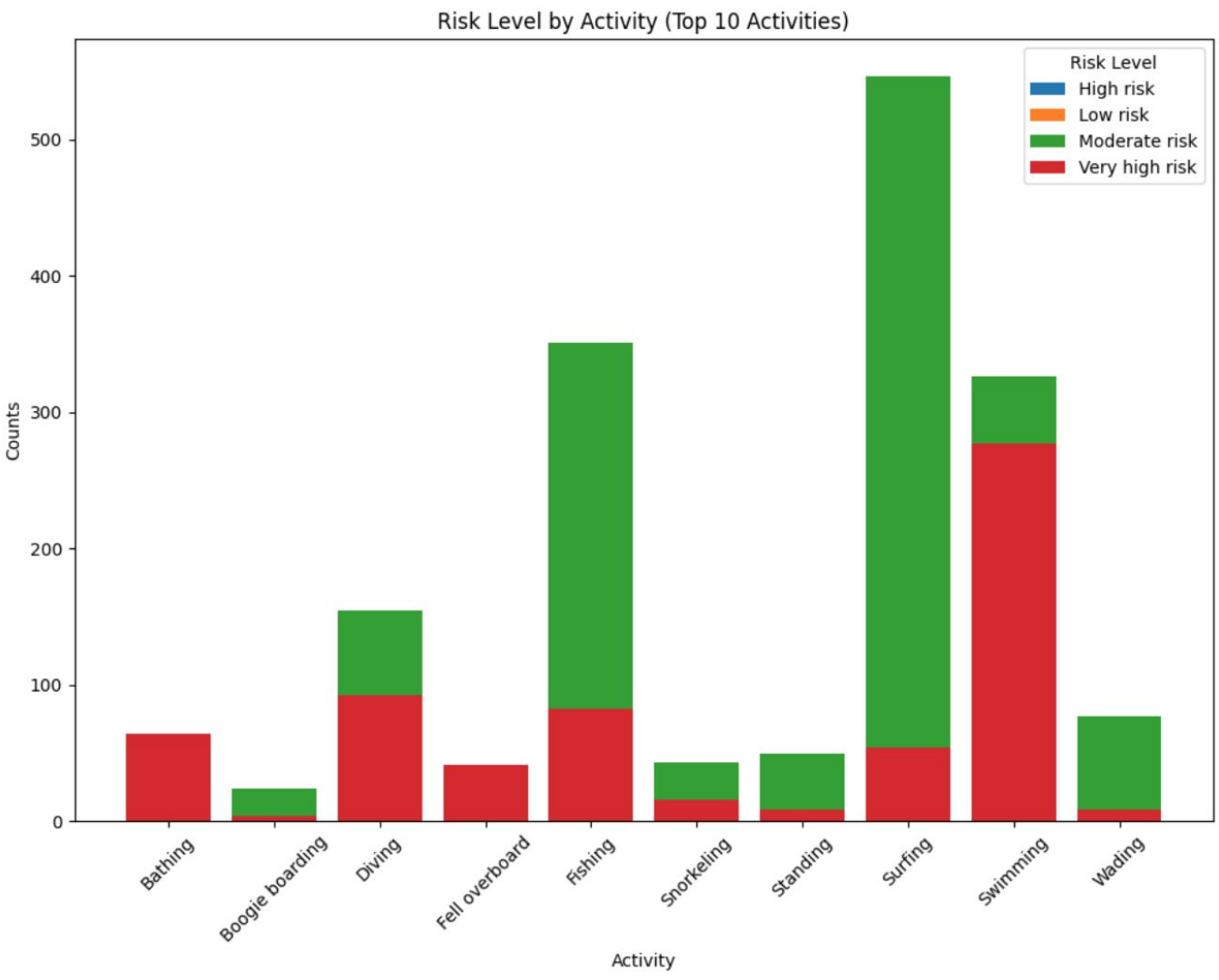
- One of the biggest: we wanted to divide the “Species” column to 2: to have one with species, and another with sizes of sharks. But this challenge turned out too big so we did not imply it;
- To standardize the maximum of values to be able to use them for the analysis;

SOLUTION

- We tried numerous functions, but even with ChatGPT we did not succeed;
- We used different methods, for example we were taking one word (one by one), counting its occurrence and replacing it with defined keywords.
- We qualified the “Injury” values by level of severity, combined these levels with fatality to know the most risky locations and kinds of activity

Exploratory Data Analysis




Risk Level by Activity (Top 10 Activities)
Risk Level
High risk
Low risk
Moderate risk
Very high risk
Counts
0
100
200
300
400
500
Bathing
Boogie boarding
Diving
Fell overboard
Fishing
Snorkeling
Standing
Surfing
Swimming
Wading
Activity

Conclusion and Insights

The best places for shark tourism:

- USA, Australia, South Africa. Those are the countries with the most sharks presence, but it’s also the most risky place.

The best places for water activities:

- Fiji, Bahamas, Brazil, Mexico, New Zealand, Papua New Guinea. These are the countries with the less sharks activity.

The safest activity to do:

- boogie boarding, falling overboard, snorkeling, standing and wading

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That’s it!

Thank you for watching

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