Advance Data Visualization

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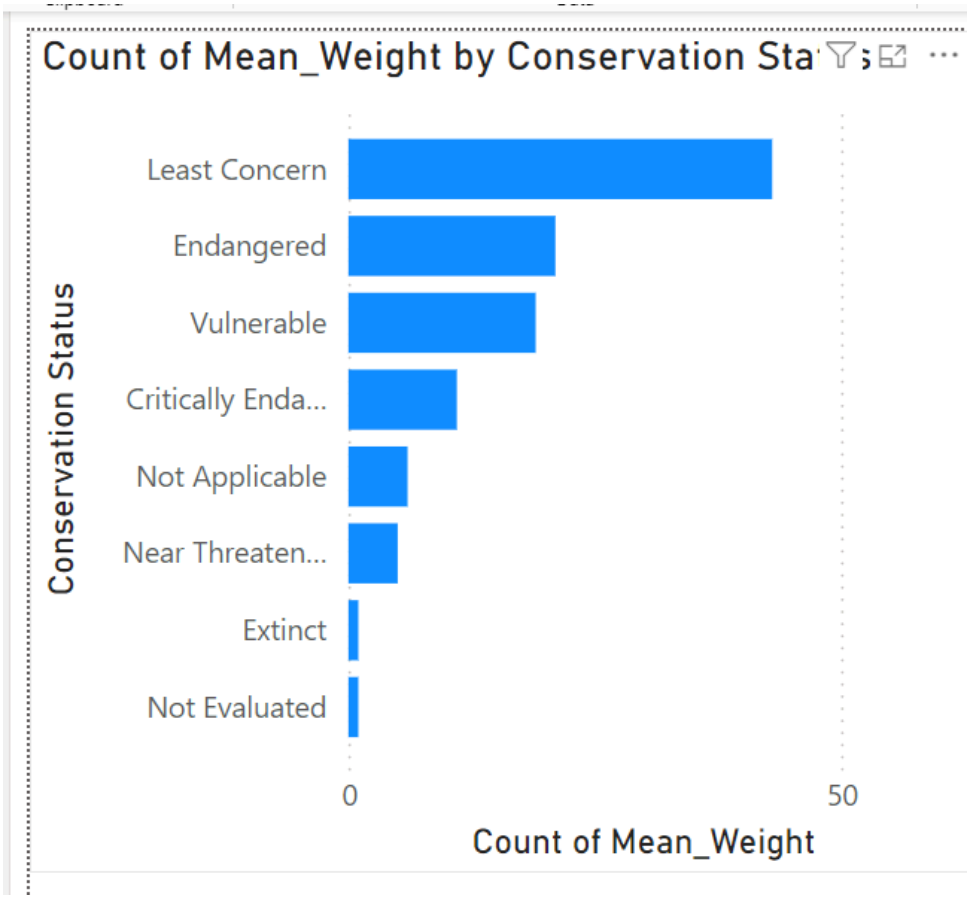
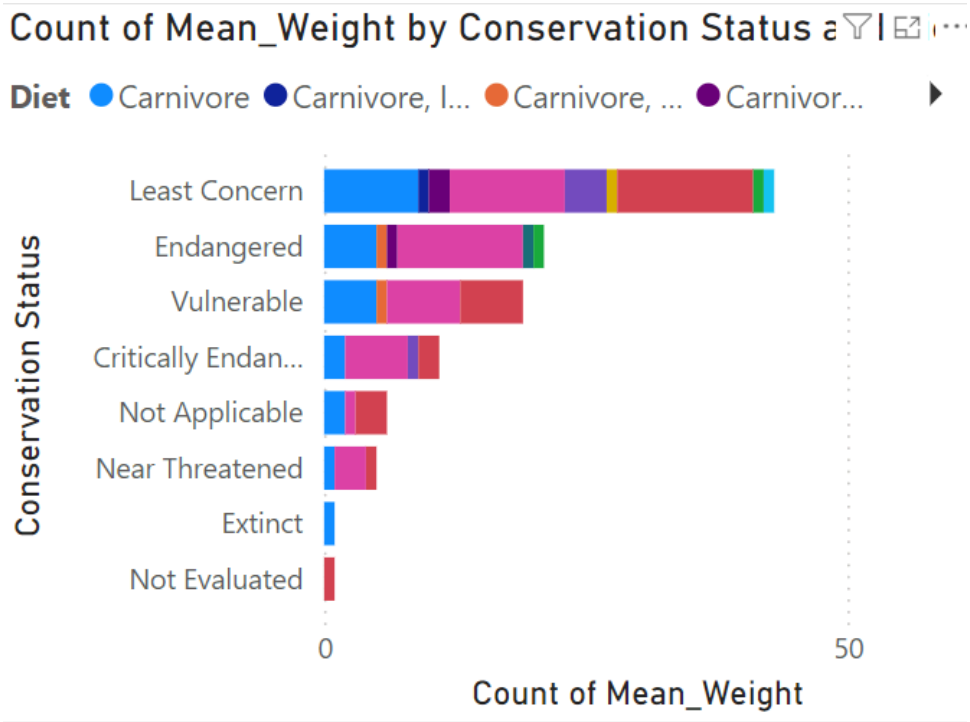
Branch / Batch:	CSE(AIML) / C
Experiment No:	6
Aim:	Using DAX queries create Interactive Dashboard for Marinelife /wildlife dataset
Result / Output	 **Count of Mean Weight by Conservation Status**: • Animals classified as "Least Concern" have the highest count for mean weight. • Species in the "Endangered" and "Vulnerable" categories also show significant representation. • Critically Endangered, Near Threatened, and Extinct species have

lower counts of mean weight, likely due to fewer species or less available data.



Count of Mean Weight by Conservation Status and Diet:

- Carnivores dominate in the "Least Concern" and "Endangered" categories.
- Herbivores and omnivores are more spread across different conservation statuses.
- Extinct species are represented minimally and only within specific diets.
- The "Not Applicable" and "Not Evaluated" categories seem to have a mix of diets, with the carnivore category still standing out.

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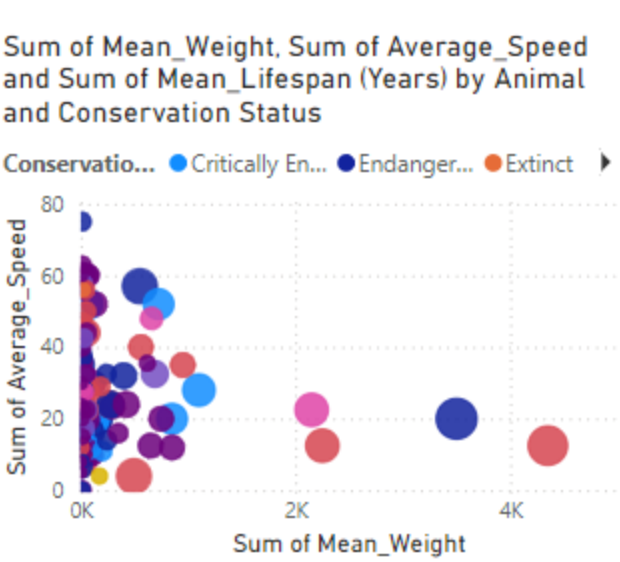
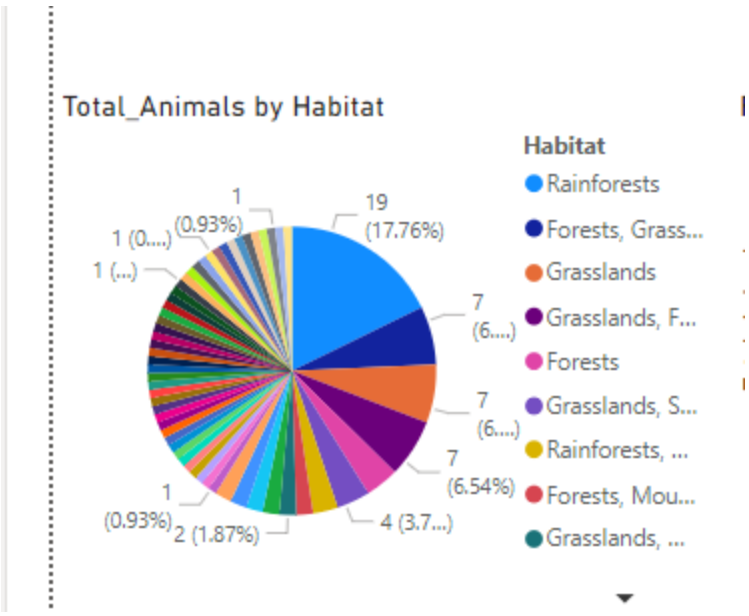


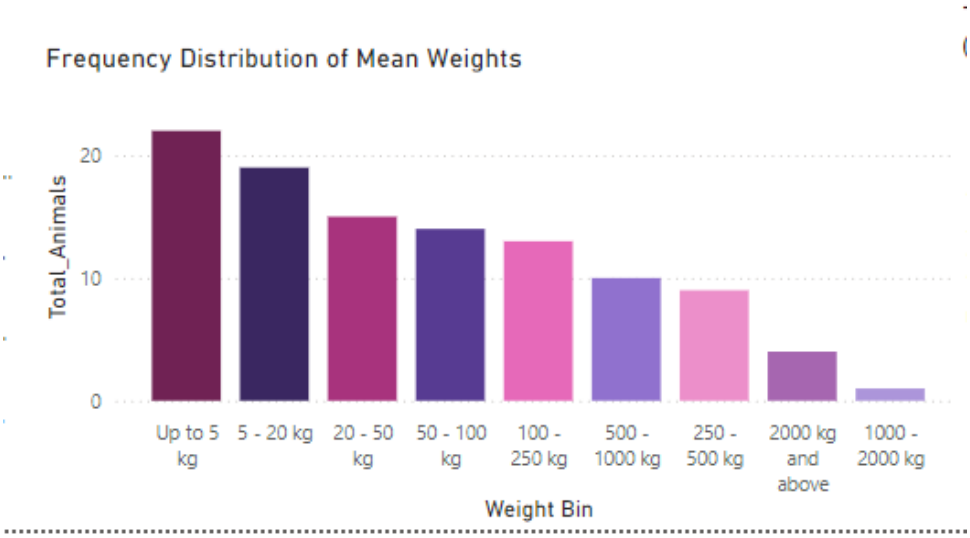
Sum of Mean Weight, Sum of Average Speed, and Sum of Mean Lifespan by Animal and Conservation Status:

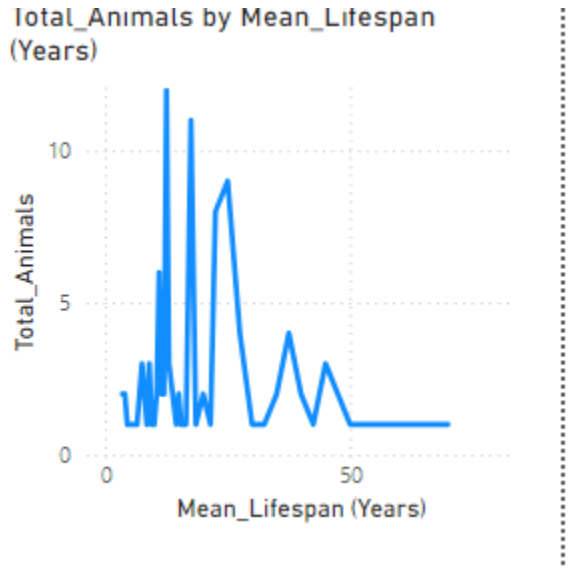
- Animals in the "Extinct" category have the highest mean weights but lower average speed and lifespan.
- "Critically Endangered" and "Endangered" animals are more distributed, with many species having moderate weights and varying speeds.
- Species from the "Least Concern" group tend to cluster around lower weights but show a range of speeds and lifespans.



Total Animals by Habitat (Pie Chart):

- "Rainforests" host the largest proportion of total animals.
- Forests, grasslands, and a combination of habitats also host significant numbers of species.
- Other habitats like savannahs and deserts represent smaller portions of the animal population, indicating lower biodiversity or fewer species recorded in those environments.



	Frequency Distribution of Mean Weights: ● The majority of animals weigh "Up to 5 kg" and "5 - 20 kg." ● As weight categories increase, the frequency of animals within each bin decreases. ● Very few animals fall into the highest weight categories, such as "2000 kg and above," which is expected given that most species are not in the large or megafauna range.  **Total Animals by Mean Lifespan (Years)**: ● A noticeable peak in animals with lifespans between 10 and 20 years. ● There is a significant drop in the number of animals with lifespans beyond 30 years, indicating that very few species live much longer than this. ● The data suggests that many animals have relatively short lifespans, with few species reaching higher longevity.
Conclusion	In this experiment, we analyzed a marine life dataset to gain insights into species distributions, incidents across various countries, and the impact of fatal encounters. Through the use of DAX queries in Power BI, key measures were created to count total cases, distinct species, and country-wise case distributions. These metrics were then visualized using clustered bar charts, pie charts, and card visuals, offering a clear

	representation of patterns and trends in the dataset. The insights derived from this analysis can aid in understanding the prevalence of different species and identifying high-risk areas based on fatality counts. Furthermore, the visualizations provide a user-friendly way to explore marine life encounters across geographic locations, making the dataset's complex information accessible for decision-making and awareness campaigns.