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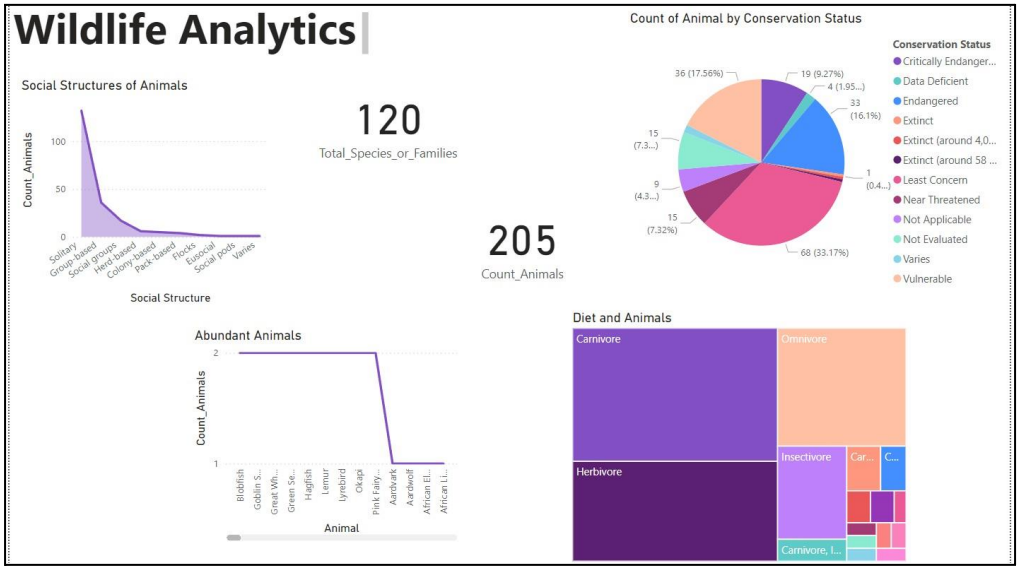
Dept:	CSE-AIML	**Batch:**	L
Experiment No:	6		
Aim	To use DAX queries to create Interactive Dashboard for Marinelife /wildlife dataset		

Dataset Description	https://www.kaggle.com/datasets/iamsouravbanerjee/animal-information-dataset This dataset encompasses a diverse array of attributes pertaining to various animal species worldwide. The dataset prominently includes fields such as Animal, Height (cm), Weight (kg), Color, Lifespan (years), Diet, Habitat, Predators, Average Speed (km/h), Countries Found, Conservation Status, Family, Gestation Period (days), Top Speed (km/h), Social Structure, and Offspring per Birth. These columns collectively offer a comprehensive understanding of animal characteristics, habitats, behaviors, and conservation statuses. Researchers and enthusiasts can utilize this dataset to analyze animal traits, study their habitats, explore dietary patterns, assess conservation needs, and conduct a wide range of ecological research and wildlife studies.

Analytics



Questions:

1) Which social structure is the most prevalent in the animal kingdom?

Query: Social Structure

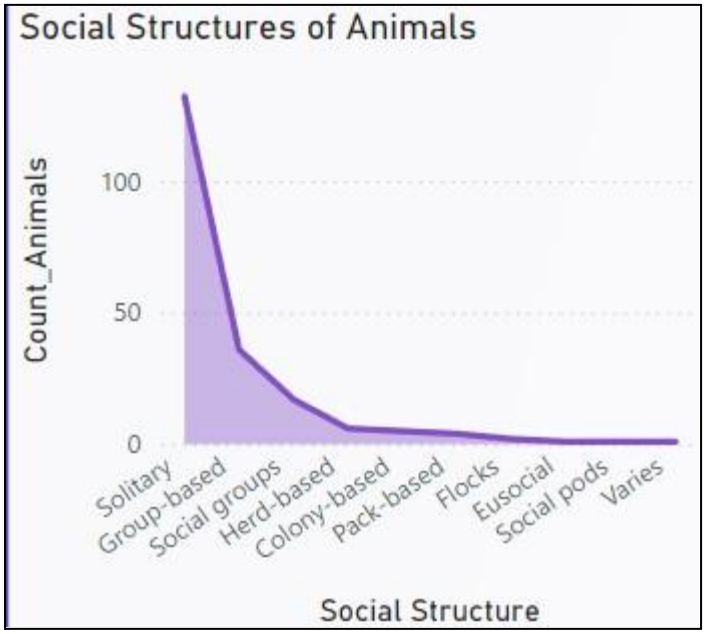
```
SUMMARIZE('Animal Dataset', 'Animal Dataset'[Social Structure], 'field', COUNT('Animal Dataset'[Animal])
```

Answer:

The social structure that appears to be most prevalent in the animal kingdom is "Solitary".

Observation:

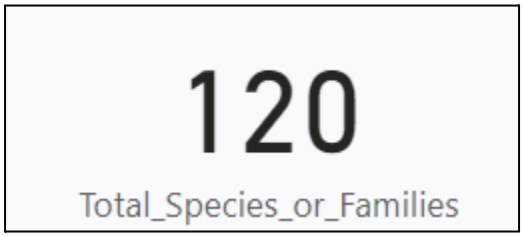
Among the animals studied or represented in this data, solitary living is the most common social arrangement. The graph shows a clear trend of decreasing prevalence as social structures become more complex or involve larger groups, with "Social Packs" and "Eusocial" being among the least common



2) How many different species are observed in this study ?

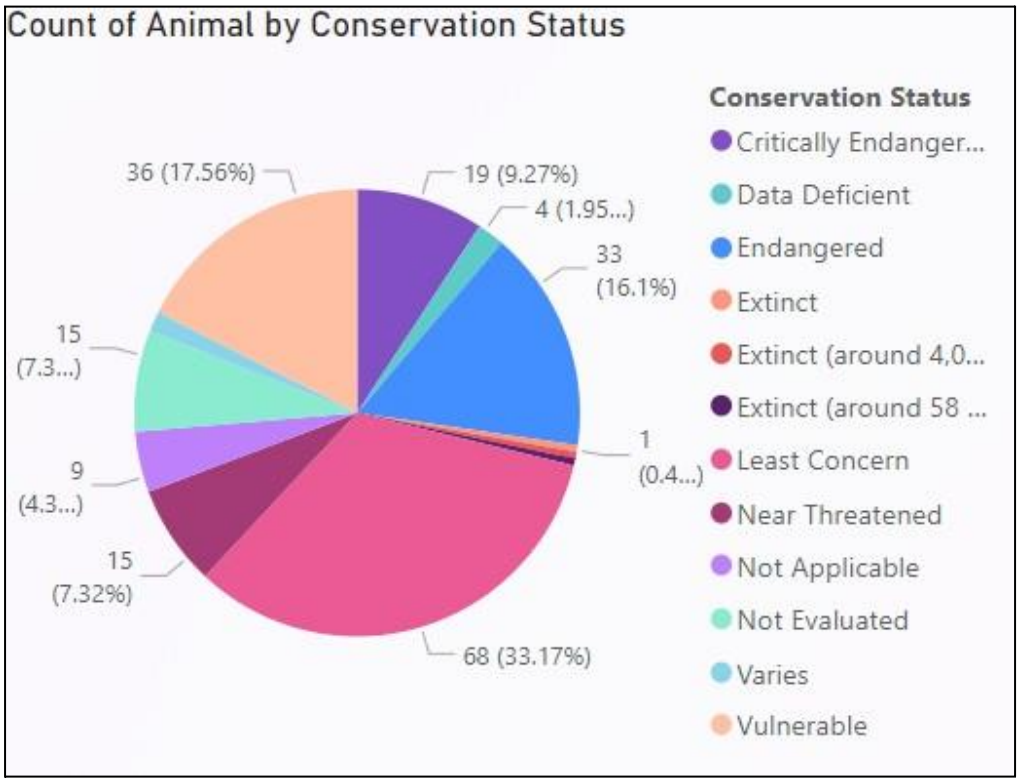
Query: Species Count

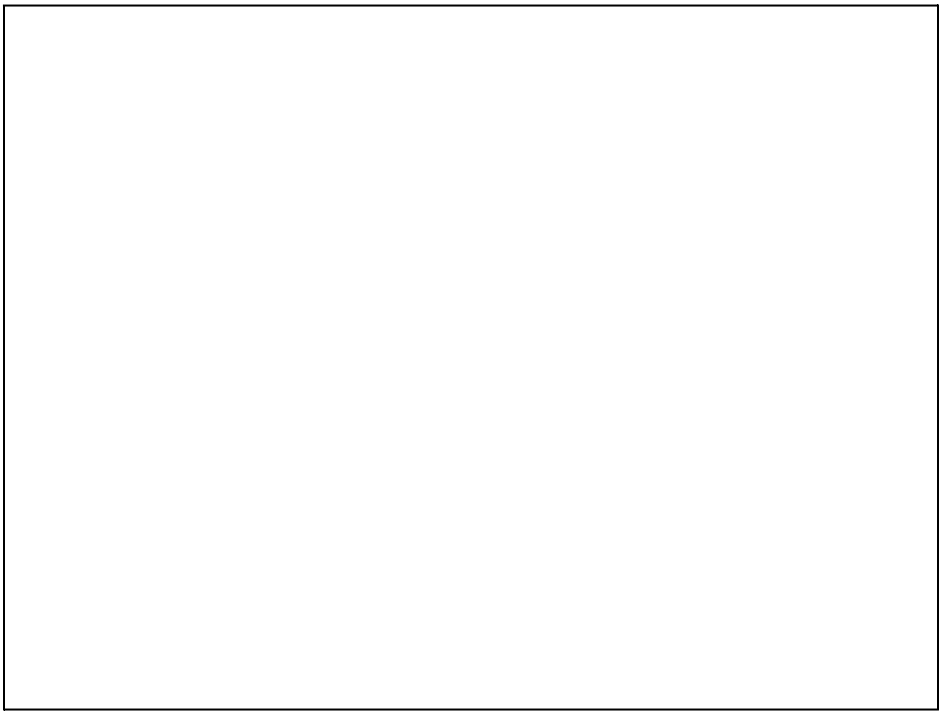
```
Total_Species_or_Families = DISTINCTCOUNT('Animal Dataset'[Family])
```



Answer:

There are 120 different species in this conducted survey

3)	What is the distribution of animal conservation ? **Query: Conservation Status by Animal Count** `SUMMARIZE( AnimalDataset, AnimalDataset[conservation], "AnimalCount", COUNTROWS(AnimalDataset) )`  ● The largest segment represents "Endangered" animals at 33.17% ● Vulnerable" is the second largest category at 17.56% ● Over 50% of the animals represented are in threatened categories (Endangered, Vulnerable, Critically Endangered). This suggests a significant portion of the studied species are at risk.

	4) Distribution based on diet **Query: Diet Type** `Count_Animals = COUNTROWS('Animal Dataset')` Mapped with Diet  Herbivores and carnivores occupy the largest areas, followed by omnivores and insectivores, with smaller categories also present. This distribution suggests that plant-based and meat-based diets are the most common among animals, likely reflecting the abundance and accessibility of these food sources in various ecosystems
Conclusion	In conclusion we learnt how to use DAX Query and thus were able to successfully visualize the eating habits, conservation status and social structure in which various animals live. There were 205 animals and 120 different species in the study.