Exploratory Analysis of the APL Data

What are your findings? What kind of questions can be answered by this data?

The information provided can provide answers to the following queries.

- 1. What is the adoption rate of various animal types and breeds?
- 2. What is the average age of adopted animals?
- 3. How long do adopted animals stay with their owners?
- 4. Are there any factors influencing animal adoption rates, such as location, season, or fee?
- 5. What effect does spaying and neutering have on animal health and behavior?
- 6. What are the most prevalent animal species and breeds in the dataset?
- 7. What is the animal's gender distribution?
- 8. How are the animals spayed/neutered, and how does it differ by species and breed?
- 9. What is the animal adoption rate, and how does it differ by species, breed, and other factors such as age and gender?
- 10. Are there any factors influencing animal adoption rates, such as location, season, or fee?
- 11. How is the health of the animals, and how does it differ by species and breed?
- 12. What are the reasons for animal return or surrender, and how do they differ by species and breed?

What other questions arise, for which you will need additional data?

- 1. How does the age distribution of the animals differ by species and breed?
- 2. What effect do spaying and neutering have on animal health and behavior?
- 3. TYPE: column contains x, x+, x1, a, B, Mr, 0, hu, and I'm not sure what "TYPE" means or what those variables are.
- 4. Upsize ts: column is made up of random numbers, and we have no idea what it is or how it is linked.
- 5. Coname: comprises of several hospitals and organizations; we're not sure how it relates to the mastereid and names.
- 6. What is the full forms of DHPL and HWT.
- 7. What do ownership numbers mean? And what are they used for?
- 8. RHousebroken: We need to figure out what it means, because the figures are 0 and -1; what do 0 and -1 mean?
- 9. ListAsFound- What are the meanings and functions of 0 and -1?

- 10. Printed: is made up of 0 and -1. What does print signify, and how is it linked to data?
- 11. HealthMfg: What does healthmfg mean? What precisely is it, given that the data comprises of dog protection equipment with varying features?
- 12. Lotexpire: is made up of dates, and what does Lotexpire mean?

Identify two or three big ideas that came from your analysis.

- 1. A huge concept is to create a full-fledged pet adoption management system that uses this data to speed and automate the adoption process while also giving insights and analytics to increase adoption rates and animal care. Online adoption applications, automated record keeping and communication, connectivity with veterinarian health records, and data-driven suggestions for animal placement and adoption methods might all be included in this system. Furthermore, the system might use sophisticated analytics and machine learning to forecast adoption results and highlight areas for improvement in the adoption process.
- 2. A comprehensive pet adoption management system could streamline and automate the adoption process while providing insights and analytics to improve adoption rates and animal welfare.
- 3. Sponsors are extremely important to a non-profit organization. Because the information includes a Program column, the more programs there are, the better we can attract sponsors. Sponsors might also be given branded apparel or other promotional materials, which would increase their participation and interest in the organization's goal.

Some of the important Variables:

- 1. Master Id
- 2. Sponsor Type
- 3. Specie
- 4. Spayed
- 5. Dhpl
- 6. Hwt
- 7. Rabies
- 8. Fyrcp
- 9. Leuk
- 10. Aids
- 11. Etc.

Summary:

Some questions that can be answered based on the data include adoption and retention rates of various species and breeds of animals, factors that influence adoption rates such as location, season, and fees, the impact of spaying and neutering on the health and behavior of animals, and reasons for animal return or surrender.

Further information is required to address queries like the age distribution of animals by species and breed.

The analysis yielded two major ideas: the development of a comprehensive pet adoption management system that streamlines and automates the adoption process while providing insights and analytics to improve adoption rates and animal welfare, and the application of sophisticated analytics and machine learning to forecast adoption results and identify areas for improvement in the adoption process.