

ABSTRACT

Cats are commonly found in urban areas, but their high reproduction rate leads to overpopulation, which disrupts the welfare of cats and the comfort of humans. To address this issue, a recommendation system has been developed to match cats with potential adopters using machine learning to recommend cats that fit the profiles of the potential adopters. This recommendation system is built using the K-means model, which can cluster both cats and adopters effectively. The developed K-means model demonstrates good performance in clustering, with silhouette scores of 0.91 for cats and 0.689 for adopters. These scores indicate that the model can cluster data with a high degree of coherence. Additionally, the recommendation system shows positive performance after testing with respondents, achieving a high user satisfaction rate of 96.67%. These results indicate that the system is not only effective in clustering and recommending cats to adopters but is also well-received by users.

Keywords: *cats, k-means clustering, machine learning, recommendation system*