PROJECT REPORT

COMPARISON PERFORMANCE OF CLUSTERING LATITUDE AND LONGTITUDE LOCATIONS OF HOUSES USING K-MEANS AND DBSCAN ALGORITHMS

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19.K1.0040

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2023

ABSTRACT

Overcrowding in this modern era is unavoidable. Many vacant lands have been used up to be made as houses or residences. Therefore, it is necessary to group data to find out whether an area is still suitable for living or not. The data used in this study was sourced from sklearn. Then from the data 2 attriibute are taken as targets, namely Latitude and Longtitude, where from the two targets will be used as data points in the form of x, y. In this study, the grouping process uses 2 algorithms to compare them, namely the K-Means algorithm and the DBSCAN algorithm, which of the two algorithms will be searched which one has better peformance. The results of both algorithms will be compared with the Sillhouette method, which functions in this method to show which graph has better results. The results obtained by the DBSCAN algorithm have a value of 0.877550 while the K-Means algorithm has a value of 0.8646422. Then from the results of Sillhoutte it is clear that the DBSCAN algorithm is superior to the K-Means algorithm in various aspects. The results of this study can be used as an illustration in making decisions to use an area that will be used as a residential area.

Keyword: Housing, K-Means, DBSCAN, Silhouette Method