# Abstract

Clustering is a method of classifying data into groups which separated from each other based on unique characteristics. One of the algorithms used to klusterisasi is K-Means. However, in the K-Means algorithms have problems in terms of speed and accuracy.

In this Final clustering implement a method, namely *K-Means++*. *K-Means++* algorithm can overcome the weakness that occurs in *K-Means* algorithm through the initialization of centroids with certain conditions during the early formation of clusters. Evaluation carried out on *K-Means++* algorithm through the calculation accuracy using silhouette coefficient method using orders data calibration.

The result of experiments conducted over ten times each cluster and the data collected is the best data or the accuracy of the silhouette coefficient average is highest. The results of the study indicate that the value of *K-Means++* algorithm accuracy ranged between medium and strong values in order calibration data. Silhouette coefficient value varies in each of the cluster. Silhouette coefficient value of the highest average found in clusters, amounting to two in each of the different datasets.



Keywords: k-means++, accuracy, data mining, silhouette coefficient