Abstract

Clustering is the process of grouping objects into a group (cluster) so that the object has a very great similiarity with other objects that are on the same cluster, but has a great dissimiliarity with objects that are in different clusters.

Hierarchical clustering algorithms classify objects by creating a hierarchy where the object will be placed in a hierarchy similiar to the adjacent and similiar object will be placed on a distant hierarchy. Problem arise when hierarchical clustering algorithms that already exist such as CURE and ROCK considers only information about the closeness and interconnectivity without considers internal closeness and internal interconnectivity in these clusters. In addition to merging pairs in the cluster, CURE only pay attention to information regardless of the closeness and ROCK interconnectivity information only for the interconnectivity of information regardless of the closeness between the couple information clusters. This can result in the decision making errors inperforming the merge cluster pair. To overcome these problems, the final project will be implemented algorithms that perform clustering Chameleon with how to merge the cluster pair with respect to information about the relative closeness and relative interconnectivity with the parameter values of k (number of neighbors in k-nearest neighbor), nlevel (number of partition level), θ_{RI} (*threshold RI*), and θ_{RC} (*threshold RC*).

Indicated in this final project that Chameleon algorithm produce good quality clusters for parameter values greater nlevel. As for the three other parameters, in general optimal value for those parameters (k, $\theta_{RI,}$ and θ_{RC}) can not be determined exactly.

Keywords : *clustering, chameleon, hierarchical clustering, relative closeness, relative interconnectivity*, parameter