

Monitoring Application for Clean Water Access and Clustering using K-Means Algorithm

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Abstract. The purpose of this research is to develop a monitoring application of clean water access for the community and determining areas that need to improve access to clean water. Data collection was done by examining documents which were related to clean water management and conducting interviews with the Department of Housing and Settlement of West Java Province. The results of data collection are used to develop a clean water monitoring application system based on Android and Web. Data from the application will be used for clustering with the K-Means algorithm. For example, in the city of Bandung, 12 urban village areas were recommended for increasing access to clean water. The area has a percentage of ownership of clean water access approaching the value of 29.96% of the ownership of clean water sources for food and drink, 28.96% for ownership of other sources of clean water and 14.48% for ownership of reserves of clean water. The optimal number of clusters of clean water access in the city of Bandung is three clusters because it has the lowest Davies-Bouldin Index (DBI) value of 0.439.

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<http://dp3m.unikom.ac.id/penelitian/view/monitoring-application-for.336.html>