APPLICATION DIJKSTRA ALGORITHM AND FLOYD WARSHALL ALGORITHM IN COMMODITY EXPEDITION 1 AND COMMODITY EXPEDITION 2 IN SURAKARTA CITY

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ABSTRACT

Rapid population growth has caused several regions in Indonesia, especially in several big cities, to experience an increase in traffic, one of the needs is distribution of commodity in various big cities in Indonesia.In the distribution of commodity or expedition requires at least an optimum route so that goods can get to the destination location efficiently and quickly. Djikstra algorithm with greedy principle and Floyd Warshall algorithm with dynamic and optimality principles, is one of the algorithms in finding the optimum shortest route. Dijkstra Algorithm produces optimum commodity expedition 1 route length of 25,6 km which can be taken in 74 minutes 18 seconds for Palur Terminal route to Kartasua Terminal. Kartasura route to Palur Terminal the optimum route with commodity expedition 1 length 15,86 km and 42 minutes 28 seconds. Floyd Warshall algorithm analysis produces the Solo Paragon Mall – West City route with 0,36 km by commodity expedition 2. Kasih Ibu Hospital – Solo Grand Mall route distance of 0,6 km optimum route commodity expedition 2 when heading to Palur Terminal form Kartasura Terminal.
Keywords *: Commodity Expedition, Greedy, Dynamic Programming, Optimum Route, Djikstra Algorithm, Floyd Warshall Algorythm*