

ABSTRACT

The logistics industry in Indonesia is facing significant challenges related to inefficiency and irregularity, particularly in the cargo route system. This issue is further exacerbated by the high logistics costs in Indonesia, which currently stand at 23%, and can be considered higher than in other countries. To address this issue, this paper proposes an implementation by developing a route search algorithm, namely Dijkstra's, to optimize the cargo route system and reduce logistics costs, considering several parameters such as price, distance, rating, and time. The research results reveal that Dijkstra's algorithm is capable of producing optimal and accurate cargo routes, although its execution time can be quite long for large and complex data sets. Dijkstra's algorithm remains a good and suitable choice for finding the best cargo route search system. Additionally, the results of the developed algorithm for finding the best cargo route have been integrated into a web service using Flask to provide convenience in operating the cargo route recommendation system. This paper emphasizes the importance of considering various factors to optimize the cargo route system effectively, showcasing the algorithm development process, testing results, and integration into a web service.

Keywords: Cargo Route, Dijkstra's, Web Service, Flask