IMPLEMENTATION OF THE MILK RUN METHOD IN DISTRIBUTION ROUTES TO REDUCE TRAVEL DISTANCE AND OPERATIONAL COSTS IN MANUFACTURING COMPANIES

UNDERGRADUATE FINAL PROJECT

Submitted as one of the requirements to obtain Sarjana Teknik (S.T.)

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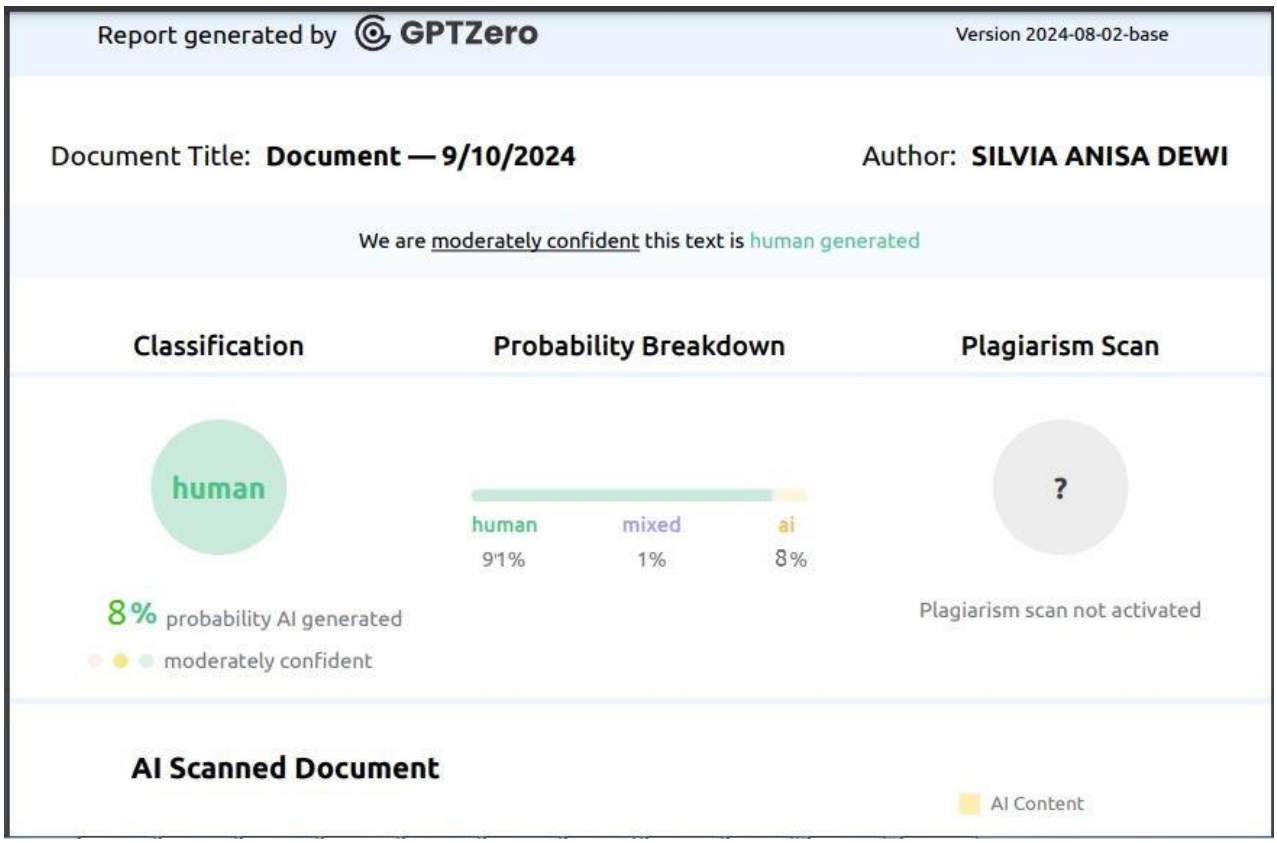
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ABSTRACT

In today's era of globalization, companies strive to remain competitive and reduce operational costs, one of which is by reducing transportation costs. PT. SRH have problems in distribution because it currently uses a direct delivery method, where each supplier sends their own goods to the company. With 20 suppliers in Cikarang, this method often causes vehicle queues at the goods receipt gate. To overcome this milkrun method is proposed, where the company collects goods from suppliers with the help of a logistics service provider. The milkrun method divides 20 suppliers into 3 groups and determines the most efficient order of visits. The three approach methods used to determine the order are nearest neighbor, nearest neighbor insertion, and farthest insertion. With the milkrun method, the company managed to reduce the distance traveled by 26% for route 1, 31% for route 2, and 26% for route 3. In addition, this method also saves vehicle rental costs by 77%. The implementation of this milkrun method is expected to increase distribution efficiency and reduce the company's operational costs.

Keywords: Distribution, Delivery, Direct Delivery, Milkrun, Nearest Neighbor, Nearest Insert, Farthest Insert

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