Abstract

Yogyakarta in Indonesia is a top tourist destination known for its diverse and renowned attractions. Many tourists plan multi-day trips to explore the area. Tourists usually depend on travel agents, but many travel route recommender systems only focus on planning one-day trips and need to consider factors like cost, duration, and destination rating. Therefore, this paper presents a multi-day travel route recommender system that considers user preferences such as cost, time duration, and destination ratings. We solve the route optimization problem analogous to finding a solution to the Traveling Salesman Problem (TSP). We use the Whale Optimization Algorithm (WOA) and Multi-Attribute Utility Theory (MAUT) to recommend the best route based on user preferences. Test results show that the WOA algorithm performs better than Simulated Annealing (SA) regarding the maximum number of days for each POI (Point of Interest) visited, fitness value, and execution time.

Keywords: *traveling salesman problem, travel planning, recommender system, whale optimization algorithm, multi-attribute utility theory*