Abstract

Tourism is one of the proven solutions for the Indonesian economy. Tourism in certain regions, such as Yogyakarta, can significantly affect the region's economic development, including creating new jobs, creating new business opportunities, and increasing regional income. However, for tourists from outside Yogyakarta, it requires planning a tour before traveling in Yogyakarta, especially if he wants to spend several days on a tour. Many previous studies have developed systems that can recommend tourist routes, but not within a few days of tourist visits. In this study, we propose the use of Genetic Algorithm (GA) for automatically generating optimal travel itinerary for some days visit (n-days tour route). We develop the recommender system by combining GA and the concept of Multi-Attribute Utility Theory (MAUT). This MAUT used for accommodating user needs based some criteria such as rating, cost, and time. Based on our experimental results, GA is optimal in terms of execution time and number of attractions visited in n-days visit. The average execution time obtained is 59.62%, and the average number of attractions visited obtained is 45.95%. These results show that this method can generate tourist routes efficiently.