

Hotel Search Application in Bengkalis District Using the A Algorithm

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ABSTRACT

Tourism is a crucial sector in the economic growth of Bengkalis District, but limited access to information about hotels and guesthouses poses a challenge for travelers. This study develops a mobile application to facilitate accommodation searches with a nearest-route search feature using the A (A-star) algorithm. This algorithm is used to calculate the optimal route based on the selected transportation option, such as walking, motorbike, or car, making travel more efficient. Testing results show that the A* algorithm can generate more accurate routes compared to conventional methods. Additionally, the application provides information on hotel and guesthouse facilities, prices, and contact details, helping travelers make informed accommodation choices. With this application, travelers can find accommodations more quickly and efficiently, while hotel and guesthouse managers can enhance their visibility. This study contributes to supporting the tourism sector in Bengkalis by providing a technology-based solution that simplifies access to information and travel planning.*

Keywords: *Tourism, Mobile Application, Hotel, Nearest Route, Rapid Application Development (RAD).*