## **ABSTRACT**

The development of mobile technology has facilitated access to various services, including booking services for vacations. Although there are many mobile-based booking applications on the market, there is still room for further development to enhance user experience. This project develops a mobile booking application that facilitates the public in booking hotels, villas, and apartments more easily and efficiently. One of the main innovations in this application is the use of Artificial Intelligence (AI) to help users find rooms that match their preferences.

The AI feature in this application is designed to analyze various parameters such as location, price, facilities, user reviews, and other individual preferences. By utilizing machine learning algorithms, this application provides more accurate and personalized recommendations for each user. In addition, an intuitive and responsive user interface enhances comfort and ease of navigation within the application.

The development of this application involves several stages, including market research to understand user needs and preferences, interface design and development, AI integration, and application testing and evaluation. The research and testing results show that this application provides a better solution and becomes the additional options for users in booking their vacation accommodations.

**Keywords:** booking application, mobile, artificial intelligence, machine learning, user preferences, hotel, villa, apartment, vacation