DESIGN OF MOBILE-BASED MALIOBORO SCOOTER RENTAL APPLICATION USING USER-CENTERED DESIGN METHOD

BANDRIO ILHAM NOVANTO Informatics Study Program, Faculty of Science & Technology Yogyakarta University of Technology Jl. North Ringroad Jombor Sleman Yogyakarta E-mail: bandrioilham037@gmail.com

ABSTRACT

Along Malioboro Street, electric scooter rental services are available, making it easy for tourists to explore the surrounding area. This service is particularly popular among young people, offering a unique and enjoyable travel experience. However, despite the convenience of scooter rentals in Malioboro, several challenges arise during implementation. One of the primary issues is the absence of a dedicated platform for scooter rentals, leading to direct rentals that often result in competition among users. Additionally, some users carelessly leave scooters on sidewalks or pedestrian areas, disrupting the comfort and accessibility for pedestrians. In order to address the issue of tourist rentals on scooter rental services in Malioboro, service providers have implemented a rental system that includes a brief training module on driving rules and safety measures. This module is provided to users before renting scooters via a mobile application. The application was developed using the User Centered Design method, focusing on addressing user problems and needs. The application's development utilized the Kotlin programming language and the MySQL database management system. The application's functionality was assessed through a Black Box Testing method. The tests' outcomes demonstrate the application's efficacy, which showed a 91.6% success rate. The application's functionality addresses prevalent concerns in Malioboro's scooter rental context, including scooter reservations and user information management.

Keywords: Rental; Mobile; User Centered Design; Scooter; Malioboro