IMPLEMENTING A WEB-BASED HOMESTAY RESERVATION INFORMATION SYSTEM
(Case Study: Happy Syariah Homestay, Ambarketawang, Gamping, Sleman Regency, Special Region of Yogyakarta)

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ABSTRACT

This research is motivated by the manual reservation process at Happy Syariah Homestay, which is currently conducted via telephone and instant messaging. This approach results in decentralized data recording, increased risk of double bookings, delayed payment verification, and challenges with reporting. The objective of this study is to design and implement a web-based homestay reservation information system that centrally integrates booking, payment, and reporting processes while displaying real-time room availability. The research methods employed include needs analysis, system design using the Unified Modeling Language (UML) and Entity-Relationship Diagrams (ERDs), and system implementation following the Waterfall Software Development Life Cycle (SDLC). The system was developed using a client-server architecture, featuring a React and Tailwind CSS-based frontend, an API-driven backend built with Nitro, and a PostgreSQL database managed through Supabase. The system provides dual access rights for guests and homestay owners. Results demonstrate that the system effectively centralizes the reservation process, displays real-time room availability, reduces the risk of double bookings, and simplifies data management and reporting, thereby enhancing operational efficiency and service quality at Happy Syariah Homestay.

Keywords: Information System, Homestay Reservation, Web Application, SDLC Waterfall, UML