

**QR CODE IMPLEMENTATION IN AN ASSET MANAGEMENT SYSTEM TO SUPPORT ASSET
MONITORING AND LOAN SERVICES
(Case Study: Multimedia College Yogyakarta)**

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ABSTRAK

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The asset borrowing process at Multimedia College Yogyakarta was previously managed through manual record-keeping, with loan applications submitted via unintegrated forms. This approach led to a lack of transparency regarding asset availability, potential scheduling conflicts, and slow validation and monitoring of loan histories. This research aimed to develop and implement a web-based asset management system integrated with Quick Response (QR) Code technology to enhance the effectiveness of asset borrowing monitoring and services. The system was designed using the Unified Modeling Language (UML) and implemented with features such as digital submission, admin validation, schedule management, real-time asset status monitoring, loan history, and QR Code scanning for asset identification and return. Implementation results demonstrated the system's ability to reduce scheduling conflicts, increase transparency, and expedite validation. Black-Box Testing demonstrated that all key features met the functional requirements. This system supports more structured, efficient, and documented asset management.

Keywords: Asset Management System, Asset Borrowing, QR Code, UML, Black Box Testing