

# **DESIGN AND CONSTRUCTION OF WEB-BASED LIBRARY INFORMATION SYSTEM**

*(Case Study: Tamansiswa Jetis Vocational School)*

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## **ABSTRACT**

*School libraries play an important role in supporting the teaching and learning process, especially by providing a collection of books that can be accessed by students and school staff. However, the SMK Tamansiswa Jetis Yogyakarta library still uses a manual system in data management, such as recording borrowing and returning books, which often causes inefficiency and various problems, such as lost books or recording errors. This slows down the service process and reduces the effectiveness of the library. This study aims to develop a web-based library information system that can help the library management process at SMK Tamansiswa Jetis Yogyakarta to be faster, more efficient, and more accurate. This system is designed to facilitate the management of member data, books, borrowing, returning, and late fines. The design was carried out using a Data Flow Diagram (DFD) with the Waterfall development method. The results of this study obtained a test success rate of 92.59%, which indicates that the web-based library system is able to meet the main needs of the library. The system can carry out functions such as managing member data, book data, borrowing and returning processes, and calculating fines automatically well.*

**Keywords:** *Information System, Library, Borrowing and Returning, SMK Tamansiswa Jetis*