MARIANO MARCOS STATE UNIVERSITY
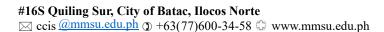
College of Computing and Information Sciences

MARIANO MARCOS STATE UNIVERSITY
DEPARTMENT OF INFORMATION TECNOLOGY
BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

LIBRARY MANAGEMENT SYSTEM

SUBMITTED BY:
ACEBU, JASTREL A.
SACABIN, GEWEL P.
TAGALICUD, PRINCE KEITH G.

SUBMITTED TO:
MR. NATHANIEL S. CASTRO

ABSTRACT

The Library Management System, implemented in C++, is a sophisticated software solution designed to streamline and automate various tasks within a library setting. This computerized system is engineered to enhance the efficiency of librarians by automating their daily operations.

The core functionalities of the system revolve around managing Books, Borrowers, and Passwords. Leveraging advanced data structures such as LinkedList and Stack, the system ensures robust organization and seamless interaction with data. The LinkedList structure is intricately woven into the management of books and borrowers, while the Stack structure is employed for password-related operations, adding an extra layer of security to the system.

In addition to its structural foundation, the Library Management System offers a comprehensive set of features. These include the ability to Create, Delete, Update, Search, and View data, all facilitated through the integration of File IO as a database. The reliance on File IO allows for efficient storage and retrieval of data, ensuring a smooth flow of information within the library's ecosystem.

Furthermore, the system not only caters to the basic needs of librarians but also anticipates a certain level of familiarity with the system's functionalities. It is crafted with user-friendliness in mind, ensuring ease of use for librarians or their representatives during book issuance and return processes. The intuitive interface minimizes the learning curve, making the system accessible and efficient for library staff.

In summary, the Library Management System is a comprehensive and user-friendly tool that significantly contributes to the modernization of library operations. Its incorporation of advanced data structures and efficient file management positions it as a valuable asset for libraries seeking to enhance their overall functionality and service delivery.