

## ABSTRACT

### DEVELOPMENT OF A DESKTOP-BASED DIGITAL SCHOOL MASTER BOOK APPLICATION USING TKINTER

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The master book is a crucial record for every educational institution, serving as a comprehensive archive containing personal data and identities of all students since the establishment of the institution, largely obtained from registration forms. Thus, this book becomes a lifelong register of student names for a school. At SMP Pembangunan Jaya, the management of data for students who have alumni status is still done manually, which causes problems such as difficulty in searching and the risk of data loss. To overcome these issues, a desktop-based Digital School Master Book Application has been developed. This application is designed to transform the student data recording system from a manual method into a more organized, efficient, and accessible digital system. This solution aims to support the digitalization of school administration and simplify the work in the administrative department. The application is built using the Python Programming Language, with Tkinter and ttkbootstrap libraries for developing a lightweight and modern graphical interface. Data management is performed using an SQLite database. The final result of this professional internship is a functional application prototype, capable of student data management (add, view, edit, delete), displaying statistical dashboards, and providing flexible import and export features. It is hoped that the development of this application can assist SMP Pembangunan Jaya School in digitally managing new and old student data, thus making it easier for staff to add, delete, edit, and even search for student data.

**Keywords:** *Professional internship, digital student record, desktop application, Tkinter, Python, software development, SMP Pembangunan Jaya.*