A Desktop Application for Managing Viet Duc Clinic

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***Abstract*—This thesis develops a desktop management application for Viet Duc Clinic. Its implementation chapters describe C# Windows Forms and a SQL Server database, with screens for doctors, patients, medicines, invoices, prescription details, searching, and revenue summaries. The report includes data and interface descriptions for these workflows. A final conclusion paragraph contains unrelated online-store wording, so this summary relies on the clinic-specific design and screen evidence instead. The source explicitly says the application remains a demonstration and has not entered real operation. It does not provide a clinical deployment, security review, or quantitative comparison with the clinic previous process. The contribution is a documented administrative prototype whose data protection and practical suitability require separate evaluation.**

***Index Terms*—clinic management, C#, Windows Forms, SQL Server, patient records**

I. Introduction

Clinic administration involves records for patients, clinicians, medicines, services, invoices, and prescriptions. The thesis proposes a desktop program to organize these tasks for Viet Duc Clinic. It introduces software analysis and the chosen C# and database technologies before specifying the data and interface requirements. The project objective is to implement the management workflow. The source does not claim a live clinical information system or measured improvements in patient care [1]. Earlier ICTU student work on related designs is included here for context [8]. Related published studies provide context for the subject and methods [9], [10]. These contextual works were selected for this English summary; they are not asserted to appear in the original thesis bibliography.

II. Methods

The author models clinic entities and implements forms using C# Windows Forms and SQL Server. The manuscript shows screens for patient and doctor records, medicines, invoices, prescription details, search by relevant record fields, and revenue statistics. It describes data entry and lookup behavior for these forms. The evidence consists of design material and interface demonstrations. No privacy assessment, user trial, or validation against real clinical records is reported [1].

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III. Results

The implementation chapter displays the main administrative screens and examples of searching doctor, patient, staff, and medicine records. Invoice and prescription-detail forms are also shown. These materials support that a clinic-management prototype was assembled. The author states that the work remains a demo rather than a system in actual operation. The source does not quantify correctness, processing speed, security, or user acceptance in a clinic setting [1].

IV. Discussion

A desktop database can place related administrative records in one workflow, but health information requires strong controls for access, accuracy, backup, and confidentiality. The thesis does not test those requirements with real users. Its conclusion contains an unrelated paragraph about online merchandise and ordering; that text is inconsistent with the clinic screens and should not be treated as a delivered feature. The report itself identifies further development and security improvements as needed [1].

V. Conclusion

The thesis documents a C# and SQL Server clinic-management demo with forms for doctors, patients, medicines, invoices, prescriptions, search, and summaries. Source screenshots support these features. The author confirms that the project has not been put into real operation. No clinical or operational effect is established. A later release would require validation of record accuracy, security, and usability before the clinic could depend on it [1].

References

[1] Ngô Quốc Tiến, "A Desktop Application for Managing Viet Duc Clinic," internal undergraduate thesis (original in Vietnamese), Thai Nguyen University of Information and Communication Technology, 2024.
[2] Phạm Hữu Khang, Xây dựng ứng dụng Web bằng PHP & MySQL, Nhà xuất bản Phương Đông, 2010
[3] Nguyễn Văn Ba, Phát triển hệ thống hướng đối tượng với UML 2.0 và C++, Nhà xuất bản ĐHQG HN, 2007
[4] Đặng Văn Đức, Phân tích thiết kế hướng đối tượng bằng UML, Nhà xuất bản Giáo dục, 2002
[5] Nguyễn Trường Sinh, Macromedia DreamWeaver MX, Nhà xuất bản Lao động – Xã hội, 2008
[6] Robin Nixon, Learning PHP, MySql and JavaScript, NXB Oxford Univeristy Press, 2009
[7] Mike McGrath, PHP & MySql in easy steps, NXB Cambridge Univeristy Press, 2012. 116

[8] ICTU Student 194, ”Application of Information Technology in Building and Implementing a Patient Management Program for Tan Lac General Hospital, Hoa Binh,” internal undergraduate thesis, Thai Nguyen University of Information and Communication Technology, 2010.
[9] Ioan-Albert Florea et al., ”Desktop Application for Replacing the Traditional Register,” Journal of E-Technology, 2019. doi:10.6025/jet/2019/10/1/10-14.
[10] Hongfei Guo et al., ”Declarative management in Microsoft SQL server,” Proceedings of the VLDB Endowment, 2009. doi:10.14778/1687553.1687555.