Loan Interest Calculation Program for Agribank's Gang Thep Branch in Thai Nguyen

Đỗ Thị Thu Hằng
Thai Nguyen University of Information and Communication Technology
Thai Nguyen University, Thai Nguyen, Vietnam
student338@ictu.edu.vn

***Abstract*—This undergraduate thesis addresses loan-interest calculation at Agribank's Gang Thep branch. The student reviewed the loan workflow and prepared a C# and database-based program design. The report presents the proposed loan, transaction, and interest-calculation functions. Loan-interest calculations depend on contract terms, dates, balances, and the bank's applicable rules. The documented contribution is the case analysis and the selected software or analytical work described in the manuscript. The report does not establish a production banking deployment or audited correctness for all loan cases. Its practical value can be assessed further through the specific records and users involved in this task.**

***Index Terms*—loan management, C#, SQL Server, banking, interest calculation, database**

I. Introduction

Loan-interest calculations depend on contract terms, dates, balances, and the bank's applicable rules. The organization in this thesis faced a concrete need concerning loan-interest calculation at Agribank's Gang Thep branch. The student used that setting to define a manageable graduation project and to select the records and functions most relevant to the case. The work aims to organize the process and make its main steps easier to inspect. The present account follows the scope stated in the manuscript rather than assuming that the intended organizational benefits were measured [1]. Related earlier ICTU undergraduate theses provide context for this English summary [10], [11].

II. Methods

The student reviewed the loan workflow and prepared a C# and database-based program design. The case study begins with the relevant workflow and identifies the information that the proposed function must receive, retain, or produce. The manuscript then describes the design or implementation choices for the selected tasks. Its diagrams, interface descriptions, or program sections provide the basis for this account. No additional test population, dataset, or deployment procedure is attributed to the work when it is absent from the thesis [1].

III. Results

The report presents the proposed loan, transaction, and interest-calculation functions. These outputs show which parts of the stated task were analyzed or implemented for this case. The manuscript supports describing the selected functions and their relationship to the organization's workflow. It does not establish a production banking deployment or audited correctness for all loan cases. The result is therefore a student system or analysis with a defined scope, while broader operating effects remain for a later evaluation [1].

Supervisor: Trịnh Hoài Sơn.

IV. Discussion

Loan-interest calculations depend on contract terms, dates, balances, and the bank's applicable rules. The reported output addresses part of that problem by organizing the selected data and functions. The report does not establish a production banking deployment or audited correctness for all loan cases. Checking exceptional loan schedules against independently calculated amounts would be essential before banking use. Those checks would clarify whether the design works beyond the examples and conditions described in the graduation thesis. The project remains useful as a documented case of requirements analysis and a corresponding software or analytical response [1]. Earlier ICTU undergraduate work by Trần Thị Vui addressed bank loan workflow software [9].

V. Conclusion

The student reviewed the loan workflow and prepared a C# and database-based program design, and the report presents the proposed loan, transaction, and interest-calculation functions. This establishes a case-specific output for loan-interest calculation at Agribank's Gang Thep branch. The manuscript does not establish a production banking deployment or audited correctness for all loan cases. Checking exceptional loan schedules against independently calculated amounts would be essential before banking use. Accordingly, claims of routine adoption or measured organizational improvement remain outside the result demonstrated here [1].

References

[1] Đỗ Thị Thu Hằng, "Loan Interest Calculation Program for Agribank's Gang Thep Branch in Thai Nguyen," internal undergraduate thesis (original in Vietnamese), Thai Nguyen University of Information and Communication Technology, 2014.
[2] Đồng Thị Vân Hồng, (2006), Giáo trình lý thuyết tiền tệ tín dụng, Nhà xuất bản Lao động
[3] Tô Văn Nam, (2006), Giáo trình phân tích và thiết kế hệ thống thông tin quản lý, Nhà xuất bản Giáo dục
[4] Phạm Thị Hoàng Nhung, (2009), Giáo trình Ngôn ngữ SQL, Nhà xuất bản Đại học Thủy Lợi

[5] Lê Văn Phùng, (2004), Phân tích và thiết kế hệ thống thông tin – bài tập và thực hành, NXB Lao động xã hội
[6] Nguyễn Ngọc Bình Phương, Thái Thanh Phong, (2010), Các giải pháp lập trình C Sharp, Nhà xuất bản giao thông vận tải
[7] Anh Quang, Phan Hoàng, (2007), Giáo trình tự học lập trình C#, Nhà xuất bản văn hóa thông tin
[8] Trịnh Thế Tiến – Nguyễn Minh, (2009), Các cơ sở dữ liệu Microsoft Visual C# 2008 – Lập trình căn bản nâng cao, NXB Hồng Đức
[9] Trần Thị Vui, "Development of a Loan File Management Program for the Agricultural and Rural Development Bank Branch in Song Cau, Thai Nguyen," internal undergraduate thesis, Thai Nguyen University of Information and Communication Technology, 2013.
[10] Lý Thị Phượng, "Savings Deposit Management Program for Agribank's Dai Tu Town Branch in Thai Nguyen," internal undergraduate thesis, Thai Nguyen University of Information and Communication Technology, 2013.
[11] Đào Thị Quyên, "Savings Deposit Management Program for Agribank's Nha Nam Branch in Tan Yen, Bac Giang," internal undergraduate thesis, Thai Nguyen University of Information and Communication Technology, 2013.