A Buffet Restaurant Management Application

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***Abstract*—This thesis develops a C# application for managing a buffet restaurant. The report analyzes the meal-service workflow and presents interfaces for tables, dining time, menus, staff, invoices, warehouse movements, and summary statistics. It illustrates table states and the transition to billing when a customer completes a session. The author reports that the program operates with its basic functions but acknowledges implementation errors, a limited feature set, and an interface needing refinement. The source does not present a live restaurant deployment, measured service-time reduction, or a controlled usability test. Its contribution is a documented management prototype and the corresponding workflow screens. More complete functions and testing with actual staff remain future work.**

***Index Terms*—buffet restaurant, C#, table management, billing, inventory**

I. Introduction

A buffet restaurant needs to coordinate table use, dining time, menu items, bills, employees, and stock. The thesis takes these tasks as the basis for a desktop management program. It reviews C# programming and the process of building software before defining the interface. The objective is to make core operations visible and manageable in one application. The source does not quantify how the restaurant handled these tasks before the project [1]. Earlier ICTU student work on related designs is included here for context [6], [7], [8], [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 restaurant tasks and implements forms in C#. The interface depicts table status changes, start and expected end times, a billing screen, and administrator controls for staff, menu, tables, invoices, stock movements, and statistics. The implementation chapter uses screenshots and textual descriptions to document the flows. The report does not specify a formal acceptance test with restaurant workers or a benchmark of transaction speed [1].

III. Results

The manuscript shows working screens for selecting tables, changing their states, preparing bills, editing menu items, searching invoices, and reviewing stock or summary information. The conclusion states that the basic requirements were met and the program can be operated. It also notes that more functions and interface polishing are needed. No measured improvement in customer service, billing accuracy, or inventory control is reported [1].

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IV. Discussion

Bringing table and billing states into one interface can clarify staff tasks, but the report does not examine use during a busy service period. The author experienced development errors and identifies a limited feature set and visual shortcomings. Additional work should test exceptional cases, simultaneous updates, invoice correctness, and staff usability. The screenshots establish implemented functions, not operational effectiveness at a real restaurant [1].

V. Conclusion

The thesis documents a C# buffet restaurant management prototype with table, menu, staff, invoice, stock, and statistics views. The source supports a basic implemented workflow and acknowledges incomplete functions and interface limitations. It does not establish deployment or quantified benefits. The application can be improved through feature completion and realistic operational testing before regular use. The reported screens are useful evidence of what was built, while their practical value depends on testing during actual restaurant service [1].

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