Design and Implementation of Student Ticket Management System

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Abstract. This paper shows the design process of the student ticket management system. First, the paper introduces the system development environment, Visual Basic and SQL Server, a brief description. Second, the paper analyzes the functional requirements of the system. Third, the system is further divided into several major functional modules, followed by several of the system's main function modules detailed introduction. Finally, a few limitations and system development system has several functions can be extended.

Introduction

With the development of economic tourism continues growing [1-2]. The rising number of people who go out or travel increase more pressure on transportation. However, the train as the main mode of transportation in our country, purchasing tickets is still a problem for people [3]. According to the design thought of software engineering structured, the system can complement the project feasibility study and demand analysis, general design, detailed design, and coding implementation and debugging steps. Students booking management system is designed and developed as is follows: data flow diagram and data dictionary, E-R diagram and database logical structure, hierarchy chart, system flowcharts, and program flow chart and data requirements of the system, database, system software structure, system process, as well as the processing and so on have been carried on the analysis and design.[4-5].

System's Overall Framework

The Introduction of System Function

System mainly contains the query, booking tickets, refund, modify, statistics and other modules, these modules achieves the basic functions of the system.

1. Query module: students need input query service or site, return to the corresponding ticket information by querying the database.
2. Booking modules: input information such as the train ticket for sale, by calling the query module query with or without ticket, if it was sold, and the minus the book out of the vote in the database, if no tickets to the next.
3. Refund modules: will have a refund of the ticket to join the database, for sales.
4. Modify module: modify the corresponding ticket information, including sites, time. Update the database for queries and sales.
5. Statistics module: remove data from a database, and summarize the booking situation.
6. System maintenance and management: the user is added to the database, or delete, maintaining database, database backup on a regular basis.


**System Function Structure**

Students booking management system function structure is shown in Figure 2.

**Business Process Diagrams**

System flow chart is described as a system of physical model of the traditional tools, the business process of this system is shown in Figure 3.

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**Figure 1.** Each function module diagram.

**Figure 2.** System structure.

**Figure 3.** Business process diagrams.
Database Design

Overall E-R diagram, administrator information, ticket booking and refund to the student information, service information management, students can undertake booking, refund operation, and can query train information, station information, as is shown in Figure 4.

![System E-R diagram](image)

Figure 4. System E-R diagram.

Conclusions

In this paper, according to the characteristics of the students booking management system function structure, it can be divided into two parts of the client and server. The client is mainly used for trains students train moment information query, information query and remaining ticket query, etc., the server side is mainly used for the management of service information, booking information statistics and system maintenance.

References