

Research and Development of Family Investment and Financial Management System

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Abstract: At present, the savings deposits of Chinese residents have exceeded RMB 10 trillion. Especially in developed cities such as Shanghai and Shenzhen, the disposable income of residents is gradually reaching the level of moderately developed countries. Many residents have a large number of financial assets besides buying houses and buying cars. Therefore, how to allocate and manage financial assets is the biggest demand of residents. This paper researches and designs a family investment management system, which is written in HTML language. The ASP is connected with the back-end MSSQL database to realize the functions of account management, asset management, debt management and system management.

1. Introduction

With the rapid development of modern science and technology, the world has changed and human life has also changed. Computer is the crystallization of modern science and technology, and it is also a kind of public tool, especially the development and application of computer software. It not only has further research on the application field of computer, but also facilitates the task processing of the computer for the majority of users. The efficiency of transaction management brings great convenience to people. This paper studies a family financial management software that can effectively enter and manage the family's balance of payments. It is not only a good helper for family financial management, but also convenient and easy to use, and can provide users with good services.

2. System Design

2.1 Design Goals

The financial management concept of modern society has been further improved, and financial management methods have become more abundant. With the improvement of living standards and cultural level, the ability of families to buy computers and the ability to use computers began to increase. The popularity of computers and their applications has increased the concept of using computers for home financial management. Therefore, the development of a universal family finance software has become a social need. This system is a household general-purpose financial management software. The system aims to realize computerized management of various financial management methods suitable for family management and household daily income and expenditure management, so that the income and expenditure activities of family and family members can be better recorded. It is possible to make statistical analysis, and it is also convenient, fast and comprehensive for family finance.

2.2 Design Ideas

At present, people's living standards and cultural quality have generally improved, and they have begun to pay attention to the quality of life. With the rapid development of the market economy and the constant renewal of ideas, the awareness of personal financial management has generally increased, especially the awareness of family financial management has been greatly developed. In terms of consciousness, on the one hand, people have a desire to conduct statistics and analysis on all

aspects of family and individual consumption in order to better do family income and expenditure planning and family financial management. On the other hand, various financial management methods are constantly enriched, how to unify various financial management methods, and more convenient operations become requirements. On the material basis, the application of computers has become popular, and people's ability to purchase computers and use computers has increased, and the per capita computer ownership will increase rapidly. These conditions indicate that people have a requirement to purchase home finance software. This software will be purchased at an acceptable price range and therefore has market potential. Developing a small financial software with a rapid development tool can be done by several development teams in several people. After the above analysis, the development of general-purpose family finance software has economic and market feasibility.

2.3 Module Design

The system is modular in design and is divided into four program modules for accounting management, asset management, debt management and system management. Under these four large modules, each small module is separately divided to realize their respective functions.

2.3.1 Account Management

The module consists of a daily expense management module and an account receivable management 2 small modules. The daily expenses are mainly used for the daily consumption records. The main function of the accounts receivable is to record the amount of funds borrowed.

2.3.2 Asset Management

The module includes two small modules: financial asset management and personal item management. Financial asset management mainly records the first funds, various savings funds, and so on. Personal items mainly record the fixed assets of the family.

2.3.3 Debt Management

This module contains 1 small module for short-term debt management. The short-term family debt can be managed, and the module can also contact the homepage's statistical system for debt reminders, which effectively plays a management function.

2.3.4 System Management

The module contains 2 functions for password modification and debt viewing. Password modification is used to modify the system password periodically to ensure the security of the data and make your financial records more organized and safer.

3. Database Design

The database occupies a very important position in an information management system. The quality of the database structure design will directly affect the efficiency of the application system and the effect achieved. A reasonable database structure can improve the efficiency of data storage and ensure the integrity and consistency of data. In addition, a reasonable database structure will be very beneficial to the implementation of the program.

The user's needs are embodied in the provision, preservation, update and query of various information, which requires the database structure to fully satisfy the output and input of various information. Collect basic data, data structure, and data processing flow to form an exhaustive data dictionary to lay the foundation for the specific design.

Since this family financial management system is an online management system consisting of iis5.0+mssql, it must be supported by a database. The system uses the well-known MSSQL database to create a finance database. The finance database contains six data tables for Store all types of data. The data sheets included in the Finance database are: personal goods assets. DBO, daily expenses.

dbo, user. dbo, short-term debt. dbo, short-term claims. dbo and financial assets table. dbo and other 6 data sheets.

3.1 Database Instance Diagram

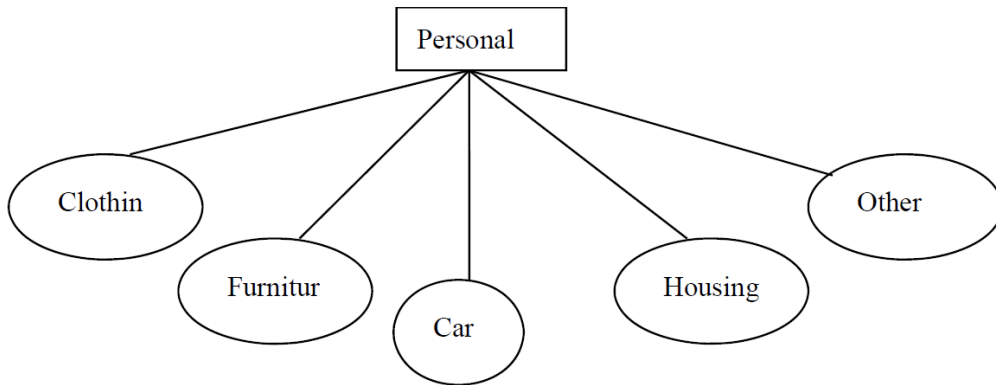


Figure 1. Personal item example diagram

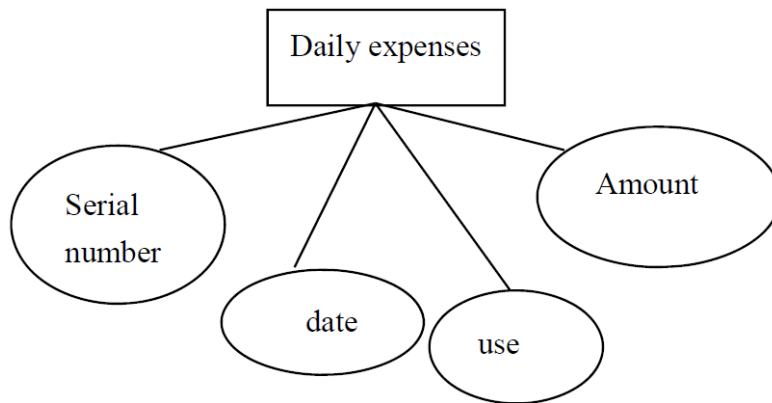


Figure 2. Example of daily expenses

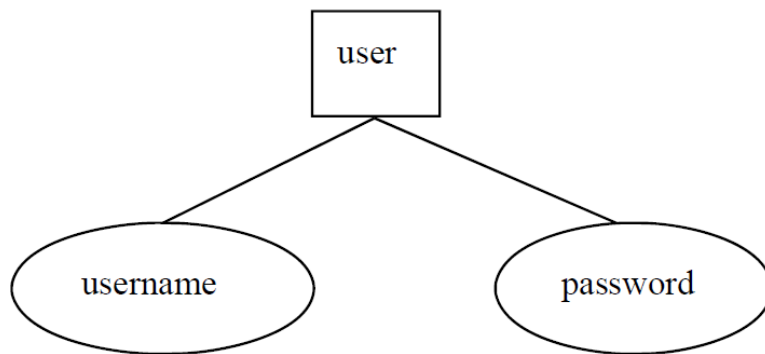


Figure 3. User example diagram

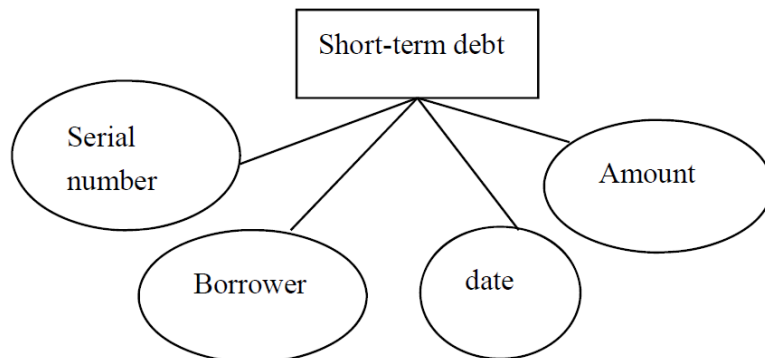


Figure 4. Example of short-term debt

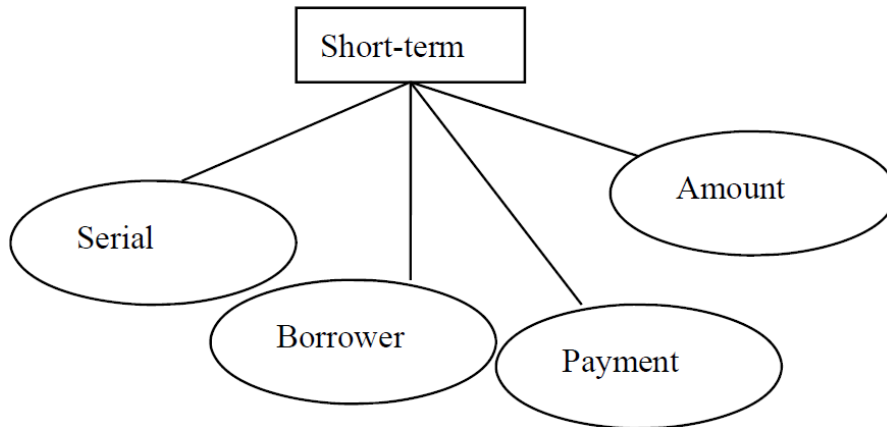


Figure 5. Example of short-term claims

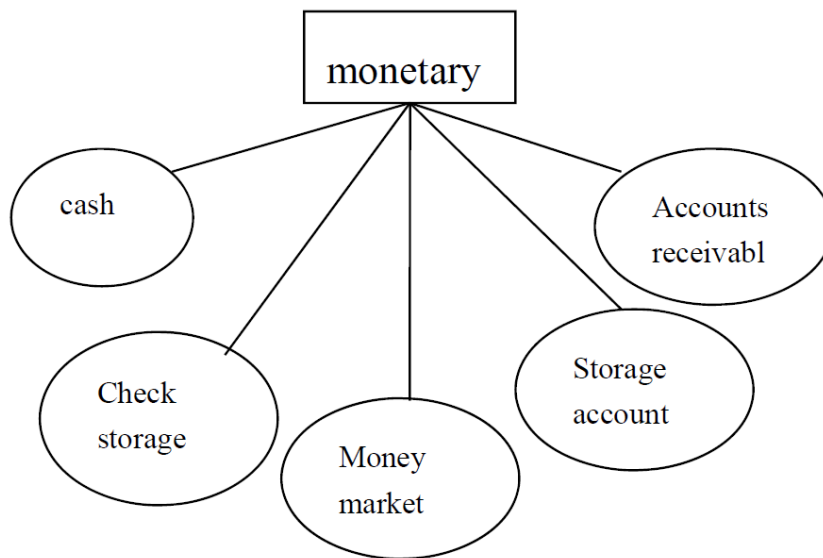


Figure 6. Financial assets table example

3.2 Database Table Design

Table 1. Data structure table of personal item assets. dbo

ID	Name	Type of data	Data size
1	Clothes	money	8
2	Furniture	money	8
3	Car	money	8
4	Housing	money	8
5	Other	money	8

Table 2. Daily expenses. dbo data structure table

ID	Name	Type of data	Data size
1	Serial number	big int	8
2	Date	datetime	8
3	Use	varchar	50
4	Amount	varchar	50

Table 3. Data structure of short-term debt.dbo

ID	Name	Type of data	Data size
1	Serial number	big int	8
2	Borrower	varchar	50
3	Date	datetime	8
4	Amount	money	8

Table 4. Financial assets table. dbo data structure table

ID	Name	Type of data	Data size
1	Cash	money	8
2	Check storage Account	money	8
3	Money market Interest	money	8
4	Savings account	money	8
5	Accounts receivable	money	8

4. Project Frame Design

4.1 Login Module Design

The design of the login module, in order to ensure the security and confidentiality of the information, requires a system login before entering the system for operation. If you do not log in correctly, you will not be able to record your financial management. Others cannot perform data corruption and malicious system damage. As shown in Figure 7 is the module operates.

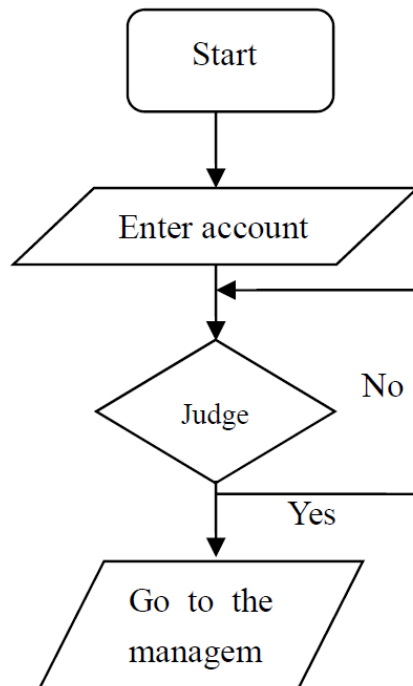


Figure 7. Login module

4.2 Design of Each Functional Module

This system has designed three major functional modules. These three modules contain five small modules. The following modules are introduced in turn.

The first major module is account management, which contains 2 small modules: daily expense management and accounts receivable management. Daily expense management is used to record daily consumption, and some small expenses. This module is easy to use and can help the owner solve financial problems. Accounts receivable management is used to record the money that others

have borrowed from themselves, and it is convenient and practical to manage the accounts that should be collected.

Asset management consists of two modules: financial asset management and personal asset management. Financial asset management records household cash, check savings, money market interest, savings accounts, accounts receivable, etc. This is the current liquidity record owned by the family. The personal property asset management records some fixed assets such as clothing, furniture, automobiles and housing. Only a small module has been developed in the debt management module. Short-term debt management is used to record records of money borrowed from others in a short period of time, or records of money borrowed by others. In this module and the accounts receivable management module, the expired records will display an alert message on the welcome page.

5. Conclusion

With the improvement of living standards and cultural level, the ability of families to buy computers and the ability to use computers began to increase. The popularity of computers and their applications has increased the concept of using computers for home financial management. Therefore, the development of universal family finance software has become a social need. This paper researches and designs a family investment management system, which is written in HTML language. The ASP is connected with the back-end MSSQL database to realize the functions of account management, asset management, debt management and system management. This system is household general-purpose financial management software. The system aims to realize computerized management of various financial management methods suitable for family management and household daily income and expenditure management, so that the income and expenditure activities of family and family members can be better recorded. It is possible to make statistical analysis and make family finances convenient.

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