



ERP Enterprise Management Information System Based on Experimental Research

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ABSTRACT

Web program is a very critical field. Firstly, the research is carried out from three aspects: system analysis, system design and system realization. Different UML patterns describe the system in detail from different angles. In the process of system analysis, based on the separation of software and software platform, this paper adopts the OOM model based on UML, and conducts integrated research combined with the actual business needs of enterprises. Through the investigation and research of the teaching equipment management office and the secondary colleges of the school, relevant data such as daily experimental teaching and laboratory basic information are collected, and a detailed demand analysis report for the design platform is given; based on these analysis results, the experimental teaching and laboratory The application in daily management and use is the most important research. Taking the commonly used Window system as the platform, on the VisualStudio platform, using ASPNET technology, combined with the SOLServer database, to realize the B/S-based experimental teaching and laboratory management platform.

Keywords: UML, XML, WEB application, NET environment, ASP.NET, RBAC model, Computer analysis

1. INTRODUCTION

Under the conditions of the socialist market economy, the functions of enterprise management are becoming increasingly prominent, and the complexity of its work is increasing day by day [1]. How to minimize the cost of production and operation, introduce and apply the latest technology and management methods, and establish a service-oriented and performance-oriented information system based on the business objectives of the enterprise has become a very important issue. The following will list three relatively mature business informatization cases [3].

Beijing "HD315" is an online work platform for the Internet Office of the Administration for Industry and Commerce. Its functions include: first, to announce to the public the procedures, systems and regulations of industrial and commercial administration; second, to extend traditional business administration functions to the Internet, and to complete online annual inspections, online consumer complaints and other services on the Internet; It is to supervise the Internet and e-commerce. The Municipal Administration for Industry and Commerce has formulated the "Administrative Measures for the Recordation and Registration of Commercial

Websites", which has carried out online registration of operating enterprises so that they can effectively register online and facilitate government departments, businesses and consumers. The fourth is to use this platform to establish an information exchange and network office between public departments. The Beijing Municipal Administration for Industry and Commerce has established a data exchange platform with Beijing's local taxation, national taxation, social security and other institutions to handle the business license process for each unit online. At present, the online office platform has completed the following subsystems:

1. Establish a food security credit system.
2. Register the website and record the business website.
3. Online audit work platform in the registration department of each unit. (special approval)
4. Online inquiry and registration of company name.
5. Beijing enterprise online annual inspection system.
6. Monitor advertisements on the Internet. (currently in progress)
- 7.12315 Online User Complaint Service.

8. Online approval system. The main content of the implementation of examination and approval: online acceptance of enterprises, branches, corporate legal persons, corporate legal persons, foreign-invested enterprises, foreign-invested institutions, foreign-invested projects, sole proprietorships, sole proprietorship branches, partnerships, partnership branches, limited partnerships, market, fairs, online registration, change, cancellation of advertising licenses and other approval business [8].

2. XML SUMMARY

XML is a simple self-descriptive language defined by SGML (Standardized Generic Markup), which is a metalanguage that can define data schemas. The new-generation WWW network technology based on XML will interact with the data of the network. It can not only adapt to the existing network system, but also carry out better information exchange and sharing in the network. XML is a labelling language, it has the following characteristics: Designing a labelling language for a specific field: XML enables all kinds of professionals to develop a labelling language according to their own specific conditions. In this way, in this industry, people can exchange notes, data and information. XML is very suitable for the exchange of data between various programs, because XML is proprietary and easy to read and write [7]. Both humans and computers understand and write well. Therefore, it is the most popular form of communication. Structure and Consolidate Data: Because data is structured, XML is well suited for large and complex documents. In this way, the user can not only specify a vocabulary for each element in the document, but also specify their associations for them. The above characteristics of XML make it have excellent performance. In network applications, based on stateless Http, we use XML to realize business exchange at different system representation levels [4].

3. THE MASTER PLAN OF THE INTEGRATED BUSINESS SYSTEM

In the analysis and design of the system, the class diagram should be extended and improved according to the conceptual layer type diagram drawn, and a mode to describe the hierarchical class diagram should be established, and its rules are similar to the previous conceptual class diagram [6]. Although class diagrams have been used in different developmental processes, they exhibit varying degrees of abstraction. When needed, the class diagram is used as a research category; in the design, the class diagram is used to represent the interface of the category and the category; in the implementation process, the class diagram represents the specific implementation of the class in the software. According to Steve Cook and John Daniels, class diagrams are divided into three levels. Concept level: Based on the application

point of view, a requirement hierarchy classification chart is constructed, which reflects the scope of the application. Categories completed by these concepts are available, but there is no direct correspondence between the two [2]. In fact, a conceptual pattern must be separated from the programming language in which it is used. Concept-level class diagrams can communicate with users only after defining the names of properties and actions [5].

Description level: The description level category chart constructed by system analysis and design is based on software and reflects the basic concept of software. In system analysis and design, it is often necessary to add new categories according to the conceptual layer categories constructed by requirement analysis, and add new features and actions to existing categories, so as to meet the design requirements [9].

Identify its visualization. Implementation level: Only at the implementation level, the concept of classes is real, and these are the implementations that show the software. Execution-level class diagrams require private and protected memberships to be assigned classes, and should try to identify these items. The development of the system is based on APS and SOL Server architecture, using B/S three-tier architecture, each function is divided into three layers (there can be more layers, but three layers are the most common), the top layer is the user layer, and the user interface layer is responsible for It handles user input and output to users, but is not responsible for explaining its meaning. The middle is the business logic layer, which is the link between the upper and lower layers [10].

This layer is to establish the actual database connection, and generate SOL statements to retrieve or update the database according to the user's request. And the result is calculated and fed back to the user interface [14]. This layer usually exists in the form of a dynamic link library and is registered in the server's registry. The interface it communicates with the client conforms to a specific component standard and can be used. Any tool development that supports this standard. The development of the system is based on APS and SOL Server architecture, using B/S three-tier architecture, each function is divided into three layers (there can be more layers, but three layers are the most common), the top layer is the user layer, and the user interface layer is responsible for It handles user input and output to users, but is not responsible for explaining its meaning. The middle is the business logic layer, which is the link between the upper and lower layers [15]. This layer is to establish the actual database connection, and generate SOL statements to retrieve or update the database according to the user's request. And the result is calculated and fed back to the user interface [11]. This layer usually exists in the form of a dynamic link library and is registered in the server's registry. The interface it communicates with the client conforms to a specific

component standard and can be used. Any tool development that supports this standard [17].

4. SYSTEM IDEAS

The GIST enterprise management information management system developed in this paper consists of four modules: data acquisition, organization and management, processing and analysis, and result generation and output. The main functions of GIST industrial and commercial MIS are: based on GIST, take all kinds of data in the business activities of enterprises as the main content, including graphics, images, attributes, etc. As well as auxiliary decision-making and other comprehensive analysis and research [12].

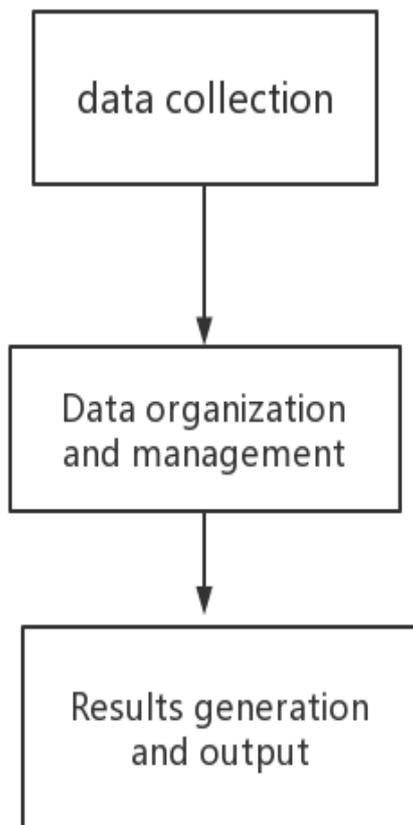


Figure 1: Conceptual structure diagram of the business system

5. PERMISSION CONTROL CLASS DIAGRAM

The class diagram of the implementation layer of permission control is as follows:

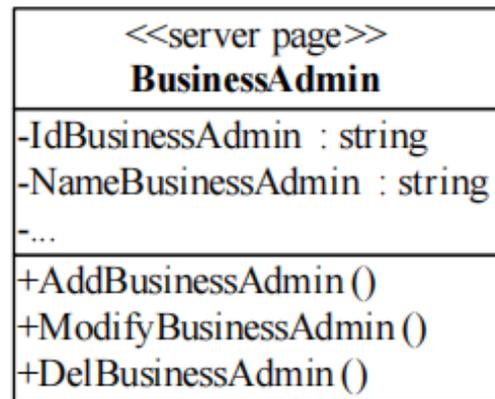


Figure 2: Permission control class diagram

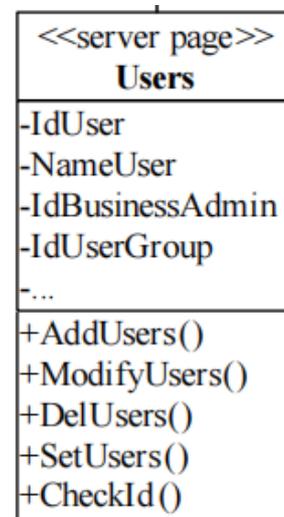


Figure 3: Permission control class diagram

6. USER TRACKING DESIGN FOR PERMISSION CONTROL

In HTTP, there is no way for a server to track user requests. When a registered user switches between multiple pages, the system will not be able to identify the page effectively, and will not be able to access and create the page according to the basic situation of the user of the page. Access to consumers is achieved by using the Session variable in ASP.NET [13].

Session variables take effect before the user exits the site, and Session variables are completely unrelated to other users' session variables, and have nothing to do with each other. Session variables usually store basic information such as user name, user ID, company name, and company code, so that the user can view the user's rights in a specific function module. After the user logs in, the session variable is used to save the basic information of the logged in user, and then when accessing a specific function module, the data in the session variable and the name of the function module in

the application are queried, and then according to the requested function The permission level of the module, the aspx page is automatically generated. This enables user tracking. When the user goes to the next functional module, just see how the user can access its features [16].

7. CONCLUSION

Due to the geographical location of the enterprise, it is difficult to carry out the business activities of the enterprise. Through the rapid positioning, visualization, analysis and other capabilities of GIS, the operation and management level of the enterprise can be effectively improved, and some monotonous business data in the past can be converted into a chart, which is both vivid and intuitive. Through the analysis of the characteristics and data characteristics of the GIS-based enterprise MIS, the paper discusses its system structure, data organization, data organization and management, and its practical application in business.

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