

## Research on Programming Technology of Computer Software Engineering Database Based on Multi-Platform

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**Keywords:** Computers, Database, Programming, Software Engineering

**Abstract:** With the rapid development of social science and technology, various trades and industries have also developed. For computer applications, the most important thing is the software system and hardware system in its components. As far as software engineering is concerned, in the construction of engineering chemical methods, the construction methods of engineering chemical should be combined to enhance the value of software application. The development of computer technology has formed a certain scale up to now, and it has dabbled in various fields. However, due to the different requirements of different industries on the performance of computer technology. Through the analysis of software database programming technology, in the creation of software computer structure, as a very important part, it will have a certain impact on the strength of computer computing ability. Aiming at the research of database programming technology in computer software engineering, this paper analyzes the advantages of database programming technology, and expounds the application of database programming technology in computer software engineering.

### 1. Introduction

At the present stage, computing technology has been widely used in today's society and has penetrated into different industries in different fields. The arrival and popularization of computers have been highly valued and widely used. Through the analysis of software database programming technology, as a very important component in the creation of software computer composition structure, it will have a certain impact on the strength of computer computing ability [1]. For computer software engineering, database programming technology is an indispensable part, and its quality has a direct impact on the development of computer software. Through database programming technology, data information can be organized, processed, managed and applied, which solves the problem of difficult manual processing of a large amount of data and greatly improves the work efficiency [2]. For computer applications, the most important thing is the software system and hardware system in its components. As far as software engineering is concerned, in the construction of engineering chemical methods, the construction methods of engineering chemical should be combined to enhance the value of software application. At the same time, it is necessary to combine the programming language, database and software development engineering to create design models to provide support for the creation of modern software systems and database editing technologies [3].

The function of computer can not be separated from its hardware and software system, and the development and application of software system is the guarantee for the functions of the computer [4]. Because the main application of computers is in the application of computer software, and the database is the repository of all information on the network, the application of contemporary software engineering has become more widespread. Database programming is the core of the discipline of software engineering. To make software engineering develop better and better, we need to do a good job of database programming. Computer systems have very powerful information processing functions, can be compatible with multiple application software at the same time, and provide strong technical support for different generation processes [5]. In the course of the development of modern society, in order to fully demonstrate the value of computer software engineering design, social construction should be the focus, combined with the limitations of

traditional software computers [6]. The information processing function is particularly important. The main reason is that it can provide very sufficient data information, which is conducive to the optimization and improvement of production activities, thereby increasing the value of data information [7]. Aiming at the research of database programming technology of computer software engineering, this article will analyze the advantages of database programming technology, and explain the application of database programming technology in computer software engineering.

## 2. Establishment of Database in Computer Software Engineering

In the process of building computer software engineering, we must first optimize the database system by practical and effective means. In the process of computer software engineering design, the traditional computer software has the problems of backward science and technology and serious loss of manpower, material resources and financial resources. If these problems cannot be solved in time, it will increase the capital cost of the software system. In the process of using some computer software equipment, there is the problem of higher price of software products. In this context, it will affect the capital circulation of enterprises, reduce the operation effect of computer equipment, seriously affect the safety and reliability of computer use, and demonstrate the effectiveness of system design [8]. In the process of integration of data resource management, computer software cannot meet the needs of safe operation, resulting in unclear storage method and processing effect. When users request, they must first design the structure of the database in the initial stage and construct the optimal database mode according to the specified application environment. In this process, design staff are required to analyze the concept, logic, physical structure, implementation, operation and maintenance of the database in detail according to user requirements.

In the case of confidential files, when selecting data information, the file encryption method is usually adopted. By optimizing the structure to improve the use mode of the software, a favorable operating environment can be created for the operation of each functional module and the overall use performance of the software can be improved. The system structure of database encryption module is shown in figure 1.

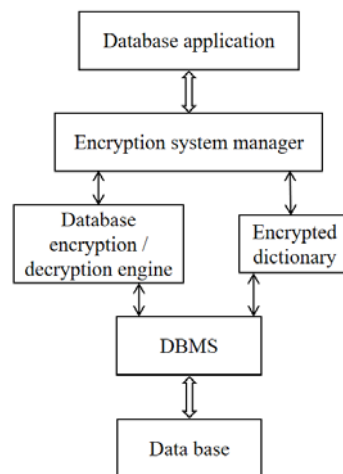


Fig.1 Database Encryption Module System Structure

Under the background of the operation of the computer industry and the development of engineering design projects, the development of traditional computer resources should be carried out in combination with the operation and development of the society to enhance the value of computer use. In the process of using computer software, technicians must redefine the access rights of network users and divide the various types of database information in detail through the reasonable application of database programming technology. Using appropriate software design functions to control the probability of security risks that may occur during the operation of software in the network environment, through reasonable design of various systems, the normal operation and use of various functions of computer software can be completed through cooperation between systems [9]. In the process of establishing the database, through in-depth analysis of the actual

situation of computer software engineering, attention should be paid to the treatment of technical problems in its establishment. Database programming technology has many advantages. In today's highly competitive society, it will be of great significance to further improve the database programming technology [10]. In the construction of computer software engineering, it is necessary to construct the corresponding basic framework and fully consider the operating conditions of the database under the network environment, so as to make the establishment of the database based on computer software engineering more scientific.

### **3. Technical Form of Computer Software**

#### **3.1 Computer Engineering Technology**

The staff building the database network have a strong level of professional knowledge. Only when the database network is built can the professional knowledge be applied to the work. The establishment of the database should be carried out according to the programming technology. For the technical level, the occurrence probability of technical hidden dangers can be effectively reduced under the coordination of each function. Through the development of software resources, we should gradually change the logic content of high-level processing, optimize the targets in the implementation of formation processing, and provide reference for the optimization of computer software technology. Because database programming technology can divide the importance of different types of information, database programming technology encrypts and protects its information in this form. Once the database information is leaked, it will cause great troubles to the computer system and users. Therefore, the effective protection of database information should be realized through programming technology when establishing the database. In the process of designing computer software, the choice of computer software functions will often affect the future work of network access. In the process of large-scale software development, its technical form includes many factors, mainly including personnel, technology and cost, etc.

#### **3.2 Engineering Technology in Software Design**

In the analysis of the role of customer specifications, the purpose of designing the software should be clarified, and the engineering procedures of the computer system should be optimized. In order to improve the utilization efficiency of database resources and meet the data reading requirements in the operation of computer networks, it is necessary to analyze the database based on computer software engineering [11]. The file can be constructed only if the software's database has the reading function. However, before the file is constructed, the type of file reading should be selected after comparing the types of file reading in the software database. In the process of software development project design, designers should adjust the engineering project design plan in accordance with the feasibility and planning issues of the engineering project. Choosing the right programming technology has a direct impact on the stable operation of the software. Therefore, when choosing a programming technology, we must first consider the application functions of the software [12]. Through the analysis of software technology, it is necessary to focus on the use of computer technology and the management of hardware equipment, and to develop the software system through the analysis of equipment specifications and equipment content. Based on the support of database programming technology in software engineering and the use of related application type comparison methods, it can also increase the advantages of database applications and improve computer software service functions.

### **4. Conclusion**

For computer software engineering, database programming technology is a very important part, and its quality has a direct impact on the development of computer software. In the process of developing software engineering resources at this stage, relevant personnel should realize the restrictive problems in the use of software information, combine the use of database programming technology, optimize and integrate the resource system, and enhance the value of the use of data

resources. Programming technology can ensure the safety and effective management of database information. Strengthening the research and application of database programming technology is of great significance to social development. Relevant technical staff should strengthen their own professional knowledge accumulation, strengthen the research and application of database technology and programming technology. The database in the computer software system is an important part of the computer application. The use of the corresponding programming technology can ensure the safe and stable operation of the database and improve the efficiency of the computer. In the future, more attention should be paid to the use of database programming technology supported by computer software engineering, and the practical application effect of such technology should be scientifically evaluated in order to enhance its applicability.

## **Acknowledgment**

In 2018, a provincial-level project for the study of teaching reform in colleges and universities in Jiangxi province was initiated: a study on the cultivation of e-commerce innovative high-skilled talents based on the integration of production and education (JXJG-18-70-4).

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