Research on Database Programming Technology in Computer Software Engineering

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Abstract. With the continuous progress of economy and society and the development of science and technology, the application of computer has entered all aspects of people's life, integrated into various industries, and then promoted the development of the industry. The core technology in computer technology is mainly computer software engineering, while the core technology in computer software engineering is database programming technology. Therefore, a large number of software staff are needed to study this, so as to promote the continuous progress and sustainable development of database programming technology.

1. Introduction
Database programming is of great significance to the normal operation of the whole computer software, which will directly affect the running efficiency and quality of the computer software. Therefore, a large number of professionals are needed to program the computer software database according to the characteristics of different software, and to promote the development and progress of database programming technology. This paper mainly discusses the database programming technology based on computer software engineering and puts forward some related solutions to the problems faced by its development.

2. What is the computer database
In general, what we call a computer database generally refers to the related computer programming technology as the foundation, and then under normal circumstances can ensure that the relevant software can continue to run healthily. All work can be carried out normally to process the relevant information processing system. Computer database is of great significance to an enterprise and plays an indispensable role in related enterprise management. It can establish a perfect and unified information management system for enterprises through its own natural advantages, and the operation steps are simple and easy for people to master [1]. This requires professional computer database programmers to program the relevant software so that it can accurately process the relevant information. This can further reduce the workload of information management practitioners in related enterprises and improve their working efficiency, thus promoting the further development of enterprises and promoting the continuous progress of China's economy and society.
3. The role of programming techniques in computer databases

3.1. Identification
In the programming technology of computer database in our country at present, if the relevant enterprise users want to use the database to work, they need to distinguish whether they are the owner of the database and authenticate the relevant identity information. In order to ensure the information security in the relevant database. To some extent, this reflects the application of programming technology in computer database in authentication. However, in some special cases, in addition to the relevant information verification, if you want to enter the relevant database for information extraction, you may also have to enter the password or fill in the verification code, so as to ensure that the relevant users are personally logged in, and further ensure the security of relevant database information [2]. Therefore, the relevant enterprises can boldly apply the computer database to the information management of the relevant enterprises, which can reduce the workload of the relevant personnel and ensure the standard and security of the information processing while improving the efficiency of the information processing. In order to improve the economic benefits of enterprises, reduce the related enterprises due to privacy data leakage caused by property losses [3]. Therefore, relevant practitioners need to strengthen the consideration of security in computer database programming.

3.2. Availability
The programming technology in computer database not only has the function of database authentication, but also has certain availability in computer. Related personnel can solve some computer problems efficiently and quickly through the application of computer programming technology. For example, some computer load problems and related database problems and failures in the work [4]. To further ensure the standard of the relevant database, the accuracy of the data and the reliability of the operation of the relevant database. In addition, for computer databases often appear host interface failures and related transmission and reception data failures, The related computer database programming technology can also make the related standby interface instead of the faulty interface to transmit and process the related data, so as to ensure that the whole computer database can run safely and stably under any circumstances. In this way, the stability of the whole computer database is guaranteed, so as to improve the economic benefit of the enterprise and reduce the property loss caused by the loss or omission of the privacy data of the related enterprise [5].

3.3. Characteristics of hidden information
In addition to the above proposed computer database programming technology has the characteristics of identity authentication and availability. Programming technology in computer database is also widely used in related information hiding. When the relevant operator wants to connect the network and communication of the computer, the programming technology in the computer database can effectively hide the URL accessed in the computer network and the related network address through the computer network address conversion technology. This is the application of programming technology in the computer database in the related information hiding [6]. For related enterprises using computer databases, some external personnel can only browse the external information of the enterprise by using the relevant computer database programming technology, but can not obtain the core privacy data of the related enterprises. This greatly increases the security of privacy information preservation and processing of related enterprises, thus reducing the workload of related personnel, improving the efficiency of information processing and ensuring the standard and security of information processing, so as to improve the economic benefits of enterprises. Reduce property losses caused by privacy data disclosure [7].
3.4. Selection of relevant database storage modes
With the continuous development of science and technology, we are now entering the era of "big data" at a very fast speed. Through related computer equipment and related computer programming technology and network equipment to establish a sound and secure database management system. This is of great significance to the processing and preservation of relevant data in China at present, and is conducive to the efficient processing of relevant data. In addition to the above mentioned applications, computer database programming technology also has this very important application in related data processing. Through the relevant computer database programming technology, the selection of relevant database storage mode can be realized. To realize the free choice of the storage mode of the relevant database, it requires a large number of relevant professional technicians to invest continuously [8]. This is because some storage functions in related and computer databases have some security problems in storing information. On the other hand, the information storage mode of related computer databases is directly related to the user rights of related data access users. Therefore, in order to ensure that the information in the whole computer database is not leaked or lost, the stability and security of the computer database are further guaranteed. The relevant computer database programmer will recompile the information access rights of the relevant users when the relevant computer database program is written. In order to ensure that different users in the use of information access rights also have different differences. Through the application of this technology, the users with relevant permissions can get the relevant database information smoothly, and the users without relevant permissions will be automatically blocked by the system outside the door of computer data. This will not affect the computer database experience of relevant users, but also effectively ensure the security and reliability of information in relevant computer databases. In order to further ensure the security of information in the relevant computer database, so that the relevant enterprises reduce the economic losses caused by the leakage of relevant core information [9].

3.5. Protection of database documentation
For some basic information in the relevant computer database, further encryption and protection can be carried out through the programming technology in the relevant computer numerical control database, so as to ensure its absolute security. Because the content of this part of the data information is closely related to the personal privacy of the owner, if the relevant information is leaked, it will have incalculable consequences for the owner's life and all aspects of his work. Therefore, the programmers of the relevant computer database should further encrypt the important information in their computer database. The information of different privacy degree in different regions is further divided and the relevant information is extracted according to the different authority of the user. By subdividing the login password, login password and related verification code information, the login information used in different degrees of information should also be distinguished [10]. In addition, for some particularly important information, the user can also confirm the secondary password when he wants to obtain the information and extract the relevant documents, thus realizing the dual protection of the relevant documents and information. Through the application of this technology, it can not only effectively reduce the relevant computer database information and the probability of files being invaded and destroyed by network viruses, but also ensure the stability of the whole computer database.

4. Database Programming Technology in Computer Software Engineering
4.1. Design and development of programming techniques
Before the formal use of the relevant computer database, the database programmer in the related software engineering should use the relevant computer database repeatedly to ensure that it can run normally and stably. But this is only the beginning. When the relevant computer database is formally put into use, the relevant professional and technical personnel should supervise and manage the operation and use of the database in real time. In the event of a problem, the first time to repair the problem or failure. Therefore, this requires the relevant staff to actively repair and improve the
database programming technology in computer software engineering repeatedly, so as to continuously optimize the database processing [11]. In addition, the relevant technicians should optimize and improve the data of the relevant application software by optimizing the different characteristics of the relevant computer database in different software, so as to ensure that the whole computer database can run continuously and stably.

4.2. Encrypt database files
The continuous progress of computer technology has promoted the continuous development of the whole society. Relying on the powerful ability of computer to store information can store a large amount of information on the computer, but it also makes the privacy of personal information very poor. On the one hand, in the process of people browsing network information, invisible personal information left in the network. On the other hand, hackers and other criminals use computer loopholes to steal information in the computer, resulting in the disclosure of personal information. As an information processing tool for important information storage and processing by related enterprises and individuals. The security and reliability of relevant information in the whole computer database play an important role in the information security of people's daily life and the data and information security of related enterprises. Therefore, the relevant computer database programming technicians need to encrypt all the stored personal information in the relevant database, and in the event of information disclosure is to start a standby plan to intercept the related theft of information. In addition, the relevant information is partitioned and encrypted to ensure the security and reliability of all information storage. In addition, the relevant technicians can use the relevant computer database programming technology to further encrypt the important information when processing the personal information of their users. Different decryption methods are set up for each encryption scheme to ensure the absolute security of privacy information.

5. Problems in development

5.1. Physical problems
In the process of dealing with the problems in computer database, the problems in physical hardware are often the basis of the whole computer database management. All the other problems in computer database can not be solved without the related computer physical hardware [12]. However, in the process of storing the relevant database, the internal information stored in the relevant database is lost or leaked because of the related hardware damage, so the problems in the computer database are often caused by the physical hardware. Therefore, in solving the problems existing in the relevant computer database, we should first solve the related physical hardware problems.

5.2. Network security issues
With the continuous innovation of science and technology and the continuous revolution of computer in China, computer has been inseparable from people's life, but in the process of computer development, the computer network environment has become worse. As a result, the personal privacy of modern residents can not be guaranteed, and the related privacy leakage incidents occur from time to time, which leads to the increase of malicious links related to computer security accidents. Therefore, even if the relevant computer database used to store a large amount of information itself has extremely high security, once connected to the network, it may be attacked by some computer viruses. In today's society, a large amount of information in the database is unsafe, which seriously affects the security of relevant information

6. Conclusion
The application and research of database programming technology in computer software engineering is of great significance to the application of computer in our country's life and production. It can
promote the further development of China's computer technology and information industry, and promote the continuous improvement of China's comprehensive national strength.

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