

Study on the application of data dictionary in database information system

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Abstract: with China's economic development and the continuous progress of science and technology, the data dictionary in database information system has been widely used because it can support complex information types. As the basic framework of the whole database, the application degree of the data dictionary is related to the system running speed. Through the research on the structure of the data dictionary in the database, it is to realize the database operation. It is an effective way to improve the speed. For this reason, the author combines several years of database design and maintenance experience, and writes this paper on the basis of consulting a large number of references. In this paper, the characteristics of data dictionary are analyzed in detail, and a constructive optimization method of data dictionary for database information system is proposed.

1. Introduction

Data dictionary is the main information support system of database. Its existence preserves all relevant data contents of database system and maintains most information security of database. Data dictionary refers to the collection of the same type of data in different management objects to form a relatively independent special file. Generally, data dictionary can be divided into four types: security maintenance information, operation processing information, system operation information and basic database information. Database information contains multiple information contents such as data file information, establishment date information, path information, keywords, etc. these contents gradually form a huge database under the accumulation of a large number of users' use, and the contents of operating database and coordinating database information are the use of data dictionary.

2. Data acquisition method of data dictionary in database system

The data set formed by systematic classification and summary of data according to database is called data dictionary. Data dictionary is of great help to maintain the daily operation of the database. It is generally divided into active database dictionary and passive database dictionary according to the needs of customers [1]. The active database dictionary will start according to the user's operation requirements, maintain the total data content, and provide some help for users. In fact, it can find more keyword information while searching for data; the passive database dictionary only passively searches the stored relevant data, and conducts in-depth research on information content for public readers. Under normal circumstances, when users need to obtain the information content they need from the data information, they should do it from two aspects: dynamic acquisition and static acquisition. When the data is in the dynamic acquisition mechanism, they can process the text information by using foxdate; when the data is in the static acquisition mechanism, they can process the new content by using DBF or implement the information Collect the data in time and update the relevant data content in time [2].

3. Application advantages of database information data dictionary

First of all, the application dictionary in the database can understand the specific relationship between the data, because the data dictionary contains a lot of data content with real value, so the order of its authenticity data segments and display rules are more clear, so in the actual application

process, it can help users filter out junk information, and promote users to improve the efficiency of information search[3]。 The usage of application data dictionary is not invariable, it needs to change according to the actual situation and the surrounding environment, and show its function in the process of change, so that the database content can be presented to users in a more simple way. Secondly, the application of data dictionary can expand functions and users. Users can record user-defined information through system operation, and then the interface formed by data dictionary can form intelligent user interface after many reforms. This kind of interface is a user-defined irregular operating system based on user needs. Under the basic condition of unified rule user interface, It forms a separate "private customized" interface, which enables users to get the help of data dictionary in unfamiliar database, and makes the generated system more stable. In addition, users will also be exposed to a large amount of data content when developing the private operating system interface. Users indirectly learn how to use the data dictionary to improve their learning efficiency and operation proficiency [4]. Thirdly, the database application dictionary will provide security access rules in general, and the user's operation role has the highest operation right. When the user logs in to the system with personal information, the system will conduct security audit for the user's identity, and the user who passes the audit will automatically display all kinds of functions that the authority can control, and the user can audit according to the operating system rules Add or delete the database content, restrict others' access rights, change the login password and other comprehensive operations. Of course, the user's operation authority can not exceed the system program rules given by programmers, which is the basis to ensure the safe operation of the system. Finally, the data dictionary supports the user to arrange all the open windows systematically. The important fields or contents can be hidden, and the font color can be modified to mark out the important keywords or characters, so that other users can get more useful data content when viewing the data content. The understanding of the system data structure and related technologies also promotes the users to further deepen the application of data dictionary in the process of accessing the database.

4. Design of information data dictionary for system database

The design concept of the system database information data dictionary is to connect the data with the user, to help the user search for information in the database, to quickly find their own information content, but also to provide users with more similar information display, to show the data content to the user to the greatest extent, and to reconstruct the data set, extract the common information Sex part [5]. Designers should understand that the 21st century belongs to the era of information explosion, a lot of information is retained in the form of network information, the amount of information is huge and the content is patchy. If users want to find useful information in these data, if they do not screen useless information through the correct method, then the work of finding information is just like looking for a needle in a haystack. Therefore, the starting point of design is very important It is to help users select valuable key information as much as possible, and the most effective method is to display useful information according to users' search habits and other information, combined with search keywords [6].

The user data dictionary needs to define the user's attributes according to the user's habits, and its design needs to be from the user's name, user permissions, personal habits, age cognition and other directions. In the design of data dictionary through table data, designers can apply the design principles of data dictionary. On this basis, the system classifies the attributes of data table, improves the data report name statistics system, file name construction system, table class analysis system, index table and index mode. It is worth noting that the index table is a table with file name that needs to be determined. Therefore, there is more than one table in the actual database data dictionary, and several tables can be designed at the same time. In addition, for the design of data dictionary of data items, designers must keep a clear state of thinking. A good idea can be applied to many aspects of design. In the design process of data table name, data item name, related performance, code rule setting and missing sign, it is necessary to make up for the deficiencies in definition in time.

5. Conclusion

In a word, the data dictionary in the database information system is the attribute content of the digital set formed by the induction of the data. Therefore, the application of the data dictionary can reduce the difficulty of finding the data and facilitate the user to find and use the data content. The most effective way to classify the original data in data dictionary is to design the user interface to further understand the database content and the application method of data dictionary. In addition, when improving the application of data dictionary, designers also need to deeply understand users' search habits and other relevant data, so that users can find the information they need according to keywords, and display more relevant information to push to users, so as to meet the actual needs of users.

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