

# **The role of database management system in information management**

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**Abstract:** with the development trend of the era of big data, the importance of information management is becoming more and more recently caused the attention of people, how to manage the large amount of information, how to deal with the huge amounts of information, the higher efficiency is a big problem, the database management system is to solve a good tool for information processing, database management system because of its strong ability of information management, information management is becoming more and more play a positive role. This article will combine the database management system characteristic and the application and the information management between the actual situation, analyzes the database management system in the information management function carries on the analysis, and gives the certain suggestion in view of the insufficiency.

## **1. Introduction**

Current is an era of information explosion, vast amounts of information pouring into people's lives, the information from all directions, and every moment in generating new, workers need to constantly to screening to extract useful information from them that takes a lot of effort, a database management system for management information, processing information, are of great help.

## **2. Overview of database management system**

The database management system is a kind of system software on the computer, can carry on the information management to the data, is used for the data management between the user and the operating system, and the user quantity is not the only, has the very strong data processing function in the aspect of the operation management. The first is the data definition function, which is used to organize the definition of data. The data organization function is the core function of data processing, and the data storage and management function is used for the next step of data processing. The data manipulation function, the database transaction management function, the operation management function, the database establishment and maintenance function are also used for the last step of data processing. These data processing is based on a certain data model, in the operation of processing to minimize data redundancy, improve the efficiency of data management.

Management information system is a kind of information management system in order to achieve high efficiency and modernization of management. Information processing is human-oriented, which collects, transfers, stores, processes, maintains and USES information, so as to improve the utilization efficiency of information extraction, including the effective processing and decision processing of information. Through continuous development, information management has also expanded the scope of inclusion, and has been more widely applied in the field of management and economy, promoting the development of the society.

## **3. The application of database management system in information management**

At present, the database management system is widely used in information management. The powerful data processing function of the database management system has a strong adaptability with the information management system. The application of the database management system plays a positive role in it.

1) the database management system requires the data stored in the database to be structured to help the information processing be more clear and structured. In information processing, now let the data have structure, structure can make the data more clear, convenient to improve the speed of data processing. For example, under the data model, data will present a fixed pattern after classification, and we can quickly find the data we need.

2) the organization structure of the data in the database of the database management system determines the high sharing, low redundancy and easy expansion of the data it stores. A big problem of information management is data duplication, redundancy, the proportion of available data in the mass data is very low, but the database management system data organization redundancy is low, at the same time the database management system sharing is also high, easy to share between data information, contact more data information, high connectivity.

3) high data independence of database management system. Data independence helps two and changes between two or more data sets and build a relationship, if the data in the Table has a data error, then the database management system for a single data can be directly modified, without affecting the use of the whole data set, at the same time in the two Tables to establish relations, modify the data can also be a separate change, does not affect the establishment of the relationship between the whole data. The database usually adopts three-level schema structure: external schema, internal schema and internal schema. Database system level 3 models corresponding to different three Abstract level, mainly is the specific organization of data, the user can from the logical, Abstract class management information, the database of the three-stage model also has two layers of the image, the image determines the independence of the data layer, data independence independence includes the physical and logical independence, physical independence is the independent database program and peripheral storage database, logical independence is a user of the application with the logical structure of the database are independent of each other, the database logical structure change, just change models/image, user programs don't have to change.

4) the database management system supports data sharing. The data in the database is managed and controlled by the database management system. Allows multiple users to access data in the database simultaneously, or even the same data in the database simultaneously.

5) the database management system also has the function of data security protection to help protect data information and reduce losses caused by operational errors, which is also a good guarantee for data sorting.

6) the database management system USES common methods to complete the processing of data. Can carry on the relation operation between the database, greatly facilitated the use of the database. In this way, the database management system can better realize the further reasonable and optimized allocation of information resources.

#### **4. Research on the application of database management system in information management**

Although the database management system plays a lot of role in the information management, but there are still some deficiencies in the actual situation of the application, we need to continue to improve.

1) the application field of database management system is not wide enough, and it needs continuous improvement. The database management system integrates many disciplines and has a wide range of application fields. However, the current application is only limited to some economic and financial aspects, and the popularity is still low. Therefore, this point still needs to be improved.

2) to meet the needs of continuous development of information management, new technologies of database management system keep emerging. At present, the database technology is still not enough to improve the needs of information technology, in some practical application process, some information management can not be effectively completed, the actual situation is always changing, so the database management system to constantly adapt to the development of information management.

3) continuously improve and strengthen the technical means of security. A big problem of information management is information leakage, this small move will cause very serious dangerous

consequences, the current database management system security is not high enough, which needs to constantly improve the data security protection technology, to provide a solid guarantee for the further use of the database management system.

## **5. Some Suggestions on the application of database management system in information management**

In view of the application of database management system in real life, this paper puts forward some Suggestions.

1) further strengthen the safety protection function of the database management system. The first is the strengthening of security, security is the first guarantee, only continue to improve the security, the database management system can develop more robust.

2) the theoretical research of database management system must be in line with the actual application situation, emphasizing practicality. The current database application in the information management theory research and the actual operation is not quite consistent, some theories are not suitable for the actual need, this needs to strengthen the database management system theory practicality, only practice, can be true knowledge, so as to better improve the database management system technical level.

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