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Project

On

**Online Shopping Management System**

By

**TEAM 18**

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# ONLINE SHOPPING MANAGEMENT SYSTEM

Shopping sites are a platform where an individual can buy different products and even sell one’s own product on these platforms. These sites constantly need to be in contact with their customers, retailers and their products. Thus, they need to keep themselves updated. Therefore, for proper functioning of these websites, they have to keep all the information regarding their customers, retailers and their products and thus, they have to maintain a large database and keep it updated regularly. Along with that, these websites offer discounts, shipping facilities and even gift wrapping to attract customers and retailers. Thus, their database becomes even larger and need to be handled appropriately.

So, a well-functioning management system is required to handle these large amount of data. This can be fulfilled by a proper Management System of these data.

There exist two choices to achieve a proper management system.

1. File Management System
2. Database Management System

So here, we are presenting a detailed comparison between these two management systems.

File Management System

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Database Management System

There are several factors that make difference between the benefits and drawbacks of File management system and database management system. Both file and database management system have their own benefits and even drawbacks. But in most cases database system is better than file management system.

In case of online shopping management system, there are several factors that makes database management system better than file management system. We will see for some factors with examples and conclude what is better for online shopping management system database or file based management system.

# Data Redundancy:-

Data redundancy is repeating of similar type of data multiple times in the system. In online shopping, several retailers sell same products and even several customers buy same products. So same type of product is repeated multiple times in the system and so it occupies large amount of space on the hard-disk.

If we use file management system, it becomes a lot difficult to manage these repeating data, as data redundancy is a lot higher in file management system. Also, a lot of space is required in file management system. While using database management system, it’s a lot easier, as we use several tables to store data in database and hence reduce data redundancy and save the memory space on the hard-disk. So database management system is preferable to reduce data redundancy in the system.

# Data Inconsistency:-

In file management system, when there is need of changing any data, the data has to be changed everywhere in the system manually. But in database management system, one can change data everywhere simultaneously, as changing data at one place changes it everywhere in the database at once.

For example, if a person wants to change his contact number, then he has to change it everywhere in file management system like personal details, shipping details, payment details, invoice etc. This is a tedious job to do. While changing the contact number in database management system in personal details or shipping details changes it everywhere in the database including invoice. Thus, data inconsistency is lesser in database management system than file management system. Hence it is more preferable to use.

# Difficulty in Accessing Data:-

In online shopping using file management system, if a retailer wants to know the number of customers in any particular area either he can manually search for the customers using files or he can call a professional coder to search for required list in the files. The manual search is a tedious process but calling a coder won’t even solve his problem as he would have to call him again and again for different queries. But using database management system, one can simply search for whatever he wants in the system.

So, database management system makes the work easier and consumes less time. Therefore, it is more efficient.

# Data Isolation:-

File management system stores different types of data in different files. Thus, while retrieving any data using application, it becomes difficult as file formats are different. But database management system stores all type of data at one place i.e. all the data is stored in form of tables, so it’s a lot easier to retrieve data from the system. Hence database management system is preferable for data retrieval.

# Integrity Problems:-

Using file management system, one cannot apply any constraints on input of data such as contact number should be of 10 digits only, ID must be of some specific digits, etc. While database management system gives advantage, as one can apply several parameters on the input of data in the database. So it makes it easy and efficient to manage the data.

# Atomicity Problems:-

While system failure occurs, some running processes in the system could not finish. That is if a transaction of some amount of payment is being done online by any user and In case if system failure occurs there is a chance that maybe the amount is deducted from one account, but not added into the another account.

So, it is required to ensure some amount of specificity in the system that either process will fail while system failure or the process will succeed while system failure. It is difficult to ensure specificity in conventional file processing system.

# Concurrent-access:-

Online shopping site has so many visitors daily. Everyone accesses same data simultaneously. Take example of several users paying for an order at the same time on the shopping site. So they all are redirected to the same payment gateway at the same time. Therefore, simultaneous access to the redirecting link has to be given to the customers.

Concurrent access to the same file is complex in file management system as one needs to use several private servers to access same file simultaneously. But in database management system it is a lot easier due to centralized system. So database management system is preferable to use instead of file management system.

# Security Problems:-

Online shopping site have all types of user and retailer data. Not everyone should have access to each type of data online. Such as retailers can have access to the details of their customers, but they should not be given access to the data of other retailers of same customer. Also, a retailer should not have access to the data of customers of other retailers. File management system cannot restrict access to some users and gives access of those same files to other users. But database management system can restrict access to some particular data and give access to other users of the same data.

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