LIMITATIONS OF MS EXCEL

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Introduction

MS Excel is a spreadsheet software developed by Microsoft for windows. Over the years, MS Excel was used to deal with non-large data and indeed, it has shown a significant impact on businesses and individuals alike. Its user-friendly interface and powerful features have made it a go-to tool for organizing, analyzing, and visualizing data. However, the idea of extending the functionalities of MS Excel to work on large amounts of data might not show the same level of efficiency as it does on simple datasets. So why MS Excel can not be used as a substitute for databases?

Main Body

The functionalities provided by MS Excel show several limitations when working with large amounts of data compared with databases.

First of all, databases use DBMS, short for Database Management Systems, the latter is used to make the database more flexible for storing, editing, modifying, retrieving, and even linking pieces of data. MS Excel allows the user to link between data, yet it does not link between more than two sheets at a time, so it would be time costly trying to achieve the link between the pieces of data that are inter-related between each other.

Second, MS Excel shows a rigid performance when editing the same pieces of data located in several sheets, as it does not automatically edit similar data cells in other sheets within the same workspace. Additionally, transferring information from one spreadsheet to another data table is a time-consuming and manual task that's vulnerable to human error. Databases, however, support dynamic performance where data is automatically updated across different locations.

Besides, MS Excel has no version history, so one can edit the same spreadsheet several times, then wants to retrieve a previous version which they have been working on, or two people are editing the same spreadsheet in the same time and each version of them is as important as the other one in their work. It would be very challenging to deal with these issues in MS Excel as it does not support version history control. Databases have come with a solution for these problems that people generally face by incorporating the versioning feature into many DBMS software.

Finding the data you need in Excel is limited to searching using Control+F and column filters. Databases from the other hand, provide a robust searching mechanism which keeps the data organized and available for quick data retrieval.

An other aspect in which MS Excel features fail, is data consistency, MS Excel allows users to put inconsistent and different types of data within the same column, which makes it prone to typo errors and technical mistakes. Databases solve this issue by managing the type and format of data instances, this makes it easy to use and very efficient when handling with enormous amounts of data.

Finally, Excel does not manage visual data. Companies attempting to utilize it as a database face challenges due to the disparity between text-based content and visual elements. Excel lacks the capacity to efficiently handle high-quality images and videos, relying solely on URLs as the link between product information and associated media. This limitation poses clear difficulties when managing product data.

Conclusion

To sum up, MS Excel used and will always be a powerful tool when working with small sizes of data. But, it can't be used as an alternative for databases due to its limited functionalities that do not match the requirements of large data management. Ultimately databases can act as the best solution for these requirements and they act very efficiently while feeding the users 'needs.