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Introduction to Database

1.A database is essential for any organization. It is particularly crucial in the retail sector, online stores, inventory management, data sharing, and simple queries. The use of relational database has made it simple for retail franchises to keep up with low stock and to know what happens to all products. This is possible through the use of primary keys e.g. product ID and the use of tables.

Tables make it particularly easy for anyone to read and understand what is happening. The use of rows and columns is a revolutionary design. Columns show a specific attribute of data (e.g. Product ID, Name, Price, Quantity). While rows allow single data entries, making each entry unique.

Simple queries have been crucial for any retail store to function properly. They make inventory management easier. It asks the database to compile the necessary information needed for decision making. Examples could be;

* showing product quantity under a certain number
* showing the price of a product

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3**.Database vs File systems**

Database is far superior than file systems. Databases are secure , temper proof and are easily accessible. Databases are centralized and are managed by the DBMS, whilst data in file systems are not. This can lead to duplicate documents to be made (Data redundancy). Databases can use the DBMS to search and retrieve specific data, whereas file systems make it difficult to find, search or combine data. This ultimately leads to back-ups in work flow and a decline in performance.

To sum it all up. Database is a far more efficient and useful system to store and retrieve data. File systems are old, outdated and more prone to errors.

4.MySQL is one of the most widely used open-source database management systems(BBSM). It is based on Structured Query Language(SQL) and is commonly used to store, organize, and manage large amounts of data. MySQL offers features such as scalability, high performance, reliability, and strong security. It supports multiple users and handles large databases efficiently, making it ideal for businesses, e-commerce platforms, and web applications. MySQL intergrates well with programming languages like PHP, Python, and Java, which makes it popular for developing websites and online services. Its ease of use and cost effectiveness makes it suitable for both beginnings and enterprises.