

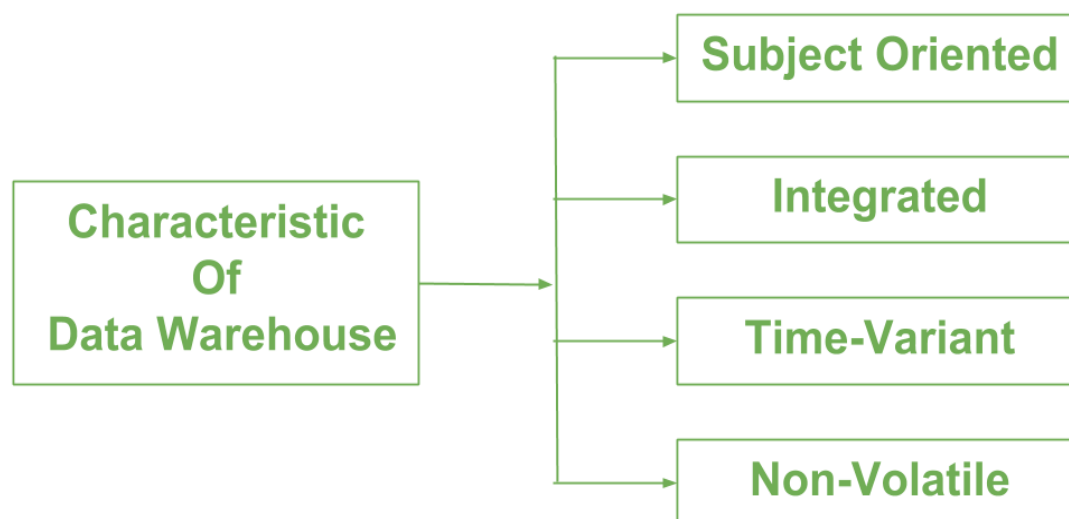
What is OLTP?

OLTP (online transaction processing) is a class of software programs capable of supporting transaction-oriented applications. In computing, a transaction is a sequence of discrete information exchanges that are treated as a unit. Many everyday acts involve OLTP, including online banking, online shopping and even in-store shopping when the point of sale (POS) terminal is tied to inventory management software.

Two important characteristics of an OLTP system are concurrency and atomicity. Atomicity guarantees that if one step is incomplete or fails during the transaction, the process will not continue. Concurrency prevents multiple users from altering the same data at the same time. In order for a transaction to be completed successfully, all database changes must be permanent, a condition known in computing as atomic statefulness.

Chara:-

Data warehouse can be controlled when the user has a shared way of explaining the trends that are introduced as specific subject. Below are major **characteristics** of data warehouse:



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1. Subject-oriented –

A data warehouse is always a subject oriented as it delivers information about a theme instead of organization's current operations. It can be achieved on specific theme. That means the data warehousing process is proposed to handle with a specific theme which is more defined. These themes can be sales, distributions, marketing etc.

A data warehouse never put emphasis only current operations. Instead, it focuses on demonstrating and analysis of data to make various decision. It also delivers an easy and precise demonstration around particular theme by eliminating data which is not required to make the decisions.

2. Integrated –

It is somewhere same as subject orientation which is made in a reliable format. Integration means founding a shared entity to scale the all similar data from the different databases. The data also required to be resided into various data warehouse in shared and generally granted manner.

A data warehouse is built by integrating data from various sources of data such that a mainframe and a relational database. In addition, it must have reliable naming conventions, format and codes. Integration of data warehouse benefits in effective analysis of data. Reliability in naming conventions, column scaling, encoding structure etc. should be confirmed. Integration of data warehouse handles various subject related warehouse.

3. Time-Variant –

In this data is maintained via different intervals of time such as weekly, monthly, or annually etc. It founds various time limit which are structured between the large datasets and are held in online transaction process (OLTP). The time limits for data warehouse is wide-ranged than that of operational systems. The data resided in data warehouse is predictable with a specific interval of time and delivers information from

the historical perspective. It comprises elements of time explicitly or implicitly.

Another feature of time-variance is that once data is stored in the data warehouse then it cannot be modified, alter, or updated.

4.Non-Volatile –

As the name defines the data resided in data warehouse is permanent. It also means that data is not erased or deleted when new data is inserted. It includes the mammoth quantity of data that is inserted into modification between the selected quantity on logical business. It evaluates the analysis within the technologies of warehouse.

In this, data is read-only and refreshed at particular intervals. This is beneficial in analysing historical data and in comprehension the functionality. It does not need transaction process, recapture and concurrency control mechanism. Functionalities such as delete, update, and insert that are done in an operational application are lost in data warehouse environment. Two types of data operations done in the data warehouse are:

- Data Loading
- Data Access

Functions of Data warehouse:

It works as a collection of data and here is organized by various communities that endures the features to recover the data functions. It has stocked facts about the tables which have high transaction levels which are observed so as to define the data warehousing techniques and major functions which are involved in this are mentioned below:

- 1.Data consolidation
- 2.Data Cleaning
- 3.Data Integration