

Data warehousing and storage systems

Technology, Information Technology



Data Warehousing and Storage System Introduction Data warehousing is the process of collection of integrated, oriented, non-volatile and time-variant data to support decision making for a management. Data warehouse helps storage of historical and current data so that it can be used for quarterly or annual comparisons by management of an organization or group. The application and benefits of Data warehousing and storage system is further illustrated in the discussion.

Discussion

The types of Data warehousing are Online Analytical Processing, Data Mart, Predictive Analysis and Online Transaction Processing. These types of warehouses help in attaining different range and level of storage of data in a computing device. A data warehouse is useful because it can maintain replica of information from the source. This architectural convolution provides the prospect to alleviate the problem of database isolation level lock conflict in operation processing systems that is caused by long or large running attempts and queries related to analysis in the processing database of transaction (Silvers, 2008). The uses of data warehousing is not just limited to one prospect it also helps in compressing data into a single source from multiple sources so that only one query engine can be used. Data warehousing increases the efficiency of working and it improves the data quality by maintaining data history accurately even when the source transaction is unable to keep the record. It helps in keeping information secure and also updates if any alteration is done on any data. This is very important because storage of data should always be in a secured mode in order to avoid isolation of information.

The concept of data warehousing was brought forward in the later part of 1980, in order to deliver an architectural model for flow of information from operational systems to decision support systems (Becker, 2002). Data warehouses in order to obtain analytical access patterns are optimized. They involve in selecting specific fields of function unlike operational systems that use a common type of access pattern. Due to these differences analytical databases get benefited from column-oriented data base management system and operational database get benefited from row-oriented data base management system. Operational systems only maintain a picture or frame of business related information however data warehouses maintain the entire history that is implemented from ETL processes. The evolution of data warehousing in organization use is very sophisticated. There are mainly four levels of warehouses. Offline data warehouse, Offline operational data warehouse, integrated data warehouse and on time data warehouse. These four levels of data warehousing is used in order to store data for maximum utilization for organizational purposes. Storage of information is a very important concept because information should be stored in a proper architectural system from where information can be obtained for referring and modification purpose as and when required.

Conclusion

Data warehousing is very important in storage of data. Data warehousing provides proper security and safety for data stored in a system. The most important part is the accessibility of data when require. Because of the concept of warehousing information can be stored and retrieved from infinite history. Hence data warehousing is very important in data storage

techniques for an organization.

References

Becker, S. (2002). Data Warehousing and Web Engineering. New York: IGI.

Silvers, F. (2008). Building and Maintaining a Data Warehouse. New York: CRC Press.