

Data warehouse vs data mart research paper examples

[Business](#), [Organization](#)



Introduction

Data warehouse is the database for the whole corporate organization that is used for data analysis and reporting. On the other hand, a data mart refers to the subset of the data warehouse and it is mainly designed for a specific business team or line.

The Integrated Healthcare Delivery System can utilize the data warehouse in various ways that are discussed below.

The data warehouse can be used to deploy dashboards so as to monitor the best practices in areas such as infections and diabetes. The non-ending streams of data can be useful in creating different registries, which includes transplant, cancer and hypertension (Enrado, 2010).

Furthermore, the enterprise data warehouse in Medical University of South Carolina has been helpful, for instance, to the academic medical center in the reduction of ' chart abstraction time' basically for the Medicare & Medicaid Services Centers measures (Enrado, 2010).

Moreover, with the introduction of data warehouse in the Integrated Healthcares, there will be increased confidence in the quality of data. In addition to this, it can enable users to access metadata, as well as making them informed on how the data was collected and transformed. By the use of a data warehouse, one type of truth will result across the integrated data system due to the provision of demonstrable data integration (Ewen, Medsker & Dusterhoft, 1999).

In addition, data warehouse can also be used to enhance the understanding of the population, and thus the health care providers will be able to improve

efficiency in the management of healthcare programs (Ewen, Medsker & Dusterhoft, 1999).

The healthcare executives can also use the On-line analytical processing systems (OLAP) for decision making since it can open the support perspective for new decision.

Difference between a data warehouse and a data mart

A data warehouse is a database scheme that stores metadata and historical information from the operating system so that it can facilitate the analysis and reporting of data, while a data mart on the other hand, is a layer which is normally referred to as access layer that is used by users to get information or data from the data warehouse. The data mart represents the hardware, the software, data and programmes of a specific office. The data warehouse has many areas in which the data mart contains one of the areas; the data mart has a specified subject area (Standen, 2008).

A data warehouse contains a variety of subject area, that is, it is not limited to any specific department. For example, it can contain sale, finance, marketing and production. On the other hand, a data mart can only hold one of those subject areas, for example, a data mart for finance. This means that a data mart of a specific department do not resemble with data mart of any other (Standen, 2008).

The data hold in the data warehouse is indexed lightly because it must manage a lot of data, while the data hold in a data mart is indexed highly because it does not support a large volume of data since it is designed specifically for a specific department (Standen, 2008)..

The information stored in a data warehouse is usually very detailed while the information that the data mart hold is much summarized though it tries to capture all the details.

The data warehouse serves to integrate data from all the sources and areas while the data mart serves to integrate data from its specified area of concentration.

It is not usually necessary that data warehouse use dimensional models but instead they feed these models. On the other hand dimensional models are used to build data marts using a schema.

We can therefore say that a data warehouse can adequately support the entire organization whereas the data mart is useful for organizations with a few departments.

Purposes of Data Warehouse and Data Mart in an Organization

Data Warehouse

It is used in performing disk or server bound tasks which are linked to reporting and querying on the disks or servers that are not used by systems of transaction processing.

Data warehouse is also used in the provision of an environment whereby the technical knowledge of database technology is required in very small amount in writing and maintenance of queries and reports.

It can also be used in the repository provision of what is termed as “cleaned up” systems of transaction processing, which is in a position of being reported against, and also that which does not essentially require the transaction processing systems fixation.

Data Mart

It is used to address the problem of difficulty in the analysis of large amount of data that are brought together into the data warehouse. This means that data extraction from complex and huge production files are made quickly.

It can be used for surgical scheduling and reporting in medical field, as well as serving as operational data store.

It can be used by the senior managers of an organization to receive data through dashboard for them to make critical decisions in business as the events happen.

References

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