

TASK

2

★ DATA MART:

A data mart is a simple form of data warehouse which focused on a particular subject.

-for eg if a marketing team want to make any decision they don't have to combine the scattered data from different sources. They simply get from data mart. where data is organized & centralized on that subject.

Due to ~~less~~ data available to certain topic they provide quicker access

* DATA LAKEHOUSE:

Data lake house combines the best features of Data lake and data warehouse to provide flexible and low cost data storage services.

It used low cost storage that used in data lake and merge all data into single system. which enable data team to work faster as they don't have to access multiple system.

Data lakehouse provide most updated data for Data science, machine learning and BA projects.

* DATA Mesh:

It is a decentralized form of data storage where the ownership of data belongs to the producer of that data.

It organizes data by specific business domain, e.g., marketing, finance, which provide accuracy and time saving for the decision making. and more flexible & responsive data architecture.

* DWH VS DL

* Data warehouse consist of structured data
vs DL consist of unstructured data.

* Data warehouse store data in optimized form in schemas. while data lake store data in raw form

* DWH is used transactional ~~serv~~ services or ERP & CRM ~~where as~~ also in contain historical data. while DL is used for exploratory analysis and ML on raw data

* DWH comes with high cost ~~to~~ because of high access time vs data lake comes with low cost and scalable

* OLTP Vs OLAP

Online transaction process (OLTP) is a transactional database that is designed for day to day service for an organization.

It stores real time transaction data
It is a fast & efficient data storage and retrieval.

where as OLAP (Online Analytical process) it is designed for data analyst and reporting. as it contain large amount of historical data

OLAP database are optimized for queries & data analysis and typically use multi dimensional data model for rapid querying