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HOME WORK 7

1. What is a data warehouse? List the types of Data warehouse architectures.

A Data Warehouse is a central location where consolidated data from multiple locations are stored.

Data Warehouse is not loaded every time when a new data is generated but the end-user can assess it whenever he needs some information.

Each data warehouse is different, but all are characterized by standard vitalcomponents.

Types of Data Warehouse Architecture :

Single-tier architecture, which aims to deduplicate data to minimize the amountof stored data.

Three-tier architecture.

Data Warehouse

Database.

Extraction,Transformation,and Loading Tools

(ETL)Metadata.

Data Warehouse Access Tools.

2. *What does OLAP stand for?*

Online analytical processing (OLAP) is a system for performing multi-dimensional analysis.

At high speeds on large volumes of data.Typically, this data is from a datawarehouse ,data mart or some other centralized data store.

3. *What does OLTP stand for?*

OLTP (online transaction processing) is a class of software programscapable of supporting transaction-oriented applications.

In computing, a transaction is a sequence of discrete information exchangesthat are treated as a unit.

4. *What is a star schema?*

A star schema is a database organizational structure optimized for use in adata warehouse or business intelligence

That uses a single large fact table to store transactional or measured data, andone or more smaller dimensional tables that store attributes about the data.

5. *What is a snow flake schema?*

A snowflake schema is a multi-dimensional data model that is an extension of a star schema, where dimension tables are broken down intosubdimensions.

Snowflake schemas are commonly used for business intelligence and reportingin OLAP data warehouses, data marts, and relational databases.

6. Define fact-less fact.

Factless facts are those fact tables that have no measures associated withthe transaction.

Factless facts are a simple collection of dimensional keys which define the transactions or describing condition for the time period of the fact.

7. What do you understand by dimensional modeling?

Data Dimensional Modelling (DDM) is a technique that uses Dimensionsand Facts to store the data in a Data Warehouse efficiently.

It optimize the database for faster retrieval of the data. Dimensional Models have a specific structure and organise the data to generate reports that improveperformance.

8. What is a data mart?

A data mart is a structure / access pattern specific to data warehouseenvironments, used to retrieve client-facing data.

Data mart is a subset of the data warehouse and is usually oriented to a specificbusiness line or team.