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SUBJECT DATA WAREHOUSE

MID TERM EXAM

Q1 Describe the Architecture of Data warehouse

Ans: A Data Warehousing is process for collecting and managing data from varied sources to provide meaningful business insights

History: The Data warehouse benefits users to understand and enhance their organization performance. The need to warehouse data evolved as computer systems became more complex and needed to handle increasing amounts of Information

Architecture: An Overview. A data warehouse is the defect source of business truth developed by combining data from multiple disparate sources. It supports analytical reporting, and both structured and ad hoc queries.

It is complex unit where all the data is collected from different source. There are three approaches for creating data ware house.

Single tier

Two tier

Three tier

It is the design of collecting data and storage frame work

Single tier

It is the strategy used to minimize the amount of data stored.

This architecture is not more usable due to his low minimizing

Two tier:

This architecture is not expandable and limited data storage.

There are no more end user because of its network limitations.

Three tier

This is the most widely used architecture.

Consist of

Top

Middle

Bottom

Top tier:

Top tier is the most usable tier because of the client interact with the top tier.

Middle tier:

This tier work as the path of between warehouse and end user.

Bottom tier:

Data is transformed using back and tools.

Q2: Describe star schema with example of any relevant database structure and its representation

Ans : Schema is a logical description of their entity database.

It is a pictorial representation.

It has three types

Star schema

It have a two component fact table and dimension table

In star schema there is only one fact table and multiple dimension table

In fact table some of the facts and the major related with data

Dimension table consist of attributes of dimension

Fact table is foreign key

Dimension table is primary key

In one table if there is four dimension then the in fact table there is four foreign key

Fact table is normalized

Dimension table is not normalized

SNOW FLAKES SCHEMA

It is actually star schema

It is a normalization process

It is mange the size of dimension

FACT COSTELATION SCHEMA

It is a combination of two or more-star schema

In thus there is a lot of fact table and dimension table

It fallows the complicated design (implementing or designing)

Q3 Describe snowflake schema with example of any relevant database structure and its representation

Ans

Some dimension table in the snowflake are normalize

The normalization separates the data in table form

It's a same like star schema

The dimension tables in a snowflake schema is normalized

Example

The item dimension in star schema is normalized and split into two dimension tables

