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Read the attached word document, and answer these questions.

1. What is data warehouse?

A. Data warehouse is the database that is designed for query and analysis rather than for transaction processing. It usually contains historical data derived from transaction data, but it can include data from other sources. It separates analysis workload from transaction workload and enables an organization to consolidate data from several sources.

2. What are Characteristics of DW?

A.

❖ Subject oriented (data mart)

    Data warehouses are designed to help you analyze data. For example, to learn more about your company's sales data, you can build a warehouse that concentrates on sales.

❖ Integrated

    Integration is closely related to subject orientation. Data warehouses must put data from disparate sources into a consistent format. They must resolve such problems as naming conflicts and inconsistencies among units of measure. When they achieve this, they are said to be integrated.

❖ Nonvolatile

    Nonvolatile means that, once entered into the warehouse, data should not change. This is logical because the purpose of a warehouse is to enable you to analyze what has occurred.

❖ Time variant

    In order to discover trends in business, analysts need large amounts of data. This is very much in contrast to online transaction processing (OLTP) systems, where performance requirements demand that historical data be moved to an archive. A data warehouse's focus on change over time is what is meant by the term time variant.

3. What are in the star schema?

A. Fact tables

   dimension tables.

4. What is fact table?

A. fact table typically has two types of columns: foreign keys to dimension tables and measures those that contain numeric facts. A fact table can contain fact's data on detail or aggregated level.

5. What is dimension table?

A. dimension is a structure usually composed of one or more hierarchies that categorizes data. If a dimension hasn't got a hierarchies and levels it is called flat dimension or list. The primary keys of each of the dimension tables are part of the composite primary key of the fact table. Dimensional attributes help to describe the dimensional value. They are normally descriptive, textual values.

6. What is datamart?

A. Data marts derive their data from the central source, the data warehouse. Each department determines which of the data warehouse contents are of primary interest. These subject areas are then replicated onto the smaller, local data mart so that users can get to the data they are interests in with less interference.