

Note: Answers to all questions must be analytical, precise and complete.

1. What do you understand by the statement “A data warehouse is not a one-size-fits-all propositions.”? [3]

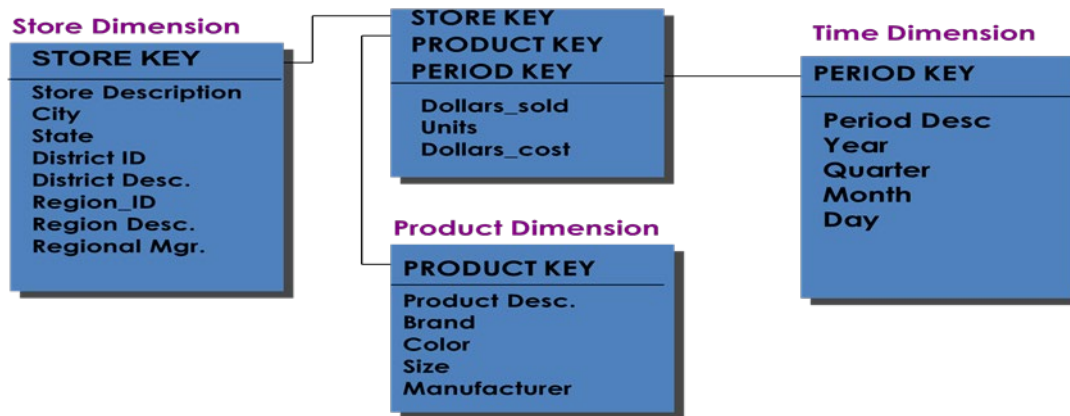
2. Name four distinguishing characteristics of data warehousing architecture. Describe them briefly. What is the general purpose of the data warehouse architecture? [6]

3. Consider a chain of grocery stores in the US 100 stores and 80,000 individual products on the shelves in each store of which 20% sell each day in a given store.

We need to find out the size of the fact table for daily and weekly grain by making the following few assumptions:

- All the field widths are 4 bytes wide
- The additive numeric data values are 4 bytes

Let us also assume that there we have data of 2 years in the data warehouse. [4]



4. A consortium of banks wants to develop a data warehouse for effective decision-making about their loan schemes. The banks provide loans to customers for various purposes like House Building Loan, Car Loan, Educational Loan, Personal Loan, etc. The whole country is categorized into a number of regions, namely, North, South, East and West. Each region consists of a set of states. Loan is disbursed to customers at interest rates that change from time to time. Also, at any given point of time, the different types of loans have different rates. The data warehouse should record an entry for each disbursement of loan to customer.

With respect to the above business scenario, Design a star schema for the data warehouse clearly identifying the fact table(s), dimensional table(s), their attributes and measures along with the primary key and foreign key relationships. What is the additivity of the fact(s) in your fact table(s)? Clearly state any reasonable assumptions you make. [7]

5. You are on the data warehouse project of AuctionsPlus.com, an Internet auction company selling upscale works of art. Your responsibility is to gather requirements for sales analysis. Find out the key metrics, business dimensions, hierarchies, and categories. Draw the information package diagram. [5]