IST722: Unit 04 Participation Questions

This is an individual assignment.

Before you begin, please make sure you've read and understand 1) our class honor code, 2) course policies on late work and 3) participation policies as posted on the syllabus. "I didn't know" is not an excuse.

You should cite your sources in a standard format like MPA or APA and include a list of works cited.

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Instructions

Answer each of the following questions as concisely as possible. More is not necessarily better. Please justify your answer by citing your sources from the assigned readings from our textbooks, our class lectures, or online if directed to do so. Be sure to cite in text and include a list of works cited. Place your answer below each question. When you're finished, print out this document and bring it to class as part of your participation grade.

Questions

[1] Explain (SCD) Slowly Changing Dimensions. Give examples.

Slowly Changing Dimensions (SCD) is where dimensional data changes infrequently but when it does not need a strategy for addressing the change. Example- customer has address change, customer has a name change.

It comprises of three Strategies:

- 1. Overwrite the existing attribute
- 2. Add a new Dimension row
- 3. Add a new Dimension attribute
- [2] Explain (RCD) Rapidly Changing Dimensions. Give examples.

Rapidly Changing Dimensions are dimensions which change rapidly, and this rapid change can affect maintenance and performance. The changes are not consistent. Example- person wearing different shirts every day.

- [3] Explain a) junk dimensions b) degenerate dimensions. Give examples.
- a) Junk dimensions are for miscellaneous low-cardinality flags and text attributes that are tied to a business process and do not fit anywhere else so do not make a dimension for each one as it will over complicate the star schema. Instead place each of them in their "Junk" dimension and each of them is named after the business process. Example-payment terms, ship mode.

b) Degenerate dimensions are the dimensions we store in the fact table because they change too frequently to remain in their own dimension and there are many of them for their own dimension. Some of them are business keys as they allow to drill through to operational data in the ODS. They are usually the primary key of the fact table and any attribute in the fact table which is not a dimension key or fact is called a degenerate dimension. Example- Order Number, Flight Number.

[4] Date or time dimensions are the typical examples for role-play dimensions. Provide another example.

Role-play dimensions are where same dimension plays more than one logical role. Date and time are typical examples of role-play dimensions. Other examples include address:

Ship to, Bill to-Same address Dimension,

Airport: Arrival, Departure- Same Airport Dimension

WORKS CITED:

Fudge videos and slides