DWBI - 3

Q.1. Explain dimensional modelling process flow

Preparation:
- business requirement document
- high level bus matrix
- preliminary data profiling
- tools.
- naming conventions.

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high level dimensional model design session →
- initial high level model diagram
- attributes/metrics list
- issues list

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detailed dimensional model development
iterate!
test →
- detailed dimensional design worksheet
- updated bus matrix
- updated issues list

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dimensional model review & validation:
- IT
- core users
- business community →
- updated detailed dimensional design worksheet
- updated issues list

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final design documentation →
final detailed dimensional design worksheet.

① Creating a dimensional model is dynamic process. After a few preparation steps, the design effort begins with an initial graphical model derived from bus matrix.

② The initial design sessions should also identify dimensions applicable to each fact table, attributes & issue list.

③ After completing high level model, the design team begins to assemble the model table by table & drills down into definitions, sources, data quality concerns & transformations.

④ The last phase of modelling process involves reviewing & validating the model with interested parties, especially business representatives.

⑤ The primary goals of this activity are to create a model that meets the business requirements & verify that data is available to populate the model.

⑥ The process is complete when the model clearly meets business requirements.

Q.3. Describe major participants & their roles in dimensional modelling process.

→ ① data modeler → primary design responsibility & facilitator

② power user → business requirements, source expert, business definitions

③ business analysts → business analysis & source expert, business definitions

④ data steward → drive agreement on enterprise names, definitions & rules.

⑤ source system developers → source experts, business rules.

⑥ DBA → design guidance, early learning

⑦ ETL architect & developer → early learning

⑧ BI architect & developer → BI application requirements, early learning

⑨ business driver or governance steering committee → naming & business definition issue resolution, model validation.

Q.4. Explain use of modelling tools & naming convention in dimensional modeling.

→ **A] Use of modelling tools -**

① use spreadsheets as initial modeling tools so as to change it quickly.

② use specialized modeling tools at later stages.

③ Advanced tools features a capture information in their metadata stores & allows it to export to other formats.

④ Helps DBA to forward engineer the model into database like creating tables, indexes, views, etc.

B] use of naming conventions -

Q.5 Explain the process of reviewing & validating the dimensional model.

→ ① The review & validation phase involves reviewing the model with successive audiences, each with different levels of technical expertise & business understanding to get feedback from interested people across the organization.

② At a minimum, the design team should plan on talking to three groups -
   • source system developers & DBAs
   • core business or power users
   • broader user community

③ The core modeling team will get valuable feedback from review & validation process. The greater DWBI team also benefits from these reviews in the form of a more informed & engaged business user community.

④ Feedback from these sessions should be incorporated into final design documentation.

⑤ The modeling team should occasionally lift itself from the detailed design activities to step back & review the overall design within the team. This provides a forum for reviewing decisions & exploring alternative ways to model the data.