Dimensional Modeling Beyond the Basics: Intermediate and Advanced Techniques

Learn via: **Classroom / Virtual Classroom / Online**

Duration: **2 Day**

https://bilginc.com/en/training/dimensional-modeling-beyond-the-basics-intermediate-and-advanced-techniques-297-training/

Overview

This accelerated class will go beyond the fundamental questions and tackle some of the most commonly asked questions and addresses the most common mistakes that people make. This course is based on real world experience in dealing with large data volumes and very complex models. The goal of this course is to equip you with the tool and knowledge to address your complex modeling challenges and to meet your demanding business needs.

Prerequisites

All attendees should have basic knowledge about dimensional modeling AND some hands-on experience with dimensional modeling.

Who Should Attend

All data modelers and database administrators who have been developing or supporting data warehouses should attend this course. This course is intended to expand their knowledge of modeling techniques beyond the basic concepts. This course is also appropriate for other team members including project manager, staging system developers and end user application designers, including BI developers and data scientists.

What You Will Learn

- Advanced techniques for handling complex, real life dimensional modeling problems
- How to weigh advantages and disadvantages of design options
- Guidelines for designing complex data marts
- Techniques to keep users involved in the modeling process

Outline

Setting The Stage

- Top Down And Bottom Up Approaches To Data Warehousing
- Introduction to the Business Dimensional Model – The 'Technology Independent' Model
- Presenting Your Data Model

Handling Dimension Challenges

- Slowly Changing Dimensions
- Designing Junk Dimensions
- Considerations for Extremely High Volume Dimensions

Designing for Special Types of Facts

- Semi-additive, Factless and Derived Facts
- Designing Multiple Fact Tables
- Using Multiple Fact Tables
- The Fact Group Matrix
- Designing Conformed Dimensions
- What is a conformed dimension?
- Implementation Considerations
- Conforming Slowly Changing Dimensions

Gathering Business Requirements

Fact Table Design Challenges

- Common and Custom Facts
- Transaction and Snapshot Fact Tables
- Transportation Challenges

Advanced Dimension Table Challenges

- Dimensions With Multiple Roles
- Alternatives For Complex Hierarchies
- Date and Time Design Alternatives
- Handling Many-To-Many Relationships

Advanced Fact Table Challenges

- Problems With Mixed Grain Facts
- Using Multiple Fact Tables
- Logical Vs. Physical Primary Key

Design Approach For Complex Data Marts

- The Modeling Process within a Project
- Bridging to the Implementation Team
- Suggestions On How To Shorten The Project Schedule

Real World Dimensional Modeling

- Characteristics of Dimensional Models
- Guidelines For Modeling Complex Environments

Aggregation

- Dimensional Support For Aggregates
- Stars And Snowflakes
- Use Of Materialized Views