

Course Outline

Module One

Dimensional Modeling Concepts

- Dimensional Modeling in Context
 - Business Intelligence Defined
 - Data Warehousing Defined
 - Data Mart Defined
- Dimensional Modeling Basics
 - Dimensional Model Defined
 - Dimensional Modeling Defined
 - Business Metrics and Measures Defined
 - Business Metrics Examples
 - Dimensional Data Models
- Comparing E-R and Dimensional Models
 - A Quick Review of E-R Modeling
 - Introduction to Dimensional Models
 - Relational with Additional Constraints
 - A Basis for Comparison
 - Relational for Transaction Processing
 - Dimensional Data for Business Analysis
 - Conformed Dimensions
- Concepts Summary
 - Review of Some Key Points

Module Two

Requirements Gathering for Dimensional Models

- Business Context for Data Modeling
 - Business Value
 - Business Alignment
 - Business Process Alignment
- Business Questions as Requirements Models
 - A Framework for Business Questions
 - Examples
 - Refining Business Questions
- Fact/Qualifier Analysis
 - From Business Questions to Data Requirements
 - Mapping Business Questions
- Requirements Gathering Summary
 - Process Review

Module Three

Logical Dimensional Data Modeling

- Modeling Meters and Measures
 - A Group of Related Business Measures

- Modeling Dimensions
 - Adding Dimensions from Qualifiers
 - Dimension Hierarchy
 - Refining the Dimensions
 - Completing the Dimensions
- More about Meters and Measures
 - Granularity and the Meter
 - Granularity and the Measures
 - Completing the Meter
- Model Verification
 - Testing the Model
- Logical Modeling Summary
 - Process Review

Module Four

From Logical Model to Star Schema

- Star Schema Dimensions
 - Naming the Dimensions
 - Modeling Dimension Tables
 - Defining Dimension Table Keys
- Star Schema Fact Tables
 - Modeling the Fact Table
 - Defining the Fact Table Key
 - Supporting Calculated Measures
 - Semi-Additive and Non-Additive Facts
- Star Schema Design Challenges
 - Slowly Changing Dimensions
 - Degenerate Dimensions
 - Junk Dimensions
 - Difficult Situations
- Modeling Process Summary
 - From Business Requirements to Star Schema

Module Five

Dimensional Data and Business Analysis

- Delivering Business Value
 - Data Enabled Business Analysis
 - Collecting, Analyzing, and Using Business Metrics
- Effective Dimensional Modeling
 - Critical Success Factors
 - Mistakes to Avoid
 - References and Learning Resources