MDM Fundamentals: Architecture and Implementation

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Module 0. About the Course (7 min)

Module 1. Introduction (54 min)

- MDM Overview
  - What is MDM?
  - Typical MDM Subject Areas
  - Models of MDM Operation
  - Challenges to Implementing MDM
  - Tangible Deliverables of MDM
  - Example
- MDM Justification and Outcomes
  - Investments in MDM
  - Ordered Benefits
  - Variations on a Theme
  - Business Cases
  - Enterprise Subject Areas
  - How to Attain Business Qualification
  - Key Outcomes in MDM Success
- Master Data Management for Customers
  - Focus on the Customer Master
  - Customer Lifetime Value
  - ROI for CDI
  - Targeted Marketing
  - Marketing Expense Reduction
  - Churn Management
  - Periodic Recalculation

Module 2. MDM Architecture (90 min)

- Architecture Approaches
  - Information Architecture
  - Master Data Landscape
  - Data Warehouse as Master (Default)
  - Separate MDM Hub
  - Synchronization
  - Pros and Cons of the Approaches
  - Hybrid Architecture
  - Architectural Guidelines
  - MDM's Biggest Value Proposition
  - MDM in the Cloud
  - Wither the Data Warehouse
  - Data Warehousing
  - The Data Warehouse
  - Data Lake
  - Data Lake Business Use Case Examples
  - Operational Applications
  - Operational Applications & MDM Complimentary
  - Separate
  - Multiple Operational Systems
  - Operational Applications & MDM Project Touchpoints

    - MDM Data Model Serves Operational and Enterprise Needs
- Conforming Dimensions for the Enterprise
    - Conformed Dimensions in the Data Warehouse
    - Elements of a Master File
    - Model Development: Common Semantics
    - Working with Pre-Built Data Models
- Business Process Workflows
    - Workflow Components
    - Sample Workflow
- Data Quality
    - MDM and Data Quality
    - Consider these Business Imperatives
    - Investments in Data Quality
    - Iterate Data Quality Improvement
    - Data Quality Rule Categories
    - Data Quality Scoring
    - Match & Merge – Merge Process
    - Steps to Data Quality Success
- Syndicated Data
    - Why Do We Need Syndicated Data?
    - What is Syndicated Data?
    - Reverse Append
    - Matching and Consolidation
    - Syndicators
    - Data Available from Syndicators
- Additional Considerations
    - Graph Databases for MDM?
    - Graph Capabilities within MDM?
    - Artificial Intelligence in MDM
    - Blockchain in MDM

Module 3. MDM Tool Selection (48 min)

- Process an Considerations
    - To Shortlist
    - Vendor Profiles
    - Relevant Dimensions of Requirements
    - Shop Considerations
    - Less Important
    - Best Practice Recommendations
    - Ground Rules for Success
    - Categories
    - Costing Category
    - Next Steps after Shortlist
- Proof of Concept and Final Selection
    - Best Practice Recommendations
    - Sample Scoring
    - Customer Scenarios
    - Product Scenarios
    - Other Scenarios
    - MDM Software Pricing

Module 4. Project Execution (77 min)

- MDM Project Management
  - Planning Phase
  - Design Phase
  - Test Strategy
  - Data Migration Plan
  - Non-Functional Requirements
  - Functional Design
  - Development Phase
  - Integration Phase
- MDM Project Roles and Responsibilities
  - Project Sponsor
  - Program Manager
  - Business Analyst
  - Lead Architect
  - MDM Architect
  - MDM Developer
  - MDM Database Administrator
  - MDM QA Analyst
  - Data Governance
- Organizing and Planning for MDM Success
  - Organizational MDM Program Components
  - Roles & Responsibilities of the Data Steward
  - Common Tasks of the Data Steward
  - Business Participation
  - MDM Maturity
- Case Study
  - Company Environment
  - Reference Data
  - Project Objectives
  - Project Justification
  - Project Timeline
  - Project Challenges
  - MDM Environment
  - Lessons Learned
  - To Be Done