Master Data Management for Data Stewards

By William McKnight and Kathy Hunter

Module 0. About the Course (7 min)

Module 1. MDM Concepts (54 min)
- *MDM Overview*
  - What is MDM?
  - Typical MDM Subject Areas
  - Modes of MDM Operation
  - Challenges to Implementation
  - Tangible Deliverables
  - Example
- *MDM Justification and Outcome*
  - Overview
  - Investments in MDM
  - Ordered Benefits
  - Variations on a Theme
  - Business Case 1-4
  - Enterprise Subject Areas
  - How to Attain Business Qualification
  - Key Outcomes in MDM Success
- *Master Data Management for Customer*
  - Focus on the Customer
  - Customer Lifetime Value
  - ROI for CDI
  - Targeted Marketing
  - Marketing Expense Reduction
  - Churn Management
  - Periodic Recalculation

Module 2. MDM Architecture (38 min)
- *Architecture Approaches*
  - Overview
  - Information Architecture
  - Master Data Landscape
  - Data Warehouse as Master
  - 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
  - Data Lake
  - Data Lake Business Use Case Examples
  - Operational Applications
  - Operational Applications and MDM: Complimentary
  - Separate
  - Multiple Operational Systems
  - Operational Applications

      o MDM Data Model Serves Operational and Enterprise Needs

Module 3. MDM Projects (51 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*
  - Overview
  - Organizational MDM Program Components
  - Roles & Responsibilities
  - Common Tasks of the Data Steward
  - Business Participation
  - MDM Maturity
  - Summary

Module 4. Data Parsing Matching and De-duplication (58 min)
- *Introduction*
- *The Goals*
- *Historical vs. Ongoing Data*
- *Parsing and Standardization*
  - Name Elements
  - Postal Addresses
  - Geocoding
  - Data and Time
  - Other Data Elements
  - Synonyms and Vocabularies
  - Script Systems
- *Data Matching*
  - Deterministic Vs. Probabilistic
  - Conservative Vs. Liberal
  - What is a Match?
  - Data Example
  - Rules-based Algorithms
  - Probabilistic Matching
  - Match & Merge Examples

- o Data Survivorship
- o Practical Tips
- o Enterprise Data Matching
- o Unexpected Side Effects
- o Matching Tools
- o Testing a Matching Tool
- *External Data Referencing*
  - o Why Syndicated Data?
  - o Common Data Elements
  - o Address Directories
  - o Business Directories
  - o Customer Identification with DUNS
  - o Other Party Directories
  - o Global Product Identification
  - o Electronic Product Codes
  - o Other Review Directories

Module 5. The Challenges of Global Data (74 min)
- *Global Data Challenges*
- *Introduction to Global Data Information*
  - o Address Maturity
  - o Address Format Differences
  - o Personal Names
  - o Personal Name Variations
  - o Name Component by Country
  - o Business Naming Convections
  - o Phone Numbers
  - o PO Boxes
  - o Job Title Issues
- *Example of Variations by Country and Region*
  - o Address Specifics in France
  - o Address Specifics in Spain
  - o Address Specifics in Canada
  - o Address Specifics in Japan
  - o Address Specifics in South Kore
- *Characters and Diacritics*
  - o Handling Regional Alphabets
  - o Multiple Character Sets
  - o Code Pages
  - o Unicode
- *Cultural Impacts*
  - o Global Data Governance
  - o Practical Issues Involving Culture
  - o Cultural Differences Examples
- *Preparing Global Data for Effective Use*
  - o Data Re-engineering
    - ▪ Phone Numbers Example

- Job Titles Example
  - Data Parsing
  - Address Validation
  - Data Matching
    - Personal Data Example
    - Business Data Example
  - Data Deduplication
  - Consolidating Data Across Sources
  - Matching Households
  - Creating Corporate Hierarchies
  - Address Reconstruction