

Module One: Data Quality Basics

- Data Quality Concepts
 - Defining Data Quality
 - Integrity and Correctness
 - Data Quality and Metadata Quality
 - Rules as Metadata
 - Metadata and DQ Management
- Data Quality Processes
 - Quality Control, Assurance, and Management
 - Data Profiling
 - Data Quality Assessment
 - Data Cleansing
 - Process Improvement

Module Two: Profiling Data

- Data Profiling Concepts
 - Purpose and Processes
- Column Profiling
 - Extracting Values Metadata
 - Examining Values Metadata
- Table Profiling
 - Examining Dependencies
 - Keys and Uniqueness
 - Column Dependencies
- Cross-Table Profiling
 - Examining Redundancy and Relationships
 - Redundancy
 - Relationships
- Analyzing Data Profiles
 - Column Profiles
 - Values Frequency
 - The Story in the Profiles
 - Data Quality Rules
- Data Profiling in Practice
 - Profiling and Projects
 - People and Technology

Module Three: Assessing Data Quality

- DQ Assessment Concepts
 - DQ Assessment Defined
 - Subjective Assessment
 - Objective Assessment
 - Assessment in DQ Management
- Subjective Assessment
 - Subjective Assessment Process
 - A Survey of Data Quality Perceptions
- Objective Assessment
 - Objective Assessment Process
 - Planning and Preparation
 - Cataloging Data Quality Rules
 - Cataloging Data Quality Errors
 - Testing and Tuning Rules
 - Reporting and Analyzing Data Quality
- Assessment in Practice
 - Assessment and Projects
 - People, Roles, and Skills

Module Four: Fixing Data Quality Defects

- Data Cleansing Concepts
 - Data Cleansing Defined
 - Techniques
 - Cleansing Process Overview
 - Planning & Preparation
- Procedural Data Cleansing
 - Names and Addresses
 - De-Duplication and Consolidation
- Rule-Based Data Cleansing
 - Data Cleansing Rules
 - Rules Processing
- Data Cleansing in Practice
 - Data Cleansing Workflow
 - Cleansing and the Data Warehouse
 - Data Cleansing and Projects
 - People, Roles, and Responsibilities

Module Five: Preventing Data Quality Defects

- Root Cause Analysis
 - RCA Overview
 - The RCA Process
 - Causal Modeling

- Five Whys
- Fishbone Diagrams
- Causal Loop Diagrams
- Process Improvement
 - Process Improvement Principles
 - Process Improvement Overview
 - Prerequisites
 - Target Processes
 - Change Planning
 - Action Planning
 - Executing Change

Module Six: Summary and Conclusion

- Sustaining Data Quality
 - Awareness, Accountability, Action
 - Mistakes to Avoid
- References and Resources
 - To Learn More

Appendix A: Bibliography and References**Appendix B: Exercise Instructions and Worksheets**