## TDWI Data Integration Principles and Practices: Creating Information Unity from Data Disparity

## **Course Outline**

Module 1 - Data Integration Strategy

- What Is Data Integration Strategy?
  - Strategy Defined
  - Data Integration Strategy Defined
- Elements of Data Integration Strategy
  - o Data Consumers and Data Sources
  - Data Integration Processes
  - o Data Stores
  - Access and Navigation
  - Control Objectives
  - The Big Picture
- Creating Data Integration Strategy
  - Goals and States
  - o Analysis
- Applied Data Integration Strategy
  - Planning and Projects
  - Data Governance

Module 2 - Data Integration Architecture

- What Is Data Integration Architecture?
  - Architecture Defined
  - o Data Integration Architecture Defined
- Integration Patterns
  - Methods of Information Sharing
  - Shared Databases and Replication
  - Gateways and Portals
  - Entity Aggregation
  - Data Services
  - Data Services & Messaging
  - Publish and Subscribe, File Transfer
  - Virtualization
  - Virtualization and Federation
  - Architecture Concepts and Components
    - Constructs in Data Integration Architecture
    - Reference Architecture

Module 3 - Creating Data Integration Architecture

- Data Sources
  - Source Systems
  - o Structural Variations
  - Source Data Locations and Technologies
- Data Flow
  - o Data Acquisition



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- Data Integration Functions
- Data Stores
- o Data Integration Methods
- o Data Delivery
- Metadata Flow
- Data Consumers
  - o People
  - o Applications
  - o Requirements
- Architecture Design and Definition
  - o Define the End Points
  - o Structure the Middle
  - o Define Data Access
  - Architecture Validation
- Data Integration Approaches
  - Many Types and Levels of Integration
  - ETL/ELT
  - Streaming
  - o Virtualization
  - o Federation
  - o Big Data Integration
  - Self-Service Integration
  - Cloud Integration
  - Hybrid Integration

Module 4 - Using Data Integration Architecture

- Systems and Data Integration Architecture
  - Existing Systems
  - o New Systems
- Development and Data Integration Architecture
  - Requirements Analysis
  - Design and Construction
  - o Testing
- Management and Data Integration Architecture
  - Management and Governance
  - Change Management
  - Support and Operations
- Next Steps
  - What Will You Do Next?

