TDWI Business Intelligence and Analytics Foundations: Charting the Course to BI and Analytics Success

Outline

Module 1 – Introduction to BI and Analytics

- Definitions
  - Business Intelligence
  - Business Analytics
  - Evolution of BI and Analytics
- Components
  - People and Applications
  - Systems and Processes
  - Data and Technology
- Perspectives
  - Points of View
- The BI and Analytics Roadmap
  - The BI and Analytics Lifecycle
  - Evolving Capabilities
  - Parallel Paths
  - Continuous Planning
- BI and Analytics Maturity
  - Readiness Assessment
  - Maturity Models
- Mistakes to Avoid
  - When Validating Direction
  - When Delivering Business-Driven BI
- Discussion
  - Introduction to BI and Analytics

Module 2 – Business Metrics and Analytics

- Business Capabilities
  - Purpose
  - Descriptive BI and Analytics
  - Diagnostic BI and Analytics
  - Discovery BI and Analytics
  - Predictive BI and Analytics
  - Prescriptive BI and Analytics
  - Capabilities Through Services
- Performance Management
  - Definitions and Concepts
  - Key Performance Indicators
  - Metrics, Measures, and Monitoring
  - Scorecards and Dashboards
- Business Analytics
  - Continuum
  - Analysis Types
  - Analytic Modeling
  - Framing Models

    - Casual Models
- Data Analytics
    - Solution Models
    - Modeling Process
    - Data Mining
    - Geospatial Analytics
    - Text Analytics
    - Forecasting and Prediction
    - Simulation and Optimization
    - Decision Management
- The BI and Analytics Roadmap
    - Capabilities, Metrics, and Analytics
- Mistakes to Avoid
    - In Predictive Analytics Efforts
    - When Deploying BI and Analytics
- Discussion
    - Business Metrics and Analytics

Module 3 – OLAP and Other Information Services

- OLAP Services
    - Online Analytical Processing
    - Dimensional Data Marts and Star Schema
    - The OLAP Cube
- BI Reporting
    - Enterprise and Operational Reporting
    - On-Demand Reporting
- Visualization and Storytelling
    - Communicating Insights
    - Data Visualization
    - Data Storytelling
- Data Access and Delivery
    - Query Services
    - Data Feeds and Downloads
- Self-Service
    - Evolving Service Models
- The BI and Analytics Roadmap
    - OLAP and Other Information Services
- Mistakes to Avoid
    - In Dimensional Modeling
    - In Data Storytelling
- Discussion
    - OLAP and Other Information Services

Module 4 – Data Integration

- Data Integration Architecture
    - Integration Strategy
    - The Purpose of Architecture

    - Integration and Data
    - Components and Structures
    - Integration Techniques and Technologies
- Data Types and Sources
    - Data Properties
    - Data Characteristics
    - Data Structure
    - Big Data Defined
    - Big Data Sources
    - Big Data Characteristics
    - Physical Storage
- Data Warehousing
    - Definitions
    - Applied Data Integration
    - Data Warehouse Architecture
- Data Stores
    - Diversity of Data Sources
    - The Data Lake
    - Analytics Sandboxes
- Implementation
    - Process
    - Agile Development
    - Data Warehouse Automation
    - What Can You Automate?
- Operation
    - Components
- The BI and Analytics Roadmap
    - Data Integration
- Mistakes to Avoid
    - When Using Data Federation
    - In Your Big Data Implementation
- Discussion
    - Data Integration

Module 5 – Data Management

- Data Governance
    - Data Governance Concepts
    - Data Governance Roles and Responsibilities
    - Data Stewardship
- Data Quality
    - Data Quality Concepts
    - Data Quality Assessment
    - Data Quality Improvement
- Data Profiling
    - Purpose and Processes
    - Profiling Techniques
    - Tools and Technology

    - Application
- The BI and Analytics Roadmap
    - Data Management
- Mistakes to Avoid
    - When Creating Your Data Strategy
    - When Building a Data Quality Program
- Discussion
    - Data Management

Module 6 – BI and Analytics Technology

- The Technology Stack
    - Technology Layers
    - Functions and Services
- Technology Architecture
    - The Right Technology-Present and Future
- Technology Management
    - Reliable Platforms
- The BI and Analytics Roadmap
    - Technology
- Mistakes to Avoid
    - When Adopting New Technologies in BI
    - In Hadoop Implementations
- Discussion
    - BI and Analytics Technology

Module 7 – Summary

- Summary
    - Key Points

Appendix

- Bibliography and References