Module 1 – Introduction to BI and Analytics
  • Definitions
    o Business Intelligence
    o Business Analytics
    o Evolution of BI and Analytics
  • Components
    o People and Applications
    o Systems and Processes
    o Data and Technology
  • Perspectives
    o Points of View
  • The BI and Analytics Roadmap
    o The BI and Analytics Lifecycle
    o Evolving Capabilities
    o Parallel Paths
    o Continuous Planning
  • BI and Analytics Maturity
    o Readiness Assessment
    o Maturity Models
  • Mistakes to Avoid
    o When Validating Direction
    o When Delivering Business-Driven BI
  • Discussion
    o Introduction to BI and Analytics

Module 2 – Business Metrics and Analytics
  • Business Capabilities
    o Purpose
    o Descriptive BI and Analytics
    o Diagnostic BI and Analytics
    o Discovery BI and Analytics
    o Predictive BI and Analytics
    o Prescriptive BI and Analytics
    o Capabilities Through Services
  • Performance Management
    o Definitions and Concepts
    o Key Performance Indicators
    o Metrics, Measures, and Monitoring
    o Scorecards and Dashboards
  • Business Analytics
    o Continuum
    o Analysis Types
    o Analytic Modeling
    o Framing Models
• Casual Models

• Data Analytics
  o Solution Models
  o Modeling Process
  o Data Mining
  o Geospatial Analytics
  o Text Analytics
  o Forecasting and Prediction
  o Simulation and Optimization
  o Decision Management

• The BI and Analytics Roadmap
  o Capabilities, Metrics, and Analytics

• Mistakes to Avoid
  o In Predictive Analytics Efforts
  o When Deploying BI and Analytics

• Discussion
  o Business Metrics and Analytics

Module 3 – OLAP and Other Information Services

• OLAP Services
  o Online Analytical Processing
  o Dimensional Data Marts and Star Schema
  o The OLAP Cube

• BI Reporting
  o Enterprise and Operational Reporting
  o On-Demand Reporting

• Visualization and Storytelling
  o Communicating Insights
  o Data Visualization
  o Data Storytelling

• Data Access and Delivery
  o Query Services
  o Data Feeds and Downloads

• Self-Service
  o Evolving Service Models

• The BI and Analytics Roadmap
  o OLAP and Other Information Services

• Mistakes to Avoid
  o In Dimensional Modeling
  o In Data Storytelling

• Discussion
  o OLAP and Other Information Services

Module 4 – Data Integration

• Data Integration Architecture
  o Integration Strategy
  o 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
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