Business Intelligence & Analytics

Course Overview

Business data is growing exponentially – in volume, velocity and variety! Customer requirements, competition and innovation are driving rapid changes in business requirements and supporting business processes.

Decision makers, at all levels of an organization, require accurate, current, cohesive business information to glean actionable Business Intelligence (BI) and associated analytics and insights to make effective tactical and strategic decisions.

Business Intelligence is essential to agility and competitiveness. Simply stated – organizations that execute on big data and act on the resulting business intelligence thrive.

Most organizations recognize the value of business intelligence. Unfortunately, many organizations are not yet realizing the full potential. The problem, however, is not with the enabling technologies – the technologies are stable and well understood. The problem lives with the business requirements.

Business requirements analysis for BI is very different than business requirements analysis for transactional systems – and requires business analysts with a unique, business-oriented (non-technical) set of business analysis skills, techniques and methods.

Traditionally, many organizations looked at BI from a technical rather than a business perspective. However, effective BI solutions require rigorous analysis of BI business requirements to:

- Identify, analyze and validate "what" the business decision makers and other stakeholders need to know (aka, BI business requirements) to make knowledgeable and insightful tactical and strategic business decisions and to improve the efficiency and effectiveness of business processes.
- Analyze and define the underlying data-oriented business rules and relationships that support the tactical and strategic business requirements and on-going improvements in business processes.
- Express the requirements in a clear, concise, unambiguous format that enables developers to design appropriate technical solutions to support BI requirements.

Course objectives

You will learn:

- To identify, analyze and validate the right "business questions" that decision makers need answered to support tactical and strategic decision making
- To specify clear, concise, unambiguous business intelligence information requirements that enables the design of effective BI solutions
- To understand key enablers for delivering effective BI business requirements
- To map requirements to source data and to map and transform source data to enable effective, consistent high-quality solutions
- To express the requirements in a clear, concise, unambiguous format that enables developers to design appropriate technical solutions to support BI requirements
- Special considerations for social media monitoring, data mining, and meta data analytics
- To integrate business intelligence into your business processes and decision processes

Who Should Attend?

This training is a business analysis course designed for Business Analysts, Business Systems Analysts, Data Modelers, Data Analysts and Architects, Data Scientists. Developers and technical architects that want to understand the business requirements aspect of business intelligence will also benefit from this course.

Course Outline

Introduction and Foundation

- Big Data vs. Business Intelligence
- Volume, Velocity and Variety
- Transactional vs. BI Requirements
- BI and Business Process
- Knowledge vs. rules based decision making
- Tactical & strategic BI requirements
- Metrics and key performance indicators
- A roadmap for BI requirements

Business Questions and Dimensional Modeling

- Review of business data rules and patterns
- Business questions and multidimensional analysis
- Logical dimensions, facts and hierarchies
- Slowly-changing dimensions and granularity

- Constellations with conformed dimensions and facts
- Transitioning logical dimensional models into star schemas

Tactical Business Intelligence Requirements

- Identifying "Tactical" business questions
- Analyzing cross-organizational facts
- Analyzing tactical BI requirements
- Specifying tactical BI requirements

Strategic Business Intelligence Requirements

- Identifying "Strategic" business questions
- Using dimensional models to analyze strategic BI requirements
- Analyzing strategic BI requirements
- Specifying strategic BI requirements

Business Analytical Processes

- Business question navigation
- Cluster business questions
- Building decision-tree flows by role
- Analyzing asymmetrical dimensions
- Integration with business work flow processes

Data Acquisition Requirements Analysis

- Information architecture layers and patterns
- ETL, ELT and data staging
- Analyzing data sources and systems of record
- Data quality considerations
- Modeling time-variant data for integration

Practical Guidance and Best Practices

- Developing a strategy for BI
- Special considerations for social media monitoring and data mining
- Meta data considerations
- Information delivery considerations
- Getting started Monday morning