

Business Intelligence and Data Warehousing: Concepts and Fundamentals

Course Description:

Working on a business intelligence (BI) or data warehousing (DW) project can be overwhelming if you don't have a solid grounding in the basics. It's difficult to focus on the goals of the project when you're bogged down by unanswered questions – or don't even know what questions to ask. By arming yourself with knowledge of the concepts and fundamentals, you can hit the ground running. This course provides an overview that gives business and information technology professionals the confidence to dive right into their business intelligence and data warehousing activities and contribute to their success.

The course begins by covering the business drivers for business intelligence and the technology drivers for data warehousing, so you'll have a context in which to understand how the project affects your business.

It then provides an overview of the uses and users of business intelligence, along with the type of applications and tools that may be deployed. Next is an introduction to data integration and data warehousing, identifying what lies at heart of successful business intelligence implementations.

Because business value is not derived by merely selecting the right tools, this course will also examine the staffing and planning, as well as best-practice approaches and structures for design, development and implementation. We use practical examples to illustrate technical theories, concepts and techniques, as well as the functions and tasks needed for successful projects.

We'll describe, at a high level, how to develop a business intelligence application and its supporting data warehouse, along with an organization structure you could use. We'll talk about the various roles and responsibilities, as well as the associated skills that are needed. We'll identify critical success factors of a project, and cover a checklist of data warehousing considerations.

It's important to understand deliverables that may be produced throughout these projects and discuss the reasons for producing them. We'll talk about the best practices for getting the right deliverables for your users.

Course Outline:

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What you will learn:

- Basic concepts of business intelligence and data warehousing
- Industry terminology
- Critical success factors & risks
- Business intelligence applications, uses and users
- Data Integration Framework (DIF)
- Data warehousing & business intelligence development processes
- Culture, politics & organizations
- Best practices
- Industry trends

Who Should Attend:

This course is intended for business and technical managers who may be involved in the process of designing and implementing a business intelligence application or data warehouse. It is also for those who just need to understand what is involved in managing either a business intelligence or data warehouse project.

Duration:

Two day classroom instruction.

Note: This is a combination of the Business Intelligence Introduction and Data Warehousing Introduction courses.

Prerequisite Education or Experience

None assumed.



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Athena IT Solutions provides data integration, data warehousing and business intelligence consulting services to help businesses increase the return on investment of their corporate data.

Course Outline:

Section 0: Introductions

Section 1: What is BI & DW

- Brief History of Accessing, Reporting And Analyzing Data
- Data to Information Lifecycle
- Business Intelligence (BI) defined
- Data Warehousing (DW) defined
- Corporate Performance Management (CPM) defined

Section 2: Where is BI & DW being used today

- Business Drivers For BI
- Business and IT Drivers For DW
- Applications that use BI And DW
- Data Shadow Systems
- Industry terminology

Section 3: BI & DW – The Architectures

- The Four Architectures
- How do BI & DW fit together?

Section 3: Information Architecture - BI applications and usage

- Business applications of BI
- BI Categories – Reporting to Analytics
- OLAP Architectures
- Classifying BI users

Section 4: Data Integration

- Overview
- Data modeling concepts
- Data Integration Framework (DIF)

Section 5: Data Architecture

- Processes
 - Transforming data to information
 - Process management
- Data Stores
 - Data Warehouse, Data Marts, Operational Data Stores, Cubes

- Architectures
 - Data staging options
 - Implementation choices
- Standards
- Tools
- Resources & Skills

Section 6: Technology Architecture

- Overview
- Data Integration
- Business Intelligence
- Databases
- Deployment & Operational Tools

Section 7: Product Architecture

Note: Brief overview to position vendors within market. Not intended to evaluate or endorse vendors.

- Major vendors
- Market positioning

Section 8: Culture, Politics and Organization

- Overview
- Sponsorship & Governance
- Program Organization & Management
- Project Organization & Management
- Project Methodologies

Section 9: Industry Trends

- Overall Software Industry
- Enterprise Applications
- Data Integration
- Business Intelligence

Section 10: Best Practice Overview

- Data Integration
- Business Intelligence

Section 11: Conclusions

- Highlights
- References & Resources