

Microsoft BI Bootcamp: SQL Server 2008, Office System 2007 and PerformancePoint Server 2007

5 Days (BI-BTCMP08-201-EN)

Description

Written and presented by industry experts, this intensive five-day workshop gives professional developers the information and hands-on experience they need to deliver state-of-the-art, integrated reporting and analytics solutions using Microsoft Business Intelligence.

Delivering the right information in the right format at the right time to all users in the organization—that is Microsoft's Business Intelligence (BI) strategy and vision for enterprise information management. Microsoft's integrated BI tools enable developers to create effective solutions that information workers use every day to find meaningful patterns in the vast sea of data they collect and to use that insight to quickly respond to changing business conditions.

On completion of this workshop attendees will be able to position different types of Business Intelligence solutions, from enterprise data warehousing to data marts to realtime operational reporting and analytics. Attendees will learn how to design and build powerful integrated solutions that provide users with rich reporting, analysis, visualization and performance management capabilities by targeting operational data from an existing line-of-business application using the Microsoft Business Intelligence platform.

Attendees will work through 24 practical hands-on labs to build a complete BI solution by the end of the workshop.

Target Audience

The presentations and labs have been designed specifically to give professional developers—those who work for an ISV, SI, or enterprise customer—the information they need to deliver integrated solutions on the Microsoft BI platform.

This course is also relevant and useful for those interested to understand and evaluate Microsoft's Business Intelligence offerings.

Prerequisites

The following skills and knowledge will help attendees have a positive experience in the workshop:

- Active development experience with C# and/or VB.NET
- Basic understanding of SQL and relational database technology
- Basic understanding of SharePoint portal technology

Please Note

This workshop is designed for professional developers with little or no experience building BI solutions. If you already have extensive experience building solutions on the Microsoft BI platform, you may find portions of this workshop to be a review of material that you are already familiar with.

The workshop focuses on a specific scenario: supplementing an existing line-of-business application with integrated reporting and analytics functionality using SQL Server, Excel, ProClarity, SharePoint and PerformancePoint. Other scenarios, such as developing custom reporting and analytic tools, or implementing enterprise data warehouses, are not covered in great detail.

Course Objectives

Through interactive presentations and concrete hands-on labs, attendees will learn:

- How to use Microsoft SQL Server 2008 to build and manage data marts which provide a consolidated view of organizational data.
- How to use the 2007 Microsoft Office system, Office SharePoint Server 2007, and Office PerformancePoint Server 2007 to provide a rich data analysis, visualization and performance management experience for end users
- How to use dimensional modeling techniques and Visio 2007 database modeling tools to create data models in SQL Server 2008 for hosting consolidated BI information.
- How to build consolidated data marts using SQL Server 2008 Integration Services to extract, transform, and load business-critical information into SQL Server 2008 databases from disparate sources such as business applications and corporate databases.
- How to use SQL Server 2008 Reporting Services to develop predefined and ad hoc relational reports that simplify access to business-critical information, and how to publish and share those reports using Office SharePoint Server 2007 report libraries.
- How to use SQL Server 2008 Analysis Services to create a Unified Dimensional Model that simplifies analytical access to business-critical information stored in SQL Server 2008, and how to publish and collaborate on findings using SQL Server 2008 Reporting Services and Excel Services in Office SharePoint Server 2007.

- How to use SQL Server 2008 Analysis Services to create data mining models that explore, uncover and predict patterns in a BI solution
 - How to use Excel 2007 and ProClarity Professional Desktop for advanced data analysis and visualization.
 - How to build dashboards in Office SharePoint Server 2007 that expose businesscritical information in compelling ways.
 - How to use Office PerformancePoint Server 2007 to provide integrated performance-management solutions with scorecarding, planning and analysis functionality.

Technologies

The workshop will empower developers to exploit the BI functionality in the following technologies:

- SQL Server 2008 Database Services
- SQL Server 2008 Integration Services
- SQL Server 2008 Reporting Services
- SQL Server 2008 Analysis Services (OLAP and Data Mining)
- Office SharePoint Server 2007
- Office PerformancePoint Server 2007
- Office Visio 2007 Office Excel 2007
- ProClarity Professional Desktop 6.3

Course Summary Outline

Day 1

Module 01: Microsoft BI Strategy Overview

- Defining Business Intelligence (BI); Introducing the Microsoft BI Platform; Introducing the BI Developer's Toolset; Introducing Adventure Works Cycles Company

Module 02: Introduction to Dimensional Modeling Techniques

- Designing the Dimensional Model; Introducing Additional Design Concepts
- Lab 02A - Database Modeling (Creating the Reseller Sales Database Diagram)*

Module 03: Introduction to ETL Using Integration Services

- Reviewing ETL Fundamentals; Introducing SSIS Components; Designing ETL Packages

Lab 03A - Control Flow (Loading the Sales Quota Fact Table, Part 1)

Lab 03B - Data Flow (Loading the Sales Quota Fact Table, Part 2)

Module 04: Advanced Integration Services Features

- Advanced Data Flow; Manageability Features; Programmability

Lab 04A - Slowly Changing Dimensions (Loading the Employee Dimension)

Day 2

Module 05: Introduction to Reporting Services

- Reporting Fundamentals; Introducing Reporting Services; Basic Report Design

Lab 05A - Managed Reports (Authoring a Report for Publication)

Module 06: Advanced Reporting Services Features

- Introducing Report Interactivity; Extending Reports with Custom Logic; Optimizing Report Execution; Securing Report Server Items and Data; Delivering Reports with Subscriptions

Lab 06A - Advanced Managed Reports (Enhancing the Report Design)

Lab 06B - Advanced Reporting Services Features (Managing and Distributing Reports)

Module 07: Designing a Report Model for Ad Hoc Reporting

- Introducing Report Builder; Reviewing Report Models; Creating Reports with Report Builder

Lab 07A - Report Builder (Self Service Reporting)

Module 08: Programming with Reporting Services

- Reviewing Report Deployment Options; Accessing Reports in SSRS; Accessing Reports Programmatically; Embedding Reports in .NET Applications

Lab 08A - Programmatic Report Deployment (Using the RS Utility)

Lab 08B - The ReportViewer Control (Smart Client Integrated Reporting)

Day 3

Module 09: Developing and Managing a Unified Dimensional Model

- Reviewing OLAP Fundamentals; Understanding Database Components; Performance Tuning; Programming Analysis Services

Lab 09A - The Cube Wizard (Building the Reseller Sales Cube)

Lab 09B - Dimension Design and Dimension Usage (Enriching and Optimizing the Dimension Space)

Lab 09C - Calculations, KPIs and Actions (Enriching the Cube Space)

Lab 09D - Dimension and Cube Processing (Managing Data Processing)

Lab 09E - Cube Deployment (Developing an Installer Package)

Module 10: Reporting from the Unified Dimensional Model

- Accessing the UDM from Reporting Services; Accessing the UDM from Excel 2007; Accessing the UDM from ProClarity Desktop 6.3

Lab 10A - UDM Reporting with Reporting Services (Developing a Static Report for Reuse)

Lab 10B - UDM Reporting with Excel and Excel Services (Developing Interactive Reports for Reuse)

Lab 10C - UDM Reporting with ProClarity Desktop 6.3 (Advanced Data Analysis)

Day 4

Module 11: Introduction to Analysis Services Data Mining

- Introducing Data Mining; Integration with SQL Server 2008 Components; Data Mining Programmability

Lab 11A - Embedded Data Mining (Applied Mining for Meaning)

Lab 11B - Integrated Data Mining (Integrating Mining Results with SQL Server)

Module 12: Building Dashboards in Office SharePoint Server 2007

- Reviewing Dashboard Fundamentals; Understanding the BI Features

Lab 12A - SharePoint Dashboard Design (Assembling Consolidated Information)

Day 5

Module 13: Monitoring and Analyzing with PerformancePoint Server 2007

- Reviewing Performance Management Fundamentals; Introducing PerformancePoint Scorecard Services; Building a Scorecard; Configuring Reports; Building Dashboards; Exporting Dashboards

Lab 13A - PerformancePoint Monitoring (Creating the Reseller Sales Scorecard)

Lab 13B - PerformancePoint Analyzing (Assembling the Reseller Sales Dashboard)

Module 14: Planning with PerformancePoint Server 2007

- Reviewing Planning, Budgeting and Financing Fundamentals; Introducing PerformancePoint Planning; Building a Planning Application; Using a Planning Application

Lab 14A - PerformancePoint Planning (Managing the Sales Quota Forecast Process)