Course Catalog

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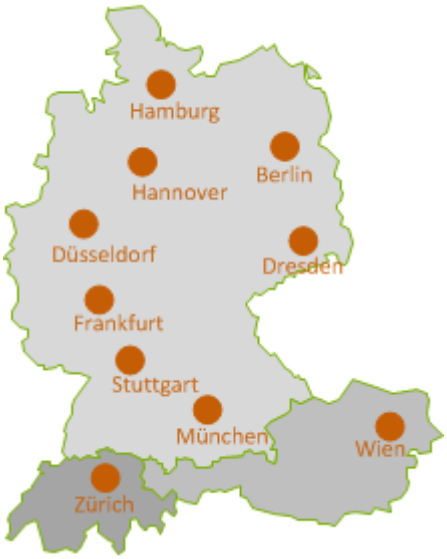
a. Locations



Our trainings take place at various locations in the German-speaking countries.

Public trainings:

You can enroll for public trainings at our training centers across Germany like in Berlin, Dresden, Hamburg, München / Munich, Düsseldorf, Frankfurt, and Stuttgart. Not all public trainings will be organized in all cities but you can still book a particular training for your team in one of our training and conference centers.

In Austria you can attend seminars and trainings in Wien / Vienna while we offer training dates in Switzerland in Zürich / Zurich.

On-site trainings:

We have mobile and flexible trainers / lecturers who like to visit you and your team for an on-site training or a training in a conference center or hotel near you.

USA

Chicago	Tel: Fax:
Miami	Tel:+1.305.395.7962 Fax:+1.305.395.7964
New York	Tel:+1.212.380.1181 Fax:+1.305.395.7964

1. Microsoft

A. C# NET

(i) Oracle and ODP.NET

Overview

Course ID	2020684
Language	en
Duration	2 D ys
Delivery mode	Classroom
Course Type	
Target Group	Programmers, Web developers
Prerequisites	. NET basics
Method	Lecture with examples and exercises.
Course level	Advanced

Course Dates

Chicago	Miami	New York
1,750.00 USD	1,700.00 USD	1,750.00 USD
10-11 Sep 12-13 Nov	17-18 Sep 19-20 Nov	03-04 Sep 05-06 Nov

Prices plus local taxes.

Course Description

Oracle Data Provider for .NET (ODP.NET) features optimized ADO.NET data access to the Oracle database. ODP.NET allows developers to take advantage of advanced Oracle database functionality, including Real Application Clusters, XML DB, and advanced security. The data provider can be used with the latest .NET Framework 4.5 version. ODP.NET makes using Oracle from .NET more flexible, faster, and more stable. ODP.NET includes many features not available from other .NET drivers, including a native XML data type, self-tuning, RAC-optimized connection pooling, promotable transactions, and Advanced Queuing. This training shows you how to integrate ODP.NET in your .NET applications so that you can benefit from its features.

Course Outline

A. Overview of Oracle Data Provider for .NET (ODP.NET)

B. Basic Usage Scenarios with ODP.NET

C. ODP.NET Assembly

D. Installation and Configuration

E. Database Connections

F. Datatypes

G. Forms and OracleDataReader

H. OracleCommand Object

I. Oracle DataAdapter

J. XML Support of ODP.NET

K. ODP.NET Types

A. Data Mining

(i) Using MS Excel 2010

Overview

Course ID	2020597
Language	en
Duration	3 D ys
Delivery mode	Classroom
Course Type	
Target Group	Information workers, IT Professional
Prerequisites	General knowledge of math
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
1,900.00 USD	1,800.00 USD	1,900.00 USD
14-16 Sep 09-11 Nov	17-19 Aug 05-07 Oct 30 Nov - 02 Dec	24-26 Aug 12-14 Oct 07-09 Dec

Prices plus local taxes.

Course Description

Microsoft SQL Server Business Intelligence delivers a comprehensive platform empowering organizations to build and deploy secure, scalable, and manageable BI solutions. The Data Mining module provides new business insights, a reliable basis for forecasting and a comprehensive data-mining development environment. The Data Mining Add-ins allow you to harness the power of SQL Server predictive analytics in Excel and Visio. Use Table Analysis Tools to get insight with a couple of clicks. Use the Data Mining tab for full-lifecycle data mining, and build models which can be exported to a production server. Visualize your models in Visio. Microsoft SQL Server Analysis Services provides multiple algorithms for use in your data mining solutions. These algorithms are implementations of some of the most popular methodologies used in data mining. This training covers both the functions of the Data Mining Add-ins and the functions of SQL Server Data Tools. While getting to know the various software modules you will also get familiar with algorithms like Decision Trees, Naive Bayes, Clustering, Neural Networks, or Linear and Logistic Regression.

Course Outline

A. Data Mining and MS SQL Server - Introduction

(0.5 Days) Business Intelligence and Data Mining - Usage Scenarios for Data Mining - Data Mining Techniques in Microsoft SQL Server and MS Excel - Server and Client Components: MS SQL Server Analysis Services and Data Mining Add-Ins for MS Excel and MS Visio - Data Mining Life Cycle and Tasks - Data Mining Techniques in MS SQL Server - Project Cycle (Data Collection, Processing and Cleaning of Data, Modeling, Model Evaluation, Reporting, Forecasting, Integration into Applications, Model Management and Maintenance)

B. Classification using Microsoft Decision Trees

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model - DMX Queries - Classification Model, Regression Model, Relationship Model

C. Classification using Microsoft Naive Bayes

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model - DMX Queries - Dependency Network, Attribute Profiles, Attribute Characteristics, Attribute Discrimination

D. Microsoft Time Series

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Auto Regression, Multiple Time Series, Seasonality, Historic Predictions, Caching Predictions - DMX Queries

E. Microsoft Clustering

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Clustering Types, Scalable Clustering, Predictions and Cluster Assignment - DMX Queries: Cluster, Probability, Histograms, CaseLikelihood

F. Microsoft Sequence Clustering

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Markov Chains, Transition Matrix, Clustering and Markov Chains, Decomposition - DMX Queries

G. Microsoft Association Rules

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Itemset, Support, Probability and Confidence, Interestingness and Importance - DMX Queries

H. Microsoft Neural Network

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Combination and Activation, Normalization and Mapping, Topology of a Neural Network , Model Training - DMX Queries

I. Table Analysis Tools for Excel

(0.25 Days) Data Cleaning and Sampling - Prediction Calculator - Shopping Basket Analysis

J. Data Mining Client for Excel

(0.25 Days) Adding and Processing Structures and Models - Testing Models - Data Mining Queries - Using Data Mining-Models in Integration Services – Using Data Mining Results in Reporting Services

(ii) Using MS SQL Server 2012

Overview

Course ID	2020995
Language	en
Duration	3 D ys
Delivery mode	Classroom
Course Type	
Target Group	Business Intelligence Developer
Prerequisites	Bases MS SQL Server
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
2,050.00 USD	1,950.00 USD	2,050.00 USD
10-12 Aug 05-07 Oct 30 Nov - 02 Dec	17-19 Aug 12-14 Oct 07-09 Dec	07-09 Sep 02-04 Nov 28-30 Dec

Prices plus local taxes.

Course Description

Microsoft SQL Server Business Intelligence delivers a comprehensive platform empowering organizations to build and deploy secure, scalable, and manageable BI solutions. The Data Mining module provides new business insights, a reliable basis for forecasting and a comprehensive data-mining development environment. The Data Mining Add-ins allow you to harness the power of SQL Server predictive analytics in Excel and Visio. Use Table Analysis Tools to get insight with a couple of clicks. Use the Data Mining tab for full-lifecycle data mining, and build models which can be exported to a production server. Visualize your models in Visio. Microsoft SQL Server Analysis Services provides multiple algorithms for use in your data mining solutions. These algorithms are implementations of some of the most popular methodologies used in data mining. This training covers both the functions of the Data Mining Add-ins and the functions of SQL Server Data Tools. While getting to know the various software modules you will also get familiar with algorithms like Decision Trees, Naive Bayes, Clustering, Neural Networks, or Linear and Logistic Regression.

Course Outline

A. Data Mining and MS SQL Server - Introduction

(0.5 Days) Business Intelligence and Data Mining - Usage Scenarios for Data Mining - Data Mining Techniques in Microsoft SQL Server and MS Excel - Server and Client Components: MS SQL Server Analysis Services and Data Mining Add-Ins for MS Excel and MS Visio - Data Mining Life Cycle and Tasks - Data Mining Techniques in MS SQL Server - Project Cycle (Data Collection, Processing and Cleaning of Data, Modeling, Model Evaluation, Reporting, Forecasting, Integration into Applications, Model Management and Maintenance)

B. Classification using Microsoft Decision Trees

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model - DMX Queries - Classification Model, Regression Model, Relationship Model

C. Classification using Microsoft Naive Bayes

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model - DMX Queries - Dependency Network, Attribute Profiles, Attribute Characteristics, Attribute Discrimination

D. Microsoft Time Series

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Auto Regression, Multiple Time Series, Seasonality, Historic Predictions, Caching Predictions - DMX Queries

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(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Clustering Types, Scalable Clustering, Predictions and Cluster Assignment - DMX Queries: Cluster, Probability, Histograms, CaseLikelihood

F. Microsoft Sequence Clustering

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Markov Chains, Transition Matrix, Clustering and Markov Chains, Decomposition - DMX Queries

G. Microsoft Association Rules

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Itemset, Support, Probability and Confidence, Interestingness and Importance - DMX Queries

H. Microsoft Neural Network

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Combination and Activation, Normalization and Mapping, Topology of a Neural Network , Model Training - DMX Queries

I. Scripting for Data Mining

(0.5 Days) XML/A (XML for Analysis): Generating and Using Scripts, Building, Managing and Training Data Mining Models - DMX (Data Mining Extensions): Building Data Mining Models, Managing, Training, and Querying Data Mining Models

J. Data Integration and Reporting Services

(0.25 Days) Using Data Mining-Models in Integration Services – Using Data Mining Results in Reporting Services

(iii) Using MS SQL Server 2012

Overview

Course ID	2023676
Language	en
Duration	3 D ys
Delivery mode	Classroom
Course Type	
Target Group	Business Intelligence Developer
Prerequisites	Bases MS SQL Server
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
2,050.00 USD	1,950.00 USD	2,050.00 USD
24-26 Aug 19-21 Oct 14-16 Dec	31 Aug - 02 Sep 26-28 Oct 21-23 Dec	14-16 Sep 09-11 Nov

Prices plus local taxes.

Course Description

Microsoft SQL Server Business Intelligence delivers a comprehensive platform empowering organizations to build and deploy secure, scalable, and manageable BI solutions. The Data Mining module provides new business insights, a reliable basis for forecasting and a comprehensive data-mining development environment. The Data Mining Add-ins allow you to harness the power of SQL Server predictive analytics in Excel and Visio. Use Table Analysis Tools to get insight with a couple of clicks. Use the Data Mining tab for full-lifecycle data mining, and build models which can be exported to a production server. Visualize your models in Visio. Microsoft SQL Server Analysis Services provides multiple algorithms for use in your data mining solutions. These algorithms are implementations of some of the most popular methodologies used in data mining. This training covers both the functions of the Data Mining Add-ins and the functions of SQL Server Data Tools. While getting to know the various software modules you will also get familiar with algorithms like Decision Trees, Naive Bayes, Clustering, Neural Networks, or Linear and Logistic Regression.

Course Outline

A. Data Mining and MS SQL Server - Introduction

(0.5 Days) Business Intelligence and Data Mining - Usage Scenarios for Data Mining - Data Mining Techniques in Microsoft SQL Server and MS Excel - Server and Client Components: MS SQL Server Analysis Services and Data Mining Add-Ins for MS Excel and MS Visio - Data Mining Life Cycle and Tasks - Data Mining Techniques in MS SQL Server - Project Cycle (Data Collection, Processing and Cleaning of Data, Modeling, Model Evaluation, Reporting, Forecasting, Integration into Applications, Model Management and Maintenance)

B. Classification using Microsoft Decision Trees

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model - DMX Queries - Classification Model, Regression Model, Relationship Model

C. Classification using Microsoft Naive Bayes

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model - DMX Queries - Dependency Network, Attribute Profiles, Attribute Characteristics, Attribute Discrimination

D. Microsoft Time Series

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Auto Regression, Multiple Time Series, Seasonality, Historic Predictions, Caching Predictions - DMX Queries

E. Microsoft Clustering

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Clustering Types, Scalable Clustering, Predictions and Cluster Assignment - DMX Queries: Cluster, Probability, Histograms, CaseLikelihood

F. Microsoft Sequence Clustering

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Markov Chains, Transition Matrix, Clustering and Markov Chains, Decomposition - DMX Queries

G. Microsoft Association Rules

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Itemset, Support, Probability and Confidence, Interestingness and Importance - DMX Queries

H. Microsoft Neural Network

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Combination and Activation, Normalization and Mapping, Topology of a Neural Network , Model Training - DMX Queries

I. Scripting for Data Mining

(0.5 Days) XML/A (XML for Analysis): Generating and Using Scripts, Building, Managing and Training Data Mining Models - DMX (Data Mining Extensions): Building Data Mining Models, Managing, Training, and Querying Data Mining Models

J. Data Integration and Reporting Services

(0.25 Days) Using Data Mining-Models in Integration Services – Using Data Mining Results in Reporting Services

A. Design Patterns

(i) C#.NET

Overview

Course ID	2020941
Language	en
Duration	2 D ys
Delivery mode	Classroom
Course Type	
Target Group	Programmers, software architects, managers,
Prerequisites	Knowledge in software development, project experience
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
1,400.00 USD	1,350.00 USD	1,400.00 USD
13-14 Aug 08-09 Oct 10-11 Dec	03-04 Sep 05-06 Nov 31 Dec - 01 Jan	30-31 Jul 24-25 Sep 19-20 Nov

Prices plus local taxes.

Course Description

A design pattern is a general reusable solution to a commonly occurring problem within a given context in software design. A design pattern is not a finished design that can be transformed directly into source or machine code. It is a description or template for how to solve a problem that can be used in many different situations. Patterns are formalized best practices that the programmer must implement themselves in the application. Object-oriented design patterns typically show relationships and interactions between classes or objects, without specifying the final application classes or objects that are involved. This training presents a selection of the GoF (Gang of Four) patterns which can be used in .NET, PHP or Java and other object-oriented programming languages. After the training you will be capable of defining the basic usage scenarios and situations where these patterns can be helpful and you will be able to apply these patterns to real-world design problems.

Course Outline

A. Creational Patterns

Abstract Factory (Provide an interface for creating families of related or dependent objects without specifying their concrete classes.) - Builder (Separate the construction of a complex object from its representation allowing the same construction process to create various representations.) - Factory Method (Define an interface for creating a single object, but let subclasses decide which class to instantiate.) - Prototype (Specify the kinds of objects to create using a prototypical instance, and create new objects by copying this prototype.) - Singleton (Ensure a class has only one instance, and provide a global point of access to it.)

B. Structural patterns

Adapter (Convert the interface of a class into another interface clients expect.) - Bridge (Decouple an abstraction from its implementation allowing the two to vary independently.) - Composite (Compose objects into tree structures to represent part-whole hierarchies.) - Decorator (Attach additional responsibilities to an object dynamically keeping the same interface.) - Facade (Provide a unified interface to a set of interfaces in a subsystem.) - Flyweight (Use sharing to support large numbers of similar objects efficiently.) - Proxy (Provide a surrogate or placeholder for another object to control access to it.)

C. Behavioral Patterns

Chain of Responsibility (Avoid coupling the sender of a request to its receiver by giving more than one object a chance to handle the request.) - Command (Encapsulate a request as an object, thereby letting you parameterize clients with different requests.) - Interpreter (Given a language, define a representation for its grammar along with the interpreter.) - Iterator (Provide a way to access the elements of an aggregate object sequentially without exposing its underlying representation.) - Mediator (Define an object that encapsulates how a set of objects interact.) - Memento (Without violating encapsulation, capture and externalize an object's internal state allowing the object to be restored to this state later.) - Observer (Define a one-to-many dependency between objects where a state change in one object results in all its dependents being notified and updated automatically.) - State (Allow an object to alter its behavior when its internal state changes.) - Strategy (Define a family of algorithms, encapsulate each one, and make them interchangeable.) - Template Method (Define the skeleton of an algorithm in an operation, deferring some steps to subclasses.) - Visitor (Represent an operation to be performed on the elements of an object structure.)

(ii) Design Patterns (GoF)

Overview

Course ID	2020940
Language	en
Duration	2 D ys
Delivery mode	Classroom
Course Type	
Target Group	Programmers, software architects, managers,
Prerequisites	Knowledge in software development, project experience
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
1,400.00 USD	1,350.00 USD	1,400.00 USD
13-14 Aug 08-09 Oct 10-11 Dec	03-04 Sep 05-06 Nov 31 Dec - 01 Jan	30-31 Jul 24-25 Sep 19-20 Nov

Prices plus local taxes.

Course Description

A design pattern is a general reusable solution to a commonly occurring problem within a given context in software design. A design pattern is not a finished design that can be transformed directly into source or machine code. It is a description or template for how to solve a problem that can be used in many different situations. Patterns are formalized best practices that the programmer must implement themselves in the application. Object-oriented design patterns typically show relationships and interactions between classes or objects, without specifying the final application classes or objects that are involved. This training presents a selection of the GoF (Gang of Four) patterns which can be used in .NET, PHP or Java and other object-oriented programming languages. After the training you will be capable of defining the basic usage scenarios and situations where these patterns can be helpful and you will be able to apply these patterns to real-world design problems.

Course Outline

A. Creational Patterns

Abstract Factory (Provide an interface for creating families of related or dependent objects without specifying their concrete classes.) - Builder (Separate the construction of a complex object from its representation allowing the same construction process to create various representations.) - Factory Method (Define an interface for creating a single object, but let subclasses decide which class to instantiate.) - Prototype (Specify the kinds of objects to create using a prototypical instance, and create new objects by copying this prototype.) - Singleton (Ensure a class has only one instance, and provide a global point of access to it.)

B. Structural patterns

Adapter (Convert the interface of a class into another interface clients expect.) - Bridge (Decouple an abstraction from its implementation allowing the two to vary independently.) - Composite (Compose objects into tree structures to represent part-whole hierarchies.) - Decorator (Attach additional responsibilities to an object dynamically keeping the same interface.) - Facade (Provide a unified interface to a set of interfaces in a subsystem.) - Flyweight (Use sharing to support large numbers of similar objects efficiently.) - Proxy (Provide a surrogate or placeholder for another object to control access to it.)

C. Behavioral Patterns

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(iii) Java

Overview

Course ID	2020938
Language	en
Duration	2 D ys
Delivery mode	Classroom
Course Type	
Target Group	Programmers, software architects, managers,
Prerequisites	Knowledge in software development, project experience
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
1,400.00 USD	1,350.00 USD	1,400.00 USD
06-07 Aug 01-02 Oct 03-04 Dec	30-31 Jul 24-25 Sep 19-20 Nov	10-11 Sep 12-13 Nov

Prices plus local taxes.

Course Description

A design pattern is a general reusable solution to a commonly occurring problem within a given context in software design. A design pattern is not a finished design that can be transformed directly into source or machine code. It is a description or template for how to solve a problem that can be used in many different situations. Patterns are formalized best practices that the programmer must implement themselves in the application. Object-oriented design patterns typically show relationships and interactions between classes or objects, without specifying the final application classes or objects that are involved. This training presents a selection of the GoF (Gang of Four) patterns which can be used in .NET, PHP or Java and other object-oriented programming languages. After the training you will be capable of defining the basic usage scenarios and situations where these patterns can be helpful and you will be able to apply these patterns to real-world design problems.

Course Outline

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(iv) PHP

Overview

Course ID	2020937
Language	en
Duration	2 D ys
Delivery mode	Classroom
Course Type	
Target Group	Programmers, software architects, managers,
Prerequisites	Knowledge in software development, project experience
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
1,400.00 USD	1,350.00 USD	1,400.00 USD
06-07 Aug 01-02 Oct 03-04 Dec	30-31 Jul 24-25 Sep 19-20 Nov	10-11 Sep 12-13 Nov

Prices plus local taxes.

Course Description

A design pattern is a general reusable solution to a commonly occurring problem within a given context in software design. A design pattern is not a finished design that can be transformed directly into source or machine code. It is a description or template for how to solve a problem that can be used in many different situations. Patterns are formalized best practices that the programmer must implement themselves in the application. Object-oriented design patterns typically show relationships and interactions between classes or objects, without specifying the final application classes or objects that are involved. This training presents a selection of the GoF (Gang of Four) patterns which can be used in .NET, PHP or Java and other object-oriented programming languages. After the training you will be capable of defining the basic usage scenarios and situations where these patterns can be helpful and you will be able to apply these patterns to real-world design problems.

Course Outline

A. Creational Patterns

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B. Structural patterns

Adapter (Convert the interface of a class into another interface clients expect.) - Bridge (Decouple an abstraction from its implementation allowing the two to vary independently.) - Composite (Compose objects into tree structures to represent part-whole hierarchies.) - Decorator (Attach additional responsibilities to an object dynamically keeping the same interface.) - Facade (Provide a unified interface to a set of interfaces in a subsystem.) - Flyweight (Use sharing to support large numbers of similar objects efficiently.) - Proxy (Provide a surrogate or placeholder for another object to control access to it.)

C. Behavioral Patterns

Chain of Responsibility (Avoid coupling the sender of a request to its receiver by giving more than one object a chance to handle the request.) - Command (Encapsulate a request as an object, thereby letting you parameterize clients with different requests.) - Interpreter (Given a language, define a representation for its grammar along with the interpreter.) - Iterator (Provide a way to access the elements of an aggregate object sequentially without exposing its underlying representation.) - Mediator (Define an object that encapsulates how a set of objects interact.) - Memento (Without violating encapsulation, capture and externalize an object's internal state allowing the object to be restored to this state later.) - Observer (Define a one-to-many dependency between objects where a state change in one object results in all its dependents being notified and updated automatically.) - State (Allow an object to alter its behavior when its internal state changes.) - Strategy (Define a family of algorithms, encapsulate each one, and make them interchangeable.) - Template Method (Define the skeleton of an algorithm in an operation, deferring some steps to subclasses.) - Visitor (Represent an operation to be performed on the elements of an object structure.)

A. MS SQL Server 2012

(i) Administration and Maintenance

Overview

Course ID	2020814
Language	en
Duration	5 D ys
Delivery mode	Classroom
Course Type	
Target Group	DBAs
Prerequisites	Bases MS SQL Server
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
2,850.00 USD	2,650.00 USD	2,850.00 USD
17-21 Aug 12-16 Oct 07-11 Dec	10-14 Aug 05-09 Oct 30 Nov - 04 Dec	03-07 Aug 28 Sep - 02 Oct 23-27 Nov

Prices plus local taxes.

Course Description

This SQL Server 2012 Database training provides students with the knowledge and skills to maintain a Microsoft SQL Server 2012 database. The course focuses on teaching individuals how to use SQL Server 2012 product features and tools related to maintaining a database. Also this course helps you prepare for the Exam 70-462. The course is intended for individuals who administer and maintain SQL Server databases. These individuals perform database administration and maintenance as their primary area of responsibility, or work in environments where databases play a key role in their primary job. This SQL Server 2012 Database training is also intended for individuals who develop applications that deliver content from SQL Server databases.

Course Outline

A. Working with Databases

Overview of SQL Server Architecture - Overview of SQL Server Databases - Working with Files and Filegroups - Moving Database Files

B. Backup and Recovery

Backup Strategies - Understanding SQL Server Transaction Logging - Planning a SQL Server Backup Strategy - Backing up Databases and Transaction Logs - Managing Database Backups - Working with Backup Options - Understanding the Restore Process - Restoring Databases - Working with Point-in-time recovery - Restoring System Databases and Individual Files

C. Importing and Exporting Data

Transferring Data To/From SQL Server - Importing and Exporting Table Data - Inserting Data in Bulk

D. Authenticating and Authorizing Users

Authenticating Connections to SQL Server - Authorizing Logins to Access Databases - Authorization Across Servers - Working with Server Roles - Working with Fixed Database Roles - Creating User-defined Database Roles - Authorizing User Access to Objects - Authorizing Users to Execute Code - Configuring Permissions at the Schema Level

E. Automating SQL Server 2012 Management

Automating SQL Server Management - Working with SQL Server Agent - Managing SQL Server Agent Jobs - Understanding SQL Server Agent Security - Configuring Credentials C.Configuring Proxy Accounts

F. Performing Ongoing Database Maintenance

Ensuring Database Integrity - Maintaining Indexes - Automating Routine Database Maintenance - Capturing Activity using SQL Server Profiler - Improving Performance with the Database Engine Tuning Advisor - Working with Tracing Options - Monitoring Activity - Capturing and Managing Performance Data - Analyzing Collected Performance Data

(ii) Analysis Services (SSAS), OLAP and Data Warehousing

Overview

Course ID	2020963
Language	en
Duration	3 D ys
Delivery mode	Classroom
Course Type	
Target Group	Business Intelligence Developer
Prerequisites	Bases MS SQL Server
Method	Lecture with examples and exercises.
Course level	Advanced

Course Dates

Chicago	Miami	New York
1,900.00 USD	1,800.00 USD	1,900.00 USD
10-12 Aug 05-07 Oct 30 Nov - 02 Dec	17-19 Aug 12-14 Oct 07-09 Dec	07-09 Sep 02-04 Nov 28-30 Dec

Prices plus local taxes.

Course Description

Microsoft SQL Server Analysis Services, SSAS, is an Online Analytical Processing, OLAP, data mining and reporting tool in Microsoft SQL Server. SSAS is used as a tool by organizations to analyze and make sense of information possibly spread out across multiple databases, or in disparate tables. This training teaches your how to use SQL Server Analysis Services for business intelligence. You'll start by building your understanding of the business intelligence platform enabled by SQL Server and the Microsoft Office System, highlighting the role of Analysis Services. Then, you'll create a simple multidimensional OLAP cube and progressively add features to help improve, secure, deploy, and maintain an Analysis Services database. You'll explore core Analysis Services features and capabilities, including dimension, cube, and aggregation design wizards; the attribute relationship designer; and using dynamic management views to monitor resources.

Course Outline

A. OLAP and SQL Server Analysis Services (SSAS)

(0.25 Days) Business Intelligence - Multidimensional Data Analysis - Dimensional Data Warehouse - Multidimensional OLAP - Analysis Services and the Microsoft Business Intelligence Platform

B. Working with Dimensions

(0.5 Days) Previewing Dimension Data - Creating a Standard Dimension - Creating a Time Dimension - Creating a Parent-Child Dimension - Dimension Usage - Creating Reference Dimensions - Creating a Fact Dimension - Creating a Many-to-Many Dimension

C. Working with Measures and Measure Groups

(0.25 Days) Creating a Business Intelligence Solution - Creating a Data Source - Creating a Data Source View - Previewing Cube Data - Using the Wizard to Create a Cube - Deploying and Browsing a Cube - Using the Cube Designer to Modify a Cube - Using Aggregate Functions

D. Retrieving Data from Analysis Services uisng MDX, MS Excel, and Reporting

(0.25 Days) Creating Perspectives - Creating MDX Queries - Accessing Analysis Services Using Excel - Creating Reporting Services Reports

E. Extending Cube-Funktionality

(0.25 Days) Key Performance Indicators (KPI) - Implementing Actions - - Using MDX to Retrieve Values from a Cube - Creating Calculated Members - Calculation Scripting

F. Deployment and Security of an Analysis Services Solution

(0.25 Days) Deployment Overview - Deployment Mechanics - Deployment Using Business Intelligence Development Studio - Deployment Using the Deployment Wizard - Understanding Deployment Scripts - Migrating Databases and Disaster Recovery - Implementing Security: Understanding Roles - Securing Administrative Access - Securing Data Access

G. Administering a Multidimensional Solution

(0.25 Days) Monitoring Analysis Services Using Windows Reliability And Performance Monitor - Monitoring Analysis Services Using SQL Server Profiler - Analysis Services Dynamic Management Views - Managing Partitions and Database Processing: Working with Storage - Managing Analysis Services Processing - Working with Partitions

(iii) Analysis Services and MDX

Overview

Course ID	2020282
Language	en
Duration	2 D ys
Delivery mode	Classroom
Course Type	
Target Group	Business Intelligence Developer
Prerequisites	Experience with Business Intelligence concepts
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
1,600.00 USD	1,550.00 USD	1,600.00 USD
30-31 Jul 24-25 Sep 19-20 Nov	06-07 Aug 01-02 Oct 26-27 Nov	13-14 Aug 08-09 Oct 03-04 Dec

Prices plus local taxes.

Course Description

Multidimensional Expressions (MDX) is a query language for OLAP databases, much like SQL is a query language for relational databases. It is also a calculation language, with syntax similar to spreadsheet formulas. This training teaches you the Multidimensional Expressions (MDX) query language. With this practical, learn-by-doing course you'll build the core techniques for using MDX with Analysis Services to deliver high-performance business intelligence solutions. Discover how to construct and execute MDX queries, work with tuples, sets, and expressions, build complex sets to retrieve the exact data users need, perform aggregation functions and navigate data hierarchies, and assemble time-based business metrics.

Course Outline

A. Introduction to MDX in Analysis Services

(0.25 Days) MDX Language - MDX-Query-Editor in MS SQL Server Management Studio - Simple MDX Queries

B. Tuples and OLAP-Cubes

(0.75 Days) N-dimensional Space - Cube Space - Accessing Data with Tuples - - Understanding Cells - Working with Partial Tuples - Building Tuples with User-Hierarchies - Set Basics - Understanding the SELECT Statement - Building Sets with Functions - Filtering Sets - Combining Sets - Performing Aggregation: Performing Summation, Calculating Averages, Identifying Minimum and Maximum Values, Counting Tuples in Sets - Working with Time: Understanding the Time Dimension, Calculating an Accumulating Total, Performing Period-over-Period Analysis, Combining Time-Based Metrics

C. Enhancing the Cube using MDX

(0.5 Days) Understanding the MDX Script - Constructing Calculated Members - Assembling Named Sets

D. MDX and Analysis Services-Security

(0.25 Days) Understanding Dynamic Security - Implementing Attribute-Hierarchy Restrictions - Implementing Cell-Level Restrictions

E. Building Reports using MDX

(0.25 Days) Connecting to Analysis Services - Designing the Dataset - Adding Parameters to the Dataset - Presenting the Data in the Report

(iv) Business Intelligence - Compact

Overview

Course ID	2020295
Language	en
Duration	5 D ys
Delivery mode	Classroom
Course Type	
Target Group	Business Intelligence Developer
Prerequisites	Experience with Business Intelligence concepts
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
2,850.00 USD	2,650.00 USD	2,850.00 USD
07-11 Sep 02-06 Nov 28 Dec - 01 Jan	03-07 Aug 28 Sep - 02 Oct 23-27 Nov	10-14 Aug 05-09 Oct 30 Nov - 04 Dec

Prices plus local taxes.

Course Description

Microsoft SQL Server Analysis Services is a platform for building rich and high performance analytical models (multidimensional, tabular and data mining) that can be used for interactive data analysis, reporting, visualization and predictive analysis using a number of BI tools. Integration Services helps you connect and transform disparate data sources with a scalable enterprise data integration platform with exceptional extract, transform, and load (ETL) capabilities. Reporting Services is a platform for development and deployment of professionally looking, richly formatted operational and ad-hoc reports. Power View empowers users to rapidly explore data visually and interactively, easily create a story, present, and share reports effortlessly. This training takes you on a tour through all SQL Server products which are useful and necessary for building Data Warehouse and Reporting Solutions.

Course Outline

A. Business Intelligence, Data Warehousing and OLAP

(0.25 Days) Business Intelligence - Fundamentals of Data Warehousing und OLAP - Typical DW Data Models - Microsoft´s Architecture and Tools for Business Intelligence - Project Types and Project Phases for Business Intelligence - Life Cycle of BI-Solutions using MS SQL Server

B. OLAP and Data Warehousing using Analysis Services

(2 Days) Dimensions: Creation and Deployment, Hierarchies and Aggregation, Typology of Dimensions: Time, Currency, Language, Validity - Measures: Creation and Deployment, Storage Models, Calculated Measures with MDX - OLAP Cubes: Creation and Deployment, Security Model, MS Excel and Cube Access - Overview of Advanced Scenarios (Interactivity and Key Performance Indicators (KPI)

C. Data Integration and ETL using Integration Services

(1.5 Days) SSIS Packages - Control Flow Tasks - Precedence Constraints - Data Flow Paths - Data Viewer - Configuring Error Output - Using Variables - Processing of Excel, Text, and XML Files - MS SQL Queries - Logging - Error Handling - Package Configuration - Deployment

D. Reports using Reporting Services and MS Excel

(1.25 Days) Interactivity: OLAP Operations - Report Elements: Table, Matrix, Chart, Subreports - Datasets: Data Sources and Queries - Parameters and Filters - Deployment: Report Portal, Report Snapshots and Caching, Subscriptions

(v) Business Intelligence using Tabular Model

Overview

Course ID	2022784
Language	en
Duration	2 D ys
Delivery mode	Classroom
Course Type	
Target Group	IT professionals, information workers
Prerequisites	Bases MS SQL Server
Method	Lecture with examples and exercises.
Course level	Advanced

Course Dates

Chicago	Miami	New York
1,600.00 USD	1,550.00 USD	1,600.00 USD
20-21 Aug 15-16 Oct 10-11 Dec	13-14 Aug 08-09 Oct 03-04 Dec	06-07 Aug 01-02 Oct 26-27 Nov

Prices plus local taxes.

Course Description

Tabular models are in-memory databases in Analysis Services. They can be used by reporting client applications such as Microsoft Excel and Microsoft Power View. Tabular models support data access through two modes: Cached mode and DirectQuery mode. In cached mode, you can integrate data from multiple sources including relational databases, data feeds, and flat text files. In DirectQuery mode, you can bypass the in-memory model, allowing client applications to query data directly at the (SQL Server relational) source. Tabular models are authored in SQL Server Data Tools (SSDT) using new tabular model project templates. You can import data from multiple sources, and then enrich the model by adding relationships, calculated columns, measures, KPIs, and hierarchies. Models can then be deployed to an instance of Analysis Services where client reporting applications can connect to them. Deployed models can be managed in SQL Server Management Studio just like multidimensional models. They can also be partitioned for optimized processing and secured to the row-level by using role based security.

Course Outline

A. Tabular Model-Introduction

(0.5 Days) Tabular Model Designer - Project Templates - Workspace Database - Tabular Model Projects - Data Sources - DirectQuery Mode - Using SSMS to Manage the Workspace Database

B. Creation of a Tabular Model

(0.5 Days) Working with tables and columns - Filter and Sort Data - Relationships: Manually Create Relationships , Inference of Relationships, Duplicate Values and Other Errors - Change table, column, or row filter mappings - Calculations - Measures - Create and Manage KPIs (Key Performance Indicator) - Hierarchies

C. Advanced Modeling Techniques

(0.25 Days) Partitions: Processing Partitions, Partitions in the Model Workspace Database, Partitions in a deployed model database - Create and Manage Perspectives

D. Security

(0.25 Days) Understanding Roles - Permissions - Row Filters - Testing Roles

E. Reports and Deployment

(0.5 Days) Analyze a Tabular Model in Excel - Tabular Model Solution Deployment - Deploying a Tabular Model - Deployment Properties - Deployment Methods - Configuring the Deployment Server and Connecting to a Deployed Model

(vi) Data Mining

Overview

Course ID	2020998
Language	en
Duration	3 D ys
Delivery mode	Classroom
Course Type	
Target Group	Business Intelligence Developer
Prerequisites	Bases MS SQL Server
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
2,050.00 USD	1,950.00 USD	2,050.00 USD
10-12 Aug 05-07 Oct 30 Nov - 02 Dec	17-19 Aug 12-14 Oct 07-09 Dec	07-09 Sep 02-04 Nov 28-30 Dec

Prices plus local taxes.

Course Description

Microsoft SQL Server Business Intelligence delivers a comprehensive platform empowering organizations to build and deploy secure, scalable, and manageable BI solutions. The Data Mining module provides new business insights, a reliable basis for forecasting and a comprehensive data-mining development environment. The Data Mining Add-ins allow you to harness the power of SQL Server predictive analytics in Excel and Visio. Use Table Analysis Tools to get insight with a couple of clicks. Use the Data Mining tab for full-lifecycle data mining, and build models which can be exported to a production server. Visualize your models in Visio. Microsoft SQL Server Analysis Services provides multiple algorithms for use in your data mining solutions. These algorithms are implementations of some of the most popular methodologies used in data mining. This training covers both the functions of the Data Mining Add-ins and the functions of SQL Server Data Tools. While getting to know the various software modules you will also get familiar with algorithms like Decision Trees, Naive Bayes, Clustering, Neural Networks, or Linear and Logistic Regression.

Course Outline

A. Data Mining and MS SQL Server - Introduction

(0.5 Days) Business Intelligence and Data Mining - Usage Scenarios for Data Mining - Data Mining Techniques in Microsoft SQL Server and MS Excel - Server and Client Components: MS SQL Server Analysis Services and Data Mining Add-Ins for MS Excel and MS Visio - Data Mining Life Cycle and Tasks - Data Mining Techniques in MS SQL Server - Project Cycle (Data Collection, Processing and Cleaning of Data, Modeling, Model Evaluation, Reporting, Forecasting, Integration into Applications, Model Management and Maintenance)

B. Classification using Microsoft Decision Trees

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model - DMX Queries - Classification Model, Regression Model, Relationship Model

C. Classification using Microsoft Naive Bayes

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model - DMX Queries - Dependency Network, Attribute Profiles, Attribute Characteristics, Attribute Discrimination

D. Microsoft Time Series

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Auto Regression, Multiple Time Series, Seasonality, Historic Predictions, Caching Predictions - DMX Queries

E. Microsoft Clustering

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Clustering Types, Scalable Clustering, Predictions and Cluster Assignment - DMX Queries: Cluster, Probability, Histograms, CaseLikelihood

F. Microsoft Sequence Clustering

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Markov Chains, Transition Matrix, Clustering and Markov Chains, Decomposition - DMX Queries

G. Microsoft Association Rules

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Itemset, Support, Probability and Confidence, Interestingness and Importance - DMX Queries

H. Microsoft Neural Network

(0.25 Days) Introduction to the Algorithm - Parameters - Building a Model and Using the Model: Combination and Activation, Normalization and Mapping, Topology of a Neural Network , Model Training - DMX Queries

I. Scripting for Data Mining

(0.5 Days) XML/A (XML for Analysis): Generating and Using Scripts, Building, Managing and Training Data Mining Models - DMX (Data Mining Extensions): Building Data Mining Models, Managing, Training, and Querying Data Mining Models

J. Data Integration and Reporting Services

(0.25 Days) Using Data Mining-Models in Integration Services – Using Data Mining Results in Reporting Services

(vii) Integration Services (SSIS) and ETL

Overview

Course ID	2020875
Language	en
Duration	3 D ys
Delivery mode	Classroom
Course Type	
Target Group	Business Intelligence Developer
Prerequisites	Bases MS SQL Server
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
1,900.00 USD	1,800.00 USD	1,900.00 USD
03-05 Aug 28-30 Sep 23-25 Nov	07-09 Sep 02-04 Nov 28-30 Dec	17-19 Aug 12-14 Oct 07-09 Dec

Prices plus local taxes.

Course Description

SSIS is a platform for data integration and workflow applications. It features a fast and flexible data warehousing tool used for data extraction, transformation, and loading (ETL). The tool may also be used to automate maintenance of SQL Server databases and updates to multidimensional cube data. This training teaches you the fundamentals of SQL Server Integration Services. This practical, learn-by-doing course delivers the guidance you need to transform and consolidate data and build solutions that support your business intelligence needs. Discover how to design and execute packages that transform data between files and relational databases, configure connection managers to access other data sources, create data flows that alter, split, match, and merge data, develop event-handlers and monitor package performance or debug, troubleshoot, and optimize packages.

Course Outline

A. Introduction to SQL Server Integration Services

(0.25 Days) Common SSIS Applications - SSIS Objects and Process Control Components - SSIS Process Control - SSIS Components -

B. Development of an Integration Services Solution

(1.25 Days) Extracting and Loading Data: Connection Managers, Using Data Sources and Data Source Views - Using Data Flow Transformations: Creating Data Flow in a Package - SSIS Transformations, Using Expressions in Packages, Using Data Flow Transformations, Configuring Error Output - Managing Control Flow - Control Flow Elements

C. Populating Data Warehouse Structures

(0.5 Days) Data Warehouse Characteristics - Implementing Staging Tables - - Types of Staging Schemes - Managing Dimension Tables - Slowly Changing Dimensions - Managing Fact Tables

D. Debugging Packages

(0.25 Days) Debugging Control Flow - Debugging Data Flow - Detecting and Handling Processing Errors: Basic Error Detection and Handling, Understanding Event Handlers, Creating Event Handlers, Maintaining Data Consistency with Transactions, Using Checkpoint Restarts, Using Checkpoints and Transactions

E. Checkpoints and Transactions

(0.25 Days) Basic Error Detection and Handling: Understanding Event Handlers, - Creating Event Handlers - Maintaining Data Consistency with Transactions - Using Checkpoint Restarts - Using Checkpoints and Transactions

F. Securing, Optimizing, and Deploying SSIS Packages

(0.5 Days) Creating a Deployment Utility: Securing a Package, Role-Based Security - Deployment Options, Creating and Applying a Configuration, Executing a Deployed Package, - Monitoring Package Execution and Event Logs - Optimizing SSIS Packages: SSIS Engine Overview, Synchronous and Asynchronous Processing, Data Blocking, Managing Parallelism, Performance Management

(viii) Reporting Services (SSRS)

Overview

Course ID	2020881
Language	en
Duration	2 D ys
Delivery mode	Classroom
Course Type	
Target Group	Business Intelligence Developer
Prerequisites	Bases MS SQL Server
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
1,400.00 USD	1,350.00 USD	1,400.00 USD
06-07 Aug 01-02 Oct 26-27 Nov	30-31 Jul 24-25 Sep 19-20 Nov	20-21 Aug 15-16 Oct 10-11 Dec

Prices plus local taxes.

Course Description

SQL Server Reporting Services (SSRS) is a server-based report generation software system built in MS SQL Server. Administered via a web interface, it can be used to prepare and deliver a variety of interactive and printed reports. This training teaches you how to build, manage, and access SQL Server reports. Whether you're a report developer, IT administrator, or business user, this course shows you how to deliver the business intelligence information your organization needs. Discover how to use Report Builder and Report Designer tools, create interactive, online reports that enable users to sort and filter data, add charts and gauges to present data visually, and deploy reports securely to the Reports Server or distribute reports via subscriptions.

Course Outline

A. Introduction to SQL Server Reporting Services

(0.25 Days) Reporting Life Cycle - Reporting Services Architecture - Tools: Report Designer, Report Manager and MS Visual Studio

B. Simple Reports

(0.5 Days) Developing a Simple Report - Managing a Report - Viewing a Report - - Adding Calculations to a Report - Using Aggregate Functions - Changing Report Item Properties by Using Expressions - Working with Variables - Using Expressions for Dynamic Connections and Datasets - Developing Expressions for Hierarchical Data

C. Complex Reports

(0.75 Days) Adding Interactivity: Changing the Report Layout Interactively, - Working with Parameters, Adding Navigation Features - Using Analysis Services as a Data Source: Installing the Sample Database, Creating an Analysis Services Dataset, Designing Parameters - Visualizing Data: Creating Charts, Working with Gauges

D. Deploying Reports to a Server

(0.25 Days) Reviewing Deployment Options - Managing Content - Configuring Data Source Properties - Configuring Report Execution Properties - Securing Report Server Content - Configuring Report Server Security Policies: Assigning User Permissions, Configuring Item-Level Security, Implementing Data Security - Working with Subscriptions: Creating Standard Subscriptions, Creating Data-Driven Subscriptions, Managing Subscriptions

E. Performing Administrative Tasks

(0.25 Days) Using Management Tools - Configuring the Report Server - Monitoring the Report Server

(ix) T-SQL 1 - Queries and Analyses

Overview

Course ID	2020906
Language	en
Duration	3 D ys
Delivery mode	Classroom
Course Type	
Target Group	DBAs, database developers
Prerequisites	Bases MS SQL Server
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
1,900.00 USD	1,800.00 USD	1,900.00 USD
24-26 Aug 19-21 Oct 14-16 Dec	31 Aug - 02 Sep 26-28 Oct 21-23 Dec	03-05 Aug 28-30 Sep 23-25 Nov

Prices plus local taxes.

Course Description

This 3-day instructor led course provides students with the technical skills required to write basic Transact-SQL queries for Microsoft SQL Server. This course is intended for SQL Server database administrators, implementers, system engineers, and developers who are responsible for writing queries. After completing this course, students will be able to: a) Describe the uses of and ways to execute the Transact-SQL language, b) Use querying tool, c) Write SELECT queries to retrieve data, d) Group and summarize data by using Transact-SQL, e) Join data from multiple tables, f) Write queries that retrieve and modify data by using subqueries, g) Modify data in tables or h) Use various techniques when working with complex queries.

Course Outline

A. Getting Started with Databases and Transact-SQL in SQL Server

(0.25 Days) Overview of SQL Server - Overview of SQL Server Databases - Overview and Syntax Elements of T-SQL - Working with T-SQL Scripts - Using T-SQL Querying Tools

B. Querying and Filtering Data

(0.5 Days) Using the SELECT Statement - Filtering Data - Working with NULL Values - Formatting Result Sets - Performance Considerations for Writing Queries

C. Grouping and Summarizing Data

(0.25 Days) Summarizing Data by Using Aggregate Functions - Summarizing Grouped Data - Ranking Grouped Data - Creating Crosstab Queries

D. Joining Data from Multiple Tables

(0.25 Days) Querying Multiple Tables by Using Joins - Applying Joins for Typical Reporting Needs - Combining and Limiting Result Set

E. Working with Subqueries

(0.25 Days) Writing Basic Subqueries - Writing Correlated Subqueries - Comparing Subqueries with Joins and Temporary Tables - Using Common Table Expressions

F. Analysen

(0.5 Days) Querying Hierarchies - Moving (Centered) Averages - Window Aggregates - Accumulation - (Un) Pivoting of Data

G. Modifying Data in Tables

(0.5 Days) Inserting Data into Tables - Deleting Data from Tables - Updating Data in Tables - Overview of Transactions

H. Using Advanced Querying Techniques

(0.5 Days) Considerations for Querying Data - Working with Data Types - Cursors and Set-Based Queries - Dynamic SQL - Maintaining Query Files - Overview of Views - Overview of User-Defined Functions - Overview of Stored Procedures - Overview of Triggers - Querying Metadata - Querying XML Data

(x) T-SQL 2 - Implementing and Programming

Overview

Course ID	2020959
Language	en
Duration	3 D ys
Delivery mode	Classroom
Course Type	
Target Group	DBAs, database developers
Prerequisites	Bases MS SQL Server
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
1,900.00 USD	1,800.00 USD	1,900.00 USD
14-16 Sep 16-18 Nov	21-23 Sep 30 Nov - 02 Dec	24-26 Aug 19-21 Oct 14-16 Dec

Prices plus local taxes.

Course Description

This 3-day instructor-led course is intended for Microsoft SQL Server database developers who are responsible for implementing a database on SQL Server. In this course, students learn the skills and best practices on how to use SQL Server product features and tools related to implementing a database server. This course is intended for IT Professionals who want to become skilled on SQL Server 2008 R2 product features and technologies for implementing a database. To be successful in this course, the student should have knowledge of basic relational database concepts and writing T-SQL queries. After completing this course, students will be able to: a) Understand the product, its components, and basic configuration, b) Work with the data types supported by SQL Server, c) Design and implement tables and work with schemas / Design and implement views and partitioned views, f) Describe the concept of an index and determine the appropriate data type for indexes and composite index structures / Identify the appropriate table structures and implement clustered indexes and heaps, g) Describe and capture execution plans, h) Describe transactions, transaction isolation levels, or i) Design and implement scalar and table-valued functions, stored procedures, triggers.

Course Outline

A. Designing and Implementing Databases, Tables/Views and Files

(0.5 Days) Introduction to SQL Server Platform - Working with SQL Server Tools - Configuring SQL Server Services - Data Types: Using Data Types, Converting Data Types - Tables: Designing Tables, Working with Schemas, Creating and Altering Tables - Views: Introduction to Views, Creating and Managing Views, Performance Considerations for Views

B. Data Manipulation and Optimiziation/Tuning

(0.25 Days) Inserting, Updating, and Deleting Data - Execution Plan Core Concepts - Common Execution Plan Elements - Designing Effective (Non-)Clustered Indexes - Using the Database Engine Tuning Advisor

C. T-SQL Programming

(0.75 Days) Variables - Control Structure - Dynamic SQL - Transactions - Exceptions and T-SQL Error Handling - Cursors

D. Implementing Procedures and Functions

(0.5 Days) User-Defined Functions: Designing and Implementing Scalar Functions, Designing and Implementing Table-valued Functions - Introduction to Stored Procedures - Working With Stored Procedures - Implementing Parameterized Stored Procedures

E. Ensuring Data Integrity through Constraints and Triggers

(0.25 Days) Enforcing Data Integrity - Implementing Domain Integrity - Implementing Entity and Referential Integrity - Implementing DML Triggers

F. Security

(0.25 Days) SQL Server´s Security Concepts - Defining and Using Logins, Users and Rollen

G. Data Import/Export and Backup

(0.25 Days) Import Data using T-SQL – Backup and Recovery of Database and Data/Files

(xi) T-SQL 3 - XML-Integration

Overview

Course ID	2020965
Language	en
Duration	2 D ys
Delivery mode	Classroom
Course Type	
Target Group	Programmers, Web developers
Prerequisites	Bases MS SQL Server
Method	Lecture with examples and exercises.
Course level	Advanced

Course Dates

Chicago	Miami	New York
1,600.00 USD	1,550.00 USD	1,600.00 USD
30-31 Jul 24-25 Sep 19-20 Nov	27-28 Aug 22-23 Oct 24-25 Dec	03-04 Sep 29-30 Oct 31 Dec - 01 Jan

Prices plus local taxes.

Course Description

Für den Austausch und die Speicherung komplexer Import-/Exportdaten oder strukturierter Inhalte bietet der MS SQL Server eigene Funktionalitäten und Unterstützüng von XML an. Dieses Seminar zeigt Ihnen, wie XML in der Datenbank gespeichert, ausgelesen und in der Anwendungsentwicklung genutzt wird. Dies umfasst die Erzeugung von XML aus relationalen Daten über T-SQL-Abfragen sowie die Zerlegung von eingehenden XML-Strömen wieder zurück in relationale Datenbank-Strukturen. Für die XML-Verarbeitung lernen Sie, wie XQuery und XPath sowie XSLT direkt in der Datenbank genutzt werden können.

Course Outline

A. Relationale Daten in XML

(0.5 Days) Einfache Abfragen: Grundlagen, Automatische Umwandlung, Umgang mit leeren Werten - Mehrstufige Dokumente erzeugen: Einsatz von PATH und EXPLICIT - Hierarchisierte Dokumente

B. XML speichern, abfragen und verarbeiten

(0.25 Days) Zerlegen von XML - Komplexe Zerlegung mit XPath

C. XML abfragen und verarbeiten

(0.5 Days) Überblick XPath und XQuery - Verarbeiten und abfragen mit Datentypmethoden - Einsatz von XPath, XQuery

D. Einsatz von XML Schema

(0.25 Days) Überblick und Syntax von XML Schema - XML Schema-Definitionen erzeugen, anmelden und verwenden – XML-Daten validieren – Spalten und Variablen mit XML Schema typisieren

E. Einsatz von XSLT

(0.25 Days) Überblick und Syntax von XSLT - XSLT-Prozessor in .NET erstellen und im MS SQL Server verwenden – XSLT in T-SQL einsetzen - Parametrisierte XSLT-Stylesheets

F. XML und Integration Services

(0.25 Days) Einsatz von XML als Eingangsformat für ETL-Prozesse – Verwendung von XML-Tasks in Integration Services-Paketen – ETL und XSLT und XML Schema

A. MS SQL Server 2014

(i) Administration and Maintenance

Overview

Course ID	2020820
Language	en
Duration	5 D ys
Delivery mode	Classroom
Course Type	
Target Group	DBAs
Prerequisites	Bases MS SQL Server
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
2,850.00 USD	2,650.00 USD	2,850.00 USD
24-28 Aug 19-23 Oct 14-18 Dec	31 Aug - 04 Sep 26-30 Oct 21-25 Dec	27-31 Jul 28 Sep - 02 Oct 23-27 Nov

Prices plus local taxes.

Course Description

This SQL Server 2012 Database training provides students with the knowledge and skills to maintain a Microsoft SQL Server 2012 database. The course focuses on teaching individuals how to use SQL Server 2012 product features and tools related to maintaining a database. Also this course helps you prepare for the Exam 70-462. The course is intended for individuals who administer and maintain SQL Server databases. These individuals perform database administration and maintenance as their primary area of responsibility, or work in environments where databases play a key role in their primary job. This SQL Server 2012 Database training is also intended for individuals who develop applications that deliver content from SQL Server databases.

Course Outline

A. Working with Databases

Overview of SQL Server Architecture - Overview of SQL Server Databases - Working with Files and Filegroups - Moving Database Files

B. Backup and Recovery

Backup Strategies - Understanding SQL Server Transaction Logging - Planning a SQL Server Backup Strategy - Backing up Databases and Transaction Logs - Managing Database Backups - Working with Backup Options - Understanding the Restore Process - Restoring Databases - Working with Point-in-time recovery - Restoring System Databases and Individual Files

C. Importing and Exporting Data

Transferring Data To/From SQL Server - Importing and Exporting Table Data - Inserting Data in Bulk

D. Authenticating and Authorizing Users

Authenticating Connections to SQL Server - Authorizing Logins to Access Databases - Authorization Across Servers - Working with Server Roles - Working with Fixed Database Roles - Creating User-defined Database Roles - Authorizing User Access to Objects - Authorizing Users to Execute Code - Configuring Permissions at the Schema Level

E. Automating SQL Server 2012 Management

Automating SQL Server Management - Working with SQL Server Agent - Managing SQL Server Agent Jobs - Understanding SQL Server Agent Security - Configuring Credentials C.Configuring Proxy Accounts

F. Performing Ongoing Database Maintenance

Ensuring Database Integrity - Maintaining Indexes - Automating Routine Database Maintenance - Capturing Activity using SQL Server Profiler - Improving Performance with the Database Engine Tuning Advisor - Working with Tracing Options - Monitoring Activity - Capturing and Managing Performance Data - Analyzing Collected Performance Data

(ii) T-SQL 1 - Queries and Analyses

Overview

Course ID	2020907
Language	en
Duration	3 D ys
Delivery mode	Classroom
Course Type	
Target Group	DBAs, database developers
Prerequisites	Bases MS SQL Server
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
1,900.00 USD	1,800.00 USD	1,900.00 USD
14-16 Sep 09-11 Nov	21-23 Sep 16-18 Nov	24-26 Aug 19-21 Oct 14-16 Dec

Prices plus local taxes.

Course Description

This 3-day instructor led course provides students with the technical skills required to write basic Transact-SQL queries for Microsoft SQL Server. This course is intended for SQL Server database administrators, implementers, system engineers, and developers who are responsible for writing queries. After completing this course, students will be able to: a) Describe the uses of and ways to execute the Transact-SQL language, b) Use querying tool, c) Write SELECT queries to retrieve data, d) Group and summarize data by using Transact-SQL, e) Join data from multiple tables, f) Write queries that retrieve and modify data by using subqueries, g) Modify data in tables or h) Use various techniques when working with complex queries.

Course Outline

A. Getting Started with Databases and Transact-SQL in SQL Server

(0.25 Days) Overview of SQL Server - Overview of SQL Server Databases - Overview and Syntax Elements of T-SQL - Working with T-SQL Scripts - Using T-SQL Querying Tools

B. Querying and Filtering Data

(0.5 Days) Using the SELECT Statement - Filtering Data - Working with NULL Values - Formatting Result Sets - Performance Considerations for Writing Queries

C. Grouping and Summarizing Data

(0.25 Days) Summarizing Data by Using Aggregate Functions - Summarizing Grouped Data - Ranking Grouped Data - Creating Crosstab Queries

D. Joining Data from Multiple Tables

(0.25 Days) Querying Multiple Tables by Using Joins - Applying Joins for Typical Reporting Needs - Combining and Limiting Result Set

E. Working with Subqueries

(0.25 Days) Writing Basic Subqueries - Writing Correlated Subqueries - Comparing Subqueries with Joins and Temporary Tables - Using Common Table Expressions

F. Analysen

(0.5 Days) Querying Hierarchies - Moving (Centered) Averages - Window Aggregates - Accumulation - (Un) Pivoting of Data

G. Modifying Data in Tables

(0.5 Days) Inserting Data into Tables - Deleting Data from Tables - Updating Data in Tables - Overview of Transactions

H. Using Advanced Querying Techniques

(0.5 Days) Considerations for Querying Data - Working with Data Types - Cursors and Set-Based Queries - Dynamic SQL - Maintaining Query Files - Overview of Views - Overview of User-Defined Functions - Overview of Stored Procedures - Overview of Triggers - Querying Metadata - Querying XML Data

(iii) T-SQL 2 - Implementing and Programming

Overview

Course ID	2020960
Language	en
Duration	3 D ys
Delivery mode	Classroom
Course Type	
Target Group	DBAs, database developers
Prerequisites	Bases MS SQL Server
Method	Lecture with examples and exercises.
Course level	Beginning

Course Dates

Chicago	Miami	New York
1,900.00 USD	1,800.00 USD	1,900.00 USD
14-16 Sep 16-18 Nov	24-26 Aug 19-21 Oct 14-16 Dec	05-07 Oct 21-23 Dec

Prices plus local taxes.

Course Description

This 3-day instructor-led course is intended for Microsoft SQL Server database developers who are responsible for implementing a database on SQL Server. In this course, students learn the skills and best practices on how to use SQL Server product features and tools related to implementing a database server. This course is intended for IT Professionals who want to become skilled on SQL Server 2008 R2 product features and technologies for implementing a database. To be successful in this course, the student should have knowledge of basic relational database concepts and writing T-SQL queries. After completing this course, students will be able to: a) Understand the product, its components, and basic configuration, b) Work with the data types supported by SQL Server, c) Design and implement tables and work with schemas / Design and implement views and partitioned views, f) Describe the concept of an index and determine the appropriate data type for indexes and composite index structures / Identify the appropriate table structures and implement clustered indexes and heaps, g) Describe and capture execution plans, h) Describe transactions, transaction isolation levels, or i) Design and implement scalar and table-valued functions, stored procedures, triggers.

Course Outline

A. Designing and Implementing Databases, Tables/Views and Files

(0.5 Days) Introduction to SQL Server Platform - Working with SQL Server Tools - Configuring SQL Server Services - Data Types: Using Data Types, Converting Data Types - Tables: Designing Tables, Working with Schemas, Creating and Altering Tables - Views: Introduction to Views, Creating and Managing Views, Performance Considerations for Views

B. Data Manipulation and Optimiziation/Tuning

(0.25 Days) Inserting, Updating, and Deleting Data - Execution Plan Core Concepts - Common Execution Plan Elements - Designing Effective (Non-)Clustered Indexes - Using the Database Engine Tuning Advisor

C. T-SQL Programming

(0.75 Days) Variables - Control Structure - Dynamic SQL - Transactions - Exceptions and T-SQL Error Handling - Cursors

D. Implementing Procedures and Functions

(0.5 Days) User-Defined Functions: Designing and Implementing Scalar Functions, Designing and Implementing Table-valued Functions - Introduction to Stored Procedures - Working With Stored Procedures - Implementing Parameterized Stored Procedures

E. Ensuring Data Integrity through Constraints and Triggers

(0.25 Days) Enforcing Data Integrity - Implementing Domain Integrity - Implementing Entity and Referential Integrity - Implementing DML Triggers

F. Security

(0.25 Days) SQL Server´s Security Concepts - Defining and Using Logins, Users and Rollen

G. Data Import/Export and Backup

(0.25 Days) Import Data using T-SQL – Backup and Recovery of Database and Data/Files

(iv) T-SQL 3 - XML-Integration

Overview

Course ID	2020964
Language	en
Duration	2 D ys
Delivery mode	Classroom
Course Type	
Target Group	Programmers, Web developers
Prerequisites	Bases MS SQL Server
Method	Lecture with examples and exercises.
Course level	Advanced

Course Dates

Chicago	Miami	New York
1,600.00 USD	1,550.00 USD	1,600.00 USD
30-31 Jul 24-25 Sep 19-20 Nov	27-28 Aug 22-23 Oct 17-18 Dec	03-04 Sep 29-30 Oct 24-25 Dec

Prices plus local taxes.

Course Description

Für den Austausch und die Speicherung komplexer Import-/Exportdaten oder strukturierter Inhalte bietet der MS SQL Server eigene Funktionalitäten und Unterstützüng von XML an. Dieses Seminar zeigt Ihnen, wie XML in der Datenbank gespeichert, ausgelesen und in der Anwendungsentwicklung genutzt wird. Dies umfasst die Erzeugung von XML aus relationalen Daten über T-SQL-Abfragen sowie die Zerlegung von eingehenden XML-Strömen wieder zurück in relationale Datenbank-Strukturen. Für die XML-Verarbeitung lernen Sie, wie XQuery und XPath sowie XSLT direkt in der Datenbank genutzt werden können.

Course Outline

A. Relationale Daten in XML

(0.5 Days) Einfache Abfragen: Grundlagen, Automatische Umwandlung, Umgang mit leeren Werten - Mehrstufige Dokumente erzeugen: Einsatz von PATH und EXPLICIT - Hierarchisierte Dokumente

B. XML speichern, abfragen und verarbeiten

(0.25 Days) Zerlegen von XML - Komplexe Zerlegung mit XPath

C. XML abfragen und verarbeiten

(0.5 Days) Überblick XPath und XQuery - Verarbeiten und abfragen mit Datentypmethoden - Einsatz von XPath, XQuery

D. Einsatz von XML Schema

(0.25 Days) Überblick und Syntax von XML Schema - XML Schema-Definitionen erzeugen, anmelden und verwenden – XML-Daten validieren – Spalten und Variablen mit XML Schema typisieren

E. Einsatz von XSLT

(0.25 Days) Überblick und Syntax von XSLT - XSLT-Prozessor in .NET erstellen und im MS SQL Server verwenden – XSLT in T-SQL einsetzen - Parametrisierte XSLT-Stylesheets

F. XML und Integration Services

(0.25 Days) Einsatz von XML als Eingangsformat für ETL-Prozesse – Verwendung von XML-Tasks in Integration Services-Paketen – ETL und XSLT und XML Schema

A. Oracle 11g

(i) ODP.NET

Overview

Course ID	2020685
Language	en
Duration	2 D ys
Delivery mode	Classroom
Course Type	
Target Group	Programmers, Web developers
Prerequisites	. NET basics
Method	Lecture with examples and exercises.
Course level	Advanced

Course Dates

Chicago	Miami	New York
1,750.00 USD	1,700.00 USD	1,750.00 USD
10-11 Sep 12-13 Nov	24-25 Sep 03-04 Dec	03-04 Sep 05-06 Nov

Prices plus local taxes.

Course Description

Oracle Data Provider for .NET (ODP.NET) features optimized ADO.NET data access to the Oracle database. ODP.NET allows developers to take advantage of advanced Oracle database functionality, including Real Application Clusters, XML DB, and advanced security. The data provider can be used with the latest .NET Framework 4.5 version. ODP.NET makes using Oracle from .NET more flexible, faster, and more stable. ODP.NET includes many features not available from other .NET drivers, including a native XML data type, self-tuning, RAC-optimized connection pooling, promotable transactions, and Advanced Queuing. This training shows you how to integrate ODP.NET in your .NET applications so that you can benefit from its features.

Course Outline

A. Overview of Oracle Data Provider for .NET (ODP.NET)

B. Basic Usage Scenarios with ODP.NET

C. ODP.NET Assembly

D. Installation and Configuration

E. Database Connections

F. Datatypes

G. Forms and OracleDataReader

H. OracleCommand Object

I. Oracle DataAdapter

J. XML Support of ODP.NET

K. ODP.NET Types

A. Oracle 12c

(i) ODP.NET

Overview

Course ID	2020686
Language	en
Duration	2 D ys
Delivery mode	Classroom
Course Type	
Target Group	Programmers, Web developers
Prerequisites	. NET basics
Method	Lecture with examples and exercises.
Course level	Advanced

Course Dates

Chicago	Miami	New York
1,750.00 USD	1,700.00 USD	1,750.00 USD
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Prices plus local taxes.

Course Description

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E. Database Connections

F. Datatypes

G. Forms and OracleDataReader

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J. XML Support of ODP.NET

K. ODP.NET Types

b. Disclaimer

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