

Exploring SQL Server 2008

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Meet the expert: Don Kiely is a featured instructor on many of our SQL Server and Visual Studio courses. He is a nationally recognized author, instructor, and consultant specializing in Microsoft technologies. Don has many years of teaching experience, is the author or co-author of several programming books, and has spoken at many industry conferences and user groups. In addition, Don is a consultant for a variety of companies that develop distributed applications for public and private organizations.

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Course description: This course looks at many of the new features within Microsoft SQL Server 2008 and will give you a first look at the new powerful database server. You will learn about new T-SQL data types and syntax enhancements, see how to store and manipulate unstructured data, and learn about the SQL CLR and new advances in client data access. You will also take a first look at the new Visual Studio Team System Edition 2008 for Database Professional, and check out the new and improved administrative features in PowerShell, security, FullText search, and many more.

Course outline:

Introduction

- Introduction
- Goal for This Version
- Multitudes of Versions
- New Features
- Demo: Enhancements
- Summary

Introduction Continued

- Introduction
- Demo: Scripting Support
- Demo: Debugging
- Demo: Help
- Demo: Templates
- Integration Services
- Reporting Services
- Service Broker
- Analysis Services
- Deprecated Features
- Feature Pack
- Summary

Installation

- Introduction
- Install SQL Server 2008
- Demo: Options
- Demo: Feature Selection
- Demo: Instance
- Demo: Disk Space
- Demo: Server Config
- Demo: Database Engine
- Demo: Error Reporting
- Demo: Installing

- Summary

Date Time

- Introduction
- Date and Time Types
- DATE
- TIME
- DATETIME2
- DATETIMEOFFSET
- Demo: Date/Time Types
- Summary

Spatial Data

- Introduction
- Overview
- The Mother Ship
- Map Distortion
- Spatial Data Standards
- Types of Spatial Data
- Spatial Objects
- Geospatial Data
- Demo: Spatial Data
- Demo: Shape Designer
- Summary

HierarchyID

- Introduction
- Overview
- Indexing a Hierarchy
- Manipulating Hierarchies
- Demo: Hierarchy Type
- New T-SQL Syntax
- Demo: New Syntax
- Summary

Sparse Columns

- Introduction

- Overview
- Restrictions
- Column Sets
- Restrictions
- Recommendations
- Demo: Sparse Columns
- Demo: Column Sets
- Filtered Indexes
- Using Filtered Indexes
- Demo: Filtered Indexes
- Summary

Table Valued Parameters

- Introduction
- Demo: A Simple TVP
- Demo: Cannot Update
- TVP Details
- Demo: TVP Examples
- Limitations & Gotchas
- Client Apps
- Object Support in ADO.NET
- Demo: ADO.NET Examples
- Summary

Grouping Sets

- Introduction
- Overview
- Demo: Grouping Sets
- Demo: Rollup
- Demo: Cube
- Demo: Grouping ID
- MERGE Statement
- Five Clauses

- The WHEN Clause
- Demo: MERGE
- Summary

Unstructured Data

- Introduction
- FILESTREAM
- Access Methods
- Gotchas
- Demo: FILESTREAM
- XML Data Type
- Validating XML
- Let in FLWOR Queries
- Modifying XML
- Demo: Lax Validation
- Summary

SQLCLR

- Introduction
- SQLCLR Enhancements
- Demo: SQLCLR
- Demo: Max Date
- Demo: Ship Lag
- Demo: String Array
- Demo: Products
- Summary

Entity Framework

- Introduction
- Overview
- Entity Data Model
- Model & Mapping Files
- Entity Framework
- LINQ
- Demo: EDM

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- Demo: Deferred Loading
- Summary

Client Programming

- Introduction
- SQL Native Client
- New in Version 10.0
- Compact Edition
- New Features
- New Features in SP1
- Sync Framework
- Team System Edition
- Database Development
- Integrated with VS
- VS Tasks
- Demo: DB App Projects
- Demo: Test Data
- Summary

- Limitations of TDE
- TDE Performance
- Demo: TDE
- Cell Encryption
- Which Encryption to Use?
- Extensible Key
- Summary

Beyond Creating Databases

- Introduction
- Demo: Unit Test
- Demo: Test View
- Demo: Renaming
- Demo: Compare Schemas
- Demo: Partial Projects
- Summary

Indexed Search

- Introduction
- Non-Relational Indexing
- Integrated FTS
- FTS in SQL Server 2008
- FTS Components
- Demo: FTS
- Summary

PowerShell

- Introduction
- Overview
- With SQL Server
- Hierarchy
- Demo: PowerShell
- Summary

Encryption

- Introduction
- Encryption Functions
- Demo: Certificates
- Demo: Asymmetric Keys
- Demo: Asymkeyproperty
- Demo: Symmetric Keys
- Demo: Symkeyproperty
- Demo: Key Name
- Demo: Crypt Gen Random
- Summary

Transparent Data Encryption

- Introduction
- TDE
- How TDE Works