SQL 2012 Developer, Part 07 of 13: Design and Deployment

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.

Prerequisites: This course assumes that you have a basic familiarity with the concept of relational databases and a basic understanding of what SQL Server is and the high-level tools in it, as well as how to create and manage objects using Management Studio. You should also have a basic understanding of how SQL Server implements security, including its authentication and authorization schemes, and how to assign permissions on securable objects to principals. You should know the fundamentals of Transact-SQL to write queries to retrieve and update data, and how to execute scripts using the query editor in Management Studio.
The course spends a lot of time deep in T-SQL code, so you should feel comfortable writing basic queries that involve joins of multiple tables, as well as using built-in T-SQL functions and other code modules.
It will be very helpful, but not absolutely necessary, to have experience with .NET development using Visual Studio 2010 or 2012 for the portions of the course that deal with SQL Server Data Tools.

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Course description: In this course you will learn about a number of useful features in Data Tools, including its use for both online and offline database development. In online mode you can use the new SQL Server Object Explorer that provides many of the same features as Object Explorer in SQL Server's Management Studio. You'll see how to create databases and other objects as well as change existing objects. You'll also see how to compare database schemas, a very useful tool used internally by the data tools that you can also use directly. In offline data base development you can create a database project using a Visual Studio template. You can ether import an existing database schema or create objects from scratch. You will see how both these modes work and see how you can publish changes to an existing database.

Course outline:

Introduction Data Tools
- Introduction
- Roots
- Goals for Database Edition
- Database Edition Flaws
- SQL Server Data Tools
- Kinds of Tasks
- Demo: SQL Server Data Tools
- Command-Line Tools
- Security
- Connected vs. Offline
- Summary

Connected Database Development
- Introduction
- Connect to an Instance of SQL
- Demo: Object Explorer
- Demo: Visual Studio vs Management Studio
- Create Server and Database Objects
- Demo: Creating Objects
- Demo: Adding Fields
- Summary

Updating a Connected Database
- Introduction
- Update a Connected Database
- Demo: Updating a Connected DB
- Demo: Executing Update Script
- Demo: Data Editor
- Demo: Changing Existing Data
- Summary

Creating New Objects With TSQL
- Introduction
- Demo: New Objects with TSQL
- Demo: Create View in Database
- Demo: Create Stored Procedure
- Demo: Testing a Stored Procedure
- Summary

Comparing Database Schemas
- Introduction
- Demo: Comparing Schemas
- Demo: Migrating Data
- Demo: Updating the Schema
- Summary

Offline Database Development
- Introduction
- Offline Database Development
- Create a Database
- Demo: Creating a Database
- Make Changes to DB Objects
- Demo: Changing DB Objects
- Summary

Database Project Settings
- Introduction
- Demo: Project Settings Tab
- Demo: SQLCLR Tabs
- Demo: Debug Tab
- Demo: Code Analysis Tab
- Demo: Publish Settings
- Demo: Publishing a Database
- Summary