

## Course Outline

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### 2541 – Core Data Access with Microsoft Visual Studio 2005



**Duration:** 3 days (18 hours)

#### Learning Objectives:

- Connect to databases and read data
- Query and update databases by using commands
- Perform transactional operations
- Perform disconnected operations programmatically
- Perform disconnected operations by using Visual Studio 2005 wizards
- Perform XML operations on disconnected data
- Read and write XML data
- Process XML data by using the Document Object Model DOM

#### Target Audience:

This workshop is intended for corporate and Independent Software Vendor (ISV) application developers who have a desire to learn more about specific technology areas in distributed application development

#### Prerequisites:

- Be able to manage a solution environment using the Visual Studio 2005 integrated development environment IDE and tools
- Understand the .NET Framework 2.0 and the Common Language Runtime
- Be able to program an application using a .NET Framework 2.0 compliant language
- Know how to make assemblies available to other applications
- Have a good understanding of XML including XML declaration, elements, attributes, and namespaces
- Be able to explain XML schema concepts

#### Topics Covered:

- Connecting to Databases and Reading Data
  - What Is ADO.NET?
  - The Process for Connecting to a Database and Reading Data
  - What Is Connection Pooling?
- Querying and Updating Databases by using Commands
  - ADO.NET Commands
  - The Process for Passing Parameters into Commands
- Performing Transactional Operations
  - What Is a Transaction?
  - The Process for Managing Local Transactions

- The Process for Managing Distributed Transactions
- Isolation Levels
- Performing Disconnected Operations Programmatically
  - What Is the ADO.NET Disconnected Model?
  - The Process for Loading and Saving Data in a DataSet
  - What Are DataViews?
- Performing Disconnected Operations by using Visual Studio 2005 Wizards
  - Comparing Untyped DataSets with Typed DataSets
  - What Are Table Adapters?
  - Demonstration: Creating a Typed DataSet by Using Visual Studio 2005 Wizards
- Performing XML Operations on Disconnected Data
  - XML Representations of DataSets
  - What Are DiffGrams?
- Reading and Writing XML Data
  - The Process for Serially Reading XML Data
  - The Process for Serially Writing XML Data
- Processing XML Data by using DOM
  - What Is DOM?
  - What Are DOM Trees?
  - Types of XML Nodes in a DOM Tree