Course ID
TK2541

Course Title
Core Data Access with Microsoft Visual Studio 2005

Course Duration
3 days

Aimed At

Corporate and Independent Software Vendor (ISV) application developers who have a desire to learn more about specific technology areas in distributed application development.

Group Size

5-15

Prerequisites

You should 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; program an application using a .NET Framework 2.0 compliant language; make assemblies available to other applications; utilize basic relational database concepts and basic SQL commands; understand XML including XML declarations, elements, attributes and namespaces; and explain XML schema concepts

Course In a Nutshell

Are you a corporate or ISV application developer with the desire to learn more about distributed application development? This course can help you acquire the knowledge and skills needed to develop data-access applications by using the Microsoft .NET Framework and Microsoft Visual Studio 2005.

The three-day course workshop will teach you how to create, read, and write XML data and how to access and update data in a database by using ADO.NET. Upon course completion, you will be able to access and read data from databases, query and update databases, perform transactions and disconnected operations, perform XML operations on disconnected data, read and write XML data, and process XML data by using the Document Object Model (DOM).

Customize It!

We'll be pleased to tailor this course to your particular requirements. We perform most customization at no extra charge.

Learn How To

- 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)

Course Outline

- Connecting to Databases and Reading Data
  - Introduction to ADO.NET
  - Connecting to a database and reading data
  - Handling connection events and exceptions
  - What is connection pooling?
- Querying and Updating Databases by Using Commands
  - Description of ADO.NET commands
  - Creating and running query, parameterized and update commands
  - Process for passing parameters into commands
- Performing Transactional Operations
  - What is a transaction?
  - Process for managing local transactions
  - Process for managing distributed transactions
  - Isolation levels
- Performing Disconnected Operation Programmatically
  - What Is the ADO.NET disconnected model?
  - Creating a DataSet programmatically
  - Process for loading and saving data in a DataSet
  - Adding, modifying and deleting 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?
  - Creating a typed DataSet by using Visual Studio 2005 Wizards
- Performing XML Operations on Disconnected Data
  - XML representations of DataSets
  - Saving and loading DataSet schema information
  - What are DiffGrams?
- Reading and Writing XML Data
  - Process for serially reading XML data
  - 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
- Wrap-up: Course Recap, Q/A, and Evaluations

How You Will Learn

- You will be taught by an instructor who's also an experienced programmer.
- The course will be taught workshop style, with a lot of interspersed hands-on exercises.
- The instructor will offer real-life examples, applications, and case studies to

help you better understand and apply the material.

- The instructor will share with you the dos and don'ts and both the tricks of the trade as well as the hidden pitfalls.
- You will receive a detailed student manual as part of the course which will serve as a refresher and a reference.

Revised *April 8, 2007*