

Technical Training Solutions



MICROSOFT .NET DATA ACCESS WITH ADO .NET (3 Day Course)

Technical
Course
Outline

COURSE SUMMARY

This course covers the portion of the Microsoft .NET Base Class Library having to do with data access, storage, and manipulation known as "ADO .NET". The course covers the various Namespaces for ADO .NET, the ADO .NET Provider Model, building a data access layer, and using LINQ. It also covers data utilization in the UI via various .NET controls (GridView, DetailsView, FormView, etc.) as well as the DataBind class.

Class exercises will use Console, Windows, and ASP .NET Web Applications Projects in Visual Studio 2008.

INTENDED AUDIENCE:

This course is intended for **VB .NET developers** who are ready to take the next step in understanding the .NET development platform. A solid comfort level using Visual Studio 2008 and Visual Basic .NET 2008 along with strong fundamental knowledge of XML is required.

PREREQUISITES:

To ensure the best learning experience for all participants, the following pre-requisites *must be met* in order to participate in this course:

- Successful completion of, or complete familiarity with the topics in: "**Object Oriented Analysis and Design**"
- Successful completion of, or complete familiarity with the topics in: "**Microsoft VB .NET with Visual Studio .NET Fundamentals**"
- Successful completion of, or complete familiarity with the topics in: "**Introduction To XML**"

COURSE CONTENTS:

The ADO .NET Data Providers & Namespaces

- The ODBC, OleDb, Oracle, & SqlClient Providers
- The System.Data.provider Namespaces

The ADO .NET "Connected" Classes

- The Connection Classes
 - Configuring In Code vs. With Designers
 - Storing Connection Strings
- The Command Classes
 - Configuring: SQL Statements vs. Stored Procedures
 - Creating & Configuring Parameters
 - Executing A Command
 - ExecuteReader, ExecuteScalar & ExecuteNonQuery
- The DataReader Classes
 - Iterating A DataReader & Extracting Data
 - Closing A DataReader
- The DataAdapter Classes
 - Configuring A DataAdapter
 - Filling A DataSet Or DataTable
 - Updating The Data Source

The ADO .NET "Disconnected" Classes

- The DataTable, DataColumn & DataRow Classes
- The DataSet Class
 - Loosely & Strongly Typed DataSets
- XML & DataTables/DataSets
- The DataView Class

.NET Control Databinding

- Databinding Expressions On Standard Controls
- Databound Controls

Language Integrated Query (LINQ)

- The Rationale For LINQ
- Where Can LINQ Be Used?
- Creating Language Integrated Queries

Visual Studio 2008 Data Designers

- The Server Explorer Window
- The Data Source Window
- The Data Source Configuration Wizard
- The TableAdapter Configuration Wizard
- The Query Builder
- The Command & Parameter Editor
- The DataSet Designer