

Course Outline | Microsoft ADO.NET for C# Developers

3 day(s)

Overview

ADO.NET for C# Developers provides a thorough, detailed and structured walkthrough of ADO.NET concepts. This course is useful for .NET developers or architects developing database applications.

Crafts

C#

Prerequisites

Experience with developing C#.NET applications.

Course Outline

Introducing ADO.NET

- What Is ADO.NET?
- Why ADO.NET?
- Major Components of ADO.NET
- Extensions to ADO.NET
- Connecting to External Data

Building Tables of Data

- Implementing Tables
- Adding Data Columns
- Dataset Designer

Storing Data in Memory

- Adding Data
- Examining and Changing Data
- Removing Data
- Batch Processing
- Validating Changes

Accessing the Right Data Values

- Querying and Sorting Data
- Using Expression Columns

Bringing Related Data Together

- Collecting Tables into Sets
- Establishing Relationships Between Tables
- Defining Table Constraints

Turning Data into Information

- Aggregating Data
- Setting Up Indexed Views

Saving and Restoring Data

- Serializing DataSet and DataTable Objects
- Guiding XML Generation

Establishing External Connections

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- Using Connection Strings
- Understanding Data Providers
- Connecting to SQL Server via a Data Provider

Querying Databases

- Processing SQL Queries
- Returning Query Results

Adding Standards to Queries

- Developing Parameterized Queries
- Using Parameters in Stored Procedures

Making External Data Available Locally

- Understanding Data Adapters
- Moving Data from Source to Memory
- Moving Data from Memory to Source
- Table and Column Mapping

Guaranteeing Data Integrity

- Transactions and Concurrency
- Using Local Transactions
- Using Distributed Transactions

Binding Data with ADO.NET

- Binding Data in Windows Forms
- Binding Data in WPF
- Binding Data in ASP.NET

Providing RESTful Services with WCF Data Services

- Getting to Know the Service Layers
- Setting Up a Data Service
- Accessing a Data Service using REST