

MS 2389B - Programming with Microsoft ADO.NET

Description: This course will teach developers to build data-centric applications and Web services with Microsoft ADO.NET, Microsoft SQL Server 2000, and the Microsoft .NET Framework.

Days: 3

Prerequisites: Before attending this workshop, students must:

- Understanding of relational database concepts: table, row, column, primary keys, foreign keys, constraints, and views
- Data query and modification experience, including experience with SELECT, INSERT, UPDATE, and DELETE commands
- Exposure to XML documents, style sheets, and schemas
- Experience with Visual Basic .NET, Visual Basic for Applications, or previous versions of Visual Basic
- Experience building user interfaces, including Web applications or Microsoft Windows applications

Audience: This course is designed for the professional platform developer who is responsible for designing and building data-centric, distributed applications for his or her organization. It is designed for developers who have component and Web application development skills, and who have previously built solutions by using Microsoft Visual Studio.

Module 1: Data-Centric Applications and ADO.NET

- Design of Data-Centric Applications
- ADO.NET Architecture
- ADO.NET and XML

Lab 1.1: Data-Centric Applications and ADO.NET

Module 2: Connecting to Data Sources

- Choosing a .NET Data Provider
- Defining a Connection
- Managing a Connection
- Handling Connection Exceptions
- Connection Pooling

Lab 2.1: Connecting to Data Sources

Module 3: Performing Connected Database Operations

- Working in a Connected Environment
- Building Command Objects
- Executing Commands That Return a Single Value
- Executing Commands That Return Rows
- Executing Commands That Do Not Return Rows
- Using Transactions

Lab 3.1: Performing Connected Database Operations

Module 4: Building DataSets

- Working in a Disconnected Environment
- Building DataSets and DataTables
- Binding and Saving a DataSet
- Defining Data Relationships
- Modifying Data in a DataTable
- Sorting and Filtering

Lab 4.1: Building, Binding, Opening, and Saving DataSets

Lab 4.2: Manipulating DataSets

Module 5: Reading and Writing XML with ADO.NET

- Creating XSD Schemas
- Loading Schemas and Data into DataSets
- Writing XML from a DataSet

Lab 5.1: Working with XML Data in ADO.NET

Module 6: Building DataSets from Existing Data Sources

- Configuring a DataAdapter to Retrieve Information
- Populating a DataSet Using a DataAdapter
- Configuring a DataAdapter to Update the Underlying Data Source
- Persisting Changes to a Data Source
- How to Handle Conflicts

Lab 6.1: Retrieving Data into a Disconnected Application

Lab 6.2: Retrieving and Updating Customers and Orders Data

Module 7: Building and Consuming a Web Service That Uses ADO.NET

- Building and Consuming a Web Service That Returns Data

Lab 7.1: Troubleshooting an ADO.NET Application

Upcoming Classes

Jun 18, 2012 - Jun 20, 2012

Jul 11, 2012 - Jul 13, 2012

Aug 08, 2012 - Aug 10, 2012

Sep 18, 2012 - Sep 20, 2012

Oct 24, 2012 - Oct 26, 2012

Nov 07, 2012 - Nov 09, 2012

Dec 11, 2012 - Dec 13, 2012