

Getting Started with .NET for Cobol Programmers

MS2363
3 days

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Prerequisites

Before attending this course, students must have:

- Experience programming with COBOL

Course Objectives

This three-day instructor-led course will introduce COBOL programmers to Microsoft Visual Basic .NET programming techniques. At the end of the course, students will be able to create simple Microsoft .NET Windows Forms and Microsoft ASP.NET Web Forms using Microsoft Visual Studio .NET.

Module 1: Introduction to the .NET Framework

In order to program for .NET, students are introduced to the .NET programming environment and create simple Windows projects using Visual Studio .NET.

Lessons

- The History of .NET Computing
- Introduction to the .NET Vision
- Introduction to Visual Studio .NET

Lab: Creating a .NET Application User Interface

After completing this module, students will be able to:

- Explain the history of computing and trends that led to .NET.
- Explain the Microsoft .NET vision and .NET Framework.
- Explain what Visual Studio .NET is and create a .NET Windows application by using Visual Studio .NET.

Module 2: Programming with the .NET Framework

In order to program for .NET, students are introduced to programming, building, and debugging .NET applications using Visual Studio .NET.

Lessons

- Programming with Visual Studio .NET
- Building and Debugging Applications with Visual Studio .NET
- Introduction to the .NET Languages

Lab: Creating a Visual Basic .NET Application

After completing this module, students will be able to:

- Write code in the Visual Studio .NET Integrated Development Environment.
- Build and debug code using Visual Studio .NET.
- Explain the concepts of .NET languages and the Common Runtime Language.

Module 3: Using .NET Object-Oriented Programming

In order to understand the fundamentals of programming in .NET, students are taught the basics of using object-oriented programming practices.

Lessons

- Introduction to Object-Oriented Programming
- Programming with Classes

Lab: Programming with Objects

After completing this module, students will be able to:

- Explain the principles of object-oriented programming.
- Program using classes, methods, and properties.

Module 4: Programming with Events and Exceptions

In order to understand the fundamentals of programming in .NET, students are introduced to event-driven programming, with events and exceptions.

Lessons

- Programming with Events
- Programming with Exceptions
- Advanced Debugging in Visual Studio .NET

Lab: Event-Driven Programming in .NET

After completing this module, students will be able to:

- Explain and use event driven programming
- Explain and create exception handlers.
- Debug applications by using the debug and trace classes and breakpoints.

Module 5: Accessing Data Using ADO.NET

In order to build data-driven applications, students are taught how ADO.NET works and how to program data access using ADO.NET.

Lessons

- Introduction to ADO.NET
- ADO.NET Data Access Objects
- Accessing Data with DataReaders
- ADO.NET Error Handling

Lab: Accessing Data by Using ADO.NET

After completing this module, students will be able to:

- Explain the ADO.NET object model and data access process

- Explain how to access data with data readers
- Handle Errors from a Data Request Object

Module 6: Using DataSets

In order to build data-driven applications, students are taught how DataSets work and how to manipulate data.

Lessons

- Introduction to DataAdapters and DataSets
- Creating DataAdapters
- Creating DataSets

Lab: Using DataSets

After completing this module, students will be able to:

- Explain DataAdapters and DataSets.
- Create and use a DataAdapter.
- Create, fill, and use a DataSet.

Module 7: Displaying Data

In order to build data-driven applications, students are taught to display data using list-bound controls.

Lessons

- Displaying Data in List-Bound Controls

Lab: Accessing Data by Using ADO.NET

After completing this module, students will be able to:

- Display DataSet Data in list-bound controls

Module 8: Creating ASP.NET Web Forms

In order to understand how to create successful Web Forms, students are taught to create simple Web projects using Visual Studio .NET.

Lessons

- Introduction to the Internet
- Creating Static Web pages
- Introduction to ASP.NET Web Forms
- Creating ASP.NET Web Forms
- Adding Server Controls to ASP.NET Web Forms
- Adding Code to ASP.NET Web Forms
- Using Advanced Controls

Lab: Creating an ASP.NET Web Form

After completing this module, students will be able to:

- Explain in basic terms how the Web and Internet work.
- Explain and create a static Web page.
- Explain ASP.NET Web Forms.
- Create an ASP.NET Web Form.
- Add server controls to an ASP.NET Web Form.
- Add code to an ASP.NET Web Form.
- Add advanced server controls to an ASP.NET Web Form

Module 9: Consuming XML Web Services

In order to leverage the distributed nature of the .NET Framework, students are taught to create applications that consume XML Web Services.

Lessons

- Introduction to XML Web Services
- Testing XML Web Services
- Creating an XML Web Service Client

Lab: Consuming XML Web Services

After completing this module, students will be able to:

- Explain what an XML Web service is, why XML Web services were developed and how they function.
- Test an XML Web service using Microsoft Internet Explorer.
- Create a Web reference proxy for an XML Web service Web method, and then call that Web method from a Web Form.

Module 10: Using DataGrids

In order to leverage the distributed nature of the .NET Framework, students are taught to access data using ADO.NET and display the data in a list-bound DataGrid control.

Lessons

- Displaying a DataSet in a List-Bound Control

Lab: Accessing Relational Data Using Visual Studio .NET

After completing this module, students will be able to:

- Display data in an ASP.NET Web Form by using a list-bound control.