

MS 2349B - Programming with the Microsoft .NET Framework (Microsoft Visual C# .NET)

Description: The goal of this course is to help application developers understand the Microsoft .NET Framework. In addition to offering an overview of the .NET Framework and an introduction to key concepts and terminology, the course provides a series of labs, which introduce and explain .NET Framework features that are used to code, debug, tune, and deploy applications.

Days: 5

Prerequisites: Before attending this workshop, students must:

- Be experienced professional software developers and have a basic understanding of the C# language.

Students can meet the C# language prerequisite by taking:

- Course 2124, Introduction to C# Programming for the Microsoft .NET Platform.

Audience: This course is intended for experienced, professional software developers including those employed by independent software vendors or those who work on corporate enterprise development teams. Most students will be Microsoft Visual C++ (or C++) and Java developers.

Module 1: Overview of the Microsoft .NET Framework

- Overview of the Microsoft .NET Framework
- Overview of Namespaces

Module 2: Introduction to a Managed Execution Environment

- Writing a .NET Application
- Compiling and Running a .NET Application

Module 3: Working with Components

- An Introduction to Key .NET Framework Development

Technologies

- Creating a Simple .NET Framework Component
- Creating a Simple Console Client
- Creating an ASP.NET Client

Module 4: Deployment and Versioning

- Introduction to Application Deployment
- Application Deployment Scenarios
- Related Topics and Tools

Module 5: Common Type System

- An Introduction to the Common Type System
- Elements of the Common Type System
- Object-Oriented Characteristics

Module 6: Working with Types

- System.Object Class Functionality
- Specialized Constructors
- Type Operations
- Interfaces
- Managing External Types

Module 7: Strings, Arrays, and Collections

- Strings
- Terminology - Collections
- .NET Framework Arrays
- .NET Framework Collections

Module 8: Delegates and Events

- Delegates
- Multicast Delegates
- Events

- When to Use Delegates, Events, and Interfaces

Module 9: Memory and resource Management

- Memory Management Basics
- Non-Memory Resource Management
- Implicit Resource Management
- Explicit Resource Management
- Optimizing Garbage Collection

Module 10: Data Streams and Files

- Streams
- Readers and Writers
- Basic File I/O

Module 11: Internet Access

- Internet Application Scenarios
- The WebRequest and WebResponse Model
- Application Protocols
- Handling Errors
- Security
- Best Practices

Module 12: Serialization

- Serialization Scenarios
- Serialization Attributes
- Object Graph
- Serialization Process
- Serialization Example
- Deserialization Example
- Custom Serialization
- Custom Serialization Example
- Security Issues

Module 13: Remoting and XML Web Services

- Remoting
- Remoting Configuration Files
- XML Web Services

Upcoming Classes

Jun 25, 2012 - Jun 29, 2012

Jul 09, 2012 - Jul 13, 2012

Aug 27, 2012 - Aug 31, 2012

Sep 17, 2012 - Sep 21, 2012

Oct 29, 2012 - Nov 02, 2012

Nov 12, 2012 - Nov 16, 2012

Dec 17, 2012 - Dec 21, 2012