Mastering Enterprise Development Using Microsoft Visual Basic

5 Days

Introduction

This course will teach Microsoft Visual Basic programmers, who currently build desktop applications and access corporate databases, the basics of how to build three-tier client/server solutions.

Microsoft Certified Professional Exams

Exam 70-175, Designing and Implementing Distributed Applications with Microsoft Visual Basic 6.0

Prerequisites

This course assumes that the student has intermediate programming competency with the Microsoft Visual Basic programming system. Before attending this course, students must be able to demonstrate the following skills:

- Build and debug a simple Visual Basic-based application
- Invoke and control an Automation server, such as Microsoft Excel or Microsoft Word, from a Visual Basic-based application
- Create COM components using Visual Basic and invoke them from a client application
- Use ActiveX Data Objects to open a database and work with record sets
- Understand and use basic syntax for SQL

Objectives

At the end of the first half of the course, participants will be able to:

- Compare traditional client/server development with Internet development and describe
- Use the Microsoft Visual Basic programming system to build component object model (COM)
- Create COM objects that use MTS services to participate in transactions and that use
- Implement business and data services in a Microsoft SQL Server database through the use

Chapter 1: Microsoft’s Enterprise Development Strategy

- Introduction to enterprise development
- Island Hopper News sample application
- Visual Studio Enterprise Edition
Chapter 2: Building COM DLLs with Visual Basic

- Implementing business services using Visual Basic
- Creating COM DLLs in Visual Basic
- Working with COM DLL projects
- COM DLL registration

Chapter 3: Introduction to Microsoft Transaction Server (MTS)

- Overview of MTS
- MTS architecture
- Using MTS Explorer
- Deploying an MTS component

Chapter 4: Using MTS Transaction Services

- Overview
- Building MTS components
- Managing object state
- Connection pooling
- Debugging and error handling
- MTS programming best practices

Chapter 5: Accessing Data from the Middle Tier

- ActiveX data objects
- Using ADO with a data source
- Using ADO from the middle tier
- Executing stored procedures from the command object

Chapter 6: Building Stored Procedures with SQL

- Implementing business and data services with SQL Server
- Introduction to SQL server
- Using data integrity
- Creating stored procedures
- Programming with Transact-SQL

Chapter 7: Implementing Security

- Introduction to security
- Implementing security in MTS applications
- Overview of SQL Server security
- Using SQL Server integrated security
- Security best practices

Chapter 8: Implementing COM with Visual Basic

- Interfaces
- Clients and interfaces
Chapter 9: Advanced Client/Server Technologies

- Overview of advanced client/server technologies
- Message queuing
- Server clustering
- Accessing mainframe data