

Exploring Visual Basic 2005

page 1

Meet the expert: Ken Getz is a featured instructor for several of our Visual Studio courses. He is a Visual Basic and Visual C# expert and has been recognized multiple times as a Microsoft MVP. Ken is a seasoned instructor, successful consultant, and the author or co-author of several best-selling books. He is a frequent speaker at technical conferences like Tech-Ed, VSLive, and DevConnections and he has written for several of the industry's most-respected publications including Visual Studio Magazine, CoDe Magazine, and MSDN Magazine.

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Course description: See the process of creating an end-to-end Visual Basic 2005 application starting with an introduction to the .NET Framework and concluding with the running complete application. Gain insight into a variety of topics focusing on the major areas of application development on the .NET Framework. The application will include coverage of Windows applications, ASP.NET, ADO.NET, Web Services, Windows Services, COM Interop, and more.

Course outline:

Intro to VS 2005

- Introduction
- The Goal
- What is .NET, Anyway?
- .NET Framework Components
- .NET Languages
- Visual Studio 2005
- Applications You Can Build
- Create a VB App With Notepad
- Create a C# App With Notepad
- Create a Console Project in VS
- Option Strict
- Intellisense
- Run the Application
- Start Debugging
- Add a C# Proj. to the Solution
- Add a Reference
- Single Step from VB to C#
- Imports / Using Statements
- More Visual Studio Features
- Inserting Code Snippets
- ildasm.exe
- How Do I Distribute This App?
- Important Questions
- The Problem?
- The Solution
- .NET Pieces and Parts
- Summary

Visual Studio 2005 Demo

- Introduction
- Database Setup

- User Setup
- MSMQ Setup
- Create the ConLink App
- Inserting Code Snippets
- Sub SlowString
- Function Login()
- Function RegGuest
- Add Error Handling
- Sub Main
- Run the App
- Rename a Procedure
- Other Fixup Tools
- Summary

Intro: .NET Framework Classes

- Introduction
- Looking at System Services
- What's in the BCL?
- A Note About Namespaces
- System Namespace
- Systems.Collections
- System.Data
- System.Diagnostics
- System.Globalization
- System.IO
- System.NET
- System.Reflection
- System.Security
- System.ServiceProcess
- System.Web.UI.WebControls
- System.Windows.Forms
- Summary

.NET Framework Classes

- Introduction

- String Class
- String Class Demo
- StringBuilder Class
- StringBuilder Class Demo
- FileVersionInfo Class
- FileVersionInfo Class Demo
- FileSystemWatcher Class
- FileSystemWatcher Cl. Demo
- New Classes in Framework 2.0
- Work with Services Demo
- Common Dialog Demo
- Network Event Demo
- Drive Info Demo
- Audio Demo
- My Namespace Simplifies
- Static Classes
- Dynamic Classes
- My Namespace Demo
- Summary

Create the Sample Solution

- Introduction
- Create a Blank Solution
- Create the ConData Project
- Registration Class Code
- SQLHotelData Class Code
- Constants Class Code
- Add TestConData Project
- Add Code to TestConData
- Run the TestConData Project
- Summary

Serializing Data

- Introduction

- Introducing Serialization
- Serialization/Deserialization
- What's Up?
- Using Serialization
- .NET Framework/Serialization
- Introducing Formatter Objects
- Formatter Classes
- Built-in Serialization Demo
- Built-in Deserialization Demo
- Serialize Customer1 Demo
- Serialize Simple Object Demo
- Where is the Data Going?
- Why Message Queuing?
- Message Queuing Terminology
- Programming Basics
- Send Customer via MSMQ
- Retr. Customer from MSMQ
- Summary

Add Messaging to Solution

- Introduction
- Create a Message Queue
- Make Reg. Class Serializable
- Add Queuing Support
- Add NotifyHotel Code
- Add TestQueue Project
- Add Information Into the Queue
- Retrieve info from the Queue
- Run the Application
- Summary

Data Access with ADO.NET

- Introduction
- Why ADO.NET

(Continued on page 2)

Exploring Visual Basic 2005

page 2

- What is ADO.NET?
- Connected or Disconnected?
- ADO.NET Architecture
- DataTable Object
- Filling a DataTable Manually
- Fill DataTable Demo
- Connecting to a Data Source
- Setting Up Connections
- Commands
- Reading Data with DataReader
- SQL DataReader Demo
- Working With Data
- Getting Data Into a DataSet
- OleDb DataSet Demo
- SQL DataSet Demo
- Fill DataTable Demo
- Viewing Data While Debugging
- Inserting Data
- Insert Data Using Stored Proc.
- New Features in ADO.NET
- Summary

Add Data Handling to Solution

- Introduction
- Insert_ConReg Stored Proc.
- SQLConnection/Command
- Insert Parameter Code
- Code That Does the Work
- UpdateHotelReg Procedure
- Test the Code
- Summary

Windows Services

- Introduction
- What's Up With Windows Serv.
- Introducing Windows Services
- View Current Running Services
- Things to Consider
- Steps for Building Win. Serv.
- Create a Windows Service
- FileSystemWatcher1_Created
- Install/Run the Windows Serv.
- Uninstall the Windows Service
- Debugging Your Service
- Summary

Add Win. Service to Solution

- Introduction
- Create ConDaemon Project
- Add MessageQueue Comp.
- Add Installer
- Add Code for the Service
- Install the Service
- Debug the Service
- Test the Service

- Uninstall the Service
- Summary

Windows Forms

- Introduction
- Why Windows Forms?
- Not Just About User Interface
- Visual Inheritance
- Forms in Visual Studio
- Create a New Windows App.
- Windows Forms Controls
- Form1.Designer.vb code
- Creating an MDI App.
- Create a Base Form
- Anchoring / Docking
- Create an Inherited Form
- Disp. Forms Programmatically
- Examine Event Handler Code
- Add Code to the Base Form
- Snap Lines
- Background Thread Demo
- BackgroundWorker Comp.
- Data Binding Example
- New Controls in VS 2005
- ClickOnce Deployment
- Deployment Demo
- Summary

Add ConMon to Solution

- Introduction
- Create RegData Class
- Create ConMon Project
- Add Code to ConMon Project
- Run the Sample Project
- Summary

ASP.NET Web Forms

- Introduction
- What's Good: Classic ASP?
- What's Bad: Classic ASP?
- Introducing ASP.NET
- ASP.NET Requirements
- Designing Web Pages
- Create a New Web Application
- Add Controls to a Web Page
- Run the Web Page
- View Source of Web Page
- .aspx and .vb Source Files
- What Happened?
- Separation of UI and Code
- How Web Pages Work
- Web Forms
- Server Controls
- Server-Side Control Classes
- Web Controls

- Login Controls Demo
- Calendar Control Demo
- Validation Controls Demo
- Data Binding Demo
- Summary

Add Website to Solution

- Introduction
- Create ConWebReg Website
- Create a Stylesheet
- Apply the Stylesheet
- Create a Table
- Add Validation Controls
- Add Code to Save Data
- Run the Website
- Summary

Add Web Service to Solution

- Introduction
- Create ConService WS
- WebMethod RegisterGuest
- Impersonation in web.config
- Modify ConDaemon
- Install the ConDaemon
- Test the Application
- Is It Time to Go Home Yet?
- Summary

COM Interoperability

- Introduction
- Why COM in a .NET World?
- COM Nomenclature
- COM and the CLR
- Bi-Directional COM Interop
- Calling COM from .NET
- .NET Using COM Interop
- How Do I Do It?
- Create an ActiveX DLL
- Call ComDemo From Excel
- Call ConDemo From VS 2005
- Object Lifetime
- What About Deployment?
- Set Up Reg-Free COM
- Summary

COM Interoperability Demo

- Introduction
- OldConMan ActiveX DLL
- Update Code in RegGuestNow
- Test OldConMan ActiveX DLL
- Summary

Web Services

- Introduction
- What's The Problem
- Introducing Web Services
- It's All About Standards
- Transporting Information
- Web Services and You

- Consuming a Web Service
- Consume an Existing WS
- Set a Reference to the WS
- Add Code to Call the WS
- Test the Web Service
- Reference.vb file
- Call a More Complex WS
- Look For Other Web Services
- Making Web Service Requests
- Create a New Web Service
- Test the Web Service
- Consume the Web Service
- Deploy the Web Service
- Summary