



Windows Forms using VB.NET (BDT4230) 5 days

Course Description

This five-day course provides a practical, hands-on introduction to GUI development using Windows Forms and Visual Basic. The course introduces database programming in Windows, including use of Language Integrated Query (LINQ) in .NET 3.5. The course covers powerful newer Windows Forms features, such as new controls, new data binding, and ClickOnce deployment for creating smart client applications.

Learning Objectives

- Understand the fundamentals of Windows Forms architecture
- Acquire proficiency in the use of Visual Studio to create professional class Windows applications
- Gain a thorough grounding in the important controls provided by Windows Forms
- Learn how to implement dialogs, menus, toolbars and status bars
- Learn how to use advanced controls, such as tree views, splitters and tabbed dialogs
- Understand the use of resources and application settings in Windows Forms applications
- Learn how to implement data access using ADO.NET and binding of controls
- Use Language Integrated Query (LINQ) to access data from Windows Forms programs
- Gain an understanding of newer controls, data binding and ClickOnce deployment

Course Duration: 5 days

Audience: This course is designed for experienced application developers and architects responsible for Windows applications in a Microsoft environment.

Prerequisites: Experience programming the .NET Framework using Visual Basic.



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Course Outline

1. Introduction to Windows Forms
 - A. What Are Windows Forms?
 - B. Windows Forms Class Hierarchy
 - C. Building a Form
 - D. The Application Class
 - E. Trapping Events
 - F. Buttons
 - G. Labels and Textbox Controls

2. Visual Studio and the Forms Designer
 - A. Using the Forms Designer
 - B. Code Generated by Forms Designer
 - C. Adding Event Handlers
 - D. Creating Attractive Forms
 - E. Creating Easy To Use Forms

3. Using Controls
 - A. Checkbox, Radio Button, and Group Box
 - B. Numeric Up/Down
 - C. Trackbar
 - D. Progress
 - E. MonthCalendar
 - F. DateTimePicker

4. List Controls
 - A. Listbox and Combo box
 - B. DomainUpDown
 - C. ListView
 - D. Storing Objects in List Controls

5. Working with Dialogs
 - A. Modal vs. Modeless Dialogs
 - B. Message Boxes
 - C. Common Dialogs
 - D. Creating a Modal Dialog
 - E. Configuring the Dialog Result
 - F. Access Data from the Dialog
 - G. Validating Data
 - H. Error Provider Control
 - I. Modal Dialogs
 - J. Creating a Modeless Dialog



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6. Menus, Toolbars and Status Bars
 - A. Main Menus
 - B. Context Menus
 - C. Building a Status Bar
 - D. Building a Toolbar
 - E. Using the Timer Control

7. Advanced Windows Forms Topics
 - A. Parent/Child Relationships
 - B. Owner/Owned Relationships
 - C. Top-Most Forms
 - D. Multiple Document Interface
 - E. Managing Parent/Child Menus
 - F. Programming the Clipboard
 - G. Visual Inheritance

8. Using Advanced Controls
 - A. Panel
 - B. TreeView
 - C. Splitter
 - D. Tab Control

9. Resources
 - A. Image Resources
 - B. Resource Files
 - C. String Resources
 - D. Working with Resources in Visual Studio
 - E. Resource Managers
 - F. Cultures and Internationalization
 - G. Building Localizable Forms

10. Applications and Settings
 - A. Application Class
 - B. Processing and Filtering Windows Messages
 - C. Application Lifetime and Events
 - D. Configuration Files
 - E. Windows Registry



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11. Data Access and Data Binding

- A. ADO.NET Overview
- B. .NET Data Providers
- C. Using DataReaders
- D. Data Sets
- E. Data Tables
- F. Data Views
- G. Data Binding
- H. Interacting with XML Data
- I. Language Integrated Query (LINQ)
- J. Bridging Objects and Data
- K. Using Object Relational Designer
- L. Filtering, Ordering and Aggregation
- M. Inserts, Deletes and Updates

12. Newer Features in Windows Forms

- A. ToolStrip Control
- B. SplitContainer Control
- C. Web Browser Control
- D. DataGridView Control
- E. Other Newer Controls
- F. New Data Binding
- G. Application Settings
- H. BackgroundWorker Component
- I. ClickOnce Deployment

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