

Course Outline

6460- Visual Studio 2008: Windows Presentation Foundation



Duration: 3 days (18 hours)

Target Audience:

This course is intended for application developers who know how to build Windows Forms applications, custom user controls in .NET 2.0 and how to use the common features of the base class library. They do not have to understand concepts such as advanced UI threading and asynchronous programming, building custom controls from scratch or using GDI. They also do not need experience building Visual Studio add-ins or custom designers.

Prerequisites:

Before attending this course, students should have intermediate experience developing applications by using previous versions of Microsoft Visual Studio at level 200.

Topics Covered:

- Module 1: Creating an Application by Using WPF
 - Overview of WPF
 - Creating a Simple WPF Application
 - Handling Events and Commands
 - Navigating Between Pages
 - Lab: Creating a WPF Application
 - Creating a Standalone WPF Application
 - Handling Events and Commands
 - Navigating Between Pages
 - Creating an XBAP Application

After completing this module, students will be able to:

- Explain WPF concepts and features.
 - Create a simple WPF application.
 - Handle events and commands.
 - Navigate between pages in a WPF application.
- Module 2: Building User Interfaces
 - Defining Layout
 - Using Content Controls
 - Using Item Controls
 - Hosting Windows Forms Controls
 - Lab: Building User Interfaces
 - Defining Layout
 - Using Content Controls
 - Using Item Controls

- Hosting Windows Forms Controls

After completing this module, students will be able to:

- Define layout.
- Use content controls.
- Use items controls.
- Host Windows Forms controls.

➤ Module 3: Customizing Appearance

- Sharing Logical Resources in an Application
- Creating Consistent User Interfaces Using Styles
- Changing the Appearance of Controls Using Templates
- Using Triggers and Animations
 - Lab: Customizing the Appearance of a WPF Application
 - Sharing Logical Resources in an Application
 - Creating Consistent User Interfaces Using Styles
 - Changing the Appearance of Controls Using Templates
 - Using Triggers and Animations

After completing this module, students will be able to:

- Share logical resources throughout and application.
- Create a consistent user interface appearance by using styles.
- Change the appearance of controls using templates.
- Change the appearance of user interface elements by using triggers and animations.

➤ Module 4: Data Binding

- Overview of Data Binding
- Create a Data Binding
- Implementing Property Change Notification
- Converting Data
- Validating Data
 - Lab: Data Binding
 - Binding Controls to Data
 - Implementing Property Change Notifications
 - Defining Value Converters
 - Validating Data

After completing this module, students will be able to:

- Explain WPF data binding concepts and terminology.
- Create a binding between a data source and a control.
- Implement property change notifications.
- Convert data between the binding source and the binding target.
- Validate data entered by the user.

➤ Module 5: Data Binding to Collections

- Binding to Collections of Objects
- Using Collection Views
- Create Master-Detail User Interfaces
- Using Data Templates
 - Lab: Data Binding to Collections
 - Binding to Collections of Objects
 - Using Collection Views
 - Create Master-Detail User Interfaces

- Using Data Templates

After completing this module, students will be able to:

- Bind to a collection of objects.
- Sort, filter, and group collections by using collection views.
- Create master-detail user interfaces.
- Fine-tune data display by using data templates.

➤ Module 6: Creating New Controls

- Overview of Control Authoring
- Creating Controls
 - Lab: Creating New Controls
 - Creating User Controls
 - Creating Custom Controls

After completing this module, students will be able to:

- Explain scenarios and options for creating new controls.
- Create user controls.
- Create custom controls.

➤ Module 7: Managing Documents

- Working with Flow Documents
- Working with Fixed Documents
- Packaging Documents
- Printing Documents
 - Lab: Managing Documents
 - Creating and Displaying Flow Documents
 - Creating and Displaying Fixed Documents
 - Packaging Documents
 - Printing Documents

After completing this module, students will be able to:

- Create and view flow documents.
- Create and view fixed documents.
- Package a document.
- Print a document.

➤ Module 8: Graphics and Multimedia

- Displaying 2D graphics
- Displaying Images
- Displaying 3D Graphics
- Going Further with 3D Graphics
- Adding Multimedia Support
 - Lab: Adding Graphics and Multimedia Support to a WPF Application
 - Displaying 2D graphics
 - Displaying Images
 - Displaying 3D Graphics
 - Playing Audio and Video Clips

After completing this module, students will be able to:

- Display 2D graphics.
- Add images in a WPF application.
- Display 3D graphics.
- Use additional 3D graphics capabilities.

- Add multimedia content to a WPF application.
- Module 9: Configure and Deploy WPF Applications
 - Deployment Options
 - Deploying a Standalone WPF Application
 - Deploying an XBAP Application
 - Configuring Security Settings
 - Lab: Configuring and Deploying WPF Applications
 - Deploying a Standalone WPF Application
 - Creating Deployment and Application Manifests
 - Deploying an XBAP Application

After completing this module, students will be able to:

- Explain deployment options.
- Deploy a standalone WPF application.
- Deploy an XBAP application.
- Configure security settings.